
Benchmarking Robustness of Adaptation Methods on Pre-trained Vision-Language Models (Supplementary)

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Table 1: Relative robustness of adaptation methods based on CLIP-T5 against image (top) and text (bottom) corruptions.

Adaptation method	VQAv2		GQA		NLVR ²		COCO Caption	
	Acc (%)	RR (%)	Acc (%)	RR (%)	Acc (%)	RR (%)	CIDEr	RR (%)
Full Fine-tuning	66.29	85.11±5.10	56.82	87.48±0.04	74.06	89.36±0.04	111.50	69.32±0.14
Multiple Adapters	66.15	85.45±4.84	55.66	87.70±0.04	51.94	–	112.15	67.65±0.15
Single Adapter	66.41	85.19±5.16	55.90	78.57±0.04	72.78	88.70±0.05	111.70	68.52±0.14
Hyperformer	65.18	86.02 ±4.87	54.65	89.33 ±0.04	70.56	91.07 ±0.05	110.65	70.48 ±0.13
Multiple Compacters	65.50	85.88±4.86	54.68	88.09±0.04	52.63	–	113.20	67.96±0.14
Single Compacter	65.98	85.56±5.07	55.33	80.57±0.04	71.47	90.04±0.04	111.61	69.15±0.14

Adaptation Method	VQAv2		GQA		NLVR ²	
	Acc (%)	RR (%)	Acc (%)	RR (%)	Acc (%)	RR (%)
Full fine-tuning	66.29	72.52±25.29	56.82	64.27±25.75	74.06	87.67±10.74
Multiple Adapters	66.15	76.68 ±21.21	55.66	62.33±25.92	51.94	–
Single Adapter	66.41	75.89±21.20	55.90	63.30±19.40	72.78	87.79±10.68
Hyperformer	65.18	76.51±20.80	54.65	66.96±24.43	70.56	89.12 ±10.06
Multiple Compacters	65.50	76.39±21.14	54.68	67.66 ±22.69	52.63	–
Single Compacter	65.98	76.16±21.16	55.33	64.19±20.22	71.47	88.70±9.93

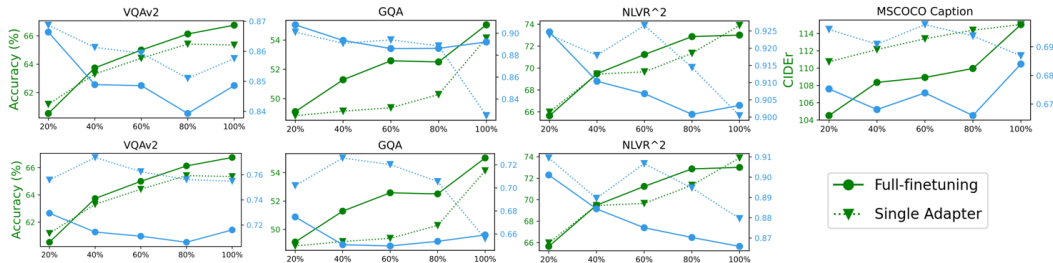


Figure 1: Performance and relative robustness of full-finetuning and single adapter on CLIP-BART given different size of adaptation dataset. The first row shows results given image corruptions and the second is from text corruptions. Green lines stand for performance in each task and the blue is robustness. X-axis shows the random subset ratio of training dataset during adaptation, ranging from 20% to 100%.

6 1 Additional Analysis

7 1.1 BART vs. T5 language backbone

8 We compared the robustness of CLIP-BART and CLIP-T5 models in Table 2 to observe differences in
9 performance. Generally, adaptations from CLIP-BART showed better robustness on GQA, NLVR²,
10 and COCO Caption against image and text corruptions. Specifically, all adaptation methods on CLIP-
11 BART had higher robustness against text corruptions on the GQA dataset. For robustness against
12 image corruptions, all adaptation methods with CLIP-BART, except for multiple adapters, achieved
13 higher relative robustness scores. In contrast, CLIP-T5-based adaptations were more robust against
14 image corruptions on VQAv2, while CLIP-BART showed more robustness against text corruptions.
15 This may be due to the different language encoders used in BART and T5. Among all adaptation
16 methods, Hyperformer seems to be a good choice for CLIP-T5, as it achieved better robustness on
17 VQAv2, NLVR², and COCO Caption. A single adapter would likely be a more robust adaptation
18 method when combined with CLIP-BART, as it showed better robustness on all datasets and against
19 both types of corruption.

Table 2: RR(%) of adaptation methods based on CLIP-BART and CLIP-T5 against image (up) and text (down) corruptions with severity 5. The better relative robustness values for each comparison pair are in bold.

Adaptation Method	VQAv2		GQA		NLVR ²		COCO Caption	
	BART	T5	BART	T5	BART	T5	BART	T5
Full finetuning	84.86	85.11	89.20	87.48	90.34	89.36	68.40	69.32
Multiple adapters	85.33	85.45	86.16	87.70	92.02	–	68.72	67.65
Single adapter	85.76	85.19	82.49	78.57	90.04	88.70	68.68	68.52
Hyperformer	85.38	86.02	90.05	89.33	90.13	91.07	68.74	70.48
Multiple compacters	85.65	85.88	88.89	88.09	91.33	–	68.67	67.96
Single compacter	85.47	85.56	82.62	80.57	92.04	90.04	69.92	69.15

Adaptation method	VQAv2		GQA		NLVR ²	
	BART	T5	BART	T5	BART	T5
Full Fine-tuning	73.65	72.52	66.92	64.27	87.06	87.67
Multiple Adapters	76.62	76.68	66.93	62.33	90.14	–
Single Adapter	77.64	75.89	67.47	63.30	88.49	87.79
Hyperformer	75.06	76.51	70.30	66.96	87.27	89.12
Multiple Compacters	77.10	76.39	67.39	67.66	90.00	–
Single Compacter	77.17	76.16	67.90	64.19	90.10	88.7

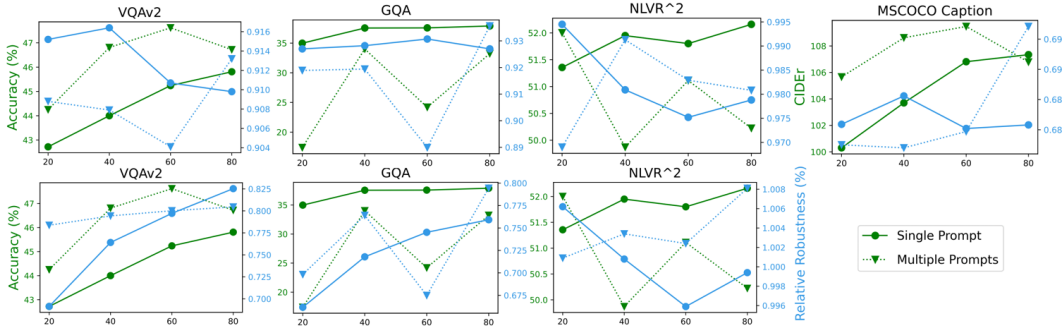


Figure 2: Performance and relative robustness from prompt adaptations with different prompt lengths on CLIP-BART. The top row shows the robustness against image corruptions and the bottom row is results against text corruptions. Blue lines stand for performance on each task and green lines represent relative robustness.

20 1.2 The Influence of Adaptation Hyperparameters on Robustness

21 To investigate the influence of parameter size on robustness, we conduct experiments on 6 adaptation
 22 methods, namely Single Prompt, Multiple Prompts, Single Adapter, Single Compacter, and Single
 23 LoRA, with various parameter sizes. For each setting, we adapt the model on multitask datasets given
 24 pre-trained CLIP and BART (T5) and test the relative robustness.

25 For prompt tuning, the prompt length p defined in Section ?? can be 20, 40, 60, and 80. The
 26 position of prompt embedding can be *front*, *middle*, and *back*. It specifies the prompt position in
 27 the concatenated input to the encoder-decoder generative model. For example, *front* position means
 28 that the prompt embedding is at the beginning of the concatenation; *middle* position means the
 29 concatenation starts with visual embedding, then prompt embedding and the textual embedding
 30 is at the end. We also choose different embedding dimensions for adapter-based methods. The
 31 dimension d_1 of adapter layers varies from {96, 64, 48, 24}. The dimension r of LoRA’s low-rank
 32 decomposition layer can be {32, 64, 128, 256}

Table 3: Relative robustness of adaptation methods based on CLIP-BART against image corruptions.

Adaptation method	Noise										Blur										Digital										Weather				Ave	RR
	Clean	Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Ave	RR														
Full Finetuning	115.03	81.17	81.35	85.44	94.18	37.14	86.8	75.71	65.06	83.06	101.57	64.22	71.91	62.17	72	98.52	72.51	71.96	84.94	105.19	78.68	0.684														
Multiple Adapters	114.47	80.382	80.15	83.148	93.994	38.745	86.249	76.844	67.18	82.54	101.351	63.33	71.333	60.88	73.135	98.585	71.467	73.985	85.879	105.201	78.66	0.687														
Half-shared Adapters	114.5	79.944	79.987	84.561	93.942	36.509	85.722	75.587	66.158	82.182	100.892	62.498	72.542	60.165	74.231	98.81	72.11	72.363	85.265	105.799	78.38	0.685														
Single Adapter	115.038	80.804	79.906	84.103	94.777	39.022	86.771	76.413	67.248	82.81	100.003	63.395	72.09	62.762	74.194	99.028	72.54	73.265	86.301	105.832	79.01	0.687														
Hyperformer	114.868	81.486	81.184	84.695	94.778	38.876	87.22	77.358	65.7	83.811	100.726	63.684	71.187	61.52	72.977	98.137	72.182	72.184	86.937	105.541	78.96	0.687														
Multiple Compacters	115.16	80.384	81.537	84.001	93.927	40.35	86.581	77.254	66.264	83.457	100.487	64.146	72.066	61.457	73.753	98.307	71.873	73.236	87.801	105.852	79.08	0.687														
Single Compacter	113.06	81.779	80.075	83.994	93.597	42.833	85.97	77.867	67.299	82.556	99.625	63.003	71.916	60.521	74.435	97.933	71.843	74.022	87.75	104.961	79.09	0.699														
Multiple LoRA	115.407	80.405	80.375	84.802	94.76	37.083	87.011	77.123	67.137	83.624	100.765	63.069	71.88	60.501	74.051	99.355	72.661	73.329	87.289	106.065	79.01	0.685														
Single LoRA	114.543	81.349	81.511	85.88	93.202	41.466	85.975	76.136	67.718	82.823	100.427	64.944	72.111	61.093	74.293	99.632	72.42	73.498	87.241	105.519	79.33	0.686														
Single Prompt	103.7	72.487	72.331	75.718	84.932	40.531	76.78	70.319	58.32	73.44	89.506	58.412	64.682	52.919	66.092	89.98	64.575	66.29	78.047	106.626	71.1	0.686														
Multiple Prompts	108.619	75.508	74.45	78.38	87.429	41.641	81.407	72.983	59.526	77.612	92.618	58.532	65.953	53.735	67.949	93.914	65.299	66.277	80.86	100.67	73.53	0.677														

Adaptation method	Noise										Blur										Digital										Weather				Ave	RR
	Clean	Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Ave	RR														
Full Finetuning	55.04	49.15	49.03	49.82	51.44	47.2	50.55	50.31	46.66	49.94	52.66	46.19	47.14	45.89	48.44	50.97	47.2	47.86	49.72	52.67	49.1	0.892														
Multiple Adapters	53.39	46.557	46.279	46.796	48.315	40.825	47.623	46.828	44.244	46.51	49.412	43.83	44.323	43.425	45.134	48.664	44.705	44.88	46.965	49.626	46	0.862														
Half-shared Adapters	52.96	47.949	47.742	48.076	49.563	42.821	48.911	48.601	45.238	47.822	50.7	44.975	46.454	43.838	46.899	49.261	46.041	46.502	47.519	50.358	47.33	0.894														
Single Adapter	54.14	45.031	44.864	45.58	47.702	39.911	46.192	46.041	42.821	45.349	47.869	41.294	42.932	41.517	43.481	46.796	43.505	43.505	45.868	48.744	44.66	0.825														
Hyperformer	52.52	47.806	47.925	47.694	49.428	43.226	48.752	47.798	45.595	47.941	50.334	45.007	45.58	44.061	46.724	49.404	46.335	47.019	47.13	50.803	47.29	0.9														
Multiple Compacters	52.75	47.527	47.098	47.146	48.895	42.129	48.799	47.678	44.467	48.227	50.294	45.341	45.222	43.894	46.51	48.768	45.921	46.287	46.979	49.674	46.89	0.889														
Single Compacter	52.9	44.371	44.403	44.864	46.088	39.402	45.111	44.315	41.573	44.244	47.066	41.016	42.248	40.301	42.471	46.104	42.232	42.781	44.522	47.329	43.71	0.826														
Multiple LoRA	52.05	48.052	47.837	47.655	49.253	43.886	49.404	48.998	46.152	48.41	50.262	45.23	46.065	44.101	46.589	48.927	45.595	46.74	47.686	50.564	47.44	0.911														
Single LoRA	53.19	44.618	43.93	45.039	46.716	38.973	45.723	44.363	42.145	44.761	46.86	41.183	42.24	40.754	43.433	46.438	42.686	42.956	44.571	47.297	43.92	0.826														
Single Prompt	37.54	35.001	35.554	38.18	36.365	32.35	35.562	34.807	33.813	35.021	36.548	33.805	34.012	32.74	34.409	35.904	34.497	34.855	35.308	36.222	34.84	0.928														
Multiple Prompts	34.01	31.11	31.42	31.937	32.708	28.82	31.873	31.73	30.108	31.356	33.415	30.347	30.259	29.401	30.259	32.175	30.681	31.523	31.897	33.082	31.27	0.919														

Adaptation method	Noise										Blur										Digital										Weather				Ave	RR
	Clean	Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Ave	RR														
Full Finetuning	73.01	66.16	65.81	65.73	67.53	63.93	68.14	66.58	65.92	70.7	60.45	67.51	59.53	65.81	66.75	63.92	64.54	67.11	70.13	65.96	0.903															
Multiple Adapters	69.41	64.504	63.801	64.174	64.978	56.509	65.753	64.475	64.303	64.992	68.222	59.15	65.294	59.079	64.03	64.461	62.552	63.643	65.71	67.935	63.87	0.92														
Half-shared Adapters	70.03	64.762	64.59	63.558	65.581	56.28	66.427	64.547	64.533	65.064	68.193	60.83	65.308	60.299	64.576	64.59	63.356	64.145	65.796	67.705	64.23	0.917														
Single Adapter	73.89	67.203	66.915	66.743	68.839	56.222	67.647	66.686	66.7	67.188	70.92	63.112	68.179	61.016	66.284	68.179	64.849	66.384	69.901	71.15	66.53	0.9														
Hyperformer	72.21	66.04	65.38	65.509	66.915	55.117	66.987	65.408	65.825	65.939	69.413	60.643	65.982	60.471	65.494	66.069	63.758	65.078	67.691	68.824	65.08	0.901														
Multiple Compacters	69.45	63.873	64.49	63.959	65.451	54.428	64.447	63.672	63.643	63.801	68.064	59.466	64.748	58.045	63.844	64.389	62.48	64.806	65.606	66.571	63.43	0.913														
Single Compacter	69.94	65.25	65.279	64.748	66.514	55.993	66.528	64.231	63.136	64.648	68.293	60.559	65.466	58.533	64.376	65.279	63.686	64.648	66.226	67.504	64.37	0.92														
Multiple LoRA	71.32	64.849	64.892	64.948	66.431	49.821	60.251	49.333	49.031	50.567	49.275	50.754	49.49	50.954	50.911	50.151	49.835	50.553	50.84	50.01	0.974															
Single LoRA	53.58	66.801	66.844	66.628	69.054	57.399	68.107	66.915	66.643	63.027	70.475	61.174	67.49	60.586	66.37	68.035	64.619	66.614	68.437	70.389	66.26	0.901														
Single Prompt	51.95	50.754	50.725	50.452	50.581	51.371	51.902	51.873	51.313	51.744	51.414	49.677	51.285	49.548	50.696	50.983	50.007	50.811	51.213	51.816	50.96	0.981														
Multiple Prompts	49.87	49.333	49.132	49.189	49.433	49.95	49.074	49.663	49.16	49.189	50.036	48.974	49.691	49.993	49.562	49.663	49.132	49.06	49.677	49.376	49.44	0.991														

Adaptation method	Noise										Blur										Digital										Weather				Ave	RR
	Clean	Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Ave	RR														
Full Finetuning	66.75	56.35	56.25	57.2	59.85	49.2	59.06	57.07	55.5	54.4	62.11	51.51	55.75	53.02	55.8	60.41	54.91	54.68	57.47	63.17	56.65	0.849														
Multiple Adapters	65.3	55.27	55.26	56.1	58.68	49.15	58.27	56.7	53.63	57.38	60.82	50.5	54.88	59.13	53.75	53.83	56.36	61.34	55.72	55.83	57.52	0.853														
Half-shared Adapters	65.2	54.94	54.79	55.94	58.5	48.42	57.85	56.53	53.4	56.88	60.79	50.71	54.9	52.23	55.03	59.13	53.67	53.64	56.61	61.51	55.53	0.852														
Single Adapter	65.35	55.61	55.61	56.57	59.3	48.37	58.58	56.49	53.89	57.33	61.6	50.91	55.7	52.37	54.93	59.71	54.19	54.19	57.01	62.43	56.04	0.858														
Hyperformer	65.38	55.42	55.26	56.2	58.93	49.38	58.32	56.58	53.52	57.11	61.04	50.97	55.34	52.58	54.89	59.13	54.05	53.64	56.8	61.5	55.82	0.854														
Multiple Compacters	64.91	54.97	55.18	55.66	58.45	48.81	58.05	56.29	53.48	56.95	60.47	50.92	55.32	52.54	54.7	58.81	53.86	53.97	61.52	55.59	55.86	0.856														
Single Compacter	64.47	54.78	54.69	55.68	58.11	48.33	57.36	55.74	52.84	56.47	60.08	50.08	54.62	51.54	54.37	58.54	53.35	53.38	56.02	60.95	55.1	0.855														
Multiple LoRA	65.44	55.13	55.16	55.92	58.31	49.01	57.89	56.37	53.04	56.61	60.7	50.83	54.78	52.18	54.47	58.83	53.44	53.4	56.28	61.39	55.48	0.848														
Single LoRA	65.34	54.7																																		

Table 4: Relative robustness of adaptation methods based on CLIP-BART against text corruptions grouped by corruption levels.

Adaptation method	Clean	Char-level	Char-level RR	Word-level	Word-level RR	Sentence-level	Sentence-level RR	Ave RR
Full Finetuning	55.04	23.47	0.426	37.9	0.689	52.91	0.961	0.669
Multiple Adapters	53.39	23.19	0.434	37.37	0.7	48.97	0.917	0.669
Half-shared Adapters	52.96	22.35	0.422	38.06	0.719	50.22	0.948	0.682
Single Adapter	54.14	24.11	0.445	38.54	0.712	48.18	0.89	0.675
Hyperformer	52.52	23.69	0.451	38.85	0.74	50.25	0.957	0.703
Multiple Compacters	52.75	22.8	0.432	37.21	0.705	49.13	0.931	0.674
Single Compacter	52.9	23.89	0.452	37.8	0.715	47.49	0.898	0.679
Multiple LoRA	52.05	22.79	0.438	37.74	0.725	48.72	0.936	0.688
Single LoRA	53.19	22.94	0.431	34.98	0.658	47.12	0.886	0.639
Single Prompt	37.54	21.98	0.586	26.94	0.718	36	0.959	0.725
Multiple Prompts	34.01	19.69	0.579	27.6	0.812	31.62	0.93	0.771

Adaptation method	Clean	Char-level	Char-level RR	Word-level	Word-level RR	Sentence-level	Sentence-level RR	Ave RR
Full Finetuning	73.01	55	0.753	64.88	0.889	71.99	0.986	0.871
Multiple Adapters	69.41	53.54	0.771	64.66	0.932	69.12	0.996	0.901
Half-shared Adapters	70.03	53.53	0.764	64.47	0.921	69.02	0.986	0.892
Single Adapter	73.89	56.24	0.761	67.19	0.909	73.09	0.989	0.885
Hyperformer	72.21	54.24	0.751	64.59	0.894	71.02	0.984	0.873
Multiple Compacters	69.45	53.84	0.775	64.54	0.929	68.67	0.989	0.9
Single Compacter	69.94	55.07	0.787	64.65	0.924	69.4	0.992	0.901
Multiple LoRA	51.32	51.41	1.002	51.52	1.004	51.25	0.999	1.002
Single LoRA	73.58	55.13	0.749	66.22	0.9	72.67	0.988	0.876
Single Prompt	51.95	51.87	0.998	52.01	1.001	52.1	1.003	1.001
Multiple Prompts	49.87	50.1	1.005	50.1	1.005	49.84	0.999	1.004

Adaptation method	Clean	Char-level	Char-level RR	Word-level	Word-level RR	Sentence-level	Sentence-level RR	Ave RR
Full Finetuning	66.75	32.33	0.484	51.99	0.779	64.68	0.969	0.736
Multiple Adapters	65.3	33.76	0.517	53.21	0.815	63.55	0.973	0.766
Half-shared Adapters	65.2	33.75	0.518	53.28	0.817	63.48	0.974	0.768
Single Adapter	65.35	33.65	0.515	54.42	0.833	63.83	0.977	0.776
Hyperformer	65.38	33.52	0.513	51.6	0.789	63.69	0.974	0.751
Multiple Compacters	64.91	33.63	0.518	53.38	0.822	63.27	0.975	0.771
Single Compacter	64.47	33.76	0.524	53.12	0.824	62.25	0.966	0.772
Multiple LoRA	65.44	33.51	0.512	50.53	0.772	63.66	0.973	0.74
Single LoRA	65.34	32.89	0.503	51.27	0.785	63.41	0.97	0.745
Single Prompt	44	28.89	0.657	33.49	0.761	42.75	0.972	0.77
Multiple Prompts	46.81	29.35	0.627	38.88	0.831	45.4	0.97	0.802

Table 5: Relative robustness of adaptation methods based on CLIP-BART against image corruptions.

Adaptation method	Clean	Noise										Blur										Digital										Weather										Ave	RR (%)																																
		Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Impulse	Gaussian			Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate
Full Finetuning	111.5	79.113	79.032	82.265	91.788	37.158	85.321	75.387	65.115	81.871	98.817	61.11	69.818	62.23	73.373	97.049	71.716	70.632	84.015	102.756	77.29	6.693																																																					
Multiple Adapters	112.149	79.067	78.336	82.044	91.293	33.035	83.47	73.385	63.347	81.731	98.845	59.487	67.879	59.806	70.26	96.107	69.469	68.513	82.314	103.015	75.86	0.676																																																					
Single Adapter	111.7	78.788	79.632	81.986	91.411	37.009	83.256	74.122	64.263	80.347	98.008	60.239	68.099	60.312	71.794	96.896	70.457	70.364	83.999	103.175	76.53	0.685																																																					
Hyperformer	110.649	79.968	79.361	83.399	92.835	41.287	85.348	76.428	65.662	82.076	97.952	61.923	70.079	62.167	74.226	97.223	70.651	71.889	85.099	104.118	77.99	0.705																																																					
Single Compacter	111.608	79.424	78.576	83.25	91.25	36.829	83.726	75.171	65.19	80.959	98.517	61.199	70.609	60.431	73.608	97.211	71.876	71.582	83.624	103.316	77.18	0.692																																																					
Multiple Compacters	113.2	79.686	79.894	83.068	92.35	38.61	84.081	75.606	64.191	81.52	99.056	61.73	69.273	59.018	71.456	96.503	69.515	69.553	83.808	102.703	76.93	0.678																																																					

Adaptation method	Clean	Noise										Blur										Digital										Weather										Ave	RR (%)																																
		Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Impulse	Gaussian			Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate
Full Finetuning	56.82	50.08	49.849	50.405	51.59	44.665	51.733	50.557	47.408	50.755	53.331	47.567	47.973	47.194	49.809	51.542	47.798	48.394	50.262	53.53	49.71	0.875																																																					
Multiple Adapters	55.66	49.412	49.507	49.905	51.511	44.188	50.04	48.903	46.478	49.316	52.131	46.375	46.852	46.748	48.489	51.073	47.122	47.925	49.141	52.353	48.81	0.877																																																					
Single Adapter	55.9	44.657	43.91	44.586	46.828	39.06	45.58	44.8	41.326	44.785	47.241	41.151	42.36	41.684	43.624	45.635	42.614	42.622	44.315	47.75	43.92	0.786																																																					
Hyperformer	54.65	49.539	49.292	49.491	50.787	44.101	49.936	50.207	46.247	49.618	52.282	46.808	46.995	46.875	48.386	50.668	47.178	47.788	48.728	52.876	48.82	0.893																																																					
Single Compacter	55.33	44.3	44.355	44.721	47.321	39.593	46.589	45.556	42.63	45.492	48.06	41.684	43.155	42.24	43.791	47.106	43.338	43.56	44.689	48.847	44.58	0.806																																																					
Multiple Compacters	54.68	48.704	48.545	49.141	50.31	43.163	49.682	49.547	45.913	48.593	51.36	45.834	46.311	45.429	47.496	50.167	47.066	47.368	49.277	51.288	48.17	0.881																																																					

Adaptation method	Clean	Noise										Blur										Digital										Weather										Ave	RR (%)																																
		Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Impulse	Gaussian			Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate
Full Finetuning	74.06	66.829	66.844	66.815	67.963	57.586	67.805	67.059	65.968	66.198	71.107	61.303	67.073	61.432	64.389	66.14	68.911	70.36	66.456	67.131	66.18	0.894																																																					
Multiple Adapters	51.94	50.007	50.409	49.806	50.538	49.835	50.553	50.395	50.237	50.022	53.064	49.333	50.696	49.519	50.251	50.452	49.835	52.591	51.414	52.117	50.58	0.974																																																					
Single Adapter	72.78	64.935	65.05	65.021	66.485	55.06	66.284	65.222	65.667	65.624	70.001	58.031	66.7	59.064	62.911	63.959	66.801	69.212	64.576	65.896	64.55	0.887																																																					
Hyperformer	70.56	65.222	65.05	64.863	65.997	55.634	65.925	65.265	63.987	65.136	69.241	59.567	65.911	58.418	63.026	63.413	66.083	67.891	64.719	65.566	64.26	0.911																																																					
Single Compacter	71.47	63.916	64.145	64.303	66.786	56.107	66.6	64.963	64.978	64.82	68.537	59.509	65.982	59.811	63.054	63.829	66.6	68.738	64.676	65.322	64.35	0.9																																																					
Multiple Compacters	52.63	49.447	49.218	49.39	49.677	49.103	49.663	50.05	49.447	49.49	51.658	48.959	50.395	49.318	49.476	49.419	50.639	52.131	50.208	50.179	49.89	0.548																																																					

Adaptation method	Clean	Noise										Blur										Digital										Weather										Ave	RR (%)																																
		Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Impulse	Gaussian			Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate	Snow	Frost	Fog	Brightness	Impulse	Gaussian	Shot	Speckle	Zoom	Defocus	Motion	Glass	Gaussian	JPEG	Contrast	Elastic	Pixelate	Spatter	Saturate
Full Finetuning	66.29	55.83	56.08	57.13	59.83	49.35	58.93	57.006	53.91	57.92	62	50.96	55.85	53.08	54.57	54.33	57.32	62.33	55.74	59.76	56.42	0.851																																																					
Multiple Adapters	66.15	56.02	56.02	57.09	59.79	50.23	58.89	57.25	54.04	57.69	61.83	51.06	55.8	53.45	54.86	54.89	57.42	62.4	55.55	59.75	56.53	0.855																																																					
Single Adapter	66.41	56.48	56.4	57.21	59.94	49.58	59.16	57.21	54.04	57.96	61.49	50.97	55.63	52.94	54.49	54.5	57.55	62.74	55.98	60.24	56.57	0.852																																																					
Hyperformer	65.18	55.6	55.48	56.43	59.19	49.67	58.37	56.9	53.95	57.18	61.2	50.72	55.47	52.9	54.16	54.22	57.1	61.93	55.58	59.21	56.07	0.86																																																					
Single Compacter	65.98	55.93	55.97	57.1	59.57	49.43	59.11	56.82	53.99	57.76	61.81	50.86	55.73	52.89	54.95	55.07	57.3	62.53	55.91	59.83	56.45	0.856																																																					
Multiple Compacters	65.5	55.86	55.9	56.64	59.3	50.14	58.85	57.1	54.24	57.44	61.67	50.88	55.81	53.11	53.96	54.04	56.8	62.01	55.55	59.44	56.25	0.859																																																					

Table 6: Relative robustness of adaptation methods based on CLIP-T5 against text corruptions grouped by corruption levels.

Adaptation method	Clean	Char-level	Char-level RR	Word-level	Word-level RR	Sentence-level	Sentence-level RR	RR
Full finetuning	56.82	21.13	0.372	38.23	0.673	53.54	0.942	0.643
Multiple adapters	55.66	20.43	0.367	35.82	0.644	52.07	0.936	0.623
Single adapter	55.9	23.99	0.429	36.69	0.656	47.77	0.855	0.633
Hyperformer	54.65	22.69	0.415	38.19	0.699	51.89	0.949	0.67
Single compacter	55.33	23.5	0.425	36.88	0.667	48.64	0.879	0.642
Multiple compacters	54.68	24.28	0.444	38.14	0.698	51.99	0.951	0.677
Adaptation method	Clean	Char-level	Char-level RR	Word-level	Word-level RR	Sentence-level	Sentence-level RR	RR
Full finetuning	74.06	56.18	0.759	66.37	0.896	73.2	0.988	0.877
Multiple adapters	51.94	51.09	0.984	51.78	0.997	51.92	1	0.994
Single adapter	72.78	54.78	0.753	65.69	0.903	71.53	0.983	0.878
Hyperformer	70.56	54.83	0.777	64.46	0.914	69.75	0.989	0.891
Single compacter	71.47	55.78	0.78	64.64	0.904	70.63	0.988	0.887
Multiple compacters	52.63	52.67	1.001	52.58	0.999	52.69	1.001	1
Adaptation method	Clean	Char-level	Char-level RR	Word-level	Word-level RR	Sentence-level	Sentence-level RR	RR
Full finetuning	66.29	30.26	0.456	51.05	0.77	64.55	0.974	0.725
Multiple adapters	66.15	34.14	0.516	53.89	0.815	64.73	0.979	0.767
Single adapter	66.41	34.38	0.518	53.16	0.8	64.86	0.977	0.759
Hyperformer	65.18	33.79	0.518	52.91	0.812	63.59	0.976	0.765
Single compacter	65.98	34.1	0.517	53.18	0.806	64.4	0.976	0.762
Multiple compacters	65.5	34.39	0.525	52.77	0.806	64.07	0.978	0.764

Table 7: Performance and decrease ratio of Full Finetuning on CLIP-BART against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	64.98	-1.77	-2.652%	53.26	-1.78	-3.235%	72.284	-0.726	-0.995%	108.278	-6.752	-5.870%
gaussian_noise	1	65.73	-1.02	-1.528%	53.983	-1.057	-1.920%	72.872	-0.138	-0.189%	112.591	-2.439	-2.120%
shot_noise	1	65.58	-1.17	-1.753%	54.007	-1.033	-1.877%	72.642	-0.368	-0.503%	111.866	-3.164	-2.751%
speckle_noise	1	65.57	-1.18	-1.768%	53.951	-1.089	-1.978%	72.815	-0.195	-0.268%	113.085	-1.945	-1.691%
zoom_blur	1	59.31	-7.44	-11.146%	50.986	-4.054	-7.366%	57.557	-15.453	-21.166%	85.318	-29.712	-25.830%
defocus_blur	1	65.68	-1.07	-1.603%	54.15	-0.89	-1.617%	73.446	0.436	0.598%	112.459	-2.571	-2.235%
motion_blur	1	65.56	-1.19	-1.783%	54.754	-0.286	-0.519%	73.662	0.652	0.892%	111.378	-3.652	-3.174%
glass_blur	1	65.72	-1.03	-1.543%	54.365	-0.675	-1.227%	72.901	-0.109	-0.150%	112.786	-2.244	-1.951%
gaussian_blur	1	66.33	-0.42	-0.629%	54.476	-0.564	-1.025%	73.618	0.608	0.833%	113.871	-1.159	-1.008%
jpeg_compression	1	66.08	-0.67	-1.004%	54.73	-0.31	-0.562%	73.245	0.235	0.322%	114.068	-0.962	-0.836%
contrast	1	65.12	-1.63	-2.442%	54.397	-0.643	-1.169%	72.915	-0.095	-0.130%	112.188	-2.842	-2.471%
elastic_transform	1	66.34	-0.41	-0.614%	54.548	-0.492	-0.895%	72.456	-0.554	-0.759%	112.114	-2.916	-2.535%
pixelate	1	63.54	-3.21	-4.809%	53.363	-1.677	-3.047%	72.011	-0.999	-1.368%	104.059	-10.771	-9.538%
snow	1	62.2	-4.55	-6.816%	51.67	-3.37	-6.124%	71.193	-1.817	-2.489%	100.746	-14.284	-12.418%
frost	1	63.32	-3.43	-5.139%	51.662	-3.378	-6.138%	71.451	-1.559	-2.135%	102.595	-12.435	-10.810%
fog	1	64.67	-2.08	-3.116%	54.277	-0.763	-1.386%	72.456	-0.554	-0.759%	111.289	-3.741	-3.252%
brightness	1	66.41	-0.34	-0.509%	54.874	-0.166	-0.302%	73.504	0.494	0.676%	114.175	-0.855	-0.743%
spatter	1	66.32	-0.43	-0.644%	55.048	0.008	0.015%	72.987	0.023	0.032%	113.983	-1.047	-0.910%
saturate	1	64.01	-2.74	-4.105%	53.92	-1.12	-2.036%	71.408	-1.602	-2.194%	110.866	-4.164	-3.620%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	63.89	-2.86	-4.285%	53.125	-1.915	-3.480%	71.48	-1.53	-2.096%	105.865	-9.165	-7.968%
gaussian_noise	2	64.9	-1.85	-2.772%	53.244	-1.796	-3.264%	72.298	-0.712	-0.975%	109.252	-5.778	-5.023%
shot_noise	2	64.71	-2.04	-3.056%	53.554	-1.486	-2.700%	72.04	-0.97	-1.329%	109.188	-5.842	-5.078%
speckle_noise	2	65.1	-1.65	-2.472%	53.792	-1.248	-2.267%	72.169	-0.841	-1.152%	111.207	-3.823	-3.323%
zoom_blur	2	56.37	-10.38	-15.551%	48.307	-6.733	-12.234%	62.868	-10.142	-13.892%	68.607	-46.423	-40.357%
defocus_blur	2	64.98	-1.77	-2.652%	53.92	-1.12	-2.036%	73.073	0.063	0.086%	110.072	-4.958	-4.310%
motion_blur	2	64.46	-2.29	-3.431%	54.11	-0.93	-1.689%	72.7	-0.31	-0.425%	108.436	-6.594	-5.733%
glass_blur	2	64.51	-2.24	-3.356%	53.403	-1.637	-2.975%	72.513	-0.497	-0.680%	107.491	-7.539	-6.554%
gaussian_blur	2	65.27	-1.48	-2.217%	54.087	-0.953	-1.732%	73.489	0.479	0.656%	111.55	-3.48	-3.025%
jpeg_compression	2	65.91	-0.84	-1.258%	54.11	-0.93	-1.689%	72.757	-0.253	-0.346%	112.967	-2.063	-1.794%
contrast	2	64.49	-2.26	-3.386%	54.158	-0.882	-1.602%	72.642	-0.368	-0.503%	109.976	-5.054	-4.393%
elastic_transform	2	62.83	-3.92	-5.873%	52.186	-2.854	-5.185%	68.954	-4.056	-5.556%	97.789	-17.241	-14.988%
pixelate	2	62.52	-4.23	-6.337%	53.069	-1.971	-3.581%	68.882	-4.128	-5.654%	99.817	-15.213	-13.225%
snow	2	58.97	-7.78	-11.655%	49.11	-5.93	-10.775%	68.207	-4.803	-6.578%	88.639	-26.391	-22.943%
frost	2	59.75	-7.0	-10.487%	49.936	-5.104	-9.273%	69.269	-3.741	-5.123%	90.028	-25.002	-21.736%
fog	2	63.99	-2.76	-4.135%	53.983	-1.057	-1.920%	73.17	-5.693	-7.797%	109.67	-5.36	-4.660%
brightness	2	65.82	-0.93	-1.393%	54.333	-0.707	-1.285%	73.389	0.379	0.519%	112.915	-2.115	-1.838%
spatter	2	62.97	-3.78	-5.663%	52.838	-2.202	-4.009%	72.011	-0.999	-1.368%	103.555	-11.475	-9.976%
saturate	2	60.93	-5.82	-8.719%	52.473	-2.567	-4.665%	69.097	-3.913	-5.359%	105.074	-9.956	-8.655%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	63.14	-3.61	-5.408%	52.846	-2.194	-3.986%	70.59	-2.42	-3.315%	104.057	-10.973	-9.539%
gaussian_noise	3	63.11	-3.64	-5.453%	52.902	-2.138	-3.885%	70.934	-2.076	-2.843%	104.522	-10.508	-9.135%
shot_noise	3	63.07	-3.68	-5.513%	53.228	-1.812	-3.292%	71.695	-1.315	-1.801%	104.457	-10.573	-9.192%
speckle_noise	3	63.49	-3.26	-4.884%	52.759	-2.281	-4.145%	70.547	-2.463	-3.374%	105.693	-9.337	-8.117%
zoom_blur	3	53.39	-13.36	-20.015%	46.709	-8.331	-15.137%	59.882	-13.128	-17.981%	54.376	-60.654	-52.729%
defocus_blur	3	62.97	-3.78	-5.663%	52.743	-2.297	-4.174%	71.796	-1.214	-1.663%	102.735	-12.295	-10.688%
motion_blur	3	62.38	-4.37	-6.547%	53.554	-1.486	-2.700%	70.992	-2.018	-2.764%	101.178	-13.852	-12.042%
glass_blur	3	59.33	-7.42	-11.116%	49.618	-5.422	-9.850%	69.341	-3.669	-5.025%	87.475	-27.555	-23.955%
gaussian_blur	3	64.02	-2.73	-4.090%	52.997	-2.043	-3.711%	72.212	-0.798	-1.093%	105.758	-9.272	-8.060%
jpeg_compression	3	65.65	-1.1	-1.648%	54.42	-0.62	-1.126%	72.212	-0.798	-1.093%	111.718	-3.312	-2.880%
contrast	3	63.11	-3.64	-5.453%	53.594	-1.446	-2.628%	70.963	-2.047	-2.804%	105.053	-9.977	-8.673%
elastic_transform	3	64.47	-2.28	-3.416%	53.331	-1.709	-3.105%	72.973	-0.037	-0.051%	107.551	-7.479	-6.502%
pixelate	3	60.0	-6.75	-10.112%	51.479	-3.561	-6.470%	67.145	-5.865	-8.033%	90.077	-24.953	-21.693%
snow	3	56.86	-9.89	-14.816%	48.028	-7.012	-12.739%	66.112	-6.898	-9.448%	80.885	-34.145	-29.684%
frost	3	57.12	-9.63	-14.427%	48.863	-6.177	-11.223%	67.303	-5.707	-7.817%	81.406	-33.624	-29.231%
fog	3	62.98	-3.77	-5.648%	53.697	-1.343	-2.440%	71.279	-1.731	-2.371%	105.58	-9.45	-8.216%
brightness	3	65.2	-1.55	-2.322%	54.102	-0.938	-1.703%	72.312	-0.698	-0.956%	112.42	-2.61	-2.269%
spatter	3	61.54	-5.21	-7.805%	51.304	-3.736	-6.788%	71.265	-1.745	-2.391%	96.361	-18.669	-16.230%
saturate	3	65.68	-1.07	-1.603%	54.174	-0.866	-1.573%	73.518	0.508	0.696%	113.541	-1.489	-1.294%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	60.24	-6.51	-9.753%	51.598	-3.442	-6.254%	68.882	-4.128	-5.654%	94.23	-20.8	-18.082%
gaussian_noise	4	60.56	-6.19	-9.273%	51.67	-3.37	-6.124%	69.025	-3.985	-5.458%	96.345	-18.685	-16.243%
shot_noise	4	60.0	-6.75	-10.112%	51.264	-3.776	-6.660%	67.633	-5.377	-7.365%	90.247	-20.783	-18.068%
speckle_noise	4	61.73	-5.02	-7.521%	52.234	-2.806	-5.098%	69.772	-3.238	-4.435%	104.477	-14.553	-12.651%
zoom_blur	4	51.52	-15.23	-22.816%	45.262	-9.778	-17.766%	58.203	-14.807	-20.281%	45.355	-69.675	-60.571%
defocus_blur	4	61.36	-5.39	-8.075%	52.003	-3.037	-5.517%	70.044	-2.966	-4.062%	95.82	-19.21	-16.700%
motion_blur	4	59.67	-7.08	-10.607%	51.153	-3.887	-7.062%	68.078	-4.932	-6.755%	87.182	-27.848	-24.209%
glass_blur	4	57.32	-9.43	-14.127%	48.569	-6.471	-11.757%	68.021	-4.989	-6.834%	78.438	-36.592	-31.811%
gaussian_blur	4	61.79	-4.96	-7.431%	52.25	-2.79	-5.069%	70.26	-2.75	-3.767%	98.415	-16.615	-14.444%
jpeg_compression	4	64.36	-2.39	-3.581%	53.943	-1.097	-1.992%	72.226	-0.784	-1.074%	107.108	-7.922	-6.887%
contrast	4	58.97	-7.78	-11.655%	50.723	-4.317	-7.843%	67.059	-5.951	-8.151%	92.46	-22.57	-19.621%
elastic_transform	4	62.44	-4.31	-6.457%	51.773	-3.267	-5.936%	71.81	-1.2	-1.644%	98.842	-16.188	-14.073%
pixelate	4	55.69	-11.06	-16.569%	48.561	-6.479	-11.771%	62.495	-10.515	-14.403%	74.937	-40.093	-34.855%
snow	4	53.7	-13.05	-19.551%	46.216	-8.824	-16.033%	63.672	-9.338	-12.791%	64.972	-50.058	-43.517%
frost	4	56.41	-10.34	-15.491%	48.76	-6.28	-11.410%	66.973	-6.037	-8.269%	77.764	-37.266	-32.397%
fog	4	61.3	-5.45	-8.165%	52.202	-2.838	-5.156%	69.729	-3.281	-4.494%	99.957	-15.073	-13.103%
brightness	4	64.45	-2.3	-3.446%	53.609	-1.431	-2.599%	71.078	-1.932	-2.646%	109.263	-5.767	-5.014%
spatter	4	59.01	-7.74	-11.596%	50.246	-4.794	-8.709%	68.265	-4.745	-6.500%	85.761	-29.269	-25.445%
saturate	4	62.99	-3.76	-5.633%	52.608	-2.432	-4.419%	70.662	-2.348	-3.216%	107.0	-8.03	-6.981%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	56.35	-10.4	-15.58%	49.15	-5.89	-10.70%	66.16	-6.85	-9.38%	81.17	-33.86	-29.444%
gaussian_noise	5	56.25	-10.5	-15.73%	49.03	-6.01	-10.92%	65.81	-7.2	-9.86%	81.35	-33.68	-29.288%
shot_noise	5	57.2	-9.55	-14.31%	49.82	-5.22	-9.48%	65.73	-7.28	-9.97%	85.44	-29.59	-25.72%
speckle_noise	5	59.85	-6.9	-10.34%	51.44	-3.6	-6.54%	67.53	-5.48	-7.51%	94.18	-20.85	-18

Table 8: Performance and decrease ratio of Half-shared Adapters on CLIP-BART against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	62.84	-2.36	-3.620%	51.654	-1.306	-2.467%	69.241	-0.789	-1.127%	109.345	-5.155	-4.502%
gaussian_noise	1	63.97	-1.23	-1.887%	52.6	-0.36	-0.680%	70.217	0.187	0.267%	112.308	-2.192	-1.915%
shot_noise	1	64.04	-1.16	-1.779%	51.701	-1.259	-2.377%	70.26	0.23	0.328%	111.183	-3.317	-2.897%
speckle_noise	1	64.15	-1.05	-1.610%	52.139	-0.821	-1.551%	69.255	-0.775	-1.107%	111.187	-3.313	-2.893%
zoom_blur	1	58.33	-6.87	-10.537%	49.507	-3.453	-6.520%	57.227	-12.803	-18.282%	85.69	-28.81	-25.162%
defocus_blur	1	64.04	-1.16	-1.779%	52.155	-0.805	-1.521%	70.174	0.144	0.205%	110.785	-3.715	-3.245%
motion_blur	1	64.08	-1.12	-1.718%	52.457	-0.503	-0.950%	70.116	0.086	0.123%	110.093	-4.407	-3.849%
glass_blur	1	64.14	-1.06	-1.626%	52.385	-0.575	-1.086%	70.389	0.359	0.513%	111.431	-3.069	-2.680%
gaussian_blur	1	64.9	-0.3	-0.460%	52.95	-0.01	-0.020%	70.274	0.244	0.349%	113.665	-0.835	-0.729%
jpeg_compression	1	64.63	-0.57	-0.874%	52.457	-0.503	-0.950%	70.36	0.33	0.472%	113.127	-1.373	-1.200%
contrast	1	63.76	-1.44	-2.209%	52.027	-0.933	-1.761%	69.901	-0.129	-0.184%	111.495	-3.005	-2.624%
elastic_transform	1	64.43	-0.77	-1.181%	52.274	-0.686	-1.296%	69.8	-0.23	-0.328%	112.4	-2.1	-1.834%
pixelate	1	61.78	-3.42	-5.245%	51.137	-1.823	-3.442%	69.112	-0.918	-1.312%	102.092	-12.408	-10.836%
snow	1	60.28	-4.92	-7.546%	50.477	-2.483	-4.688%	68.265	-1.765	-2.521%	99.536	-14.964	-13.069%
frost	1	61.47	-3.73	-5.721%	50.469	-2.491	-4.703%	68.451	-1.579	-2.254%	103.326	-11.174	-9.759%
fog	1	63.31	-1.89	-2.899%	51.964	-0.996	-1.881%	70.274	0.244	0.349%	111.251	-3.249	-2.837%
brightness	1	64.79	-0.41	-0.629%	52.663	-0.297	-0.560%	70.748	0.718	1.025%	113.052	-1.448	-1.265%
spatter	1	64.51	-0.69	-1.058%	52.552	-0.408	-0.770%	70.317	0.287	0.410%	112.966	-1.534	-1.340%
saturate	1	62.37	-2.83	-4.340%	51.638	-1.322	-2.497%	69.269	-0.761	-1.086%	110.372	-4.128	-3.606%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	62.14	-3.06	-4.693%	50.954	-2.006	-3.788%	67.978	-2.052	-2.931%	105.6	-8.9	-7.773%
gaussian_noise	2	63.21	-1.99	-3.052%	51.487	-1.473	-2.782%	69.413	-0.617	-0.881%	109.248	-5.252	-4.586%
shot_noise	2	63.13	-2.07	-3.175%	51.773	-1.187	-2.241%	68.939	-1.091	-1.557%	107.995	-6.505	-5.681%
speckle_noise	2	63.53	-1.67	-2.561%	51.693	-1.267	-2.392%	69.399	-0.631	-0.902%	110.78	-3.72	-3.249%
zoom_blur	2	55.67	-9.53	-14.617%	47.694	-5.266	-9.943%	61.806	-8.224	-11.744%	69.462	-45.038	-39.334%
defocus_blur	2	63.37	-1.83	-2.807%	51.383	-1.577	-2.977%	70.001	-0.029	-0.041%	109.082	-5.418	-4.732%
motion_blur	2	62.96	-2.24	-3.436%	51.582	-1.378	-2.602%	69.872	-0.158	-0.225%	106.891	-7.609	-6.646%
glass_blur	2	63.17	-2.03	-3.113%	51.717	-1.243	-2.347%	69.126	-0.904	-1.291%	107.2	-7.3	-6.376%
gaussian_blur	2	63.88	-1.32	-2.025%	51.852	-1.108	-2.091%	70.231	0.201	0.287%	110.2	-4.3	-3.756%
jpeg_compression	2	64.26	-0.94	-1.442%	52.083	-0.877	-1.656%	69.585	-0.445	-0.635%	112.297	-2.203	-1.924%
contrast	2	63.14	-2.06	-3.160%	51.844	-1.116	-2.106%	69.327	-0.703	-1.004%	109.098	-5.402	-4.718%
elastic_transform	2	61.55	-3.65	-5.598%	50.517	-2.443	-4.613%	67.547	-2.483	-3.546%	97.081	-17.419	-15.213%
pixelate	2	61.27	-3.93	-6.028%	50.731	-2.229	-4.208%	66.284	-3.746	-5.349%	99.594	-14.906	-13.018%
snow	2	57.4	-7.8	-11.963%	47.162	-5.798	-10.948%	66.815	-3.215	-4.591%	88.051	-26.449	-23.099%
frost	2	58.16	-7.04	-10.798%	48.497	-4.463	-8.426%	67.002	-3.028	-4.324%	91.679	-22.821	-19.931%
fog	2	62.61	-2.59	-3.972%	51.415	-1.545	-2.917%	65.638	-4.392	-6.272%	109.042	-5.458	-4.767%
brightness	2	64.2	-1.0	-1.534%	52.003	-0.957	-1.806%	70.274	0.244	0.349%	112.985	-1.515	-1.323%
spatter	2	61.23	-3.97	-6.089%	50.859	-2.101	-3.968%	69.212	-0.818	-1.168%	102.925	-11.575	-10.109%
saturate	2	59.61	-5.59	-8.574%	50.708	-2.252	-4.253%	67.088	-2.942	-4.201%	104.939	-9.561	-8.350%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	61.32	-3.88	-5.951%	50.175	-2.785	-5.259%	68.222	-1.808	-2.582%	103.077	-11.423	-9.977%
gaussian_noise	3	61.62	-3.58	-5.491%	50.549	-2.411	-4.553%	68.58	-1.45	-2.070%	105.052	-9.448	-8.251%
shot_noise	3	61.49	-3.71	-5.690%	51.264	-1.696	-3.202%	68.164	-1.866	-2.664%	103.781	-10.719	-9.362%
speckle_noise	3	61.96	-3.24	-4.969%	50.867	-2.093	-3.953%	68.509	-1.521	-2.172%	104.433	-10.067	-8.792%
zoom_blur	3	52.68	-12.52	-19.202%	45.675	-7.285	-13.756%	59.165	-10.865	-15.515%	54.675	-59.825	-52.249%
defocus_blur	3	61.64	-3.56	-5.460%	50.875	-2.085	-3.938%	68.738	-1.292	-1.844%	102.239	-12.261	-10.708%
motion_blur	3	61.2	-4.0	-6.135%	51.153	-1.807	-3.412%	67.978	-2.052	-2.931%	100.62	-13.88	-12.123%
glass_blur	3	57.94	-7.26	-11.135%	47.742	-5.218	-9.853%	67.159	-2.871	-4.099%	87.071	-27.429	-23.956%
gaussian_blur	3	62.33	-2.87	-4.402%	51.423	-1.537	-2.902%	68.652	-1.378	-1.967%	104.626	-9.874	-8.624%
jpeg_compression	3	63.99	-1.21	-1.856%	52.536	-0.424	-0.800%	69.643	-0.387	-0.553%	111.723	-2.777	-2.425%
contrast	3	61.77	-3.43	-5.261%	50.755	-2.205	-4.163%	68.336	-1.694	-2.418%	105.203	-9.297	-8.120%
elastic_transform	3	63.0	-2.2	-3.374%	51.574	-1.386	-2.617%	69.93	-0.1	-0.143%	107.179	-7.321	-6.394%
pixelate	3	58.76	-6.44	-9.877%	49.372	-5.588	-10.708%	65.294	-4.736	-6.763%	90.913	-23.587	-20.600%
snow	3	55.52	-9.68	-14.847%	47.289	-5.671	-10.708%	64.892	-5.138	-7.337%	79.752	-34.748	-30.347%
frost	3	55.43	-9.77	-14.985%	46.772	-6.188	-11.684%	65.222	-4.808	-6.866%	82.156	-32.344	-28.248%
fog	3	61.42	-3.78	-5.798%	51.328	-1.632	-3.082%	68.58	-1.45	-2.070%	105.691	-8.809	-7.694%
brightness	3	63.4	-1.8	-2.761%	51.725	-1.235	-2.332%	69.714	-0.316	-0.451%	111.483	-3.017	-2.635%
spatter	3	59.87	-5.33	-8.175%	49.96	-3.0	-5.664%	68.092	-1.938	-2.767%	96.967	-17.533	-15.313%
saturate	3	64.25	-0.95	-1.457%	51.821	-1.139	-2.151%	70.518	0.488	0.697%	112.453	-2.047	-1.788%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	58.84	-6.36	-9.755%	49.396	-3.564	-6.730%	67.303	-2.727	-3.894%	93.77	-20.73	-18.105%
gaussian_noise	4	59.07	-6.13	-9.402%	49.833	-3.127	-5.904%	67.059	-2.971	-4.242%	95.573	-18.927	-16.530%
shot_noise	4	58.48	-6.72	-10.307%	50.04	-2.92	-5.144%	65.896	-4.134	-5.903%	92.981	-21.519	-18.794%
speckle_noise	4	60.43	-4.77	-7.316%	50.684	-2.276	-4.298%	67.317	-2.713	-3.874%	100.908	-13.992	-12.220%
zoom_blur	4	50.72	-14.48	-22.209%	44.538	-8.422	-15.902%	57.571	-12.459	-17.790%	44.394	-70.106	-61.228%
defocus_blur	4	59.77	-5.43	-8.328%	50.151	-2.809	-5.304%	67.246	-2.784	-3.976%	94.926	-19.574	-17.095%
motion_blur	4	58.71	-6.49	-9.954%	49.642	-3.318	-6.265%	66.413	-3.617	-5.165%	87.531	-26.699	-23.553%
glass_blur	4	56.08	-9.12	-13.988%	47.058	-5.902	-11.144%	66.485	-3.545	-5.062%	79.98	-34.52	-30.148%
gaussian_blur	4	60.8	-4.4	-6.748%	50.509	-2.451	-4.628%	67.978	-2.052	-2.931%	97.356	-17.144	-14.973%
jpeg_compression	4	63.05	-2.15	-3.298%	51.169	-1.791	-3.382%	69.47	-0.56	-0.799%	107.974	-6.526	-5.699%
contrast	4	57.65	-7.55	-11.580%	48.704	-4.256	-8.036%	65.423	-4.607	-6.579%	90.713	-23.787	-20.775%
elastic_transform	4	60.82	-4.38	-6.718%	49.587	-3.373	-6.370%	69.47	-0.56	-0.799%	99.136	-15.364	-13.418%
pixelate	4	54.89	-10.31	-15.813%	46.208	-6.752	-12.750%	61.676	-8.354	-11.928%	73.596	-40.904	-35.724%
snow	4	52.57	-12.63	-19.371%	45.095	-7.865	-14.852%	62.81	-7.22	-10.309%	64.88	-49.62	-43.336%
frost	4	54.92	-10.28	-15.767%	46.915	-6.045	-11.414%	65.451	-4.579	-6.538%	78.524	-35.976	-31.420%
fog	4	59.85	-5.35	-8.206%	50.143	-2.817	-5.319%	68.25	-1.78	-2.541%	100.76	-13.74	-12.000%
brightness	4	62.56	-2.64	-4.049%	51.153	-1.807	-3.412%	69.011	-1.019	-1.455%	108.211	-6.289	-5.492%
spatter	4	57.78	-7.42	-11.380%	48.251	-4.709	-8.992%	66.858	-3.172	-4.529%	86.919	-27.581	-24.088%
saturate	4	61.38	-3.82	-5.859%	50.437	-2.523	-4.763%	68.322	-1.708	-2.439%	107.238	-7.262	-6.342%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	54.94	-10.26	-15.736%	47.949	-5.011	-9.462%	64.762	-5.268	-7.522%	79.944	-34.556	-30.180%
gaussian_noise	5	54.79	-10.41	-15.966%	47.742	-5.218	-9.853%	64.59	-5.44	-7.768%	79.987	-34.513	-30.143%
shot_noise	5	55.94	-9.26	-14.202%	48.076	-4.884	-9.222%	63.858	-6.172	-8.813%	84.561	-29.939	-26.148%
speckle_noise	5	58.5	-6.7	-10.276%	49.563	-3.997	-6.415%	65.581	-4.449	-6.354%			

Table 9: Performance and decrease ratio of Hyperformer on CLIP-BART against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	63.11	-2.27	-3.472%	51.113	-1.407	-2.679%	70.59	-1.62	-2.244%	108.315	-6.553	-5.705%
gaussian_noise	1	64.11	-1.27	-1.942%	52.218	-0.302	-0.575%	71.236	-0.974	-1.349%	111.564	-3.304	-2.876%
shot_noise	1	64.01	-1.37	-2.095%	51.773	-0.747	-1.422%	71.25	-0.96	-1.329%	111.913	-2.955	-2.573%
speckle_noise	1	64.26	-1.12	-1.713%	51.988	-0.532	-1.014%	71.365	-0.845	-1.170%	111.887	-2.981	-2.596%
zoom_blur	1	58.64	-6.74	-10.309%	49.284	-3.236	-6.161%	56.05	-16.16	-22.379%	86.759	-28.109	-24.470%
defocus_blur	1	64.36	-1.02	-1.560%	52.194	-0.326	-0.620%	71.953	-0.257	-0.355%	111.434	-3.434	-2.989%
motion_blur	1	64.19	-1.19	-1.820%	51.988	-0.532	-1.014%	71.394	-0.816	-1.130%	111.28	-3.588	-3.123%
glass_blur	1	64.29	-1.09	-1.667%	52.29	-0.23	-0.438%	71.867	-0.343	-0.474%	110.75	-4.118	-3.585%
gaussian_blur	1	65.14	-0.24	-0.367%	52.481	-0.039	-0.075%	72.025	-0.185	-0.256%	113.892	-0.976	-0.849%
jpeg_compression	1	64.59	-0.79	-1.208%	52.218	-0.302	-0.575%	72.126	-0.084	-0.117%	113.208	-1.66	-1.445%
contrast	1	64.11	-1.27	-1.942%	52.194	-0.326	-0.620%	71.107	-1.103	-1.528%	111.276	-3.592	-3.127%
elastic_transform	1	64.85	-0.53	-0.811%	52.488	-0.032	-0.060%	70.762	-1.448	-2.005%	111.751	-3.117	-2.713%
pixelate	1	61.97	-3.41	-5.216%	51.153	-1.367	-2.603%	69.872	-2.338	-3.237%	102.682	-12.186	-10.609%
snow	1	60.68	-4.7	-7.189%	50.231	-2.289	-4.359%	69.7	-2.51	-3.476%	99.589	-15.279	-13.302%
frost	1	61.91	-3.47	-5.307%	50.342	-2.178	-4.147%	69.844	-2.366	-3.277%	103.414	-11.454	-9.971%
fog	1	63.7	-1.68	-2.570%	52.186	-0.334	-0.635%	70.963	-1.247	-1.727%	110.747	-4.121	-3.588%
brightness	1	64.96	-0.42	-0.642%	52.322	-0.198	-0.378%	71.681	-0.529	-0.733%	114.6	-0.268	-0.233%
spatter	1	64.8	-0.58	-0.887%	52.25	-0.27	-0.514%	71.509	-0.701	-0.971%	113.441	-4.227	-3.424%
saturate	1	62.41	-2.97	-4.543%	50.644	-1.876	-3.572%	70.604	-1.606	-2.224%	111.07	-3.798	-3.306%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	62.56	-2.82	-4.313%	51.264	-1.256	-2.391%	69.858	-2.352	-3.257%	105.447	-9.421	-8.202%
gaussian_noise	2	63.22	-2.16	-3.304%	51.28	-1.24	-2.361%	70.389	-1.821	-2.522%	108.798	-6.07	-5.285%
shot_noise	2	63.2	-2.18	-3.334%	51.534	-0.986	-1.877%	70.791	-1.419	-1.965%	108.495	-6.373	-5.548%
speckle_noise	2	63.8	-1.58	-2.417%	51.375	-1.145	-2.179%	70.619	-1.591	-2.204%	110.85	-4.018	-3.498%
zoom_blur	2	55.69	-9.69	-14.821%	47.496	-5.024	-9.567%	61.389	-10.821	-14.985%	72.303	-42.565	-37.056%
defocus_blur	2	63.91	-1.47	-2.248%	51.868	-0.652	-1.241%	71.064	-1.146	-1.588%	109.619	-5.249	-4.569%
motion_blur	2	63.28	-2.1	-3.212%	51.67	-0.85	-1.619%	71.178	-1.032	-1.429%	107.325	-7.543	-6.566%
glass_blur	2	63.23	-2.15	-3.288%	51.852	-0.668	-1.271%	70.733	-1.477	-2.045%	107.49	-7.378	-6.423%
gaussian_blur	2	64.24	-1.14	-1.744%	51.932	-0.588	-1.120%	71.595	-0.615	-0.852%	110.869	-3.999	-3.482%
jpeg_compression	2	64.52	-0.86	-1.315%	52.17	-0.35	-0.666%	71.796	-0.414	-0.574%	111.366	-3.502	-3.048%
contrast	2	63.36	-2.02	-3.090%	51.821	-0.699	-1.332%	70.518	-1.692	-2.343%	109.591	-5.277	-4.594%
elastic_transform	2	61.92	-3.46	-5.292%	50.716	-1.804	-3.436%	68.049	-4.161	-5.762%	96.699	-18.169	-15.818%
pixelate	2	61.24	-4.14	-6.332%	50.723	-1.797	-3.421%	67.36	-4.85	-6.716%	100.385	-14.483	-12.608%
snow	2	57.78	-7.6	-11.624%	47.535	-4.985	-9.491%	67.145	-5.065	-7.014%	88.787	-26.081	-22.705%
frost	2	58.72	-6.66	-10.187%	48.354	-4.166	-7.932%	68.451	-3.759	-5.205%	90.232	-24.636	-21.447%
fog	2	63.02	-2.36	-3.610%	51.375	-1.145	-2.179%	67.073	-1.537	-2.113%	109.259	-5.639	-4.909%
brightness	2	64.54	-0.84	-1.285%	52.258	-0.262	-0.499%	71.265	-0.945	-1.309%	112.945	-1.923	-1.674%
spatter	2	61.69	-3.69	-5.644%	50.588	-1.932	-3.678%	70.26	-1.95	-2.701%	102.503	-12.365	-10.764%
saturate	2	59.63	-5.75	-8.795%	50.223	-2.297	-4.374%	68.638	-3.572	-4.947%	105.416	-9.452	-8.228%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	61.56	-3.82	-5.843%	50.954	-1.566	-2.982%	69.714	-2.496	-3.456%	102.727	-12.141	-10.569%
gaussian_noise	3	62.05	-3.33	-5.093%	51.296	-1.224	-2.331%	69.528	-2.682	-3.714%	103.63	-11.238	-9.783%
shot_noise	3	61.79	-3.59	-5.491%	51.145	-1.375	-2.618%	69.772	-2.438	-3.377%	104.573	-10.295	-8.962%
speckle_noise	3	61.96	-3.42	-5.231%	51.129	-1.391	-2.649%	69.872	-2.338	-3.237%	105.375	-9.493	-8.264%
zoom_blur	3	53.18	-12.2	-18.660%	45.341	-7.179	-13.669%	58.375	-13.835	-19.159%	58.544	-56.324	-49.034%
defocus_blur	3	62.01	-3.37	-5.154%	50.771	-1.749	-3.330%	70.159	-2.051	-2.840%	103.089	-11.779	-10.254%
motion_blur	3	61.69	-3.69	-5.644%	51.002	-1.518	-2.891%	69.025	-3.185	-4.410%	101.688	-13.18	-11.474%
glass_blur	3	57.83	-7.55	-11.548%	47.997	-4.523	-8.613%	67.604	-4.606	-6.378%	86.674	-28.194	-24.545%
gaussian_blur	3	62.8	-2.58	-3.946%	51.232	-1.288	-2.452%	70.174	-2.036	-2.820%	105.091	-9.777	-8.512%
jpeg_compression	3	64.18	-1.2	-1.835%	51.948	-0.572	-1.089%	71.092	-1.118	-1.548%	110.729	-4.139	-3.603%
contrast	3	62.11	-3.27	-5.002%	51.352	-1.168	-2.225%	69.399	-2.811	-3.893%	105.39	-9.478	-8.251%
elastic_transform	3	63.12	-2.26	-3.457%	51.55	-0.97	-1.846%	70.834	-1.376	-1.906%	107.145	-7.723	-6.723%
pixelate	3	59.06	-6.32	-9.667%	49.253	-3.267	-6.221%	66.356	-5.854	-8.107%	91.132	-22.736	-20.664%
snow	3	55.98	-9.4	-14.377%	46.875	-5.645	-10.747%	65.681	-6.529	-9.042%	80.277	-34.591	-30.114%
frost	3	56.45	-8.93	-13.659%	47.392	-5.128	-9.763%	66.915	-5.295	-7.332%	80.946	-33.922	-29.531%
fog	3	61.72	-3.66	-5.598%	50.867	-1.653	-3.148%	69.844	-2.366	-3.277%	106.669	-8.199	-7.138%
brightness	3	63.77	-1.61	-2.463%	52.019	-0.501	-0.953%	70.891	-1.319	-1.826%	111.091	-3.777	-3.288%
spatter	3	60.24	-5.14	-7.862%	49.69	-2.83	-5.389%	68.939	-3.271	-4.529%	96.355	-18.513	-16.117%
saturate	3	64.46	-0.92	-1.407%	52.075	-0.445	-0.847%	71.322	-0.888	-1.230%	112.255	-2.613	-2.275%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	59.22	-6.16	-9.422%	50.183	-2.337	-4.450%	67.647	-4.563	-6.318%	93.42	-21.448	-18.672%
gaussian_noise	4	59.46	-5.92	-8.055%	50.08	-2.44	-4.478%	68.753	-3.457	-4.788%	95.94	-18.928	-16.478%
shot_noise	4	58.77	-6.61	-10.110%	49.857	-2.663	-5.071%	67.49	-4.72	-6.537%	94.596	-20.272	-17.648%
speckle_noise	4	60.51	-4.87	-7.449%	50.755	-1.765	-3.360%	68.566	-3.644	-5.046%	100.903	-13.965	-12.157%
zoom_blur	4	51.39	-13.99	-21.398%	44.149	-8.371	-15.940%	56.595	-15.615	-21.624%	47.784	-67.084	-58.401%
defocus_blur	4	60.34	-5.04	-7.709%	49.92	-2.6	-4.950%	69.284	-2.926	-4.052%	95.83	-19.038	-16.574%
motion_blur	4	58.68	-6.7	-10.248%	49.69	-2.83	-5.389%	67.274	-4.936	-6.835%	89.69	-25.178	-21.919%
glass_blur	4	56.26	-9.12	-13.949%	46.931	-5.589	-10.641%	67.246	-4.964	-6.875%	79.558	-35.31	-30.740%
gaussian_blur	4	60.72	-4.66	-7.128%	50.453	-2.067	-3.935%	69.47	-2.74	-3.794%	97.964	-16.904	-14.716%
jpeg_compression	4	63.0	-2.38	-3.640%	50.978	-1.542	-2.936%	70.719	-1.491	-2.065%	106.453	-8.415	-7.326%
contrast	4	58.0	-7.38	-11.288%	49.07	-3.45	-6.569%	66.758	-5.452	-7.551%	92.122	-22.746	-19.802%
elastic_transform	4	61.26	-4.12	-6.302%	50.048	-2.472	-4.707%	70.016	-2.194	-3.039%	99.231	-15.637	-13.613%
pixelate	4	55.17	-10.21	-15.616%	46.796	-5.724	-10.899%	63.356	-8.854	-12.262%	74.516	-40.352	-35.129%
snow	4	52.96	-12.42	-18.997%	45.206	-7.314	-13.926%	63.471	-8.739	-12.103%	64.766	-50.102	-43.617%
frost	4	55.09	-10.29	-15.739%	47.194	-5.326	-10.142%	66.643	-5.567	-7.710%	77.255	-37.613	-32.745%
fog	4	60.07	-5.31	-8.122%	49.793	-2.727	-5.192%	68.796	-3.414	-4.728%	100.214	-14.654	-12.757%
brightness	4	62.87	-2.51	-3.839%	50.906	-1.614	-3.072%	69.556	-2.654	-3.675%	107.822	-7.046	-6.134%
spatter	4	57.89	-7.49	-11.456%	48.267	-4.253	-8.098%	66.915	-5.295	-7.332%	87.218	-27.65	-24.071%
saturate	4	61.49	-3.89	-5.950%	49.928	-2.592	-4.934%	69.298	-2.912	-4.033%	105.786	-9.082	-7.906%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	55.42	-9.96	-15.234%	47.806	-4.714	-8.976%	66.04	-6.17	-8.545%	81.486	-33.382	-29.061%
gaussian_noise	5	55.26	-10.12	-15.479%	47.925	-4.595	-8.749%	65.38	-6.83	-9.459%	81.184	-33.684	-29.324%
shot_noise	5	56.2	-9.18	-14.041%	47.694	-4.826	-9.188%	65.509	-6.701	-9.280%	84.695	-30.173	-26.267%
speckle_noise	5	58.93	-6.45	-8.865%	49.428	-3.092	-5.888%	66.915	-5.205	-7.329%			

Table 10: Performance and decrease ratio of Multiple Adapters on CLIP-BART against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	63.08	-2.22	-3.400%	50.334	-3.056	-5.724%	69.341	-0.069	-0.099%	108.775	-5.695	-4.975%
gaussian_noise	1	63.96	-1.34	-2.052%	50.525	-2.865	-5.367%	69.556	0.146	0.211%	112.055	-2.415	-2.110%
shot_noise	1	64.1	-1.2	-1.838%	50.93	-2.46	-4.607%	69.628	0.218	0.314%	111.893	-2.577	-2.251%
speckle_noise	1	64.28	-1.02	-1.562%	51.018	-2.372	-4.443%	69.556	0.146	0.211%	112.372	-2.098	-1.833%
zoom_blur	1	58.67	-6.63	-10.153%	47.822	-5.568	-10.430%	57.686	-11.724	-16.891%	86.317	-28.153	-24.594%
defocus_blur	1	64.49	-0.81	-1.240%	50.692	-2.698	-5.054%	70.418	1.008	1.452%	110.992	-3.478	-3.038%
motion_blur	1	64.31	-0.99	-1.516%	51.01	-2.38	-4.458%	69.901	0.491	0.707%	110.947	-3.523	-3.078%
glass_blur	1	64.43	-0.87	-1.332%	51.057	-2.333	-4.369%	70.561	1.151	1.659%	112.582	-1.888	-1.649%
gaussian_blur	1	65.1	-0.2	-0.306%	51.169	-2.221	-4.161%	70.217	0.807	1.162%	113.692	-0.778	-0.679%
jpeg_compression	1	64.7	-0.6	-0.919%	51.312	-2.078	-3.892%	69.958	0.548	0.790%	113.934	-0.536	-0.469%
contrast	1	63.91	-1.39	-2.129%	50.167	-3.223	-6.037%	69.657	0.247	0.356%	111.583	-2.887	-2.522%
elastic_transform	1	64.63	-0.67	-1.026%	51.216	-2.174	-4.071%	69.427	0.017	0.025%	112.058	-2.412	-2.107%
pixelate	1	61.72	-3.58	-5.482%	49.412	-3.978	-7.451%	68.466	-0.944	-1.361%	102.565	-11.905	-10.400%
snow	1	60.6	-4.7	-7.198%	48.593	-4.797	-8.985%	68.193	-1.217	-1.753%	100.062	-14.408	-12.587%
frost	1	61.74	-3.56	-5.452%	49.213	-4.177	-7.824%	68.394	-1.016	-1.464%	103.506	-10.964	-9.578%
fog	1	63.34	-1.96	-3.002%	50.596	-2.794	-5.233%	69.241	-0.169	-0.244%	110.445	-4.025	-3.516%
brightness	1	64.83	-0.47	-0.720%	51.177	-2.213	-4.146%	70.848	1.438	2.072%	113.991	-0.479	-0.419%
spatter	1	64.72	-0.58	-0.888%	51.081	-2.309	-4.324%	70.461	1.051	1.514%	113.572	-0.898	-0.785%
saturate	1	62.48	-2.82	-4.319%	50.588	-2.802	-5.248%	68.753	-0.657	-0.947%	110.804	-3.666	-3.203%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	62.36	-2.94	-4.502%	49.889	-3.501	-6.558%	68.466	-0.944	-1.361%	106.537	-7.933	-6.930%
gaussian_noise	2	63.33	-1.97	-3.017%	50.183	-3.207	-6.007%	69.054	-0.356	-0.513%	109.084	-5.386	-4.705%
shot_noise	2	63.37	-1.93	-2.956%	50.358	-3.032	-5.679%	68.724	-0.686	-0.988%	109.293	-5.177	-4.523%
speckle_noise	2	63.79	-1.51	-2.312%	50.668	-2.722	-5.099%	68.695	-0.715	-1.030%	110.266	-4.204	-3.673%
zoom_blur	2	55.81	-9.49	-14.533%	45.436	-7.954	-14.897%	61.633	-7.777	-11.204%	70.867	-43.603	-38.091%
defocus_blur	2	63.91	-1.39	-2.129%	50.27	-3.12	-5.843%	69.485	0.075	0.108%	108.924	-5.546	-4.845%
motion_blur	2	63.24	-2.06	-3.155%	50.533	-2.857	-5.352%	69.37	-0.04	-0.058%	108.19	-6.28	-5.487%
glass_blur	2	63.25	-2.05	-3.139%	50.517	-2.873	-5.382%	69.7	0.29	0.418%	107.653	-6.817	-5.955%
gaussian_blur	2	64.24	-1.06	-1.623%	50.429	-2.961	-5.545%	69.915	0.505	0.728%	109.896	-4.574	-3.996%
jpeg_compression	2	64.64	-0.66	-1.011%	51.272	-2.118	-3.967%	69.7	0.29	0.418%	113.017	-1.453	-1.269%
contrast	2	63.0	-2.3	-3.522%	50.024	-3.366	-6.305%	68.781	-0.629	-0.906%	109.711	-4.759	-4.158%
elastic_transform	2	61.58	-3.72	-5.697%	49.229	-4.161	-7.794%	66.327	-3.083	-4.442%	97.907	-16.563	-14.469%
pixelate	2	61.36	-3.94	-6.034%	49.094	-4.296	-8.047%	65.494	-3.916	-5.641%	99.54	-14.93	-13.042%
snow	2	57.58	-7.72	-11.822%	46.152	-7.238	-13.557%	65.71	-3.7	-5.331%	88.051	-26.419	-23.079%
frost	2	58.54	-6.76	-10.352%	47.384	-6.006	-11.249%	66.585	-2.825	-4.070%	91.664	-22.806	-19.923%
fog	2	62.78	-2.52	-3.859%	49.968	-3.422	-6.409%	65.911	-3.499	-5.041%	109.097	-5.373	-4.693%
brightness	2	64.17	-1.13	-1.730%	50.882	-2.508	-4.697%	70.159	0.749	1.080%	113.574	-0.896	-0.782%
spatter	2	61.42	-3.88	-5.942%	49.595	-3.795	-7.109%	68.25	-1.16	-1.671%	104.378	-10.992	-8.816%
saturate	2	59.52	-5.78	-8.851%	49.443	-3.947	-7.392%	67.03	-2.38	-3.428%	104.845	-9.625	-8.408%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	61.63	-3.67	-5.620%	49.952	-3.438	-6.439%	68.179	-1.231	-1.774%	103.223	-11.247	-9.825%
gaussian_noise	3	61.83	-3.47	-5.314%	49.436	-3.954	-7.407%	67.848	-1.562	-2.250%	103.956	-10.514	-9.185%
shot_noise	3	61.65	-3.65	-5.590%	49.913	-3.477	-6.513%	68.15	-1.26	-1.816%	105.464	-9.006	-7.868%
speckle_noise	3	62.13	-3.17	-4.855%	49.634	-3.756	-7.034%	67.963	-1.447	-2.084%	104.688	-9.782	-8.545%
zoom_blur	3	53.22	-12.08	-18.499%	43.671	-9.719	-18.203%	59.495	-9.915	-14.285%	57.831	-56.639	-49.479%
defocus_blur	3	62.13	-3.17	-4.855%	49.809	-3.581	-6.707%	68.595	-0.815	-1.174%	102.018	-12.452	-10.878%
motion_blur	3	61.22	-4.08	-6.248%	49.92	-3.47	-6.498%	68.494	-0.916	-1.319%	100.004	-14.466	-12.638%
glass_blur	3	58.46	-6.84	-10.475%	46.923	-6.467	-12.112%	66.915	-2.495	-3.594%	86.333	-28.137	-24.580%
gaussian_blur	3	62.75	-2.55	-3.905%	50.342	-3.048	-5.709%	68.839	-0.571	-0.823%	104.781	-9.689	-8.464%
jpeg_compression	3	63.91	-1.39	-2.129%	51.002	-2.388	-4.473%	69.284	-0.126	-0.182%	110.971	-3.499	-3.057%
contrast	3	61.82	-3.48	-5.329%	49.364	-4.026	-7.541%	67.92	-1.49	-2.146%	105.282	-9.188	-8.027%
elastic_transform	3	63.33	-1.97	-3.017%	50.517	-2.873	-5.382%	69.399	-0.011	-0.016%	107.57	-6.9	-6.028%
pixelate	3	58.99	-6.31	-9.663%	47.448	-5.942	-11.130%	64.518	-4.892	-7.047%	90.252	-24.218	-21.156%
snow	3	55.69	-9.61	-14.717%	45.588	-7.802	-14.614%	64.203	-5.207	-7.502%	80.591	-33.879	-29.597%
frost	3	56.14	-9.16	-14.028%	45.548	-7.842	-14.689%	64.877	-4.533	-6.530%	81.478	-32.992	-28.822%
fog	3	61.56	-3.74	-5.727%	49.277	-4.113	-7.705%	68.695	-0.715	-1.030%	105.695	-8.775	-7.666%
brightness	3	63.57	-1.73	-2.649%	50.557	-2.833	-5.307%	69.614	0.204	0.294%	111.594	-2.876	-2.513%
spatter	3	60.04	-5.26	-8.055%	48.569	-4.821	-9.030%	67.662	-1.748	-2.519%	97.652	-16.818	-14.692%
saturate	3	64.3	-1.0	-1.531%	50.572	-2.818	-5.277%	69.341	-0.069	-0.099%	112.884	-1.586	-1.385%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	58.9	-6.4	-9.801%	48.744	-6.646	-8.702%	67.332	-2.078	-2.994%	94.511	-19.959	-17.436%
gaussian_noise	4	59.01	-6.29	-9.632%	48.768	-6.622	-8.658%	67.389	-2.021	-2.912%	95.389	-18.58	-16.231%
shot_noise	4	58.67	-6.63	-10.153%	48.696	-6.694	-8.792%	65.222	-4.188	-6.034%	94.179	-20.291	-17.726%
speckle_noise	4	60.52	-4.78	-7.320%	49.459	-3.931	-7.362%	67.088	-2.322	-3.346%	101.029	-13.441	-11.742%
zoom_blur	4	51.14	-14.16	-21.685%	42.789	-10.601	-19.856%	58.045	-11.365	-16.374%	47.052	-67.418	-58.896%
defocus_blur	4	60.13	-5.17	-7.917%	49.03	-4.36	-8.166%	66.729	-2.681	-3.863%	94.96	-19.51	-17.044%
motion_blur	4	58.83	-6.47	-9.908%	48.346	-5.044	-9.447%	66.183	-3.227	-4.649%	87.903	-26.567	-23.209%
glass_blur	4	56.46	-8.84	-13.538%	45.794	-7.596	-14.227%	66.04	-3.37	-4.855%	80.082	-34.388	-30.041%
gaussian_blur	4	60.74	-4.56	-6.983%	49.459	-3.931	-7.362%	67.676	-1.734	-2.498%	97.068	-17.402	-15.202%
jpeg_compression	4	62.83	-2.47	-3.783%	50.286	-3.104	-5.813%	68.408	-1.002	-1.443%	108.016	-6.454	-5.638%
contrast	4	57.75	-7.55	-11.562%	47.154	-6.236	-11.681%	64.346	-5.064	-7.295%	91.244	-23.226	-20.290%
elastic_transform	4	61.12	-4.18	-6.401%	48.489	-4.901	-9.179%	68.911	-0.499	-0.720%	99.838	-14.632	-12.783%
pixelate	4	55.03	-10.27	-15.727%	44.697	-8.693	-16.282%	61.332	-8.078	-11.638%	74.043	-40.427	-35.317%
snow	4	52.63	-12.67	-19.403%	43.512	-9.878	-18.501%	61.964	-7.446	-10.728%	65.313	-49.157	-42.943%
frost	4	55.3	-10.0	-15.314%	45.842	-7.548	-14.138%	64.963	-4.447	-6.406%	78.01	-36.46	-31.851%
fog	4	59.96	-5.34	-8.178%	48.545	-4.845	-9.075%	68.624	-0.786	-1.133%	100.679	-13.791	-12.048%
brightness	4	62.52	-2.78	-4.257%	50.684	-2.706	-5.069%	68.236	-1.174	-1.691%	108.714	-5.756	-5.028%
spatter	4	58.08	-7.22	-11.057%	46.995	-6.395	-11.978%	66.011	-3.399	-4.897%	86.949	-27.521	-24.042%
saturate	4	61.53	-3.77	-5.773%	49.245	-4.145	-7.764%	68.394	-1.016	-1.464%	106.722	-7.748	-6.769%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	55.27	-10.03	-15.360%	46.557	-6.833	-12.797%	64.504	-4.906	-7.068%	80.382	-34.088	-29.779%
gaussian_noise	5	55.26	-10.04	-15.375%	46.279	-7.111	-13.319%	63.801	-5.609	-8.081%	80.15	-34.32	-29.982%
shot_noise	5	56.1	-9.2	-14.089%	46.796	-6.594	-12.551%	64.174	-5.236	-7.544%	83.148	-31.322	-27.362%
speckle_noise	5	58.68	-6.62	-10.138%	48.315	-5.075	-9.506%	64.					

Table 11: Performance and decrease ratio of Multiple Compacters on CLIP-BART against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	62.91	-2.0	-3.081%	51.542	-1.208	-2.289%	69.6	0.15	0.215%	109.258	-5.902	-5.125%
gaussian_noise	1	63.8	-1.11	-1.710%	51.86	-0.89	-1.686%	70.159	0.709	1.021%	111.25	-3.91	-3.395%
shot_noise	1	63.79	-1.12	-1.725%	51.654	-1.096	-2.078%	69.757	0.307	0.443%	112.222	-2.938	-2.552%
speckle_noise	1	63.84	-1.07	-1.648%	51.709	-1.041	-1.973%	69.671	0.221	0.319%	112.337	-2.723	-2.364%
zoom_blur	1	58.08	-6.83	-10.522%	48.736	-4.014	-7.610%	55.404	-14.046	-20.225%	87.068	-28.092	-24.394%
defocus_blur	1	64.05	-0.86	-1.325%	51.876	-0.874	-1.656%	69.7	0.25	0.360%	112.029	-3.131	-2.719%
motion_blur	1	63.68	-1.23	-1.895%	51.685	-1.065	-2.018%	69.772	0.322	0.463%	110.889	-4.271	-3.709%
glass_blur	1	64.13	-0.78	-1.202%	51.972	-0.778	-1.475%	70.202	0.752	1.083%	111.888	-3.272	-2.841%
gaussian_blur	1	64.83	-0.08	-0.123%	52.051	-0.699	-1.325%	70.059	0.609	0.877%	114.375	-0.785	-0.681%
jpeg_compression	1	64.31	-0.6	-0.924%	51.797	-0.953	-1.807%	69.729	0.279	0.401%	114.174	-0.986	-0.856%
contrast	1	63.55	-1.36	-2.095%	51.503	-1.247	-2.365%	68.896	-0.554	-0.797%	112.673	-2.487	-2.160%
elastic_transform	1	64.33	-0.58	-0.894%	52.433	-0.317	-0.601%	69.399	-0.051	-0.074%	111.789	-3.371	-2.927%
pixelate	1	61.63	-3.28	-5.053%	50.676	-2.074	-3.932%	67.935	-1.515	-2.182%	102.462	-12.698	-11.027%
snow	1	60.21	-4.7	-7.241%	49.34	-3.41	-6.464%	68.222	-1.228	-1.769%	100.004	-15.156	-13.161%
frost	1	61.5	-3.41	-5.253%	50.509	-2.241	-4.249%	67.748	-1.702	-2.451%	103.147	-12.013	-10.431%
fog	1	63.22	-1.69	-2.604%	51.344	-1.406	-2.666%	68.494	-0.956	-1.376%	111.403	-3.757	-3.262%
brightness	1	64.59	-0.32	-0.493%	52.035	-0.715	-1.355%	69.93	0.48	0.691%	114.331	-0.829	-0.720%
spatter	1	64.3	-0.61	-0.940%	52.147	-0.603	-1.144%	69.485	0.035	0.050%	113.694	-1.466	-1.273%
saturate	1	62.44	-2.47	-3.805%	50.827	-1.923	-3.646%	68.423	-1.027	-1.479%	110.806	-4.354	-3.781%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	62.05	-2.86	-4.406%	50.882	-1.868	-3.540%	68.71	-0.74	-1.066%	105.632	-9.528	-8.274%
gaussian_noise	2	63.11	-1.8	-2.773%	51.344	-1.406	-2.666%	69.198	-0.252	-0.363%	108.818	-6.342	-5.507%
shot_noise	2	63.08	-1.83	-2.819%	50.938	-1.812	-3.435%	68.624	-0.826	-1.190%	108.746	-6.414	-5.570%
speckle_noise	2	63.24	-1.67	-2.573%	51.463	-1.287	-2.440%	68.939	-0.511	-0.735%	110.473	-4.687	-4.070%
zoom_blur	2	55.66	-9.25	-14.251%	46.931	-5.819	-11.031%	59.854	-9.596	-13.818%	73.436	-41.724	-36.231%
defocus_blur	2	63.36	-1.55	-2.388%	51.542	-1.208	-2.289%	69.341	-0.109	-0.157%	109.045	-6.115	-5.310%
motion_blur	2	63.14	-1.77	-2.727%	51.073	-1.677	-3.179%	69.513	0.063	0.091%	108.323	-6.837	-5.937%
glass_blur	2	62.89	-2.02	-3.112%	50.906	-1.844	-3.495%	68.882	-0.568	-0.818%	107.979	-7.181	-6.236%
gaussian_blur	2	63.73	-1.18	-1.818%	51.67	-1.08	-2.048%	69.155	-0.295	-0.425%	110.774	-4.386	-3.808%
jpeg_compression	2	64.34	-0.57	-0.878%	51.503	-1.247	-2.365%	69.542	0.092	0.133%	113.05	-2.11	-1.832%
contrast	2	62.79	-2.12	-3.266%	51.026	-1.724	-3.269%	68.451	-0.999	-1.438%	111.137	-4.023	-3.494%
elastic_transform	2	61.17	-3.74	-5.762%	49.746	-3.004	-5.696%	66.241	-3.209	-4.621%	97.739	-17.421	-15.128%
pixelate	2	60.86	-4.05	-6.239%	50.318	-2.432	-4.610%	65.509	-3.941	-5.675%	99.701	-15.459	-13.424%
snow	2	57.45	-7.46	-11.493%	47.146	-5.604	-10.624%	65.782	-3.668	-5.282%	87.876	-27.284	-23.692%
frost	2	58.22	-6.69	-10.307%	47.798	-4.952	-9.388%	66.743	-2.707	-3.897%	91.162	-23.998	-20.839%
fog	2	62.46	-2.45	-3.774%	50.922	-1.828	-3.465%	65.035	-4.415	-6.357%	109.813	-5.347	-4.643%
brightness	2	64.21	-0.7	-1.078%	52.035	-0.715	-1.355%	69.671	0.221	0.319%	113.438	-1.722	-1.495%
spatter	2	61.25	-3.66	-5.639%	50.541	-2.209	-4.188%	68.064	-1.386	-1.996%	104.301	-10.859	-9.429%
saturate	2	59.45	-5.46	-8.412%	49.992	-2.758	-5.228%	65.896	-3.554	-5.117%	106.233	-8.927	-7.751%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	61.12	-3.79	-5.839%	50.207	-2.543	-4.821%	67.389	-2.061	-2.967%	103.652	-11.508	-9.993%
gaussian_noise	3	61.59	-3.32	-5.115%	50.254	-2.496	-4.731%	68.695	-0.755	-1.087%	104.253	-10.907	-9.472%
shot_noise	3	61.64	-3.27	-5.038%	50.692	-2.058	-3.902%	67.719	-1.731	-2.492%	103.954	-11.206	-9.731%
speckle_noise	3	61.89	-3.02	-4.653%	50.167	-2.583	-4.897%	67.145	-2.305	-3.319%	104.78	-10.38	-9.014%
zoom_blur	3	52.63	-12.28	-18.919%	45.23	-7.52	-14.256%	57.457	-11.993	-17.269%	60.191	-54.969	-47.733%
defocus_blur	3	61.62	-3.29	-5.069%	50.564	-2.186	-4.143%	67.49	-1.96	-2.823%	102.858	-12.302	-10.682%
motion_blur	3	61.19	-3.72	-5.731%	50.596	-2.154	-4.083%	67.92	-1.53	-2.203%	101.264	-13.896	-12.067%
glass_blur	3	58.09	-6.82	-10.507%	47.05	-5.7	-10.805%	66.155	-3.295	-4.745%	87.811	-27.349	-23.749%
gaussian_blur	3	62.08	-2.63	-4.052%	50.978	-1.772	-3.359%	67.877	-1.573	-2.265%	105.382	-7.778	-6.841%
jpeg_compression	3	63.83	-1.08	-1.664%	51.383	-1.367	-2.591%	69.269	-0.181	-0.260%	112.577	-2.583	-2.243%
contrast	3	61.62	-3.29	-5.069%	50.485	-2.265	-4.294%	67.518	-1.932	-2.781%	106.32	-8.84	-7.676%
elastic_transform	3	62.83	-2.08	-3.204%	51.073	-1.677	-3.179%	69.47	0.02	0.029%	108.308	-6.852	-5.950%
pixelate	3	58.75	-6.16	-9.490%	48.744	-4.006	-7.595%	64.762	-4.688	-6.750%	89.903	-25.257	-21.932%
snow	3	55.63	-9.28	-14.297%	46.732	-6.018	-11.408%	63.758	-5.692	-8.196%	80.18	-34.98	-30.375%
frost	3	55.94	-8.97	-13.819%	46.43	-6.32	-11.981%	64.849	-4.601	-6.626%	81.889	-33.271	-28.891%
fog	3	61.47	-3.44	-5.300%	50.429	-2.321	-4.399%	67.992	-1.458	-2.099%	106.65	-8.51	-7.390%
brightness	3	63.41	-1.5	-2.311%	51.073	-1.677	-3.179%	68.796	-0.654	-0.942%	111.513	-3.647	-3.167%
spatter	3	59.66	-5.25	-8.088%	49.197	-3.553	-6.736%	67.475	-1.975	-2.843%	97.537	-17.623	-15.303%
saturate	3	63.93	-0.98	-1.510%	51.868	-0.882	-1.671%	69.327	-0.123	-0.177%	112.763	-2.397	-2.081%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	58.74	-6.17	-9.505%	49.372	-3.378	-6.404%	66.657	-2.793	-4.021%	93.189	-21.971	-19.079%
gaussian_noise	4	59.07	-5.84	-8.997%	50.278	-2.472	-4.686%	67.045	-2.405	-3.463%	95.92	-19.24	-16.707%
shot_noise	4	58.38	-6.53	-10.060%	49.451	-3.299	-6.253%	66.298	-3.152	-4.538%	94.85	-20.31	-17.636%
speckle_noise	4	60.22	-4.69	-7.225%	49.992	-2.758	-5.228%	66.571	-2.879	-4.145%	101.109	-14.051	-12.201%
zoom_blur	4	50.81	-14.1	-21.722%	44.3	-8.45	-16.020%	55.548	-13.902	-20.018%	50.552	-64.608	-56.103%
defocus_blur	4	59.83	-5.08	-7.826%	49.682	-3.068	-5.816%	66.298	-3.152	-4.538%	95.238	-19.922	-17.300%
motion_blur	4	58.57	-6.34	-9.767%	48.609	-4.141	-7.851%	65.624	-3.826	-5.509%	88.685	-26.475	-22.990%
glass_blur	4	56.46	-8.45	-13.018%	46.192	-6.558	-12.433%	64.791	-4.659	-6.708%	79.143	-36.017	-31.276%
gaussian_blur	4	60.42	-4.49	-6.917%	50.286	-2.464	-4.671%	67.059	-2.391	-3.443%	98.009	-17.151	-14.893%
jpeg_compression	4	62.67	-2.24	-3.451%	50.684	-2.066	-3.917%	68.652	-0.798	-1.149%	108.396	-6.764	-5.873%
contrast	4	58.04	-6.87	-10.584%	47.965	-4.785	-9.072%	64.92	-4.53	-6.522%	92.385	-22.775	-19.777%
elastic_transform	4	61.07	-3.84	-5.916%	49.308	-3.442	-6.525%	68.164	-1.851	-2.595%	99.588	-15.572	-13.522%
pixelate	4	54.99	-9.92	-15.283%	45.969	-6.781	-12.855%	60.471	-8.979	-12.929%	73.948	-41.212	-35.786%
snow	4	52.96	-11.95	-18.410%	44.936	-7.814	-14.814%	61.605	-7.845	-11.296%	65.835	-49.325	-42.832%
frost	4	55.0	-9.91	-15.267%	46.542	-6.208	-11.770%	64.906	-4.544	-6.543%	76.957	-38.203	-33.174%
fog	4	59.78	-5.13	-7.903%	49.451	-3.299	-6.253%	67.647	-1.803	-2.595%	101.781	-13.379	-11.618%
brightness	4	62.56	-2.35	-3.620%	50.421	-2.329	-4.414%	68.107	-1.343	-1.934%	109.146	-6.014	-5.222%
spatter	4	57.58	-7.33	-11.293%	48.195	-4.555	-8.635%	65.294	-4.156	-5.985%	85.615	-29.545	-25.656%
saturate	4	61.16	-3.75	-5.777%	49.666	-3.084	-5.846%	67.834	-1.616	-2.327%	106.231	-8.929	-7.754%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	54.97	-9.94	-15.314%	47.527	-5.223	-9.901%	63.873	-5.577	-8.031%	80.384	-34.776	-30.198%
gaussian_noise	5	55.18	-9.73	-14.990%	47.098	-5.652	-10.714%	64.49	-4.96	-7.142%	81.337	-33.823	-29.370%
shot_noise	5	55.66	-9.25	-14.251%	47.146	-5.604	-10.624%	63.959	-5.491	-7.907%	84.001	-31.159	-27.057%
speckle_noise	5	58.45	-6.46	-9.952%	48.895	-3.855	-7.308%	65.451	-				

Table 12: Performance and decrease ratio of Multiple LoRA on CLIP-BART against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	63.12	-2.32	-3.545%	51.662	-0.388	-0.746%	50.337	-0.983	-1.915%	109.536	-5.871	-5.087%
gaussian_noise	1	64.13	-1.31	-2.002%	52.011	-0.039	-0.074%	50.825	-0.495	-0.964%	112.679	-2.728	-2.363%
shot_noise	1	64.1	-1.34	-2.048%	51.701	-0.349	-0.670%	50.466	-0.854	-1.663%	112.511	-2.896	-2.510%
speckle_noise	1	64.18	-1.26	-1.925%	51.868	-0.182	-0.349%	50.682	-0.638	-1.244%	112.6	-2.807	-2.432%
zoom_blur	1	58.12	-7.32	-11.186%	48.958	-3.092	-5.939%	50.251	-1.069	-2.083%	86.91	-28.497	-24.693%
defocus_blur	1	64.35	-1.09	-1.666%	51.98	-0.07	-0.135%	50.911	-0.409	-0.796%	112.669	-2.738	-2.373%
motion_blur	1	64.09	-1.35	-2.063%	51.646	-0.404	-0.777%	51.816	0.496	0.966%	109.514	-5.893	-5.106%
glass_blur	1	64.13	-1.31	-2.002%	51.996	-0.054	-0.105%	51.055	-0.265	-0.516%	111.24	-4.167	-3.610%
gaussian_blur	1	65.0	-0.44	-0.672%	51.884	-0.166	-0.318%	51.73	0.41	0.798%	114.48	-0.927	-0.803%
jpeg_compression	1	64.89	-0.55	-0.840%	51.829	-0.221	-0.425%	50.825	-0.495	-0.964%	113.78	-1.627	-1.410%
contrast	1	63.63	-1.81	-2.766%	52.147	0.097	0.186%	51.184	-0.136	-0.265%	112.217	-3.19	-2.764%
elastic_transform	1	64.63	-0.81	-1.238%	52.123	0.073	0.140%	50.825	-0.495	-0.964%	112.606	-2.801	-2.427%
pixelate	1	61.31	-4.13	-6.311%	50.62	-1.43	-2.747%	50.868	-0.452	-0.880%	103.256	-12.151	-10.529%
snow	1	60.23	-5.21	-7.961%	49.467	-2.583	-4.962%	51.012	-0.308	-0.600%	101.293	-14.114	-12.230%
frost	1	61.65	-3.79	-5.792%	50.453	-1.597	-3.068%	50.466	-0.854	-1.663%	103.413	-11.994	-10.393%
fog	1	63.41	-2.03	-3.102%	51.932	-0.118	-0.227%	51.069	-0.251	-0.488%	111.682	-3.725	-3.228%
brightness	1	65.16	-0.28	-0.428%	51.956	-0.094	-0.181%	51.471	0.151	0.295%	114.623	-0.784	-0.679%
spatter	1	64.6	-0.84	-1.284%	52.107	0.057	0.109%	51.457	0.137	0.267%	113.683	-1.724	-1.494%
saturate	1	62.62	-2.82	-4.309%	50.843	-1.207	-2.319%	51.687	0.367	0.714%	111.041	-4.366	-3.783%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	62.37	-3.07	-4.691%	51.065	-0.985	-1.892%	50.825	-0.495	-0.964%	107.512	-7.895	-6.841%
gaussian_noise	2	63.44	-2.0	-3.056%	50.986	-1.064	-2.044%	50.524	-0.796	-1.551%	110.583	-4.824	-4.180%
shot_noise	2	63.01	-2.43	-3.713%	51.081	-0.969	-1.861%	50.28	-1.04	-2.027%	109.63	-5.777	-5.006%
speckle_noise	2	63.76	-1.68	-2.567%	51.526	-0.524	-1.006%	50.825	-0.495	-0.964%	110.645	-4.762	-4.126%
zoom_blur	2	55.11	-10.33	-15.785%	47.591	-4.459	-8.567%	50.309	-1.011	-1.971%	71.368	-44.039	-38.160%
defocus_blur	2	63.52	-1.92	-2.934%	51.479	-0.571	-1.097%	51.27	-0.05	-0.097%	109.676	-5.731	-4.966%
motion_blur	2	63.03	-2.41	-3.683%	51.685	-0.365	-0.700%	50.682	-0.638	-1.244%	107.564	-7.843	-6.796%
glass_blur	2	62.88	-2.56	-3.912%	51.288	-0.762	-1.464%	50.696	-0.624	-1.216%	108.29	-7.117	-6.167%
gaussian_blur	2	63.93	-1.51	-2.307%	51.924	-0.126	-0.242%	51.17	-0.15	-0.293%	111.553	-3.854	-3.339%
jpeg_compression	2	64.62	-0.82	-1.253%	51.765	-0.285	-0.548%	50.825	-0.495	-0.964%	113.349	-2.058	-1.783%
contrast	2	63.1	-2.34	-3.576%	51.463	-0.587	-1.128%	51.27	-0.05	-0.097%	109.559	-5.848	-5.067%
elastic_transform	2	61.44	-4.0	-6.112%	50.501	-1.549	-2.976%	50.438	-0.882	-1.719%	98.119	-17.288	-14.980%
pixelate	2	60.91	-4.53	-6.922%	50.747	-1.303	-2.503%	50.495	-0.825	-1.607%	100.503	-14.904	-12.914%
snow	2	57.53	-7.91	-12.087%	47.567	-4.483	-8.613%	50.122	-1.198	-2.334%	89.818	-25.589	-22.173%
frost	2	57.92	-7.52	-11.491%	48.799	-3.251	-6.245%	49.864	-1.456	-2.838%	91.825	-23.582	-20.434%
fog	2	62.57	-2.87	-4.386%	51.805	-0.245	-0.471%	50.438	-0.882	-1.719%	110.05	-5.357	-4.642%
brightness	2	64.31	-1.13	-1.727%	51.733	-0.317	-0.609%	51.213	-0.107	-0.209%	114.086	-1.321	-1.144%
spatter	2	61.08	-4.36	-6.663%	50.676	-1.374	-2.640%	51.227	-0.093	-0.181%	105.197	-10.21	-8.847%
saturate	2	59.48	-5.96	-9.108%	49.928	-2.122	-4.076%	50.797	-0.523	-1.020%	105.874	-9.533	-8.260%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	61.46	-3.98	-6.082%	50.652	-1.398	-2.686%	50.093	-1.227	-2.390%	104.261	-11.146	-9.658%
gaussian_noise	3	61.81	-3.63	-5.547%	50.533	-1.517	-2.915%	50.983	-0.337	-0.656%	105.488	-9.919	-8.594%
shot_noise	3	61.63	-3.81	-5.822%	50.286	-1.764	-3.389%	50.538	-0.782	-1.523%	105.624	-9.783	-8.477%
speckle_noise	3	61.7	-3.74	-5.715%	50.708	-1.342	-2.579%	50.194	-1.126	-2.195%	105.934	-9.473	-8.208%
zoom_blur	3	52.57	-12.87	-19.667%	46.247	-5.803	-11.148%	49.993	-1.327	-2.586%	57.065	-58.342	-50.553%
defocus_blur	3	61.82	-3.62	-5.532%	50.739	-1.311	-2.518%	50.538	-0.782	-1.523%	102.845	-12.562	-10.885%
motion_blur	3	61.12	-4.32	-6.601%	50.962	-1.088	-2.090%	50.266	-1.054	-2.055%	101.771	-13.636	-11.816%
glass_blur	3	58.06	-7.38	-11.278%	48.561	-3.489	-6.703%	50.323	-0.997	-1.943%	87.648	-27.759	-24.053%
gaussian_blur	3	62.43	-3.01	-4.600%	50.835	-1.215	-2.335%	50.725	-0.595	-1.160%	105.609	-9.798	-8.490%
jpeg_compression	3	63.92	-1.52	-2.323%	51.638	-0.412	-0.792%	50.667	-0.653	-1.272%	112.413	-2.994	-2.594%
contrast	3	61.78	-3.66	-5.593%	50.517	-1.533	-2.946%	50.208	-1.112	-2.167%	105.746	-9.661	-8.371%
elastic_transform	3	63.18	-2.26	-3.454%	51.701	-0.349	-0.670%	50.868	-0.452	-0.880%	107.495	-7.912	-6.855%
pixelate	3	58.85	-6.59	-10.070%	48.784	-3.266	-6.276%	50.696	-0.624	-1.216%	90.566	-24.841	-21.524%
snow	3	55.67	-9.77	-14.930%	47.233	-4.817	-9.254%	50.71	-0.61	-1.188%	81.606	-33.801	-29.289%
frost	3	55.75	-9.69	-14.807%	47.106	-4.944	-9.498%	50.94	-0.38	-0.740%	82.465	-32.942	-28.544%
fog	3	61.33	-4.11	-6.281%	51.28	-0.77	-1.479%	50.969	-0.351	-0.684%	106.73	-8.677	-7.518%
brightness	3	63.5	-1.94	-2.965%	51.606	-0.444	-0.853%	50.624	-0.696	-1.355%	111.08	-4.327	-3.749%
spatter	3	59.41	-6.03	-9.215%	49.555	-2.495	-4.994%	50.524	-0.796	-1.551%	98.194	-17.213	-14.915%
saturate	3	64.37	-1.07	-1.635%	51.566	-0.484	-0.929%	51.342	0.022	0.043%	113.511	-1.896	-1.643%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	58.99	-6.45	-9.856%	49.825	-2.225	-4.275%	49.519	-1.801	-3.509%	95.12	-20.287	-17.579%
gaussian_noise	4	59.3	-6.14	-9.383%	49.269	-2.781	-5.344%	49.663	-1.657	-3.229%	96.011	-18.496	-16.027%
shot_noise	4	58.57	-6.87	-10.498%	49.738	-2.312	-4.443%	49.677	-1.643	-3.201%	95.136	-20.271	-17.565%
speckle_noise	4	60.4	-5.04	-7.702%	49.849	-2.201	-4.229%	49.792	-1.528	-2.978%	102.055	-13.352	-11.569%
zoom_blur	4	50.6	-14.84	-22.677%	44.975	-7.075	-13.592%	50.538	-0.782	-1.523%	47.061	-68.346	-59.222%
defocus_blur	4	60.02	-5.42	-8.282%	50.246	-1.804	-3.465%	49.534	-1.786	-3.481%	95.916	-19.491	-16.889%
motion_blur	4	58.55	-6.89	-10.529%	49.602	-2.448	-4.702%	49.734	-1.586	-3.090%	89.346	-26.061	-22.582%
glass_blur	4	56.15	-9.29	-14.196%	46.939	-5.111	-9.819%	49.677	-1.643	-3.201%	80.448	-34.959	-30.292%
gaussian_blur	4	60.7	-4.74	-7.243%	50.398	-1.652	-3.175%	49.72	-1.6	-3.117%	98.408	-16.999	-14.730%
jpeg_compression	4	62.77	-2.67	-4.080%	51.105	-0.945	-1.815%	50.696	-0.624	-1.216%	107.297	-8.11	-7.027%
contrast	4	57.84	-7.6	-11.614%	49.221	-2.829	-5.435%	49.72	-1.6	-3.117%	92.806	-22.601	-19.584%
elastic_transform	4	60.89	-4.55	-6.953%	50.072	-1.978	-3.801%	50.323	-0.997	-1.943%	99.063	-16.344	-14.162%
pixelate	4	54.64	-10.8	-16.504%	46.971	-5.079	-9.758%	49.806	-1.514	-2.950%	73.645	-41.762	-36.187%
snow	4	52.46	-12.98	-19.835%	45.126	-6.924	-13.302%	49.132	-2.188	-4.264%	65.607	-49.8	-43.151%
frost	4	55.16	-10.28	-15.709%	47.249	-4.801	-9.224%	50.352	-0.968	-1.887%	79.326	-36.081	-31.264%
fog	4	60.03	-5.41	-8.267%	50.429	-1.621	-3.114%	50.38	-0.94	-1.831%	101.394	-14.013	-12.142%
brightness	4	62.7	-2.74	-4.187%	51.312	-0.738	-1.418%	50.409	-0.911	-1.775%	109.221	-6.186	-5.360%
spatter	4	57.6	-7.84	-11.980%	48.251	-3.799	-7.299%	50.897	-0.423	-0.824%	87.559	-27.848	-24.130%
saturate	4	61.37	-4.07	-6.219%	49.698	-2.352	-4.519%	50.954	-0.366	-0.712%	107.309	-8.898	-7.016%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	55.13	-10.31	-15.755%	48.052	-3.998	-7.681%	49.849	-1.471	-2.866%	80.405	-35.002	-30.329%
gaussian_noise	5	55.16	-10.28	-15.709%	47.837	-4.213	-8.093%	49.892	-1.428	-2.782%	80.375	-35.032	-30.355%
shot_noise	5	55.92	-9.52	-14.548%	47.655	-4.395	-8.445%	49.548	-1.772	-3.453%	84.802	-30.605	-26.520%
speckle_noise	5	58.31	-7.13	-10.895%	49.253	-2.797	-5.374%	49.361	-1.959	-3			

Table 13: Performance and decrease ratio of Multiple Prompts on CLIP-BART against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	46.27	-0.54	-1.154%	33.519	-0.491	-1.444%	49.892	0.022	0.045%	102.255	-6.364	-5.859%
gaussian_noise	1	46.4	-0.41	-0.876%	33.567	-0.443	-1.304%	49.763	-0.107	-0.214%	105.318	-3.301	-3.039%
shot_noise	1	46.33	-0.48	-1.025%	33.455	-0.555	-1.631%	49.706	-0.164	-0.329%	105.515	-3.104	-2.857%
speckle_noise	1	46.34	-0.47	-1.004%	33.63	-0.38	-1.117%	49.347	-0.523	-1.049%	105.513	-3.106	-2.859%
zoom_blur	1	44.04	-2.77	-5.918%	32.104	-1.906	-5.605%	50.122	0.252	0.505%	81.915	-26.704	-24.585%
defocus_blur	1	46.61	-0.2	-0.427%	34.147	0.137	0.403%	49.749	-0.121	-0.243%	105.641	-2.978	-2.742%
motion_blur	1	46.49	-0.32	-0.684%	33.861	-0.149	-0.439%	50.079	0.209	0.419%	104.123	-4.496	-4.139%
glass_blur	1	46.57	-0.24	-0.513%	33.686	-0.324	-0.953%	49.419	-0.451	-0.905%	105.202	-3.417	-3.146%
gaussian_blur	1	46.71	-0.1	-0.214%	34.282	0.272	0.800%	49.577	-0.293	-0.588%	107.209	-1.41	-1.298%
jpeg_compression	1	46.53	-0.28	-0.598%	33.574	-0.436	-1.281%	50.093	0.223	0.448%	106.695	-1.924	-1.771%
contrast	1	45.93	-0.88	-1.880%	34.075	0.065	0.192%	49.72	-0.15	-0.301%	104.794	-3.825	-3.521%
elastic_transform	1	46.49	-0.32	-0.684%	33.829	-0.181	-0.532%	49.849	-0.021	-0.042%	105.12	-3.499	-3.222%
pixelate	1	45.05	-1.76	-3.760%	33.352	-0.658	-1.935%	49.605	-0.265	-0.531%	95.593	-13.026	-11.992%
snow	1	44.31	-2.5	-5.341%	32.024	-1.986	-5.839%	49.002	-0.868	-1.740%	92.626	-15.993	-14.724%
frost	1	45.09	-1.72	-3.674%	33.066	-0.944	-2.777%	49.519	-0.351	-0.704%	97.127	-11.492	-10.580%
fog	1	45.58	-1.23	-2.628%	33.654	-0.356	-1.047%	49.72	-0.15	-0.301%	105.238	-3.381	-3.113%
brightness	1	46.71	-0.1	-0.214%	33.916	-0.094	-0.275%	49.778	-0.092	-0.185%	107.028	-1.591	-1.465%
spatter	1	46.48	-0.33	-0.705%	33.948	-0.062	-0.182%	49.691	-0.179	-0.358%	106.63	-1.989	-1.831%
saturate	1	45.19	-1.62	-3.461%	33.885	-0.125	-0.369%	49.835	-0.035	-0.070%	104.711	-3.908	-3.598%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	45.95	-0.86	-1.837%	33.384	-0.626	-1.842%	50.136	0.266	0.534%	98.724	-9.895	-9.110%
gaussian_noise	2	46.04	-0.77	-1.645%	33.272	-0.738	-2.169%	49.519	-0.351	-0.704%	103.07	-5.549	-5.109%
shot_noise	2	46.07	-0.74	-1.581%	33.797	-0.213	-0.626%	49.447	-0.423	-0.847%	101.997	-6.622	-6.097%
speckle_noise	2	46.05	-0.76	-1.624%	33.447	-0.563	-1.655%	50.222	0.352	0.707%	103.729	-4.89	-4.502%
zoom_blur	2	42.48	-4.33	-9.250%	31.428	-2.582	-7.592%	50.151	0.281	0.563%	69.602	-39.017	-35.921%
defocus_blur	2	46.14	-0.67	-1.431%	33.702	-0.308	-0.906%	49.677	-0.193	-0.387%	102.379	-6.24	-5.745%
motion_blur	2	45.88	-0.93	-1.987%	33.646	-0.364	-1.070%	49.577	-0.293	-0.588%	101.882	-6.737	-6.202%
glass_blur	2	45.97	-0.84	-1.794%	33.415	-0.595	-1.748%	49.548	-0.322	-0.646%	100.838	-7.781	-7.163%
gaussian_blur	2	46.4	-0.41	-0.876%	33.853	-0.157	-0.462%	49.734	-0.136	-0.272%	104.219	-4.4	-4.051%
jpeg_compression	2	46.32	-0.49	-1.047%	33.638	-0.372	-1.094%	49.648	-0.222	-0.444%	105.041	-3.578	-3.294%
contrast	2	45.57	-1.24	-2.649%	33.678	-0.332	-0.977%	49.49	-0.38	-0.761%	103.092	-5.527	-5.088%
elastic_transform	2	45.44	-1.37	-2.927%	33.074	-0.936	-2.753%	49.376	-0.494	-0.991%	91.795	-16.824	-15.489%
pixelate	2	44.8	-2.01	-4.294%	33.097	-0.913	-2.683%	49.821	-0.049	-0.099%	92.838	-15.781	-14.529%
snow	2	42.63	-4.18	-8.930%	31.356	-2.654	-7.803%	49.476	-0.394	-0.790%	81.032	-27.587	-25.398%
frost	2	43.16	-3.65	-7.797%	31.857	-2.153	-6.330%	49.462	-0.408	-0.819%	85.069	-23.55	-21.681%
fog	2	45.47	-1.34	-2.863%	33.614	-0.396	-1.164%	49.993	0.123	0.246%	103.199	-5.42	-4.990%
brightness	2	46.37	-0.44	-0.940%	33.662	-0.348	-1.023%	49.806	-0.064	-0.128%	107.112	-1.507	-1.388%
spatter	2	44.82	-1.99	-4.251%	32.779	-1.231	-3.618%	49.993	0.123	0.246%	96.582	-12.037	-11.081%
saturate	2	44.08	-2.73	-5.832%	33.614	-0.396	-1.164%	49.333	-0.537	-1.078%	99.905	-8.714	-8.022%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	45.26	-1.55	-3.311%	33.336	-0.674	-1.982%	49.476	-0.394	-0.790%	96.802	-11.817	-10.880%
gaussian_noise	3	45.52	-1.29	-2.756%	33.177	-0.833	-2.449%	49.318	-0.552	-1.106%	97.223	-11.396	-10.492%
shot_noise	3	45.44	-1.37	-2.927%	33.296	-0.714	-2.099%	49.462	-0.408	-0.819%	97.707	-10.912	-10.046%
speckle_noise	3	45.44	-1.37	-2.927%	33.312	-0.698	-2.052%	49.562	-0.308	-0.617%	97.664	-10.955	-10.085%
zoom_blur	3	40.93	-5.88	-12.561%	30.418	-3.592	-10.561%	50.395	0.525	1.052%	55.459	-50.16	-46.180%
defocus_blur	3	45.46	-1.35	-2.884%	33.145	-0.865	-2.543%	49.691	-0.179	-0.358%	96.366	-12.253	-11.280%
motion_blur	3	45.4	-1.41	-3.012%	33.384	-0.626	-1.842%	50.065	0.195	0.390%	95.118	-13.501	-12.430%
glass_blur	3	43.62	-3.19	-6.815%	31.277	-2.733	-8.036%	49.49	-0.38	-0.761%	80.695	-27.924	-25.708%
gaussian_blur	3	45.47	-1.34	-2.863%	33.137	-0.873	-2.566%	49.677	-0.193	-0.387%	98.701	-9.918	-9.131%
jpeg_compression	3	46.16	-0.65	-1.389%	33.916	-0.094	-0.275%	50.022	0.152	0.304%	104.927	-3.692	-3.399%
contrast	3	44.92	-1.89	-4.038%	33.296	-0.714	-2.099%	49.246	-0.624	-1.250%	99.132	-9.487	-8.735%
elastic_transform	3	46.1	-0.71	-1.517%	33.058	-0.952	-2.800%	49.749	-0.121	-0.243%	101.1	-7.519	-6.923%
pixelate	3	43.82	-2.99	-6.388%	32.183	-1.827	-5.371%	50.122	0.252	0.505%	83.466	-25.153	-23.157%
snow	3	41.46	-5.35	-11.429%	31.038	-2.972	-8.738%	49.404	-0.466	-0.934%	73.038	-35.581	-32.758%
frost	3	41.92	-4.89	-10.446%	30.967	-3.043	-8.948%	49.002	-0.868	-1.740%	76.414	-32.205	-29.650%
fog	3	44.98	-1.83	-3.909%	33.67	-0.34	-1.000%	49.605	-0.265	-0.531%	99.254	-9.365	-8.622%
brightness	3	46.04	-0.77	-1.645%	33.439	-0.571	-1.678%	49.763	-0.107	-0.214%	104.445	-4.174	-3.843%
spatter	3	44.12	-2.69	-5.747%	32.128	-1.882	-5.535%	49.993	0.123	0.246%	90.0	-18.619	-17.141%
saturate	3	46.7	-0.11	-0.235%	33.574	-0.436	-1.281%	49.62	-0.25	-0.502%	106.655	-1.964	-1.808%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	44.38	-2.43	-5.191%	32.43	-1.58	-4.647%	49.591	-0.279	-0.560%	88.377	-20.242	-18.635%
gaussian_noise	4	44.46	-2.35	-5.020%	32.636	-1.374	-4.039%	49.548	-0.322	-0.646%	88.193	-20.426	-18.806%
shot_noise	4	44.43	-2.38	-5.084%	32.923	-1.087	-3.197%	49.605	-0.265	-0.531%	87.759	-20.86	-19.205%
speckle_noise	4	44.84	-1.97	-4.209%	33.097	-0.913	-2.683%	49.361	-0.509	-1.020%	93.592	-15.027	-13.835%
zoom_blur	4	40.16	-6.65	-14.206%	29.456	-4.554	-13.390%	50.237	0.367	0.736%	50.053	-58.566	-53.919%
defocus_blur	4	44.81	-2.0	-4.273%	32.748	-1.262	-3.712%	49.189	-0.681	-1.365%	89.136	-19.483	-17.937%
motion_blur	4	44.24	-2.57	-5.490%	32.191	-1.819	-5.348%	49.706	-0.164	-0.329%	83.128	-25.491	-23.469%
glass_blur	4	42.91	-3.9	-8.332%	31.134	-2.876	-8.457%	49.534	-0.336	-0.675%	72.382	-36.237	-33.62%
gaussian_blur	4	44.77	-2.04	-4.358%	32.605	-1.405	-4.132%	49.117	-0.753	-1.509%	91.353	-17.266	-15.896%
jpeg_compression	4	45.62	-1.19	-2.542%	33.726	-0.284	-0.836%	49.447	-0.423	-0.847%	99.898	-8.721	-8.029%
contrast	4	42.91	-3.9	-8.332%	32.287	-1.723	-5.068%	49.002	-0.868	-1.740%	85.581	-23.038	-21.210%
elastic_transform	4	45.26	-1.55	-3.311%	32.438	-1.572	-4.623%	49.935	0.065	0.131%	93.178	-15.441	-14.216%
pixelate	4	42.26	-4.55	-9.720%	30.967	-3.043	-8.948%	49.648	-0.222	-0.444%	66.914	-41.705	-38.396%
snow	4	39.9	-6.91	-14.762%	29.862	-4.148	-12.197%	49.06	-0.81	-1.625%	58.747	-49.872	-45.915%
frost	4	41.63	-5.18	-11.066%	31.094	-2.916	-8.574%	49.376	-0.494	-0.991%	72.558	-36.061	-33.200%
fog	4	44.03	-2.78	-5.939%	32.652	-1.358	-3.992%	49.663	-0.207	-0.416%	94.25	-14.369	-13.229%
brightness	4	45.6	-1.21	-2.585%	33.392	-0.618	-1.818%	49.361	-0.509	-1.020%	103.259	-5.36	-4.935%
spatter	4	43.61	-3.2	-6.836%	31.794	-2.216	-6.517%	49.175	-0.695	-1.394%	81.102	-27.517	-25.333%
saturate	4	45.23	-1.58	-3.375%	32.891	-1.119	-3.291%	49.993	0.123	0.246%	100.906	-7.713	-7.101%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	42.83	-3.98	-8.502%	31.11	-2.9	-8.527%	49.333	-0.537	-1.078%	75.508	-33.111	-30.483%
gaussian_noise	5	42.85	-3.96	-8.460%	31.42	-2.59	-7.616%	49.132	-0.738	-1.481%	74.45	-34.169	-31.458%
shot_noise	5	42.99	-3.82	-8.161%	31.937	-2.073	-6.096%	49.189	-0.681	-1.365%	78.38	-30.239	-27.840%
speckle_noise	5	44.01	-2.8	-5.982%	32.708	-1.302	-3.829%	49.433	-0.437	-0.876%	87.429	-21.19	-19.50

Table 14: Performance and decrease ratio of Single Adapter on CLIP-BART against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	64.03	-1.32	-2.020%	48.863	-5.277	-9.747%	73.26	-0.63	-0.853%	109.007	-6.031	-5.242%
gaussian_noise	1	64.88	-0.47	-0.719%	49.873	-4.267	-7.882%	73.446	-0.444	-0.601%	111.841	-3.197	-2.779%
shot_noise	1	64.99	-0.36	-0.551%	49.785	-4.355	-8.043%	73.389	-0.501	-0.678%	112.405	-2.633	-2.288%
speckle_noise	1	64.87	-0.48	-0.735%	49.587	-4.553	-8.410%	73.618	-0.272	-0.367%	112.232	-2.806	-2.440%
zoom_blur	1	59.13	-6.22	-9.518%	46.621	-7.519	-13.888%	57.155	-16.735	-22.648%	87.848	-27.19	-23.635%
defocus_blur	1	64.89	-0.46	-0.704%	49.833	-4.307	-7.955%	73.963	0.073	0.099%	111.174	-3.864	-3.358%
motion_blur	1	64.82	-0.53	-0.811%	49.928	-4.212	-7.779%	73.662	-0.228	-0.309%	110.564	-4.474	-3.889%
glass_blur	1	65.07	-0.28	-0.428%	50.016	-4.124	-7.617%	74.02	0.13	0.176%	112.183	-2.855	-2.482%
gaussian_blur	1	65.62	0.27	0.413%	50.358	-3.782	-6.986%	74.236	0.346	0.468%	113.593	-1.445	-1.256%
jpeg_compression	1	65.26	-0.09	-0.138%	49.809	-4.331	-7.999%	73.719	-0.171	-0.231%	112.803	-2.235	-1.943%
contrast	1	64.6	-0.75	-1.148%	49.777	-4.363	-8.058%	73.618	-0.272	-0.367%	111.984	-3.054	-2.655%
elastic_transform	1	65.19	-0.16	-0.245%	49.817	-4.323	-7.985%	73.59	-0.3	-0.406%	112.36	-2.678	-2.328%
pixelate	1	62.39	-2.96	-4.529%	48.474	-5.666	-10.466%	72.599	-1.291	-1.747%	102.729	-12.309	-10.700%
snow	1	61.59	-3.76	-5.754%	48.02	-6.12	-11.303%	72.068	-1.822	-2.465%	100.139	-14.899	-12.951%
frost	1	62.54	-2.81	-4.300%	48.434	-5.706	-10.540%	72.571	-1.319	-1.786%	102.884	-12.154	-10.565%
fog	1	64.01	-1.34	-2.050%	49.936	-4.204	-7.764%	73.561	-0.329	-0.445%	110.89	-4.148	-3.606%
brightness	1	65.53	0.18	0.275%	50.135	-4.005	-7.397%	74.48	0.59	0.798%	113.34	-1.698	-1.476%
spatter	1	65.35	0.0	0.000%	49.889	-4.251	-7.852%	74.078	0.188	0.254%	112.884	-2.154	-1.872%
saturate	1	63.25	-2.1	-3.213%	49.316	-4.824	-8.910%	72.858	-1.032	-1.397%	111.428	-3.61	-3.138%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	63.07	-2.28	-3.489%	48.617	-5.523	-10.202%	72.025	-1.865	-2.524%	105.627	-9.411	-8.181%
gaussian_noise	2	64.02	-1.33	-2.035%	49.428	-4.712	-8.704%	73.303	-0.587	-0.795%	109.739	-5.299	-4.606%
shot_noise	2	63.9	-1.45	-2.219%	49.189	-4.951	-9.145%	72.858	-1.032	-1.397%	109.772	-5.266	-4.578%
speckle_noise	2	64.33	-1.02	-1.561%	49.332	-4.808	-8.880%	73.044	-0.846	-1.144%	110.719	-4.319	-3.754%
zoom_blur	2	55.8	-9.55	-14.614%	44.451	-9.689	-17.897%	62.523	-11.367	-15.383%	73.635	-41.403	-35.990%
defocus_blur	2	64.4	-0.95	-1.454%	49.563	-4.577	-8.455%	73.432	-0.458	-0.620%	109.336	-5.702	-4.956%
motion_blur	2	63.69	-1.66	-2.540%	49.626	-4.514	-8.337%	73.69	-0.2	-0.270%	107.598	-7.44	-6.468%
glass_blur	2	63.67	-1.68	-2.571%	49.269	-4.871	-8.998%	72.8	-1.09	-1.475%	108.063	-6.975	-6.063%
gaussian_blur	2	64.58	-0.77	-1.178%	49.602	-4.538	-8.381%	74.121	0.231	0.312%	110.353	-4.685	-4.072%
jpeg_compression	2	65.29	-0.06	-0.092%	49.65	-4.49	-8.293%	73.217	-0.673	-0.911%	111.506	-3.532	-3.071%
contrast	2	64.14	-1.21	-1.852%	49.261	-4.879	-9.013%	73.561	-0.329	-0.445%	109.626	-5.412	-4.704%
elastic_transform	2	62.25	-3.1	-4.744%	49.078	-5.062	-9.350%	70.289	-3.601	-4.874%	97.775	-17.263	-15.006%
pixelate	2	61.77	-3.58	-5.478%	47.925	-6.215	-11.480%	69.169	-4.721	-6.389%	100.404	-14.634	-12.721%
snow	2	58.49	-6.86	-10.497%	46.025	-8.115	-14.989%	69.413	-4.477	-6.059%	88.321	-26.717	-23.225%
frost	2	59.16	-6.19	-9.472%	46.08	-8.06	-14.886%	70.676	-3.214	-4.350%	91.341	-23.697	-20.599%
fog	2	63.35	-2.0	-3.060%	49.42	-4.72	-8.719%	69.729	-4.161	-5.632%	109.577	-5.461	-4.747%
brightness	2	64.98	-0.37	-0.566%	50.024	-4.116	-7.603%	73.862	-0.028	-0.037%	113.192	-1.846	-1.604%
spatter	2	61.89	-3.46	-5.295%	48.577	-5.563	-10.275%	71.824	-2.066	-2.796%	104.846	-10.192	-8.859%
saturate	2	60.07	-5.28	-8.080%	48.243	-5.897	-10.892%	70.848	-3.042	-4.117%	105.558	-9.48	-8.241%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	62.07	-3.28	-5.019%	48.481	-5.659	-10.452%	71.236	-2.654	-3.592%	102.932	-12.106	-10.524%
gaussian_noise	3	62.18	-3.17	-4.851%	48.64	-5.5	-10.158%	71.308	-2.582	-3.495%	104.383	-10.655	-9.262%
shot_noise	3	62.39	-2.96	-4.529%	48.672	-5.468	-10.099%	71.451	-2.439	-3.301%	104.749	-10.289	-8.944%
speckle_noise	3	62.82	-2.53	-3.871%	48.72	-5.42	-10.011%	72.04	-1.85	-2.504%	104.894	-10.144	-8.818%
zoom_blur	3	53.05	-12.3	-18.822%	42.996	-11.144	-20.584%	59.538	-14.352	-19.424%	58.638	-56.4	-49.028%
defocus_blur	3	62.42	-2.93	-4.484%	48.394	-5.746	-10.613%	71.839	-2.051	-2.776%	102.714	-12.324	-10.713%
motion_blur	3	61.83	-3.52	-5.386%	48.792	-5.348	-9.879%	71.465	-2.425	-3.281%	101.501	-13.537	-11.767%
glass_blur	3	58.84	-6.51	-9.962%	45.937	-8.203	-15.151%	69.786	-4.104	-5.554%	86.792	-28.246	-24.553%
gaussian_blur	3	63.26	-2.09	-3.198%	48.704	-5.436	-10.040%	71.853	-2.037	-2.757%	105.781	-9.257	-8.047%
jpeg_compression	3	64.83	-0.52	-0.796%	50.072	-4.068	-7.515%	73.145	-0.745	-1.008%	111.081	-3.957	-3.440%
contrast	3	62.8	-2.55	-3.902%	48.537	-5.603	-10.349%	71.896	-1.994	-2.698%	105.345	-9.693	-8.426%
elastic_transform	3	63.81	-1.54	-2.357%	49.292	-4.848	-8.954%	72.743	-1.147	-1.552%	107.885	-7.153	-6.218%
pixelate	3	59.32	-6.03	-9.227%	46.128	-8.012	-14.798%	67.475	-6.415	-8.681%	90.111	-24.927	-21.669%
snow	3	56.63	-8.72	-13.344%	44.069	-10.071	-18.602%	67.332	-6.558	-8.876%	81.487	-33.551	-29.165%
frost	3	56.55	-8.8	-13.466%	44.84	-9.3	-17.177%	67.891	-5.999	-8.118%	81.86	-33.178	-28.841%
fog	3	62.17	-3.18	-4.866%	48.855	-5.285	-9.761%	72.169	-1.721	-2.329%	106.133	-8.905	-7.741%
brightness	3	64.41	-0.94	-1.438%	49.459	-4.681	-8.645%	72.872	-1.018	-1.378%	112.042	-2.996	-2.605%
spatter	3	60.9	-4.45	-6.809%	48.1	-6.04	-11.157%	70.992	-2.898	-3.922%	97.078	-17.96	-15.612%
saturate	3	65.18	-0.17	-0.260%	49.897	-4.243	-7.838%	74.178	0.288	0.390%	112.3	-2.738	-2.380%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	59.67	-5.68	-8.692%	47.615	-6.525	-12.052%	69.887	-4.003	-5.418%	93.318	-21.72	-18.881%
gaussian_noise	4	59.55	-5.8	-8.875%	47.702	-6.438	-11.891%	69.872	-4.018	-5.437%	95.42	-19.618	-17.054%
shot_noise	4	59.34	-6.01	-9.197%	47.424	-6.716	-12.405%	69.155	-4.735	-6.409%	93.488	-21.55	-18.733%
speckle_noise	4	61.44	-3.91	-5.983%	47.822	-6.318	-11.670%	70.877	-3.013	-4.078%	100.403	-14.235	-12.374%
zoom_blur	4	50.89	-14.46	-22.127%	41.207	-12.933	-23.888%	57.471	-16.419	-22.221%	48.711	-66.327	-57.657%
defocus_blur	4	60.54	-4.81	-7.360%	47.472	-6.668	-12.317%	69.915	-3.975	-5.379%	95.936	-19.102	-16.605%
motion_blur	4	59.18	-6.17	-9.441%	47.83	-6.31	-11.656%	68.681	-5.209	-7.050%	88.465	-26.573	-23.099%
glass_blur	4	56.77	-8.58	-13.129%	44.57	-9.57	-17.677%	68.624	-5.266	-7.127%	79.597	-35.441	-30.808%
gaussian_blur	4	61.34	-4.01	-6.136%	47.957	-6.183	-11.421%	70.504	-3.386	-4.583%	97.671	-17.367	-15.097%
jpeg_compression	4	63.54	-1.81	-2.770%	49.118	-5.022	-9.277%	72.312	-1.578	-2.135%	107.37	-7.668	-6.666%
contrast	4	58.46	-6.89	-10.543%	45.929	-8.211	-15.165%	68.724	-5.166	-6.991%	91.302	-23.736	-20.633%
elastic_transform	4	61.62	-3.73	-5.708%	47.909	-6.231	-11.509%	72.011	-1.879	-2.543%	98.955	-16.083	-13.981%
pixelate	4	55.01	-10.34	-15.822%	44.284	-9.856	-18.205%	64.274	-9.616	-13.013%	73.703	-41.335	-35.932%
snow	4	53.43	-11.92	-18.240%	42.439	-11.701	-21.612%	64.877	-9.013	-12.197%	65.462	-49.576	-43.096%
frost	4	55.81	-9.54	-14.598%	44.252	-9.888	-18.264%	68.322	-5.568	-7.535%	78.427	-36.611	-31.825%
fog	4	60.53	-4.82	-7.376%	47.647	-6.493	-11.994%	71.451	-2.439	-3.301%	100.557	-14.481	-12.588%
brightness	4	63.6	-1.75	-2.678%	49.213	-4.927	-9.101%	71.824	-2.066	-2.796%	108.604	-6.434	-5.593%
spatter	4	58.17	-7.18	-10.987%	45.492	-8.648	-15.973%	68.408	-5.482	-7.419%	87.985	-27.053	-23.517%
saturate	4	62.08	-3.27	-5.004%	48.092	-6.048	-11.171%	71.623	-2.267	-3.068%	107.11	-7.928	-6.892%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	55.61	-9.74	-14.904%	45.031	-9.109	-16.825%	67.203	-6.687	-9.051%	80.804	-34.234	-29.759%
gaussian_noise	5	55.61	-9.74	-14.904%	44.864	-9.276	-17.133%	66.915	-6.975	-9.439%	79.906	-35.132	-30.539%
shot_noise	5	56.57	-8.78	-13.435%	45.58	-8.56	-15.812%	66.743	-7.147	-9.672%	84.103	-30.935	-26.891%
speckle_noise	5	59.3	-6.05	-9.258%	47.702	-6.438							

Table 15: Performance and decrease ratio of Single Compacter on CLIP-BART against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	62.38	-2.09	-3.242%	48.012	-4.888	-9.239%	70.217	0.277	0.396%	108.307	-4.753	-4.204%
gaussian_noise	1	63.45	-1.02	-1.582%	48.847	-4.053	-7.661%	69.571	-0.369	-0.528%	111.056	-2.004	-1.772%
shot_noise	1	63.46	-1.01	-1.567%	49.269	-3.631	-6.865%	70.016	0.076	0.108%	111.082	-1.978	-1.749%
speckle_noise	1	63.35	-1.12	-1.737%	48.736	-4.164	-7.872%	70.418	0.478	0.683%	111.427	-1.633	-1.444%
zoom_blur	1	57.83	-6.64	-10.299%	45.19	-7.71	-14.575%	56.696	-13.244	-18.936%	87.734	-25.326	-22.401%
defocus_blur	1	63.58	-0.89	-1.380%	48.513	-4.387	-8.292%	70.289	0.349	0.498%	110.1	-2.96	-2.618%
motion_blur	1	63.21	-1.26	-1.954%	48.712	-4.188	-7.917%	70.03	0.09	0.129%	108.606	-4.454	-3.939%
glass_blur	1	63.63	-0.84	-1.303%	48.609	-4.291	-8.112%	70.001	0.061	0.088%	110.944	-2.116	-1.871%
gaussian_blur	1	64.12	-0.35	-0.543%	49.475	-3.425	-6.474%	70.102	0.162	0.231%	112.676	-3.84	-3.40%
jpeg_compression	1	63.9	-0.57	-0.884%	48.609	-4.291	-8.112%	70.446	0.506	0.724%	111.881	-1.179	-1.043%
contrast	1	63.16	-1.31	-2.032%	48.784	-4.116	-7.781%	70.016	0.076	0.108%	111.04	-2.02	-1.787%
elastic_transform	1	63.8	-0.67	-1.039%	48.982	-3.918	-7.406%	69.829	-0.111	-0.158%	110.973	-2.087	-1.846%
pixelate	1	61.0	-3.47	-5.382%	47.122	-5.778	-10.923%	69.112	-0.828	-1.185%	101.596	-11.464	-10.139%
snow	1	59.57	-4.9	-7.600%	46.478	-6.422	-12.140%	68.652	-1.288	-1.841%	97.941	-15.119	-13.373%
frost	1	61.21	-3.26	-5.057%	47.599	-5.301	-10.021%	68.81	-1.13	-1.616%	102.993	-10.067	-8.904%
fog	1	62.5	-1.97	-3.056%	48.458	-4.442	-8.398%	69.657	-0.283	-0.405%	110.028	-3.032	-2.682%
brightness	1	64.18	-0.29	-0.450%	49.269	-3.631	-6.865%	70.446	0.506	0.724%	112.716	-0.344	-0.304%
spatter	1	63.83	-0.64	-0.993%	48.935	-3.965	-7.496%	70.489	0.549	0.786%	112.987	-0.073	-0.065%
saturate	1	61.63	-2.84	-4.405%	47.989	-4.911	-9.284%	69.126	-0.814	-1.164%	110.143	-2.917	-2.580%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	61.76	-2.71	-4.204%	47.869	-5.031	-9.510%	69.011	-0.929	-1.328%	104.634	-8.426	-7.453%
gaussian_noise	2	62.7	-1.77	-2.745%	48.41	-4.49	-8.488%	69.844	-0.096	-0.138%	108.907	-4.153	-3.674%
shot_noise	2	62.72	-1.75	-2.714%	48.338	-4.562	-8.623%	69.499	-0.441	-0.630%	108.111	-4.949	-4.377%
speckle_noise	2	63.13	-1.34	-2.078%	48.378	-4.522	-8.548%	69.585	-0.355	-0.507%	109.028	-4.032	-3.567%
zoom_blur	2	55.04	-9.43	-14.627%	43.33	-9.57	-18.091%	61.992	-7.948	-11.364%	75.32	-37.74	-33.381%
defocus_blur	2	62.91	-1.56	-2.420%	48.577	-4.323	-8.172%	69.686	-0.254	-0.364%	108.118	-4.942	-4.371%
motion_blur	2	62.52	-1.95	-3.025%	48.092	-4.808	-9.909%	69.528	-0.412	-0.589%	106.139	-6.921	-6.121%
glass_blur	2	62.21	-2.26	-3.506%	48.187	-4.713	-8.909%	68.753	-1.187	-1.698%	105.509	-7.551	-6.679%
gaussian_blur	2	63.1	-1.37	-2.125%	48.648	-4.252	-8.037%	69.973	0.033	0.047%	108.869	-4.191	-3.707%
jpeg_compression	2	63.78	-0.69	-1.070%	48.513	-4.387	-8.292%	70.518	0.578	0.827%	111.731	-1.329	-1.175%
contrast	2	62.46	-2.01	-3.118%	48.243	-4.657	-8.803%	69.47	-0.47	-0.671%	108.788	-4.272	-3.778%
elastic_transform	2	60.91	-3.56	-5.522%	47.44	-5.46	-10.321%	66.758	-3.182	-4.550%	97.209	-15.851	-14.020%
pixelate	2	60.54	-3.93	-6.096%	46.923	-5.977	-11.298%	66.887	-3.053	-4.366%	99.414	-13.646	-12.069%
snow	2	57.03	-7.44	-11.540%	44.387	-8.513	-16.093%	67.131	-2.809	-4.017%	87.136	-25.924	-22.929%
frost	2	57.88	-6.59	-10.222%	45.556	-7.344	-13.883%	67.475	-2.465	-3.524%	90.786	-22.274	-19.701%
fog	2	61.88	-2.59	-4.017%	48.084	-4.816	-9.104%	66.169	-3.771	-5.392%	109.011	-4.049	-3.582%
brightness	2	63.68	-0.79	-1.225%	48.807	-4.093	-7.736%	70.059	0.119	0.170%	111.73	-1.33	-1.177%
spatter	2	60.59	-3.88	-6.018%	47.392	-5.508	-10.412%	69.312	-0.628	-0.897%	103.723	-9.337	-8.259%
saturate	2	58.7	-5.77	-8.950%	47.098	-5.802	-10.968%	67.289	-2.651	-3.791%	105.315	-7.745	-6.851%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	60.71	-3.76	-5.832%	47.353	-5.547	-10.487%	68.48	-1.46	-2.088%	102.629	-10.431	-9.226%
gaussian_noise	3	60.94	-3.53	-5.475%	47.694	-5.206	-9.840%	68.882	-1.058	-1.513%	103.945	-9.115	-8.062%
shot_noise	3	60.91	-3.56	-5.522%	47.957	-4.943	-9.345%	68.566	-1.374	-1.964%	104.135	-8.925	-7.894%
speckle_noise	3	61.16	-3.31	-5.134%	47.965	-4.935	-9.329%	68.394	-1.546	-2.211%	104.032	-9.028	-7.985%
zoom_blur	3	52.61	-11.86	-18.396%	42.05	-10.85	-20.511%	59.294	-10.646	-15.222%	61.902	-51.158	-45.249%
defocus_blur	3	60.95	-3.52	-5.460%	47.122	-5.778	-10.923%	69.068	-0.872	-1.246%	102.474	-10.586	-9.363%
motion_blur	3	60.58	-3.89	-6.034%	47.201	-5.699	-10.772%	68.48	-1.46	-2.088%	99.581	-13.479	-11.922%
glass_blur	3	57.24	-7.23	-11.215%	44.236	-8.664	-16.378%	67.647	-2.293	-3.278%	86.811	-26.249	-23.217%
gaussian_blur	3	61.63	-2.84	-4.405%	47.822	-5.078	-9.600%	69.47	-0.47	-0.671%	105.023	-8.037	-7.108%
jpeg_compression	3	63.28	-1.19	-1.846%	48.601	-4.299	-8.127%	70.245	0.305	0.437%	110.761	-2.299	-2.034%
contrast	3	61.11	-3.36	-5.212%	47.209	-5.691	-10.757%	68.308	-1.632	-2.334%	104.222	-8.838	-7.817%
elastic_transform	3	62.47	-2.0	-3.102%	47.806	-5.094	-9.630%	69.628	-0.312	-0.446%	105.382	-7.678	-6.791%
pixelate	3	57.98	-6.49	-10.067%	45.277	-7.623	-14.409%	65.853	-4.087	-5.843%	89.552	-23.508	-20.793%
snow	3	55.24	-9.23	-14.317%	43.568	-9.332	-17.641%	65.767	-4.173	-5.966%	79.518	-33.542	-29.668%
frost	3	55.67	-8.8	-13.650%	44.021	-8.879	-16.784%	66.226	-3.714	-5.310%	82.75	-30.31	-26.809%
fog	3	60.67	-3.8	-5.894%	47.655	-5.245	-9.916%	68.638	-1.302	-1.862%	105.889	-7.171	-6.343%
brightness	3	62.85	-1.62	-2.513%	48.148	-4.752	-8.984%	69.571	-0.369	-0.528%	110.337	-2.723	-2.409%
spatter	3	59.42	-5.05	-7.833%	46.788	-6.112	-11.554%	68.595	-1.345	-1.923%	95.991	-17.069	-15.097%
saturate	3	63.54	-0.93	-1.443%	48.315	-4.585	-8.668%	70.576	0.636	0.909%	111.529	-1.531	-1.354%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	58.47	-6.0	-9.307%	46.398	-6.502	-12.290%	67.547	-2.393	-3.421%	94.706	-18.354	-16.234%
gaussian_noise	4	58.56	-5.91	-9.167%	46.836	-6.064	-11.464%	67.36	-2.58	-3.688%	95.277	-17.783	-15.729%
shot_noise	4	58.29	-6.18	-9.586%	46.2	-6.7	-12.666%	66.657	-3.283	-4.694%	93.333	-19.727	-17.448%
speckle_noise	4	59.92	-4.55	-7.058%	46.939	-5.961	-11.268%	67.418	-2.522	-3.606%	99.83	-13.23	-11.702%
zoom_blur	4	50.66	-13.81	-21.421%	40.189	-12.711	-24.028%	56.897	-13.043	-18.649%	52.847	-60.213	-53.258%
defocus_blur	4	59.47	-5.0	-7.756%	46.375	-6.525	-12.335%	67.891	-2.049	-2.929%	94.513	-18.547	-16.404%
motion_blur	4	58.07	-6.4	-9.927%	45.858	-7.042	-13.312%	67.03	-2.91	-4.160%	87.978	-25.082	-22.185%
glass_blur	4	55.51	-8.96	-13.898%	43.043	-9.857	-18.632%	66.241	-3.699	-5.289%	79.572	-33.488	-29.619%
gaussian_blur	4	59.98	-4.49	-6.964%	46.526	-6.374	-12.050%	68.279	-1.661	-2.375%	98.277	-14.783	-13.075%
jpeg_compression	4	62.43	-2.04	-3.164%	47.607	-5.293	-10.006%	69.686	-0.254	-0.364%	109.345	-5.715	-5.054%
contrast	4	57.42	-7.05	-10.935%	45.134	-7.766	-14.680%	65.25	-4.69	-6.705%	91.25	-21.81	-19.290%
elastic_transform	4	60.54	-3.93	-6.096%	46.605	-6.295	-11.899%	69.169	-0.771	-1.102%	99.043	-14.017	-12.398%
pixelate	4	54.08	-10.39	-16.116%	43.123	-9.777	-18.482%	61.605	-8.335	-11.918%	73.492	-39.568	-34.997%
snow	4	51.91	-12.56	-19.482%	41.437	-11.463	-21.668%	63.169	-6.771	-9.681%	64.718	-48.342	-42.758%
frost	4	54.35	-10.12	-15.697%	43.187	-9.713	-18.362%	66.313	-3.627	-5.186%	78.315	-34.745	-30.732%
fog	4	59.13	-5.34	-8.283%	46.327	-6.573	-12.425%	67.963	-1.977	-2.826%	100.583	-12.477	-11.036%
brightness	4	62.02	-2.45	-3.800%	47.678	-5.222	-9.871%	68.724	-1.216	-1.739%	107.612	-5.448	-4.819%
spatter	4	56.94	-7.53	-11.680%	44.745	-8.155	-15.416%	66.341	-3.599	-5.145%	86.484	-26.576	-23.506%
saturate	4	60.69	-3.78	-5.863%	46.868	-6.032	-11.404%	68.71	-1.23	-1.759%	105.87	-7.19	-6.360%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	54.78	-9.69	-15.030%	44.371	-8.529	-16.123%	65.25	-4.69	-6.705%	81.779	-31.281	-27.668%
gaussian_noise	5	54.69	-9.78	-15.170%	44.403	-8.497	-16.063%	65.279	-4.661	-6.664%	80.075	-32.985	-29.175%
shot_noise	5	55.68	-8.79	-13.634%	44.864	-8.036	-15.191%	64.748	-5.192	-7.423%	83.994	-29.066	-25.709%
speckle_noise	5	58.11	-6.36	-9.865%	46.088	-6.812	-12.						

Table 16: Performance and decrease ratio of Single LoRA on CLIP-BART against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	63.06	-2.28	-3.489%	48.036	-5.154	-9.689%	72.614	-0.966	-1.313%	108.958	-5.585	-4.876%
gaussian_noise	1	63.9	-1.44	-2.204%	48.179	-5.011	-9.420%	72.987	-0.593	-0.806%	111.859	-2.684	-2.343%
shot_noise	1	63.9	-1.44	-2.204%	48.712	-4.478	-8.419%	72.93	-0.65	-0.884%	111.362	-4.877	-4.377%
speckle_noise	1	63.97	-1.37	-2.097%	48.752	-4.438	-8.344%	72.671	-0.909	-1.235%	111.538	-3.005	-2.623%
zoom_blur	1	58.19	-7.15	-10.943%	45.429	-7.761	-14.592%	58.677	-14.903	-20.255%	86.603	-27.94	-24.393%
defocus_blur	1	64.07	-1.27	-1.944%	48.879	-4.311	-8.105%	73.016	-0.564	-0.767%	111.315	-3.228	-2.819%
motion_blur	1	64.08	-1.26	-1.928%	48.283	-4.907	-9.226%	73.403	-0.177	-0.240%	109.757	-4.786	-4.178%
glass_blur	1	64.07	-1.27	-1.944%	48.736	-4.454	-8.374%	73.371	-0.263	-0.357%	110.711	-3.832	-3.345%
gaussian_blur	1	64.78	-0.56	-0.857%	49.173	-4.017	-7.552%	73.791	0.211	0.286%	113.37	-1.173	-1.024%
jpeg_compression	1	64.52	-0.82	-1.255%	49.086	-4.104	-7.716%	72.872	-0.708	-0.962%	112.734	-1.809	-1.579%
contrast	1	63.72	-1.62	-2.479%	48.696	-4.494	-8.449%	73.001	-0.579	-0.787%	111.418	-3.125	-2.729%
elastic_transform	1	64.49	-0.85	-1.301%	49.181	-4.009	-7.537%	72.442	-1.138	-1.547%	111.973	-2.57	-2.244%
pixelate	1	61.14	-4.2	-6.428%	47.265	-5.925	-11.139%	71.48	-2.1	-2.854%	102.811	-11.732	-10.242%
snow	1	60.18	-5.16	-7.897%	46.701	-6.489	-12.200%	71.236	-2.344	-3.186%	99.386	-15.157	-13.233%
frost	1	61.78	-3.56	-5.448%	47.392	-5.798	-10.900%	71.379	-2.201	-2.991%	102.864	-11.679	-10.196%
fog	1	63.1	-2.24	-3.428%	48.402	-4.788	-9.902%	72.398	-1.182	-1.606%	110.773	-3.77	-3.291%
brightness	1	64.85	-0.49	-0.750%	49.237	-3.953	-7.432%	73.504	-0.076	-0.104%	113.739	-0.804	-0.702%
spatter	1	64.45	-0.89	-1.362%	49.284	-3.906	-7.343%	73.432	-0.148	-0.201%	112.657	-1.886	-1.647%
saturate	1	62.13	-3.21	-4.913%	47.909	-5.281	-9.928%	71.609	-1.971	-2.679%	110.161	-4.382	-3.826%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	62.1	-3.24	-4.959%	47.957	-5.233	-9.839%	72.025	-1.555	-2.113%	105.736	-8.807	-7.689%
gaussian_noise	2	63.05	-2.29	-3.505%	47.758	-5.432	-10.212%	72.169	-1.411	-1.918%	109.572	-4.971	-4.340%
shot_noise	2	62.87	-2.47	-3.780%	47.845	-5.345	-10.048%	72.47	-1.11	-1.508%	108.551	-5.992	-5.231%
speckle_noise	2	63.46	-1.88	-2.877%	48.307	-4.883	-9.181%	72.298	-1.282	-1.742%	109.917	-4.626	-4.039%
zoom_blur	2	55.27	-10.07	-15.412%	44.196	-8.994	-16.909%	63.212	-10.368	-14.090%	73.46	-41.083	-35.867%
defocus_blur	2	63.3	-2.04	-3.122%	48.728	-4.462	-8.389%	72.226	-1.354	-1.840%	109.109	-5.434	-4.744%
motion_blur	2	62.82	-2.52	-3.857%	48.012	-5.178	-9.734%	72.8	-0.78	-1.060%	106.62	-7.923	-6.917%
glass_blur	2	62.8	-2.54	-3.887%	48.124	-5.066	-9.525%	72.255	-1.325	-1.801%	106.694	-7.849	-6.853%
gaussian_blur	2	63.67	-1.67	-2.556%	48.696	-4.494	-8.449%	73.001	-0.579	-0.787%	109.134	-5.409	-4.722%
jpeg_compression	2	64.41	-0.93	-1.423%	48.315	-4.875	-9.166%	73.03	-0.55	-0.747%	112.252	-2.291	-2.000%
contrast	2	62.82	-2.52	-3.857%	48.171	-5.019	-9.435%	72.269	-1.311	-1.781%	109.635	-4.908	-4.285%
elastic_transform	2	61.37	-3.97	-6.076%	46.748	-6.442	-12.111%	69.513	-4.067	-5.527%	96.654	-17.889	-15.618%
pixelate	2	60.63	-4.71	-7.208%	47.194	-5.996	-11.274%	68.624	-4.956	-6.736%	99.434	-15.109	-13.191%
snow	2	57.21	-8.13	-12.443%	44.737	-8.453	-15.892%	68.667	-4.913	-6.678%	88.402	-22.141	-22.822%
frost	2	58.36	-6.98	-10.683%	45.691	-7.499	-14.099%	69.513	-4.067	-5.527%	91.338	-23.205	-20.259%
fog	2	62.28	-3.06	-4.683%	48.37	-4.82	-9.062%	68.207	-5.373	-7.302%	108.536	-6.03	-5.264%
brightness	2	64.28	-1.06	-1.622%	49.197	-3.993	-7.507%	72.815	-0.765	-1.040%	113.05	-1.493	-1.303%
spatter	2	61.17	-4.17	-6.382%	47.671	-5.519	-10.377%	71.552	-2.028	-2.757%	103.588	-10.955	-9.564%
saturate	2	59.18	-6.16	-9.428%	47.337	-5.853	-11.005%	69.858	-3.722	-5.059%	105.82	-8.723	-7.615%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	61.21	-4.13	-6.321%	47.384	-5.806	-10.915%	70.934	-2.646	-3.596%	103.522	-11.021	-9.621%
gaussian_noise	3	61.36	-3.98	-6.091%	47.376	-5.814	-10.930%	71.422	-2.158	-2.932%	103.362	-11.181	-9.762%
shot_noise	3	61.22	-4.12	-6.305%	47.71	-5.48	-10.302%	70.863	-2.717	-3.693%	103.926	-10.617	-9.269%
speckle_noise	3	61.7	-3.64	-5.571%	47.615	-5.575	-10.482%	70.906	-2.674	-3.635%	104.399	-10.144	-8.856%
zoom_blur	3	52.63	-12.71	-19.452%	41.827	-11.363	-21.363%	60.729	-12.851	-17.465%	60.226	-54.317	-47.421%
defocus_blur	3	61.45	-3.89	-5.953%	47.36	-5.83	-10.960%	70.604	-2.976	-4.044%	102.944	-11.599	-10.126%
motion_blur	3	60.76	-4.58	-7.009%	47.297	-5.893	-11.079%	71.379	-2.201	-2.991%	99.824	-14.579	-12.850%
glass_blur	3	58.01	-7.33	-11.218%	44.959	-8.231	-15.474%	69.585	-3.995	-5.429%	87.805	-26.638	-23.256%
gaussian_blur	3	62.24	-3.1	-4.744%	48.004	-5.186	-9.749%	71.322	-2.258	-3.069%	104.888	-9.655	-8.429%
jpeg_compression	3	63.99	-1.35	-2.066%	48.45	-4.74	-8.912%	72.542	-1.038	-1.411%	111.219	-3.324	-2.902%
contrast	3	61.6	-3.74	-5.724%	47.591	-5.599	-10.526%	70.834	-2.746	-3.732%	105.57	-8.973	-7.834%
elastic_transform	3	62.97	-2.37	-3.627%	48.02	-5.17	-9.719%	72.757	-0.823	-1.118%	107.975	-6.568	-5.734%
pixelate	3	58.51	-6.83	-10.453%	45.238	-7.952	-14.951%	66.844	-6.736	-9.155%	90.065	-24.478	-21.370%
snow	3	55.74	-9.6	-14.692%	43.711	-9.479	-17.821%	66.844	-6.736	-9.155%	80.578	-33.965	-29.652%
frost	3	55.94	-9.4	-14.386%	44.22	-8.97	-16.864%	67.705	-5.875	-7.985%	82.324	-32.219	-28.128%
fog	3	61.13	-4.21	-6.443%	48.132	-5.058	-9.510%	71.552	-2.028	-2.757%	105.853	-8.69	-7.586%
brightness	3	63.51	-1.83	-2.801%	48.338	-4.852	-9.121%	72.528	-1.052	-1.430%	110.715	-3.828	-3.342%
spatter	3	59.7	-5.64	-8.632%	46.351	-6.839	-12.858%	70.877	-2.703	-3.674%	96.886	-17.657	-15.415%
saturate	3	64.25	-1.09	-1.668%	48.259	-4.931	-9.271%	72.815	-0.765	-1.040%	111.882	-2.661	-2.323%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	58.42	-6.92	-10.591%	46.327	-6.863	-12.903%	68.982	-4.598	-6.249%	93.878	-20.665	-18.041%
gaussian_noise	4	59.01	-6.33	-9.688%	46.661	-6.529	-12.275%	69.054	-4.526	-6.151%	96.203	-18.34	-16.661%
shot_noise	4	58.29	-7.05	-10.790%	46.311	-6.879	-12.933%	69.054	-4.526	-6.151%	94.592	-19.951	-17.418%
speckle_noise	4	59.93	-5.41	-8.280%	47.313	-5.877	-11.050%	70.044	-3.536	-4.805%	101.619	-12.924	-11.283%
zoom_blur	4	50.88	-14.46	-22.130%	40.38	-12.81	-24.083%	59.15	-14.43	-19.611%	50.257	-64.286	-56.124%
defocus_blur	4	59.47	-5.87	-8.984%	46.637	-6.553	-12.320%	69.829	-3.751	-5.098%	95.621	-18.922	-16.520%
motion_blur	4	58.3	-7.04	-10.774%	46.343	-6.847	-12.873%	68.624	-4.956	-6.736%	87.717	-26.826	-23.420%
glass_blur	4	56.24	-9.1	-13.927%	43.743	-9.447	-17.761%	68.824	-4.756	-6.463%	79.445	-35.098	-30.642%
gaussian_blur	4	60.26	-5.08	-7.775%	46.78	-6.41	-12.051%	70.576	-3.004	-4.083%	97.958	-16.585	-14.480%
jpeg_compression	4	62.55	-2.79	-4.270%	47.726	-5.464	-10.272%	71.738	-1.842	-2.503%	106.674	-7.869	-6.870%
contrast	4	57.65	-7.69	-11.769%	45.611	-7.579	-14.248%	67.805	-5.775	-7.848%	92.032	-22.511	-19.653%
elastic_transform	4	60.95	-4.39	-6.719%	46.828	-6.362	-11.961%	71.753	-1.827	-2.484%	99.181	-15.362	-13.412%
pixelate	4	54.42	-10.92	-16.713%	42.19	-10.29	-19.345%	63.585	-9.995	-13.583%	73.761	-40.782	-35.604%
snow	4	52.74	-12.6	-19.284%	42.37	-11.053	-20.780%	64.504	-9.076	-12.335%	65.683	-48.86	-42.657%
frost	4	55.16	-10.18	-15.580%	43.799	-9.391	-17.656%	67.59	-5.99	-8.141%	79.575	-34.786	-30.370%
fog	4	59.66	-5.68	-8.693%	46.732	-6.458	-12.141%	70.777	-2.803	-3.810%	101.097	-13.446	-11.739%
brightness	4	62.69	-2.65	-4.056%	48.06	-5.13	-9.644%	71.566	-2.014	-2.737%	108.235	-6.308	-5.507%
spatter	4	57.6	-7.74	-11.846%	44.864	-8.326	-15.653%	69.025	-4.555	-6.190%	87.767	-23.376	-23.376%
saturate	4	61.19	-4.15	-6.351%	47.154	-6.036	-11.348%	71.035	-2.545	-3.459%	106.855	-7.688	-6.712%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	54.72	-10.62	-16.253%	44.618	-8.572	-16.117%	66.801	-6.779	-9.214%	81.349	-33.194	-28.979%
gaussian_noise	5	54.93	-10.41	-15.932%	43.999	-9.2	-17.297%	66.844	-6.736	-9.155%	81.511	-33.032	-28.838%
shot_noise	5	55.59	-9.75	-14.922%	45.039	-8.151	-15.324%	66.628	-6.952	-9.448%	85.88	-28.663	-25.024%
speckle_noise	5	58.38	-6.96	-10.652%	46.								

Table 17: Performance and decrease ratio of Single Prompt on CLIP-BART against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	43.08	-0.92	-2.091%	37.033	-0.507	-1.351%	52.289	0.339	0.653%	98.322	-5.378	-5.186%
gaussian_noise	1	43.45	-0.55	-1.250%	37.112	-0.428	-1.139%	52.332	0.382	0.736%	100.992	-2.708	-2.611%
shot_noise	1	43.4	-0.6	-1.364%	37.391	-0.149	-0.398%	51.974	0.024	0.045%	100.786	-2.914	-2.810%
speckle_noise	1	43.48	-0.52	-1.182%	37.438	-0.102	-0.271%	52.49	0.54	1.040%	100.787	-2.919	-2.809%
zoom_blur	1	41.64	-2.36	-5.364%	35.546	-1.994	-5.311%	51.643	-0.307	-0.590%	78.501	-25.193	-24.300%
defocus_blur	1	43.56	-0.44	-1.000%	37.112	-0.428	-1.139%	52.103	0.153	0.294%	100.306	-3.394	-3.272%
motion_blur	1	43.55	-0.45	-1.023%	37.081	-0.459	-1.224%	52.088	0.138	0.266%	99.851	-3.849	-3.712%
glass_blur	1	43.69	-0.31	-0.705%	37.057	-0.483	-1.287%	51.816	-0.134	-0.259%	100.838	-2.862	-2.760%
gaussian_blur	1	43.89	-0.11	-0.250%	37.383	-0.157	-0.419%	51.615	-0.335	-0.645%	102.584	-1.116	-1.076%
jpeg_compression	1	43.82	-0.18	-0.409%	37.375	-0.165	-0.440%	52.404	0.454	0.874%	102.643	-1.057	-1.019%
contrast	1	43.46	-0.54	-1.227%	37.192	-0.348	-0.927%	51.299	-0.651	-1.253%	101.459	-2.241	-2.161%
elastic_transform	1	43.86	-0.14	-0.318%	37.049	-0.491	-1.308%	51.256	-0.694	-1.336%	100.643	-3.057	-2.948%
pixelate	1	42.6	-1.4	-3.182%	36.19	-1.35	-3.596%	51.931	-0.019	-0.037%	91.587	-12.113	-11.681%
snow	1	41.66	-2.34	-5.318%	35.697	-1.843	-4.909%	50.639	-1.311	-2.524%	89.327	-14.373	-13.860%
frost	1	42.4	-1.6	-3.636%	36.174	-1.366	-3.638%	52.031	0.081	0.156%	92.949	-10.751	-10.368%
fog	1	43.2	-0.8	-1.818%	37.24	-0.3	-0.800%	51.787	-0.163	-0.314%	99.78	-3.92	-3.780%
brightness	1	43.95	-0.05	-0.114%	37.502	-0.038	-0.101%	51.773	-0.177	-0.341%	102.852	-0.848	-0.817%
spatter	1	43.73	-0.27	-0.614%	37.542	0.002	0.005%	51.787	-0.163	-0.314%	102.319	-1.381	-1.332%
saturate	1	42.82	-1.18	-2.682%	37.605	0.065	0.174%	51.514	-0.436	-0.839%	100.085	-3.615	-3.486%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	42.77	-1.23	-2.795%	36.723	-0.817	-2.177%	52.275	0.325	0.626%	95.272	-8.428	-8.127%
gaussian_noise	2	43.29	-0.71	-1.614%	37.065	-0.475	-1.266%	52.131	0.181	0.349%	98.721	-4.979	-4.802%
shot_noise	2	43.1	-0.9	-2.045%	36.858	-0.682	-1.817%	52.318	0.368	0.709%	98.176	-5.524	-5.326%
speckle_noise	2	43.53	-0.47	-1.068%	37.081	-0.459	-1.224%	52.131	0.181	0.349%	99.913	-3.787	-3.652%
zoom_blur	2	40.21	-3.79	-8.614%	34.417	-3.123	-8.318%	51.844	-0.106	-0.203%	67.813	-35.887	-34.607%
defocus_blur	2	43.38	-0.62	-1.409%	36.834	-0.706	-1.880%	52.49	0.54	1.040%	97.478	-6.222	-6.000%
motion_blur	2	43.15	-0.85	-1.932%	36.945	-0.595	-1.584%	52.017	0.067	0.128%	96.595	-7.105	-6.851%
glass_blur	2	43.14	-0.86	-1.955%	36.683	-0.857	-2.283%	51.773	-0.177	-0.341%	96.533	-7.167	-6.911%
gaussian_blur	2	43.5	-0.5	-1.136%	36.985	-0.555	-1.478%	52.246	0.296	0.570%	98.647	-5.053	-4.872%
jpeg_compression	2	43.73	-0.27	-0.614%	37.446	-0.094	-0.250%	52.175	0.225	0.432%	101.048	-2.652	-2.558%
contrast	2	43.21	-0.79	-1.795%	36.786	-0.754	-2.007%	51.816	-0.134	-0.259%	98.812	-4.888	-4.713%
elastic_transform	2	42.63	-1.37	-3.114%	35.999	-1.541	-4.104%	51.069	-0.881	-1.695%	87.721	-15.979	-15.408%
pixelate	2	42.26	-1.74	-3.955%	36.166	-1.374	-3.659%	51.586	-0.364	-0.701%	88.7	-15.0	-14.465%
snow	2	40.73	-3.27	-7.432%	34.751	-2.789	-7.429%	50.969	-0.981	-1.889%	78.355	-25.345	-24.441%
frost	2	41.3	-2.7	-6.136%	35.689	-1.851	-4.930%	52.131	0.181	0.349%	81.882	-21.818	-21.039%
fog	2	42.97	-1.03	-2.341%	37.017	-0.523	-1.393%	51.443	-0.507	-0.977%	98.666	-5.034	-4.855%
brightness	2	43.71	-0.29	-0.659%	37.233	-0.308	-0.821%	51.758	-0.192	-0.369%	102.805	-0.895	-0.863%
spatter	2	42.4	-1.6	-3.636%	36.333	-1.207	-3.214%	51.342	-0.608	-1.170%	93.188	-10.512	-10.137%
saturate	2	41.84	-2.16	-4.909%	37.335	-0.205	-0.546%	51.615	-0.335	-0.645%	97.293	-6.407	-6.178%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	42.46	-1.54	-3.500%	36.667	-0.873	-2.325%	52.218	0.268	0.515%	92.925	-10.775	-10.391%
gaussian_noise	3	42.71	-1.29	-2.932%	36.437	-1.103	-2.939%	52.06	0.11	0.211%	93.189	-10.511	-10.136%
shot_noise	3	42.55	-1.45	-3.295%	36.492	-1.048	-2.791%	52.074	0.124	0.239%	93.719	-9.981	-9.625%
speckle_noise	3	42.72	-1.28	-2.909%	37.343	-0.197	-0.525%	51.931	0.019	-0.037%	94.595	-9.105	-8.780%
zoom_blur	3	39.03	-4.97	-11.295%	33.71	-3.83	-10.203%	51.787	-0.163	-0.314%	56.77	-46.93	-45.256%
defocus_blur	3	42.76	-1.24	-2.818%	36.198	-1.342	-3.575%	52.203	0.253	0.487%	91.529	-12.171	-11.737%
motion_blur	3	42.64	-1.36	-3.091%	36.58	-0.96	-2.558%	51.629	-0.321	-0.618%	91.016	-12.684	-12.231%
glass_blur	3	41.27	-2.73	-6.205%	35.133	-2.407	-6.412%	51.543	-0.407	-0.783%	78.493	-25.207	-24.308%
gaussian_blur	3	42.89	-1.11	-2.523%	36.453	-1.087	-2.897%	52.175	0.225	0.432%	93.08	-10.62	-10.241%
jpeg_compression	3	43.57	-0.43	-0.977%	37.526	-0.014	-0.038%	52.117	0.167	0.322%	100.871	-2.829	-2.728%
contrast	3	42.55	-1.45	-3.295%	36.301	-1.239	-3.299%	51.256	-0.694	-1.336%	94.962	-8.738	-8.426%
elastic_transform	3	43.27	-0.73	-1.659%	36.604	-0.936	-2.494%	52.16	0.21	0.405%	97.619	-6.081	-5.864%
pixelate	3	41.63	-2.37	-5.386%	35.149	-2.391	-6.370%	50.409	-1.541	-2.966%	79.369	-24.331	-23.463%
snow	3	39.84	-4.16	-9.455%	34.536	-3.004	-8.001%	50.926	-1.024	-1.972%	70.721	-32.979	-31.802%
frost	3	40.14	-3.86	-8.773%	34.775	-2.765	-7.365%	51.428	-0.522	-1.005%	74.116	-29.584	-28.529%
fog	3	42.5	-1.5	-3.409%	36.619	-0.921	-2.452%	51.299	-0.651	-1.253%	95.292	-8.408	-8.108%
brightness	3	43.24	-0.76	-1.727%	36.826	-0.714	-1.901%	51.787	-0.163	-0.314%	100.519	-3.181	-3.067%
spatter	3	41.72	-2.28	-5.182%	35.817	-1.723	-4.591%	51.629	-0.321	-0.618%	87.11	-16.59	-15.998%
saturate	3	43.73	-0.27	-0.614%	37.502	-0.038	-0.101%	51.931	-0.019	-0.037%	102.193	-1.507	-1.453%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	41.7	-2.3	-5.227%	35.832	-1.708	-4.549%	51.313	-0.637	-1.226%	85.122	-18.578	-17.915%
gaussian_noise	4	41.95	-2.05	-4.659%	36.262	-1.278	-3.405%	51.155	-0.795	-1.529%	85.157	-18.543	-17.881%
shot_noise	4	41.82	-2.18	-4.955%	36.286	-1.254	-3.342%	51.385	-0.565	-1.087%	83.743	-19.957	-19.245%
speckle_noise	4	42.23	-1.77	-4.023%	36.874	-0.666	-1.774%	51.486	-0.464	-0.894%	90.264	-13.346	-12.957%
zoom_blur	4	38.31	-5.69	-12.932%	32.97	-4.57	-12.173%	51.773	-0.177	-0.341%	48.834	-54.866	-52.908%
defocus_blur	4	42.18	-1.82	-4.136%	35.817	-1.723	-4.591%	52.146	0.196	0.377%	85.495	-18.205	-17.555%
motion_blur	4	41.64	-2.36	-5.364%	35.3	-2.24	-5.968%	51.816	-0.134	-0.259%	79.89	-23.81	-22.961%
glass_blur	4	40.7	-3.3	-7.500%	34.449	-3.091	-8.234%	51.012	-0.938	-1.806%	69.33	-34.37	-33.144%
gaussian_blur	4	42.18	-1.82	-4.136%	35.999	-1.541	-4.104%	52.505	0.555	1.068%	87.297	-16.403	-15.818%
jpeg_compression	4	42.99	-1.01	-2.295%	36.763	-0.777	-2.071%	51.859	-0.091	-0.176%	97.132	-6.568	-6.334%
contrast	4	41.05	-2.95	-6.705%	35.61	-1.93	-5.142%	49.691	-2.259	-4.348%	82.68	-21.02	-20.270%
elastic_transform	4	42.7	-1.3	-2.955%	35.673	-1.867	-4.972%	52.706	0.756	1.454%	89.234	-14.466	-13.949%
pixelate	4	40.2	-3.8	-8.636%	34.147	-3.393	-9.039%	50.165	-1.785	-3.436%	67.483	-39.217	-37.818%
snow	4	38.84	-5.16	-11.727%	33.686	-3.854	-10.267%	50.653	-1.297	-2.496%	54.262	-46.438	-44.781%
frost	4	39.96	-4.04	-9.182%	34.552	-2.988	-7.958%	52.677	0.727	1.399%	69.632	-34.068	-32.852%
fog	4	42.01	-1.99	-4.523%	35.92	-1.62	-4.316%	51.629	-0.321	-0.618%	90.375	-13.325	-12.849%
brightness	4	42.89	-1.11	-2.523%	36.699	-0.841	-2.240%	51.443	-0.507	-0.977%	98.275	-5.425	-5.232%
spatter	4	40.86	-3.14	-7.136%	35.721	-1.819	-4.845%	52.361	0.411	0.791%	78.18	-25.52	-24.610%
saturate	4	42.56	-1.44	-3.273%	36.635	-0.905	-2.410%	51.213	-0.737	-1.419%	97.633	-6.067	-5.851%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	40.35	-3.65	-8.295%	35.061	-2.479	-6.603%	50.754	-1.196	-2.303%	72.487	-31.213	-30.099%
gaussian_noise	5	40.16	-3.84	-8.727%	35.554	-1.986	-5.290%	50.725	-1.225	-2.358%	72.331	-31.369	-30.250%
shot_noise	5	40.52	-3.48	-7.909%	35.18	-2.36	-6.285%	50.452	-1.498	-2.883%	75.718	-27.982	-26.983%
speckle_noise	5	41.61	-2.39	-5.432%	36.365	-1.175	-3.130%	50.581	-1.369	-2.635%	84.932	-18.768	-18.098%
zoom_blur	5	37.63											

Table 18: Performance and decrease ratio of Full Finetuning on CLIP-T5 against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	64.29	-2.0	-3.017%	54.19	-2.63	-4.629%	72.413	-1.647	-2.224%	106.157	-5.343	-4.791%
gaussian_noise	1	65.01	-1.28	-1.931%	54.969	-1.851	-3.258%	73.159	-0.901	-1.216%	109.054	-2.446	-2.194%
shot_noise	1	65.07	-1.22	-1.840%	54.818	-2.002	-3.524%	73.188	-0.872	-1.178%	108.978	-2.522	-2.261%
speckle_noise	1	65.05	-1.24	-1.871%	54.556	-2.264	-3.985%	73.044	-1.016	-1.371%	109.044	-2.456	-2.202%
zoom_blur	1	59.3	-6.99	-10.545%	51.375	-5.445	-9.582%	59.035	-15.025	-20.287%	84.714	-26.786	-24.023%
defocus_blur	1	65.01	-1.28	-1.931%	54.858	-1.962	-3.454%	73.475	-0.585	-0.790%	108.776	-2.724	-2.443%
motion_blur	1	64.56	-1.73	-2.610%	54.961	-1.859	-3.272%	73.016	-1.044	-1.410%	107.017	-4.483	-4.021%
glass_blur	1	65.2	-1.09	-1.644%	54.937	-1.883	-3.314%	73.26	-0.8	-1.081%	108.969	-2.531	-2.270%
gaussian_blur	1	65.83	-0.46	-0.694%	55.541	-1.279	-2.250%	74.107	0.047	0.063%	111.538	0.038	0.035%
jpeg_compression	1	65.66	-0.63	-0.950%	55.406	-1.414	-2.488%	73.776	-0.284	-0.383%	111.035	-0.465	-0.417%
contrast	1	65.1	-1.19	-1.795%	55.629	-1.191	-2.096%	73.288	-0.772	-1.042%	108.6	-2.9	-2.600%
elastic_transform	1	65.51	-0.78	-1.177%	55.192	-1.628	-2.866%	73.489	-0.571	-0.771%	109.643	-2.037	-1.827%
pixelate	1	62.9	-3.39	-5.114%	54.349	-2.471	-4.349%	71.609	-2.451	-3.309%	100.583	-10.917	-9.791%
snow	1	61.47	-4.82	-7.721%	51.693	-5.127	-9.022%	72.068	-1.992	-2.689%	98.17	-13.33	-11.955%
frost	1	62.75	-3.54	-5.340%	53.069	-3.751	-6.602%	72.269	-1.791	-2.418%	101.346	-10.154	-9.107%
fog	1	64.43	-1.86	-2.806%	55.152	-1.668	-2.936%	73.245	-0.815	-1.100%	108.376	-3.124	-2.802%
brightness	1	65.96	-0.33	-0.498%	55.184	-1.636	-2.880%	74.293	0.233	0.315%	111.749	0.249	0.223%
spatter	1	65.54	-0.75	-1.131%	55.541	-1.279	-2.250%	74.566	0.506	0.683%	110.042	-1.458	-1.308%
saturate	1	63.3	-2.99	-4.510%	54.412	-2.408	-4.237%	72.7	-1.36	-1.837%	108.141	-3.359	-3.012%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	63.53	-2.76	-4.164%	53.602	-3.218	-5.664%	72.499	-1.561	-2.108%	103.546	-7.954	-7.133%
gaussian_noise	2	64.59	-1.7	-2.564%	54.055	-2.765	-4.867%	72.786	-1.274	-1.720%	107.698	-3.802	-3.410%
shot_noise	2	64.2	-2.09	-3.153%	53.665	-3.155	-5.522%	72.169	-1.891	-2.554%	106.268	-5.232	-4.692%
speckle_noise	2	64.79	-1.5	-2.263%	54.468	-2.352	-4.139%	72.872	-1.188	-1.604%	107.593	-3.907	-3.504%
zoom_blur	2	56.2	-10.09	-15.221%	49.054	-7.766	-13.668%	63.944	-10.116	-13.659%	70.213	-41.287	-37.029%
defocus_blur	2	64.44	-1.85	-2.791%	54.556	-2.264	-3.985%	72.757	-1.303	-1.759%	106.958	-4.542	-4.074%
motion_blur	2	63.79	-2.5	-3.771%	54.667	-2.153	-3.789%	72.312	-1.748	-2.360%	104.51	-6.99	-6.269%
glass_blur	2	64.06	-2.23	-3.364%	54.238	-2.582	-4.545%	71.997	-2.063	-2.786%	105.223	-6.277	-5.630%
gaussian_blur	2	64.69	-1.6	-2.414%	54.754	-2.066	-3.635%	73.059	-1.001	-1.352%	108.336	-3.164	-2.837%
jpeg_compression	2	65.47	-0.82	-1.237%	55.144	-1.676	-2.950%	73.618	-0.442	-0.596%	109.517	-1.983	-1.778%
contrast	2	64.42	-1.87	-2.821%	54.969	-1.851	-3.258%	72.772	-1.288	-1.740%	106.565	-4.935	-4.426%
elastic_transform	2	62.35	-3.94	-5.944%	53.037	-3.783	-6.658%	69.757	-4.303	-5.810%	96.449	-15.051	-13.498%
pixelate	2	61.99	-4.3	-6.487%	53.586	-3.234	-5.692%	69.068	-4.992	-6.740%	98.122	-13.378	-11.998%
snow	2	58.41	-7.88	-11.887%	49.881	-6.939	-12.213%	69.284	-4.776	-6.449%	86.106	-25.394	-22.775%
frost	2	59.26	-7.03	-10.605%	50.811	-6.009	-10.576%	69.628	-4.432	-5.984%	88.499	-23.001	-20.628%
fog	2	63.61	-2.68	-4.043%	54.762	-2.058	-3.621%	69.155	-4.905	-6.624%	106.338	-5.162	-4.629%
brightness	2	65.01	-1.28	-1.931%	55.033	-1.787	-3.146%	73.475	-0.585	-0.790%	110.275	-1.225	-1.099%
spatter	2	62.33	-3.96	-5.974%	53.021	-3.799	-6.686%	72.513	-1.547	-2.088%	100.702	-10.798	-9.684%
saturate	2	60.63	-5.66	-8.538%	53.435	-3.385	-5.958%	69.987	-4.073	-5.499%	102.159	-9.341	-8.377%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	62.53	-3.76	-5.672%	53.236	-3.584	-6.308%	71.623	-2.437	-3.290%	101.179	-10.321	-9.257%
gaussian_noise	3	63.01	-3.28	-4.948%	52.965	-3.855	-6.784%	71.666	-2.394	-3.232%	101.83	-9.67	-8.673%
shot_noise	3	62.72	-3.57	-5.385%	53.379	-3.441	-6.056%	70.791	-3.269	-4.414%	101.888	-9.612	-8.621%
speckle_noise	3	62.82	-3.47	-5.235%	53.49	-3.33	-5.860%	71.422	-2.638	-3.561%	101.97	-9.53	-8.547%
zoom_blur	3	53.66	-12.63	-19.053%	47.567	-9.253	-16.284%	61.174	-12.886	-17.399%	56.507	-54.993	-49.321%
defocus_blur	3	62.72	-3.57	-5.385%	53.538	-3.282	-5.776%	70.848	-3.212	-4.337%	100.814	-10.686	-9.584%
motion_blur	3	62.1	-4.19	-6.321%	53.339	-3.481	-6.126%	70.705	-3.355	-4.530%	98.675	-12.825	-11.502%
glass_blur	3	59.02	-7.27	-10.967%	50.493	-6.327	-11.135%	68.939	-5.121	-6.914%	85.372	-26.128	-23.433%
gaussian_blur	3	63.15	-3.14	-4.737%	54.087	-2.733	-4.811%	71.753	-2.307	-3.116%	102.983	-8.517	-7.638%
jpeg_compression	3	64.98	-1.31	-1.976%	54.921	-1.899	-3.342%	73.662	-0.398	-0.538%	108.661	-2.839	-2.547%
contrast	3	62.82	-3.47	-5.235%	54.158	-2.662	-4.685%	71.509	-2.551	-3.445%	101.702	-9.798	-8.788%
elastic_transform	3	64.15	-2.14	-3.228%	53.808	-3.012	-5.301%	72.47	-1.59	-2.147%	104.869	-6.631	-5.947%
pixelate	3	59.64	-6.65	-10.032%	52.385	-4.435	-7.805%	67.906	-6.154	-8.310%	88.665	-22.835	-20.480%
snow	3	56.65	-9.64	-14.542%	48.831	-7.989	-14.060%	66.858	-7.202	-9.724%	78.893	-32.607	-29.244%
frost	3	56.82	-9.47	-14.286%	49.547	-7.273	-12.800%	67.447	-6.613	-8.930%	79.193	-32.307	-28.975%
fog	3	62.46	-3.83	-5.778%	54.206	-2.614	-4.601%	72.054	-2.006	-2.709%	103.031	-8.469	-7.596%
brightness	3	64.52	-1.77	-2.670%	54.961	-1.859	-3.272%	72.686	-1.374	-1.856%	108.419	-3.081	-2.763%
spatter	3	60.84	-5.45	-8.221%	52.369	-4.451	-7.833%	71.882	-2.178	-2.941%	95.642	-15.858	-14.222%
saturate	3	65.17	-1.12	-1.690%	54.953	-1.867	-3.286%	73.374	-0.686	-0.926%	110.019	-1.481	-1.328%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	60.13	-6.16	-9.293%	51.813	-5.007	-8.813%	69.198	-4.862	-6.565%	91.621	-19.879	-17.829%
gaussian_noise	4	60.37	-5.92	-8.930%	52.21	-4.61	-8.113%	69.887	-4.173	-5.635%	94.151	-17.349	-15.559%
shot_noise	4	59.82	-6.47	-9.760%	51.701	-5.119	-9.008%	68.451	-5.609	-7.573%	91.7	-19.8	-17.758%
speckle_noise	4	61.48	-4.81	-7.256%	53.109	-3.711	-6.532%	69.786	-4.274	-5.771%	97.774	-13.726	-12.311%
zoom_blur	4	51.58	-14.71	-22.190%	45.961	-10.859	-19.111%	59.409	-14.651	-19.783%	64.098	-65.402	-58.656%
defocus_blur	4	60.91	-5.38	-8.116%	52.759	-4.061	-7.148%	69.298	-4.762	-6.430%	93.946	-17.554	-15.744%
motion_blur	4	59.37	-6.92	-10.439%	51.59	-5.23	-9.204%	68.423	-5.637	-7.612%	87.289	-24.211	-21.713%
glass_blur	4	56.9	-9.39	-14.165%	49.73	-7.09	-12.479%	67.475	-6.585	-8.891%	78.169	-33.331	-29.893%
gaussian_blur	4	61.27	-5.02	-7.573%	52.822	-3.998	-7.036%	70.044	-4.016	-5.422%	96.796	-14.704	-13.188%
jpeg_compression	4	63.91	-2.38	-3.590%	54.19	-2.63	-4.629%	72.729	-1.331	-1.798%	104.728	-6.772	-6.073%
contrast	4	58.57	-7.72	-11.646%	51.598	-5.222	-9.190%	68.092	-5.968	-8.058%	89.528	-21.972	-19.706%
elastic_transform	4	61.91	-4.38	-6.607%	52.361	-4.459	-7.847%	71.25	-2.81	-3.794%	96.929	-14.571	-13.068%
pixelate	4	55.66	-10.63	-16.036%	49.873	-6.947	-12.227%	64.317	-9.743	-13.155%	74.119	-37.381	-33.525%
snow	4	53.52	-12.77	-19.264%	47.217	-9.603	-16.900%	63.715	-10.345	-13.969%	64.304	-47.196	-42.328%
frost	4	55.8	-10.49	-15.824%	49.165	-7.655	-13.472%	67.59	-6.47	-8.736%	76.626	-34.874	-31.277%
fog	4	60.8	-5.49	-8.282%	52.783	-4.037	-7.106%	71.781	-2.279	-3.077%	97.573	-13.927	-12.491%
brightness	4	63.48	-2.81	-4.239%	54.452	-2.368	-4.167%	71.939	-2.121	-2.864%	106.198	-5.302	-4.755%
spatter	4	58.61	-7.68	-11.585%	50.747	-6.073	-10.688%	68.839	-5.221	-7.050%	84.966	-26.534	-23.798%
saturate	4	62.25	-4.04	-6.094%	52.56	-4.26	-7.497%	71.681	-2.379	-3.213%	102.472	-9.028	-8.097%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	55.83	-10.46	-15.779%	50.08	-6.74	-11.863%	66.829	-7.231	-9.763%	79.113	-32.387	-29.047%
gaussian_noise	5	56.08	-10.21	-15.402%	49.849	-6.971	-12.269%	66.844	-7.216	-9.744%	79.032	-32.468	-29.119%
shot_noise	5	57.13	-9.16	-13.818%	50.405	-6.415	-11.289%	66.815	-7.245	-9.783%	82.265	-29.235	-26.220%
speckle_noise	5	59.83	-6.46	-9.745%	51.59	-5.23	-9.204%	67.963					

Table 19: Performance and decrease ratio of Hyperformer on CLIP-T5 against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	63.67	-1.51	-2.317%	52.878	-1.772	-3.242%	69.973	-0.587	-0.832%	105.964	-4.685	-4.234%
gaussian_noise	1	64.37	-0.81	-1.243%	52.83	-1.82	-3.300%	70.647	0.087	0.124%	108.276	-2.373	-2.145%
shot_noise	1	64.2	-0.98	-1.504%	53.323	-1.327	-2.428%	70.274	-0.286	-0.405%	109.259	-1.39	-1.257%
speckle_noise	1	64.18	-1.0	-1.534%	53.117	-1.533	-2.806%	70.102	-0.458	-0.649%	109.629	-1.02	-0.922%
zoom_blur	1	59.01	-6.17	-9.466%	50.564	-4.086	-7.476%	56.882	-13.678	-19.384%	85.215	-25.434	-22.986%
defocus_blur	1	64.12	-1.06	-1.626%	53.546	-1.104	-2.020%	70.992	0.432	0.612%	107.981	-2.668	-2.411%
motion_blur	1	63.9	-1.28	-1.964%	53.291	-1.359	-2.486%	70.26	-0.3	-0.425%	107.244	-3.405	-3.077%
glass_blur	1	64.35	-0.83	-1.273%	53.212	-1.438	-2.631%	70.705	0.145	0.205%	108.233	-2.416	-2.183%
gaussian_blur	1	64.95	-0.23	-0.353%	53.959	-0.691	-1.264%	71.135	0.575	0.815%	109.927	-0.722	-0.653%
jpeg_compression	1	64.57	-0.61	-0.936%	53.22	-1.43	-2.617%	71.021	0.461	0.653%	109.879	-0.77	-0.696%
contrast	1	63.72	-1.46	-2.240%	53.474	-1.176	-2.151%	69.93	-0.63	-0.893%	109.584	-1.065	-0.963%
elastic_transform	1	64.48	-0.7	-1.074%	53.554	-1.096	-2.006%	70.346	-0.214	-0.303%	109.275	-1.374	-1.242%
pixelate	1	62.07	-3.11	-4.771%	52.91	-1.74	-3.184%	69.011	-1.549	-2.195%	100.738	-9.911	-8.958%
snow	1	61.08	-4.1	-6.290%	50.962	-3.688	-6.748%	68.911	-1.649	-2.338%	98.052	-12.597	-11.385%
frost	1	62.19	-2.99	-4.587%	51.94	-2.71	-4.959%	69.427	-1.133	-1.605%	100.993	-9.656	-8.727%
fog	1	63.47	-1.71	-2.624%	53.665	-0.985	-1.802%	69.973	-0.587	-0.832%	108.614	-2.035	-1.839%
brightness	1	65.04	-0.14	-0.215%	53.49	-1.16	-2.122%	71.15	0.59	0.836%	110.949	0.3	0.271%
spatter	1	64.82	-0.36	-0.552%	53.768	-0.882	-1.613%	70.992	0.432	0.612%	110.218	-0.431	-0.389%
saturate	1	62.58	-2.6	-3.989%	52.663	-1.987	-3.635%	69.312	-1.248	-1.768%	107.263	-3.386	-3.060%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	62.92	-2.26	-3.467%	52.123	-2.527	-4.624%	69.6	-0.96	-1.361%	103.856	-6.793	-6.139%
gaussian_noise	2	63.58	-1.6	-2.455%	52.377	-2.273	-4.159%	69.958	-0.602	-0.853%	107.272	-3.377	-3.052%
shot_noise	2	63.5	-1.68	-2.577%	52.91	-1.74	-3.184%	69.556	-1.004	-1.422%	106.947	-3.702	-3.346%
speckle_noise	2	63.89	-1.29	-1.979%	52.934	-1.716	-3.141%	69.858	-0.702	-0.995%	108.21	-2.439	-2.205%
zoom_blur	2	56.0	-9.18	-14.084%	48.807	-5.843	-10.691%	61.519	-9.041	-12.814%	72.413	-38.236	-34.556%
defocus_blur	2	63.73	-1.45	-2.225%	53.125	-1.525	-2.791%	70.317	-0.243	-0.344%	106.855	-3.794	-3.429%
motion_blur	2	63.05	-2.13	-3.268%	52.862	-1.788	-3.271%	70.446	-0.114	-0.161%	104.409	-6.24	-5.639%
glass_blur	2	63.27	-1.91	-2.930%	52.457	-2.193	-4.013%	69.93	-0.63	-0.893%	104.476	-6.173	-5.579%
gaussian_blur	2	63.97	-1.21	-1.856%	53.117	-1.533	-2.806%	70.418	-0.142	-0.202%	107.399	-3.25	-2.937%
jpeg_compression	2	64.3	-0.88	-1.350%	52.981	-1.669	-3.053%	70.848	0.288	0.409%	109.921	-0.728	-0.658%
contrast	2	63.0	-2.18	-3.345%	53.14	-1.51	-2.762%	69.341	-1.219	-1.727%	107.914	-2.735	-2.472%
elastic_transform	2	61.76	-3.42	-5.247%	51.996	-2.654	-4.857%	66.614	-3.946	-5.929%	95.92	-14.729	-13.311%
pixelate	2	61.36	-3.82	-5.861%	52.353	-2.297	-4.203%	65.738	-4.822	-6.833%	98.244	-12.405	-11.211%
snow	2	58.33	-6.85	-10.509%	49.094	-5.556	-10.167%	66.37	-4.19	-5.938%	86.423	-24.226	-21.895%
frost	2	58.86	-6.32	-9.696%	49.674	-4.976	-9.105%	67.274	-3.286	-4.657%	89.41	-21.239	-19.195%
fog	2	62.72	-2.46	-3.774%	53.005	-1.645	-3.010%	66.973	-3.587	-5.084%	106.936	-3.713	-3.356%
brightness	2	64.53	-0.65	-0.997%	53.339	-1.311	-2.399%	70.346	-0.214	-0.303%	110.292	-0.357	-0.323%
spatter	2	62.05	-3.13	-4.802%	51.805	-2.845	-5.206%	69.14	-1.42	-2.012%	100.694	-9.955	-8.997%
saturate	2	60.17	-5.01	-7.686%	51.844	-2.806	-5.134%	66.93	-3.63	-5.145%	102.439	-8.21	-7.419%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	61.92	-3.26	-5.002%	52.115	-2.535	-4.639%	68.882	-1.678	-2.378%	101.262	-9.387	-8.484%
gaussian_noise	3	61.94	-3.24	-4.971%	52.011	-2.639	-4.828%	69.054	-1.506	-2.134%	102.599	-8.05	-7.275%
shot_noise	3	62.02	-3.16	-4.848%	52.043	-2.607	-4.770%	68.509	-2.051	-2.907%	102.533	-8.116	-7.335%
speckle_noise	3	62.41	-2.77	-4.250%	52.274	-2.376	-4.348%	68.322	-2.238	-3.172%	102.701	-7.948	-7.183%
zoom_blur	3	53.73	-11.45	-17.567%	46.748	-7.902	-14.459%	59.351	-11.209	-15.885%	59.185	-51.464	-46.511%
defocus_blur	3	62.0	-3.18	-4.879%	52.019	-2.631	-4.814%	69.097	-1.463	-2.073%	100.879	-9.77	-8.829%
motion_blur	3	61.81	-3.37	-5.170%	52.306	-2.344	-4.290%	69.212	-1.348	-1.910%	98.188	-12.461	-11.262%
glass_blur	3	58.58	-6.6	-10.126%	49.587	-5.063	-9.265%	66.801	-3.759	-5.328%	85.895	-24.754	-22.372%
gaussian_blur	3	62.6	-2.58	-3.958%	52.488	-2.162	-3.955%	69.183	-1.377	-1.951%	103.215	-7.434	-6.719%
jpeg_compression	3	64.12	-1.06	-1.626%	53.26	-1.39	-2.544%	70.418	-0.142	-0.202%	108.92	-1.729	-1.563%
contrast	3	61.76	-3.42	-5.247%	52.671	-1.979	-3.621%	68.681	-1.879	-2.663%	103.574	-7.075	-6.394%
elastic_transform	3	63.36	-1.82	-2.792%	52.735	-1.915	-3.504%	70.69	0.13	0.185%	104.436	-6.213	-5.615%
pixelate	3	59.16	-6.02	-9.236%	51.264	-3.386	-6.196%	64.877	-5.683	-8.054%	88.505	-22.144	-20.013%
snow	3	56.46	-8.72	-13.378%	48.06	-6.59	-12.058%	65.222	-5.338	-7.566%	78.153	-32.496	-29.369%
frost	3	56.49	-8.69	-13.332%	48.529	-6.121	-11.200%	65.035	-5.525	-7.830%	79.936	-30.713	-27.757%
fog	3	61.77	-3.41	-5.232%	52.552	-2.098	-3.839%	69.427	-1.133	-1.605%	102.982	-7.667	-6.929%
brightness	3	63.82	-1.36	-2.087%	53.069	-1.581	-2.893%	69.6	-0.96	-1.361%	108.212	-2.437	-2.203%
spatter	3	60.76	-4.42	-6.781%	51.208	-3.442	-6.297%	69.083	-1.477	-2.094%	94.666	-15.983	-14.445%
saturate	3	64.6	-0.58	-0.890%	53.252	-1.398	-2.559%	71.164	0.604	0.856%	110.3	-0.349	-0.316%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	59.55	-5.63	-8.638%	51.224	-3.426	-6.268%	67.403	-3.157	-4.474%	92.072	-18.577	-16.789%
gaussian_noise	4	59.85	-5.33	-8.177%	51.415	-3.235	-5.919%	67.533	-3.027	-4.200%	93.879	-16.77	-15.156%
shot_noise	4	59.33	-5.85	-8.975%	51.367	-3.283	-6.006%	66.643	-3.917	-5.522%	93.22	-17.429	-15.752%
speckle_noise	4	60.95	-4.23	-6.490%	51.813	-2.837	-5.192%	67.504	-3.056	-4.331%	98.685	-11.964	-10.812%
zoom_blur	4	51.84	-13.34	-20.466%	45.196	-9.134	-16.714%	57.385	-13.175	-18.672%	49.973	-60.676	-54.837%
defocus_blur	4	60.25	-4.93	-7.564%	51.513	-3.457	-6.327%	67.604	-2.956	-4.189%	93.014	-17.635	-15.938%
motion_blur	4	59.15	-6.03	-9.251%	51.336	-3.314	-6.065%	67.116	-3.444	-4.880%	87.102	-23.547	-21.281%
glass_blur	4	56.62	-8.56	-13.133%	48.434	-6.216	-11.375%	65.896	-4.664	-6.609%	79.016	-31.633	-28.589%
gaussian_blur	4	60.63	-4.55	-6.981%	51.487	-3.163	-5.788%	68.107	-2.453	-3.477%	96.555	-14.094	-12.738%
jpeg_compression	4	63.18	-2.0	-3.068%	52.322	-2.328	-4.261%	69.858	-0.702	-0.995%	105.264	-5.385	-4.866%
contrast	4	57.97	-7.21	-11.062%	50.413	-4.237	-7.752%	65.021	-5.539	-7.850%	91.237	-19.412	-17.543%
elastic_transform	4	61.35	-3.83	-5.876%	51.026	-3.624	-6.632%	69.614	-0.946	-1.341%	96.358	-14.291	-12.916%
pixelate	4	55.42	-9.76	-14.974%	49.03	-5.62	-10.284%	62.179	-8.381	-11.878%	73.902	-36.747	-33.211%
snow	4	53.26	-11.92	-18.288%	46.208	-8.442	-15.448%	62.495	-8.065	-11.431%	63.875	-46.774	-42.272%
frost	4	55.76	-9.42	-14.452%	48.362	-6.288	-11.506%	65.25	-5.31	-7.525%	76.488	-34.611	-30.873%
fog	4	60.5	-4.68	-7.180%	51.606	-3.044	-5.570%	68.824	-1.736	-2.460%	97.94	-12.709	-11.486%
brightness	4	63.16	-2.02	-3.099%	52.973	-1.677	-3.068%	68.738	-1.822	-2.582%	106.695	-3.954	-3.574%
spatter	4	58.4	-6.78	-10.402%	49.046	-5.604	-10.254%	66.901	-3.659	-5.186%	86.086	-24.563	-22.199%
saturate	4	61.91	-3.27	-5.017%	52.234	-2.416	-4.421%	69.528	-1.032	-1.463%	103.832	-6.817	-6.161%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	55.6	-9.58	-14.698%	49.539	-5.111	-9.352%	65.222	-5.338	-7.566%	79.968	-30.681	-27.728%
gaussian_noise	5	55.48	-9.7	-14.882%	49.292	-5.358	-9.803%	65.05	-5.51	-7.810%	79.361	-31.288	-28.277%
shot_noise	5	56.43	-8.75	-13.424%	49.491	-5.159	-9.440%	64.863	-5.697	-8.074%	83.399	-27.25	-24.627%
speckle_noise	5	59.19	-5.99	-9.190%	50.787	-3.863	-7.068%	65.997	-4.563	-6.467%	92.835	-17.814	-16.

Table 20: Performance and decrease ratio of Multiple Adapters on CLIP-T5 against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	64.5	-1.65	-2.494%	53.18	-2.48	-4.455%	51.801	-0.139	-0.267%	106.036	-6.113	-5.450%
gaussian_noise	1	65.19	-0.96	-1.451%	53.315	-2.345	-4.213%	51.529	-0.411	-0.792%	108.756	-3.393	-3.026%
shot_noise	1	65.05	-1.1	-1.663%	53.776	-1.884	-3.384%	51.414	-0.526	-1.013%	108.849	-3.3	-2.943%
speckle_noise	1	65.12	-1.03	-1.557%	53.458	-2.202	-3.955%	51.988	0.048	0.092%	109.065	-3.084	-2.750%
zoom_blur	1	59.62	-6.53	-9.872%	49.857	-5.803	-10.426%	49.792	-2.148	-4.136%	82.202	-29.947	-26.703%
defocus_blur	1	65.27	-0.88	-1.330%	53.514	-2.146	-3.855%	51.342	-0.598	-1.151%	108.326	-3.823	-3.409%
motion_blur	1	64.86	-1.29	-1.950%	53.22	-2.44	-4.384%	51.399	-0.541	-1.041%	107.751	-4.398	-3.922%
glass_blur	1	65.28	-0.87	-1.315%	53.816	-1.844	-3.313%	51.873	-0.067	-0.129%	108.701	-3.448	-3.074%
gaussian_blur	1	65.86	-0.29	-0.438%	54.055	-1.605	-2.884%	51.328	-0.612	-1.179%	110.904	-1.245	-1.111%
jpeg_compression	1	65.69	-0.46	-0.695%	53.729	-1.931	-3.470%	52.131	0.191	0.369%	109.975	-2.174	-1.938%
contrast	1	64.86	-1.29	-1.950%	53.657	-2.003	-3.598%	51.313	-0.627	-1.207%	109.128	-3.021	-2.694%
elastic_transform	1	65.38	-0.77	-1.164%	53.721	-1.939	-3.484%	52.175	0.235	0.452%	109.828	-2.321	-2.070%
pixelate	1	62.76	-3.39	-5.125%	52.663	-2.997	-5.384%	51.299	-0.641	-1.234%	99.602	-12.547	-11.187%
snow	1	61.59	-4.56	-6.893%	50.564	-5.096	-9.155%	51.457	-0.483	-0.930%	96.957	-15.192	-13.547%
frost	1	62.46	-3.69	-5.578%	51.781	-3.879	-6.969%	51.342	-0.598	-1.151%	100.831	-11.318	-10.092%
fog	1	64.35	-1.8	-2.721%	53.506	-2.154	-3.870%	51.012	-0.928	-1.787%	107.446	-4.703	-4.194%
brightness	1	65.85	-0.3	-0.454%	53.641	-2.019	-3.627%	52.203	0.263	0.507%	111.572	-0.577	-0.515%
spatter	1	65.64	-0.51	-0.771%	53.57	-2.09	-3.755%	52.347	0.407	0.783%	110.657	-1.492	-1.331%
saturate	1	63.49	-2.66	-4.021%	52.695	-2.965	-5.327%	51.701	-0.239	-0.460%	107.388	-4.761	-4.245%
impulse_noise	2	63.51	-2.64	-3.991%	52.759	-2.901	-5.212%	51.902	-0.038	-0.074%	103.427	-8.722	-7.777%
gaussian_noise	2	64.45	-1.7	-2.570%	53.077	-2.583	-4.641%	51.773	-0.167	-0.322%	107.49	-4.659	-4.155%
shot_noise	2	64.27	-1.88	-2.842%	53.244	-2.416	-4.341%	51.328	-0.612	-1.179%	106.21	-5.939	-5.296%
speckle_noise	2	64.6	-1.55	-2.343%	53.506	-2.154	-3.870%	51.6	-0.34	-0.654%	108.274	-3.875	-3.455%
zoom_blur	2	56.66	-9.49	-14.346%	48.06	-7.6	-13.654%	50.194	-1.746	-3.362%	66.462	-45.687	-40.738%
defocus_blur	2	64.48	-1.67	-2.525%	52.942	-2.718	-4.884%	51.457	-0.483	-0.930%	106.226	-5.923	-5.281%
motion_blur	2	63.68	-2.47	-3.734%	52.536	-3.124	-5.612%	52.16	0.22	0.424%	104.258	-7.891	-7.037%
glass_blur	2	64.13	-2.02	-3.054%	53.212	-2.448	-4.398%	51.801	-0.139	-0.267%	104.629	-7.52	-6.706%
gaussian_blur	2	64.83	-1.32	-1.995%	53.125	-2.535	-4.555%	51.342	-0.598	-1.151%	107.206	-4.943	-4.408%
jpeg_compression	2	65.49	-0.66	-0.998%	53.872	-1.788	-3.213%	53.021	1.081	2.082%	109.446	-2.703	-2.410%
contrast	2	63.95	-2.2	-3.326%	53.371	-2.289	-4.113%	50.696	-1.244	-2.395%	106.845	-5.304	-4.729%
elastic_transform	2	62.82	-3.33	-5.034%	51.678	-3.982	-7.155%	51.084	-0.856	-1.649%	94.903	-17.246	-15.378%
pixelate	2	62.26	-3.89	-5.881%	52.337	-3.323	-5.969%	51.5	-0.44	-0.847%	97.551	-14.598	-13.017%
snow	2	58.42	-7.73	-11.686%	48.911	-6.749	-12.126%	50.71	-1.23	-2.367%	84.361	-27.788	-24.778%
frost	2	59.3	-6.85	-10.355%	49.666	-5.994	-10.769%	51.213	-0.727	-1.400%	87.72	-24.429	-21.783%
fog	2	63.61	-2.54	-3.840%	53.244	-2.416	-4.341%	50.423	-1.517	-2.920%	106.212	-5.937	-5.294%
brightness	2	65.43	-0.72	-1.088%	53.482	-2.178	-3.913%	52.619	0.679	1.308%	110.536	-1.613	-1.438%
spatter	2	62.4	-3.75	-5.669%	52.306	-3.354	-6.027%	52.634	0.694	1.336%	99.537	-12.612	-11.246%
saturate	2	60.8	-5.35	-8.088%	52.043	-3.617	-6.498%	50.782	-1.158	-2.229%	102.179	-9.97	-8.890%
impulse_noise	3	62.57	-3.58	-5.412%	53.037	-2.623	-4.712%	51.342	-0.598	-1.151%	100.779	-11.37	-10.138%
gaussian_noise	3	62.63	-3.52	-5.321%	52.767	-2.893	-5.198%	51.098	-0.842	-1.621%	101.76	-10.389	-9.264%
shot_noise	3	62.71	-3.44	-5.200%	53.236	-2.424	-4.355%	50.667	-1.273	-2.450%	101.794	-10.355	-9.233%
speckle_noise	3	62.7	-3.45	-5.215%	52.981	-2.679	-4.812%	50.596	-1.344	-2.588%	102.21	-9.939	-8.863%
zoom_blur	3	53.95	-12.2	-18.443%	46.931	-8.729	-15.682%	50.179	-1.761	-3.390%	51.885	-60.264	-53.736%
defocus_blur	3	62.69	-3.46	-5.231%	52.139	-3.521	-6.327%	51.414	-0.526	-1.013%	100.687	-11.462	-10.220%
motion_blur	3	62.11	-4.04	-6.107%	52.226	-3.434	-6.169%	51.069	-0.871	-1.676%	98.529	-13.62	-12.145%
glass_blur	3	58.93	-7.22	-10.915%	49.634	-6.026	-10.826%	50.682	-1.258	-2.422%	84.772	-27.377	-24.412%
gaussian_blur	3	63.51	-2.64	-3.991%	52.274	-3.386	-6.084%	51.084	-0.856	-1.649%	101.916	-10.233	-9.125%
jpeg_compression	3	65.16	-0.99	-1.497%	53.848	-1.812	-3.256%	52.663	0.723	1.391%	109.852	-2.297	-2.048%
contrast	3	62.71	-3.44	-5.200%	52.568	-3.092	-5.555%	50.208	-1.732	-3.334%	103.41	-8.739	-7.792%
elastic_transform	3	64.32	-1.83	-2.766%	52.878	-2.782	-4.998%	51.514	-0.426	-0.820%	104.531	-7.618	-6.793%
pixelate	3	60.13	-6.02	-9.101%	51.526	-4.134	-7.426%	50.782	-1.158	-2.229%	87.638	-24.511	-21.855%
snow	3	56.64	-9.51	-14.376%	47.941	-7.719	-13.868%	50.022	-1.918	-3.694%	76.498	-35.651	-31.789%
frost	3	57.14	-9.01	-13.621%	48.625	-7.035	-12.640%	51.256	-0.684	-1.317%	76.995	-35.154	-31.346%
fog	3	62.53	-3.62	-5.472%	52.862	-2.798	-5.027%	50.926	-1.014	-1.953%	102.556	-9.593	-8.554%
brightness	3	64.65	-1.5	-2.268%	53.395	-2.265	-4.070%	52.505	0.565	1.087%	108.24	-3.909	-3.486%
spatter	3	61.0	-5.15	-7.785%	51.256	-4.404	-7.912%	52.548	0.608	1.170%	93.794	-18.355	-16.366%
saturate	3	65.26	-0.89	-1.345%	53.156	-2.504	-4.498%	52.878	0.938	1.806%	110.132	-2.017	-1.799%
impulse_noise	4	59.82	-6.33	-9.569%	51.757	-3.903	-7.012%	50.553	-1.387	-2.671%	91.794	-20.355	-18.150%
gaussian_noise	4	60.12	-6.03	-9.116%	51.455	-4.205	-7.555%	51.17	-0.77	-1.483%	93.233	-18.916	-16.867%
shot_noise	4	59.75	-6.4	-9.675%	51.193	-4.467	-8.026%	50.825	-1.115	-2.146%	90.816	-21.333	-19.022%
speckle_noise	4	61.49	-4.66	-7.045%	52.369	-3.291	-5.912%	50.61	-1.33	-2.561%	98.103	-14.046	-12.524%
zoom_blur	4	52.17	-13.98	-21.134%	45.254	-10.406	-18.696%	49.892	-2.048	-3.942%	42.244	-69.905	-62.333%
defocus_blur	4	60.84	-5.31	-8.027%	51.034	-4.626	-8.312%	50.754	-1.186	-2.284%	93.41	-18.739	-16.709%
motion_blur	4	59.58	-6.57	-9.932%	50.294	-5.366	-9.640%	50.452	-1.488	-2.865%	85.262	-26.887	-23.975%
glass_blur	4	56.72	-9.43	-14.255%	48.434	-7.226	-12.983%	50.481	-1.459	-2.809%	75.714	-36.435	-32.488%
gaussian_blur	4	61.6	-4.55	-6.878%	51.288	-4.372	-7.855%	50.754	-1.186	-2.284%	96.23	-15.919	-14.194%
jpeg_compression	4	64.15	-2.0	-3.023%	53.132	-2.528	-4.541%	52.332	0.392	0.756%	104.967	-7.182	-6.404%
contrast	4	58.4	-7.75	-11.716%	50.668	-4.992	-8.969%	50.179	-1.761	-3.390%	88.829	-23.32	-20.794%
elastic_transform	4	62.01	-4.14	-6.259%	51.344	-4.316	-7.755%	51.285	-0.655	-1.262%	95.188	-16.961	-15.124%
pixelate	4	55.87	-10.28	-15.540%	48.72	-6.94	-12.469%	50.309	-1.631	-3.141%	72.813	-39.336	-35.075%
snow	4	53.57	-12.58	-19.017%	46.049	-6.911	-17.268%	49.878	-2.062	-3.970%	61.826	-50.323	-44.871%
frost	4	56.21	-9.94	-15.026%	47.925	-7.735	-13.897%	51.543	-0.397	-0.764%	75.086	-37.063	-33.048%
fog	4	60.89	-5.26	-7.952%	51.352	-4.308	-7.741%	51.141	-0.799	-1.538%	96.996	-15.153	-13.511%
brightness	4	63.58	-2.57	-3.885%	53.252	-2.408	-4.327%	52.849	0.909	1.750%	105.744	-6.405	-5.711%
spatter	4	58.63	-7.52	-11.368%	49.674	-5.986	-10.755%	52.261	0.321	0.617%	83.306	-28.843	-25.718%
saturate	4	62.69	-3.46	-5.231%	51.932	-3.728	-6.698%	51.844	-0.096	-0.184%	103.63	-8.519	-7.596%
impulse_noise	5	56.02	-10.13	-15.314%	49.412	-6.248	-11.226%	50.007	-1.933	-3.721%	79.067	-33.082	-29.499%
gaussian_noise	5	56.02	-10.13	-15.314%	49.507	-6.153	-11.054%	50.409	-1.531	-2.947%	78.336	-33.813	-30.150%
shot_noise	5	57.09	-9.06	-13.696%	49.905	-5.755	-10.340%	49.806	-2.134	-4.108%	82.044	-30.105	-26.844%
speckle_noise	5	59.79	-6.36	-9.615%	51.511	-4.149	-7.455%	50.538	-1.402	-2.699%	91.293	-20.856	-18.597%
zoom_blur	5	50.23	-15.92	-24.067%	44.188	-11.472	-20.610%	49.835	-2.105	-4.053%	33.035	-79.114	-70.544%
defocus_blur	5	58.89	-7.26	-10.975%	50.04	-5.62	-10.097%	50.553	-1.387	-2.671%	83.47	-28.679	-25.572%
motion_blur	5	57.25	-8.9	-13.454%	48.903	-6.757	-12.140%	50.395	-1.545	-2.975%	73.385	-38.764	-34.565%
glass_blur	5	54.04	-12.11	-18.307%	46.478	-9.182	-16.497%	50.237	-1.703	-3.279%	63.347	-48.802	-43.515%
gaussian_blur	5	57.69	-8.46	-12.789%	49.316	-6.344	-11.397%	50.022	-1.918	-3.694%	81.731	-30.418	-27.123%
jpeg_compression	5	61.83	-4.32										

Table 21: Performance and decrease ratio of Multiple Compacters on CLIP-T5 against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	63.83	-1.67	-2.550%	52.027	-2.653	-4.851%	52.131	-0.499	-0.947%	106.519	-6.681	-5.902%
gaussian_noise	1	64.54	-0.96	-1.466%	52.552	-2.128	-3.892%	52.591	-0.039	-0.075%	109.611	-3.589	-3.171%
shot_noise	1	64.48	-1.02	-1.557%	52.441	-2.239	-4.095%	52.318	-0.312	-0.593%	109.51	-3.69	-3.259%
speckle_noise	1	64.25	-1.25	-1.908%	52.441	-2.239	-4.095%	52.002	-0.628	-1.193%	110.284	-2.916	-2.576%
zoom_blur	1	58.87	-6.63	-10.122%	49.73	-4.95	-9.053%	49.347	-3.283	-6.238%	84.89	-28.31	-25.009%
defocus_blur	1	64.57	-0.93	-1.420%	53.101	-1.579	-2.888%	51.988	-0.642	-1.220%	109.512	-3.688	-3.258%
motion_blur	1	64.0	-1.5	-2.290%	52.806	-1.874	-3.426%	52.232	-0.398	-0.756%	108.307	-4.893	-4.322%
glass_blur	1	64.57	-0.93	-1.420%	52.759	-1.921	-3.514%	51.931	-0.699	-1.329%	108.766	-4.434	-3.917%
gaussian_blur	1	64.93	-0.57	-0.870%	53.323	-1.357	-2.481%	52.002	-0.628	-1.193%	112.114	-1.086	-0.960%
jpeg_compression	1	65.01	-0.49	-0.748%	53.156	-1.524	-2.787%	52.304	-0.326	-0.620%	111.194	-2.006	-1.772%
contrast	1	64.1	-1.4	-2.137%	53.101	-1.579	-2.888%	52.045	-0.585	-1.111%	109.412	-3.788	-3.346%
elastic_transform	1	64.83	-0.67	-1.023%	53.252	-1.428	-2.612%	52.505	-0.125	-0.238%	109.741	-3.459	-3.056%
pixelate	1	62.37	-3.13	-4.779%	51.908	-2.772	-5.069%	51.572	-1.058	-2.011%	100.87	-12.33	-10.892%
snow	1	60.82	-4.68	-7.145%	50.644	-4.036	-7.381%	51.026	-1.604	-3.047%	96.456	-16.744	-14.792%
frost	1	62.08	-3.42	-5.221%	50.811	-3.869	-7.076%	51.715	-0.915	-1.738%	101.172	-12.028	-10.626%
fog	1	63.61	-1.89	-2.885%	53.101	-1.579	-2.888%	51.041	-1.589	-3.020%	109.137	-4.063	-3.590%
brightness	1	65.15	-0.35	-0.534%	53.061	-1.619	-2.961%	53.208	0.578	1.098%	111.696	-1.504	-1.329%
spatter	1	64.88	-0.62	-0.947%	53.029	-1.651	-3.019%	53.151	0.521	0.989%	111.11	-2.09	-1.847%
saturate	1	62.75	-2.75	-4.198%	52.735	-1.945	-3.557%	52.332	-0.298	-0.565%	107.965	-5.235	-4.624%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	62.82	-2.68	-4.092%	51.98	-2.7	-4.938%	51.414	-1.216	-2.311%	103.863	-9.337	-8.248%
gaussian_noise	2	63.86	-1.64	-2.504%	52.298	-2.382	-4.357%	52.203	-0.427	-0.811%	107.057	-6.143	-5.427%
shot_noise	2	63.57	-1.93	-2.947%	52.139	-2.541	-4.648%	51.529	-1.101	-2.093%	107.056	-6.144	-5.427%
speckle_noise	2	64.04	-1.46	-2.229%	52.306	-2.374	-4.342%	51.744	-0.886	-1.684%	108.473	-4.727	-4.176%
zoom_blur	2	56.43	-9.07	-13.847%	47.822	-6.858	-12.543%	50.079	-2.551	-4.847%	70.125	-43.075	-38.052%
defocus_blur	2	63.95	-1.55	-2.366%	52.616	-2.064	-3.775%	51.83	-0.8	-1.520%	107.444	-5.756	-5.085%
motion_blur	2	63.53	-1.97	-3.008%	52.663	-2.017	-3.688%	51.715	-0.915	-1.738%	105.411	-7.789	-6.881%
glass_blur	2	63.33	-2.17	-3.313%	52.155	-2.525	-4.619%	51.227	-1.403	-2.665%	104.253	-8.947	-7.904%
gaussian_blur	2	64.19	-1.31	-2.000%	52.83	-1.85	-3.383%	51.974	-0.656	-1.247%	108.266	-4.934	-4.359%
jpeg_compression	2	64.85	-0.65	-0.992%	52.902	-1.778	-3.252%	52.591	-0.039	-0.075%	110.117	-3.083	-2.723%
contrast	2	63.29	-2.21	-3.374%	52.735	-1.945	-3.557%	51.199	-1.431	-2.720%	107.708	-5.492	-4.852%
elastic_transform	2	62.2	-3.3	-5.038%	51.344	-3.336	-6.102%	51.184	-1.446	-2.747%	95.894	-17.306	-15.288%
pixelate	2	61.61	-3.89	-5.939%	51.272	-3.408	-6.233%	50.94	-1.69	-3.211%	97.593	-15.607	-13.787%
snow	2	57.96	-7.54	-11.511%	48.784	-5.896	-10.783%	50.108	-2.522	-4.793%	85.904	-27.296	-24.113%
frost	2	59.01	-6.49	-9.908%	49.372	-5.308	-9.708%	50.696	-1.934	-3.674%	89.042	-24.158	-21.341%
fog	2	62.92	-2.58	-3.939%	52.655	-2.025	-3.703%	50.983	-1.647	-3.129%	107.793	-5.407	-4.777%
brightness	2	64.53	-0.97	-1.481%	52.465	-2.215	-4.052%	53.179	0.549	1.044%	110.353	-2.847	-2.515%
spatter	2	61.78	-3.72	-5.679%	51.439	-3.241	-5.927%	52.749	0.119	0.225%	100.432	-12.768	-11.279%
saturate	2	60.44	-5.06	-7.725%	51.892	-2.788	-5.098%	51.557	-1.073	-2.038%	103.452	-9.748	-8.611%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	62.09	-3.41	-5.206%	51.137	-3.543	-6.480%	51.17	-1.46	-2.774%	100.455	-12.745	-11.259%
gaussian_noise	3	62.37	-3.13	-4.779%	51.654	-3.026	-5.335%	51.658	-0.972	-1.847%	102.564	-10.636	-9.395%
shot_noise	3	62.27	-3.23	-4.931%	51.526	-3.154	-5.767%	50.782	-1.848	-3.511%	102.932	-10.268	-9.071%
speckle_noise	3	62.49	-3.01	-4.595%	51.924	-2.756	-5.040%	50.71	-1.92	-3.647%	102.737	-10.463	-9.243%
zoom_blur	3	54.03	-11.47	-17.511%	45.858	-8.822	-16.134%	49.691	-2.939	-5.584%	56.409	-56.791	-50.168%
defocus_blur	3	62.26	-3.24	-4.947%	51.725	-2.955	-5.404%	51.055	-1.575	-2.993%	100.32	-12.88	-11.378%
motion_blur	3	61.78	-3.72	-5.679%	51.789	-2.891	-5.287%	50.911	-1.719	-3.265%	98.305	-14.895	-13.159%
glass_blur	3	58.83	-6.67	-10.183%	48.489	-6.191	-11.321%	49.734	-2.896	-5.502%	84.446	-28.754	-25.401%
gaussian_blur	3	62.87	-2.63	-4.015%	51.844	-2.836	-5.186%	51.457	-1.173	-2.229%	103.333	-9.867	-8.716%
jpeg_compression	3	64.4	-1.1	-1.679%	52.95	-1.73	-3.165%	52.175	-0.455	-0.865%	109.433	-3.767	-3.328%
contrast	3	61.94	-3.56	-5.435%	51.495	-3.185	-5.825%	50.352	-2.278	-4.329%	104.423	-8.777	-7.754%
elastic_transform	3	63.49	-2.01	-3.069%	52.107	-2.573	-4.706%	52.49	-0.14	-0.265%	103.717	-9.483	-8.377%
pixelate	3	59.55	-5.95	-9.084%	49.817	-4.863	-8.893%	49.935	-2.695	-5.120%	87.769	-25.431	-22.466%
snow	3	56.35	-9.15	-13.969%	47.686	-6.994	-12.790%	49.691	-2.939	-5.584%	77.513	-35.687	-31.526%
frost	3	56.35	-9.15	-13.969%	48.672	-6.008	-10.987%	50.093	-2.537	-4.820%	79.424	-33.776	-29.837%
fog	3	61.76	-3.74	-5.710%	51.654	-3.026	-5.535%	50.94	-1.69	-3.211%	103.583	-9.617	-8.496%
brightness	3	64.06	-1.44	-2.198%	52.314	-2.366	-4.328%	53.021	0.391	0.744%	108.785	-4.415	-3.900%
spatter	3	60.43	-5.07	-7.740%	50.882	-3.798	-6.945%	51.73	-0.9	-1.711%	94.514	-18.686	-16.507%
saturate	3	64.72	-0.78	-1.191%	52.52	-2.16	-3.950%	52.261	-0.369	-0.702%	110.6	-2.6	-2.297%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	59.65	-5.85	-8.931%	50.016	-4.664	-8.530%	50.151	-2.479	-4.711%	92.61	-20.50	-18.189%
gaussian_noise	4	59.74	-5.76	-8.794%	50.843	-3.837	-7.018%	50.208	-2.422	-4.602%	94.23	-18.97	-16.758%
shot_noise	4	59.27	-6.23	-9.511%	50.867	-3.813	-6.974%	49.993	-2.637	-5.011%	92.355	-20.845	-18.414%
speckle_noise	4	60.83	-4.67	-7.130%	50.914	-3.766	-6.887%	50.538	-2.092	-3.974%	99.668	-14.132	-12.484%
zoom_blur	4	52.06	-13.44	-20.519%	44.959	-9.721	-17.777%	49.318	-3.312	-6.293%	47.284	-65.916	-58.230%
defocus_blur	4	60.7	-4.8	-7.328%	51.034	-3.646	-6.669%	50.538	-2.092	-3.974%	93.104	-20.096	-17.752%
motion_blur	4	59.24	-6.26	-9.557%	50.517	-4.163	-7.614%	50.022	-2.608	-4.956%	86.707	-26.493	-23.403%
glass_blur	4	56.94	-8.56	-13.069%	47.853	-6.827	-12.485%	49.577	-3.053	-5.802%	76.664	-36.536	-32.276%
gaussian_blur	4	61.12	-4.38	-6.687%	51.105	-3.575	-6.538%	50.639	-1.991	-3.784%	96.619	-16.581	-14.647%
jpeg_compression	4	63.32	-2.18	-3.328%	52.003	-2.677	-4.895%	52.074	-0.556	-1.056%	104.365	-8.835	-7.804%
contrast	4	58.13	-7.37	-11.252%	50.358	-4.322	-7.905%	49.304	-3.326	-6.320%	90.908	-22.292	-19.693%
elastic_transform	4	61.39	-4.11	-6.275%	50.747	-3.933	-7.192%	52.074	-0.556	-1.056%	95.498	-17.702	-15.638%
pixelate	4	55.72	-9.78	-14.931%	47.814	-6.866	-12.557%	49.333	-3.297	-6.265%	72.144	-41.056	-36.269%
snow	4	52.95	-12.55	-19.160%	45.858	-8.822	-16.134%	49.132	-3.498	-6.647%	63.946	-49.254	-43.510%
frost	4	55.42	-10.08	-15.389%	47.726	-6.954	-12.717%	49.821	-2.809	-5.338%	75.2	-38.0	-33.568%
fog	4	59.96	-5.54	-8.458%	51.487	-3.193	-5.840%	50.51	-2.12	-4.029%	98.914	-14.286	-12.620%
brightness	4	63.05	-2.45	-3.740%	52.163	-2.517	-4.604%	52.476	-0.154	-0.293%	105.655	-7.545	-6.666%
spatter	4	58.47	-7.03	-10.733%	49.483	-5.197	-9.504%	51.543	-1.087	-2.065%	84.696	-28.504	-25.181%
saturate	4	61.92	-3.58	-5.466%	50.97	-3.71	-6.785%	51.658	-0.972	-1.847%	103.23	-9.97	-8.808%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	55.86	-9.64	-14.718%	48.704	-5.976	-10.929%	49.447	-3.183	-6.047%	79.686	-33.514	-29.606%
gaussian_noise	5	55.9	-9.6	-14.656%	48.545	-6.135	-11.220%	49.218	-3.412	-6.483%	79.894	-33.306	-29.422%
shot_noise	5	56.64	-8.86	-13.527%	49.141	-5.539	-10.129%	49.39	-3.24	-6.156%	83.068	-30.132	-26.618%
speckle_noise	5	59.3	-6.2	-9.466%	50.31	-4.37	-7.992%	49.677	-2.953	-5.611%	9		

Table 22: Performance and decrease ratio of Single Adapter on CLIP-T5 against image corruptions given severity 1 to 5.

corruption	severity	VQA				GQA				NLVR				Caption			
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	
impulse_noise	1	64.39	-2.02	-3.042%	48.179	-7.721	-13.812%	71.695	-1.085	-1.491%	106.315	-5.385	-4.821%				
gaussian_noise	1	65.09	-1.32	-1.988%	48.72	-7.18	-12.844%	72.04	-0.74	-1.017%	108.347	-3.353	-3.002%				
shot_noise	1	65.2	-1.21	-1.822%	48.776	-7.124	-12.745%	71.81	-0.97	-1.333%	108.413	-3.287	-2.942%				
speckle_noise	1	65.06	-1.35	-2.033%	48.943	-6.957	-12.446%	71.523	-1.257	-1.727%	108.565	-3.135	-2.807%				
zoom_blur	1	59.35	-7.06	-10.631%	45.54	-10.36	-18.533%	56.064	-16.716	-22.967%	84.143	-27.557	-24.670%				
defocus_blur	1	65.11	-1.3	-1.958%	48.863	-7.037	-12.588%	72.241	-0.539	-0.741%	108.171	-3.529	-3.159%				
motion_blur	1	64.88	-1.53	-2.304%	49.022	-6.878	-12.304%	71.781	-0.999	-1.372%	107.027	-4.673	-4.184%				
glass_blur	1	65.3	-1.11	-1.671%	48.895	-7.005	-12.531%	71.523	-1.257	-1.727%	108.394	-3.306	-2.960%				
gaussian_blur	1	65.94	-0.47	-0.708%	49.38	-6.52	-11.664%	72.686	-0.094	-0.130%	110.921	-0.779	-0.698%				
jpeg_compression	1	65.75	-0.66	-0.994%	49.046	-6.854	-12.261%	72.772	-0.008	-0.011%	110.094	-1.606	-1.437%				
contrast	1	65.07	-1.34	-2.018%	49.308	-6.592	-11.792%	71.638	-1.142	-1.569%	108.489	-3.211	-2.874%				
elastic_transform	1	66.04	-0.37	-0.557%	48.831	-7.069	-12.645%	72.04	-0.74	-1.017%	109.629	-2.071	-1.854%				
pixelate	1	62.97	-3.44	-5.180%	48.259	-7.641	-13.669%	69.628	-3.152	-4.331%	100.7	-11.0	-9.848%				
snow	1	61.89	-4.52	-6.806%	46.613	-9.287	-16.613%	69.614	-3.166	-4.350%	97.265	-14.435	-12.923%				
frost	1	62.91	-3.5	-5.270%	47.631	-8.269	-14.793%	70.073	-2.707	-3.719%	100.419	-11.281	-10.100%				
fog	1	64.64	-1.77	-2.665%	49.197	-6.703	-11.991%	71.308	-1.472	-2.023%	106.947	-4.753	-4.255%				
brightness	1	66.13	-0.28	-0.422%	49.865	-6.035	-10.796%	72.585	-0.195	-0.268%	111.78	0.08	0.072%				
spatter	1	65.88	-0.53	-0.798%	49.348	-6.552	-11.721%	72.528	-0.252	-0.347%	110.277	-1.423	-1.274%				
saturate	1	63.58	-2.83	-4.261%	48.752	-7.148	-12.787%	70.848	-1.932	-2.654%	106.852	-4.848	-4.340%				

corruption	severity	VQA				GQA				NLVR				Caption			
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	
impulse_noise	2	63.59	-2.82	-4.246%	47.718	-8.182	-14.636%	71.035	-1.745	-2.398%	103.652	-8.048	-7.205%				
gaussian_noise	2	64.4	-2.01	-3.027%	48.195	-7.705	-13.783%	71.595	-1.185	-1.629%	106.963	-4.737	-4.241%				
shot_noise	2	64.18	-2.23	-3.358%	48.06	-7.84	-14.025%	70.906	-1.874	-2.575%	106.358	-5.342	-4.783%				
speckle_noise	2	64.51	-1.9	-2.861%	48.696	-7.204	-12.887%	71.465	-1.315	-1.806%	108.147	-3.553	-3.181%				
zoom_blur	2	56.34	-10.07	-15.163%	43.862	-12.038	-21.534%	60.499	-12.281	-16.873%	69.331	-42.369	-37.931%				
defocus_blur	2	64.54	-1.87	-2.816%	48.402	-7.498	-13.413%	71.422	-1.358	-1.865%	106.664	-5.036	-4.509%				
motion_blur	2	64.21	-2.2	-3.313%	47.949	-7.951	-14.224%	71.796	-0.984	-1.353%	104.266	-7.434	-6.655%				
glass_blur	2	64.06	-2.35	-3.539%	48.346	-7.554	-13.513%	70.088	-2.692	-3.699%	104.132	-7.568	-6.776%				
gaussian_blur	2	64.78	-1.63	-2.454%	48.672	-7.228	-12.930%	72.111	-0.669	-0.919%	107.162	-4.538	-4.063%				
jpeg_compression	2	65.56	-0.85	-1.280%	49.141	-6.759	-12.091%	71.753	-1.027	-1.412%	108.73	-2.97	-2.659%				
contrast	2	64.61	-1.8	-2.710%	48.696	-7.204	-12.887%	70.949	-1.831	-2.516%	106.802	-4.898	-4.385%				
elastic_transform	2	62.7	-3.71	-5.587%	47.217	-8.683	-15.532%	68.25	-4.53	-6.224%	95.436	-16.264	-14.560%				
pixelate	2	62.0	-4.41	-6.641%	47.559	-8.341	-14.921%	67.217	-5.563	-7.644%	97.393	-14.307	-12.809%				
snow	2	58.66	-7.75	-11.670%	45.007	-10.893	-19.486%	66.829	-5.951	-8.176%	86.253	-25.647	-22.961%				
frost	2	59.41	-7.0	-10.541%	45.182	-10.718	-19.173%	68.164	-4.616	-6.342%	88.041	-23.659	-21.181%				
fog	2	63.87	-2.54	-3.825%	48.545	-7.355	-13.157%	66.872	-5.908	-8.117%	105.731	-5.969	-5.344%				
brightness	2	65.54	-0.87	-1.310%	49.03	-6.87	-12.290%	72.083	-0.697	-0.958%	110.209	-1.491	-1.335%				
spatter	2	62.68	-3.73	-5.617%	47.241	-8.659	-15.490%	70.662	-2.911	-4.011%	100.122	-11.578	-10.365%				
saturate	2	60.78	-5.63	-8.478%	47.599	-8.301	-14.850%	68.308	-4.472	-6.145%	102.969	-8.731	-7.817%				

corruption	severity	VQA				GQA				NLVR				Caption			
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	
impulse_noise	3	62.77	-3.64	-5.481%	47.663	-8.237	-14.736%	69.643	-3.137	-4.311%	101.158	-10.542	-9.438%				
gaussian_noise	3	62.75	-3.66	-5.511%	47.567	-8.333	-14.907%	69.872	-2.908	-3.995%	101.867	-9.833	-8.803%				
shot_noise	3	62.77	-3.64	-5.481%	47.607	-8.293	-14.836%	69.485	-3.295	-4.528%	101.669	-10.031	-8.981%				
speckle_noise	3	62.93	-3.48	-5.240%	47.869	-8.031	-14.366%	70.03	-2.75	-3.778%	102.022	-9.678	-8.664%				
zoom_blur	3	53.54	-12.87	-19.380%	42.161	-13.739	-24.578%	57.93	-14.85	-20.404%	56.396	-55.304	-49.511%				
defocus_blur	3	62.63	-3.78	-5.692%	47.241	-8.659	-15.490%	70.303	-2.477	-3.404%	100.458	-11.242	-10.064%				
motion_blur	3	62.53	-3.88	-5.842%	47.138	-8.762	-15.675%	70.001	-2.779	-3.818%	97.977	-13.723	-12.285%				
glass_blur	3	59.01	-7.4	-11.143%	45.023	-10.877	-19.458%	68.423	-4.357	-5.987%	84.847	-27.213	-24.363%				
gaussian_blur	3	63.39	-3.02	-4.548%	47.639	-8.261	-14.779%	70.389	-2.391	-3.285%	101.939	-9.761	-8.739%				
jpeg_compression	3	65.07	-1.34	-2.018%	49.205	-6.695	-11.977%	72.37	-0.41	-0.564%	108.003	-3.697	-3.310%				
contrast	3	62.86	-3.55	-5.346%	47.798	-8.102	-14.494%	69.944	-2.836	-3.897%	102.8	-8.9	-7.968%				
elastic_transform	3	64.35	-2.06	-3.102%	48.267	-7.633	-13.655%	70.963	-1.817	-2.496%	104.007	-7.693	-6.887%				
pixelate	3	59.89	-6.52	-9.818%	46.438	-9.462	-16.926%	66.069	-6.711	-9.221%	88.354	-23.346	-20.901%				
snow	3	56.58	-9.83	-14.802%	43.775	-12.125	-21.691%	64.834	-7.946	-10.918%	78.536	-33.164	-29.690%				
frost	3	56.7	-9.71	-14.621%	43.759	-12.141	-21.719%	66.097	-6.683	-9.182%	79.485	-32.215	-28.841%				
fog	3	62.41	-4.0	-6.023%	47.631	-8.269	-14.793%	70.36	-2.42	-3.325%	103.165	-8.535	-7.641%				
brightness	3	64.99	-1.42	-2.138%	49.086	-6.814	-12.190%	71.509	-1.271	-1.747%	108.595	-3.105	-2.780%				
spatter	3	61.06	-5.35	-8.056%	46.494	-9.406	-16.827%	69.757	-3.023	-4.153%	94.485	-17.215	-15.412%				
saturate	3	65.57	-0.84	-1.265%	48.823	-7.077	-12.659%	72.255	-0.525	-0.721%	109.806	-1.894	-1.696%				

corruption	severity	VQA				GQA				NLVR				Caption			
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	
impulse_noise	4	60.08	-6.33	-9.532%	46.629	-9.271	-16.585%	67.92	-4.86	-6.677%	91.542	-20.158	-18.047%				
gaussian_noise	4	60.52	-5.89	-8.669%	46.669	-9.231	-16.514%	67.92	-4.86	-6.677%	93.698	-18.002	-16.117%				
shot_noise	4	59.86	-6.55	-9.863%	46.43	-9.47	-16.940%	66.858	-5.922	-8.137%	92.268	-19.432	-17.397%				
speckle_noise	4	61.76	-6.65	-7.002%	47.368	-8.532	-15.262%	68.121	-4.659	-6.401%	97.948	-13.752	-12.311%				
zoom_blur	4	51.82	-14.59	-21.970%	40.491	-15.409	-27.565%	56.294	-16.486	-22.652%	45.757	-65.943	-59.036%				
defocus_blur	4	60.99	-5.42	-8.161%	46.343	-9.557	-17.097%	68.121	-4.659	-6.401%	92.304	-19.396	-17.364%				
motion_blur	4	59.72	-6.69	-10.074%	45.818	-10.082	-18.036%	67.016	-5.764	-7.920%	86.089	-25.611	-22.928%				
glass_blur	4	57.15	-9.26	-13.944%	43.401	-12.499	-22.359%	67.303	-5.477	-7.525%	77.581	-34.119	-30.545%				
gaussian_blur	4	61.56	-4.85	-7.303%	46.661	-9.239	-16.528%	69.212	-3.568	-4.902%	95.388	-16.312	-14.603%				
jpeg_compression	4	64.02	-2.39	-3.599%	48.227	-7.673	-13.726%	70.777	-2.003	-2.753%	104.095	-7.605	-6.808%				
contrast	4	58.47	-7.94	-11.956%	45.5	-10.4	-18.605%	65.121	-7.659	-10.523%	90.667	-21.033	-18.830%				
elastic_transform	4	62.24	-4.17	-6.279%	46.542	-9.358	-16.741%	71.107	-1.673	-2.299%	95.638	-16.062	-14.380%				
pixelate	4	55.85	-10.56	-15.901%	44.141	-11.759	-21.037%	61.461	-11.319	-15.552%	72.151	-39.549	-35.406%				
snow	4	53.48	-12.93	-19.470%	41.207	-14.693	-26.285%	62.71	-10.07	-13.836%	63.568	-48.132	-43.090%				
frost	4	55.96	-10.45	-15.736%	43.512	-12.388	-22.160%	65.767	-7.013	-9.636%	76.794	-34.906	-31.250%				
fog	4	61.0	-5.41	-8.146%	46.677	-9.223	-16.500%	69.427	-3.353	-4.607%	97.95	-13.75	-12.310%				
brightness	4	64.03	-2.38	-3.584%	48.489	-7.411	-13.257%	70.518	-2.262	-3.108%	106.423	-5.277	-4.724%				
spatter	4	58.95	-7.46	-11.233%	44.514	-11.386	-20.368%	67.26	-5.52	-7.585%	85.064	-26.636	-23.846%				
saturate	4	62.76	-3.65	-5.496%	47.122	-8.778	-15.703%	69.528	-3.252	-4.469%	103.783	-7.917	-7.088%				

corruption	severity	VQA				GQA				NLVR				Caption			
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	
impulse_noise	5	56.48	-9.93	-14.953%	44.657	-11.243	-20.112%	64.935	-7.845	-10.779%	78.788	-32.912	-29.465%				
gaussian_noise	5	56.4	-10.01	-15.073%	43.91	-11.99	-21.449%	65.05	-7.73	-10.622%	79.632	-32.068	-28.709%				
shot_noise	5	57.21	-9.2	-13													

Table 23: Performance and decrease ratio of Single Compacter on CLIP-T5 against image corruptions given severity 1 to 5.

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	1	64.34	-1.64	-2.486%	49.173	-6.157	-11.127%	70.604	-0.866	-1.211%	106.839	-4.769	-4.273%
gaussian_noise	1	65.06	-0.92	-1.394%	49.698	-5.632	-10.179%	71.48	0.01	0.014%	109.21	-2.398	-2.148%
shot_noise	1	64.69	-1.29	-1.955%	49.873	-5.457	-9.863%	71.178	-0.292	-0.408%	109.533	-2.075	-1.859%
speckle_noise	1	65.11	-0.87	-1.319%	49.555	-5.775	-10.438%	71.006	-0.464	-0.649%	108.916	-2.692	-2.412%
zoom_blur	1	59.27	-6.71	-10.170%	46.303	-9.027	-16.315%	56.653	-14.817	-20.732%	84.187	-27.421	-24.569%
defocus_blur	1	64.96	-1.02	-1.546%	50.246	-5.084	-9.188%	71.523	0.053	0.074%	108.313	-3.295	-2.952%
motion_blur	1	64.57	-1.41	-2.137%	50.08	-5.25	-9.489%	71.465	-0.005	-0.006%	107.603	-4.005	-3.589%
glass_blur	1	65.0	-0.98	-1.485%	49.936	-5.394	-9.748%	71.81	0.34	0.476%	107.836	-3.772	-3.380%
gaussian_blur	1	65.67	-0.31	-0.470%	50.509	-4.821	-8.713%	72.154	0.684	0.958%	110.363	-1.245	-1.116%
jpeg_compression	1	65.33	-0.65	-0.985%	49.865	-5.465	-9.877%	71.695	0.225	0.315%	110.22	-1.388	-1.244%
contrast	1	64.47	-1.51	-2.289%	49.897	-5.433	-9.820%	71.293	-0.177	-0.247%	109.325	-2.283	-2.046%
elastic_transform	1	65.56	-0.42	-0.637%	50.461	-4.869	-8.800%	70.92	-0.55	-0.769%	109.553	-2.055	-1.842%
pixelate	1	62.55	-3.43	-5.199%	49.078	-6.252	-11.300%	69.255	-2.215	-3.099%	99.334	-12.774	-10.997%
snow	1	61.8	-4.18	-6.335%	47.233	-8.097	-14.634%	69.356	-2.114	-2.959%	98.235	-13.373	-11.982%
frost	1	62.99	-2.99	-4.532%	48.275	-7.055	-12.751%	69.7	-1.77	-2.477%	101.553	-10.055	-9.009%
fog	1	64.06	-1.92	-2.910%	49.014	-6.316	-11.415%	71.107	-0.363	-0.508%	108.101	-3.507	-3.142%
brightness	1	65.77	-0.21	-0.318%	50.342	-4.988	-9.015%	72.269	0.799	1.118%	111.312	-0.296	-0.265%
spatter	1	65.54	-0.44	-0.667%	50.358	-4.972	-8.987%	71.867	0.397	0.556%	110.781	-0.827	-0.741%
saturate	1	63.23	-2.75	-4.168%	49.125	-6.205	-11.214%	69.858	-1.612	-2.256%	108.422	-3.186	-2.855%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	2	63.37	-2.61	-3.956%	48.156	-7.174	-12.967%	69.815	-1.655	-2.316%	103.597	-8.011	-7.178%
gaussian_noise	2	64.15	-1.83	-2.774%	48.951	-6.379	-11.530%	70.604	-0.866	-1.211%	106.617	-4.991	-4.472%
shot_noise	2	64.11	-1.87	-2.834%	48.648	-6.682	-12.076%	70.375	-1.095	-1.533%	106.087	-5.521	-4.947%
speckle_noise	2	64.47	-1.51	-2.289%	49.499	-5.831	-10.538%	70.446	-1.024	-1.432%	107.824	-3.784	-3.391%
zoom_blur	2	56.25	-9.73	-14.747%	43.616	-11.714	-21.171%	61.246	-10.224	-14.305%	69.493	-42.115	-37.735%
defocus_blur	2	64.31	-1.67	-2.531%	49.841	-5.489	-9.920%	70.848	-0.622	-0.870%	106.883	-4.725	-4.234%
motion_blur	2	63.87	-2.11	-3.198%	49.404	-5.926	-10.711%	71.193	-0.277	-0.388%	104.626	-6.982	-6.256%
glass_blur	2	63.92	-2.06	-3.122%	48.744	-6.586	-11.903%	70.418	-1.052	-1.472%	105.046	-6.562	-5.879%
gaussian_blur	2	64.76	-1.22	-1.849%	49.849	-5.481	-9.906%	71.465	-0.005	-0.006%	108.204	-3.404	-3.050%
jpeg_compression	2	65.31	-0.67	-1.015%	49.777	-5.553	-10.035%	71.394	-0.076	-0.107%	109.696	-1.912	-1.713%
contrast	2	63.99	-1.99	-3.016%	49.531	-5.799	-10.481%	70.332	-1.138	-1.593%	107.232	-4.376	-3.921%
elastic_transform	2	62.63	-3.35	-5.077%	48.124	-7.206	-13.024%	67.906	-3.564	-4.987%	95.87	-15.738	-14.101%
pixelate	2	61.75	-4.23	-6.411%	48.378	-6.952	-12.564%	66.327	-5.143	-7.196%	98.188	-13.42	-12.024%
snow	2	59.0	-6.98	-10.579%	44.999	-10.331	-18.671%	66.944	-4.526	-6.332%	86.967	-22.641	-22.078%
frost	2	59.47	-6.51	-9.867%	46.057	-9.273	-16.760%	67.604	-3.866	-5.409%	89.402	-22.206	-19.897%
fog	2	63.53	-2.45	-3.713%	49.11	-6.22	-11.242%	67.274	-4.196	-5.871%	106.995	-4.613	-4.133%
brightness	2	65.24	-0.74	-1.122%	49.849	-5.481	-9.906%	72.068	0.598	0.837%	109.509	-2.099	-1.881%
spatter	2	62.55	-3.43	-5.199%	47.845	-7.485	-13.527%	70.59	-0.88	-1.231%	101.615	-9.933	-8.954%
saturate	2	60.67	-5.31	-8.048%	48.06	-7.27	-13.139%	68.38	-3.09	-4.324%	103.972	-7.636	-6.842%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	3	62.57	-3.41	-5.168%	48.235	-7.095	-12.823%	68.81	-2.66	-3.722%	101.344	-10.264	-9.196%
gaussian_noise	3	62.38	-3.6	-5.456%	47.949	-7.381	-13.340%	69.456	-2.014	-2.818%	102.499	-9.109	-8.162%
shot_noise	3	62.61	-3.37	-5.108%	48.362	-6.968	-12.593%	69.068	-2.402	-3.360%	102.088	-9.52	-8.530%
speckle_noise	3	62.73	-3.25	-4.926%	48.585	-6.745	-12.191%	69.499	-1.971	-2.758%	101.562	-10.046	-9.001%
zoom_blur	3	53.24	-12.74	-19.309%	42.686	-12.644	-22.853%	58.375	-13.095	-18.322%	55.099	-56.509	-50.632%
defocus_blur	3	62.52	-3.46	-5.244%	48.704	-6.626	-11.975%	68.781	-2.689	-3.762%	100.846	-10.762	-9.643%
motion_blur	3	62.18	-3.8	-5.759%	48.346	-6.984	-12.622%	69.399	-2.071	-2.898%	99.063	-12.545	-11.241%
glass_blur	3	59.11	-6.87	-10.412%	45.723	-9.607	-17.364%	67.877	-3.593	-5.027%	85.808	-25.8	-23.117%
gaussian_blur	3	63.2	-2.78	-4.213%	49.07	-6.26	-11.314%	69.729	-1.741	-2.436%	102.557	-9.051	-8.109%
jpeg_compression	3	64.84	-1.14	-1.728%	50.024	-5.306	-9.590%	70.863	-0.607	-0.850%	108.493	-3.115	-2.791%
contrast	3	62.71	-3.27	-4.956%	48.394	-6.936	-12.536%	69.212	-2.258	-3.159%	103.634	-7.974	-7.144%
elastic_transform	3	64.03	-1.95	-2.955%	48.696	-6.634	-11.990%	71.322	-0.148	-0.207%	104.616	-6.992	-6.265%
pixelate	3	59.65	-6.33	-9.594%	47.639	-7.691	-13.901%	65.365	-6.105	-8.542%	88.857	-22.751	-20.385%
snow	3	57.15	-8.83	-13.383%	43.974	-11.356	-20.525%	65.523	-5.947	-8.321%	79.64	-31.968	-28.643%
frost	3	57.42	-8.56	-12.974%	44.705	-10.625	-19.203%	65.394	-6.076	-8.501%	80.379	-31.229	-27.981%
fog	3	62.29	-3.69	-5.593%	48.418	-6.912	-12.493%	69.973	-1.497	-2.095%	103.726	-7.882	-7.063%
brightness	3	64.73	-1.25	-1.895%	49.785	-5.545	-10.021%	70.877	-0.593	-0.830%	108.626	-2.982	-2.672%
spatter	3	61.05	-4.93	-7.472%	47.353	-7.977	-14.418%	69.657	-1.813	-2.537%	95.073	-16.535	-14.815%
saturate	3	65.19	-0.79	-1.197%	49.65	-5.68	-10.265%	71.796	0.326	0.456%	109.935	-1.673	-1.499%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	4	59.9	-6.08	-9.215%	46.621	-8.709	-15.740%	66.915	-4.555	-6.373%	92.218	-19.39	-17.373%
gaussian_noise	4	60.16	-5.82	-8.821%	47.166	-8.184	-14.792%	66.93	-4.54	-6.533%	92.785	-18.823	-16.866%
shot_noise	4	59.64	-6.34	-9.609%	46.796	-8.534	-15.424%	66.485	-4.985	-6.975%	91.896	-19.712	-17.662%
speckle_noise	4	61.51	-4.47	-6.775%	47.957	-7.373	-13.326%	68.092	-3.378	-4.726%	99.309	-12.299	-11.020%
zoom_blur	4	51.26	-14.72	-22.310%	40.881	-14.449	-26.114%	57.055	-14.415	-20.170%	46.028	-65.58	-58.759%
defocus_blur	4	60.91	-5.07	-7.684%	47.058	-8.272	-14.950%	67.834	-3.636	-5.087%	93.843	-17.765	-15.917%
motion_blur	4	59.6	-6.38	-9.670%	46.661	-8.669	-15.668%	66.6	-4.87	-6.814%	86.126	-25.482	-22.832%
glass_blur	4	56.87	-9.11	-13.807%	44.482	-10.848	-19.605%	66.528	-4.942	-6.915%	77.062	-34.546	-30.953%
gaussian_blur	4	61.44	-4.54	-6.881%	47.694	-7.636	-13.800%	68.078	-3.392	-4.746%	96.446	-15.162	-13.585%
jpeg_compression	4	63.77	-2.21	-3.349%	49.213	-6.117	-11.056%	70.044	-1.426	-1.995%	105.105	-6.503	-5.826%
contrast	4	58.69	-7.29	-11.049%	46.057	-9.273	-16.760%	65.595	-5.875	-8.220%	90.592	-21.016	-18.830%
elastic_transform	4	62.05	-3.93	-5.956%	47.368	-7.962	-14.389%	69.743	-1.727	-2.416%	96.739	-14.869	-13.323%
pixelate	4	55.86	-10.12	-15.338%	44.697	-10.633	-19.217%	61.877	-9.593	-13.422%	73.555	-38.053	-34.095%
snow	4	53.9	-12.08	-18.309%	42.185	-13.145	-23.758%	61.964	-9.506	-13.301%	64.249	-47.359	-42.434%
frost	4	56.09	-9.89	-14.989%	43.799	-11.531	-20.841%	64.719	-6.751	-9.445%	76.758	-34.85	-31.226%
fog	4	60.65	-5.33	-8.078%	47.678	-7.652	-13.829%	68.423	-3.047	-4.264%	98.035	-13.573	-12.161%
brightness	4	63.93	-2.05	-3.107%	49.388	-5.942	-10.740%	69.542	-1.928	-2.697%	105.8	-5.808	-5.203%
spatter	4	58.78	-7.2	-10.912%	45.111	-10.219	-18.470%	66.901	-4.569	-6.393%	86.529	-25.079	-22.471%
saturate	4	62.61	-3.37	-5.108%	48.497	-6.833	-12.349%	69.183	-2.287	-3.200%	104.089	-7.519	-6.737%

corruption	severity	VQA			GQA			NLVR			Caption		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
impulse_noise	5	55.93	-10.05	-15.232%	44.3	-11.03	-19.936%	63.916	-7.554	-10.570%	79.424	-32.184	-28.837%
gaussian_noise	5	55.97	-10.01	-15.171%	44.355	-10.975	-19.835%	64.145	-7.325	-10.249%	78.576	-33.032	-29.596%
shot_noise	5	57.1	-8.88	-13.459%	44.721	-10.609	-19.174%	64.303	-7.167	-10.028%	83.25	-28.358	-25.409%
speckle_noise	5	59.57											

Table 24: Performance and decrease ratio of Full Finetuning on CLIP-BART against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	55.75	-11.0	-16.479%	44.769	-10.271	-18.662%	56.581	-16.429	-22.502%
typos	1.0	57.86	-8.89	-13.318%	46.128	-8.912	-16.192%	70.044	-2.966	-4.062%
keyboard	1.0	56.36	-10.39	-15.566%	44.753	-10.287	-18.691%	69.671	-3.339	-4.573%
spell_error	1.0	57.38	-9.37	-14.037%	46.375	-8.665	-15.744%	69.915	-3.095	-4.239%
random_char_insert	1.0	52.55	-14.2	-21.273%	36.015	-19.025	-34.565%	64.605	-8.405	-11.513%
random_char_replace	1.0	48.69	-18.06	-27.056%	32.35	-22.69	-41.224%	62.48	-10.53	-14.422%
random_char_swap	1.0	42.09	-24.66	-36.944%	26.499	-28.541	-51.856%	58.088	-14.922	-20.438%
random_char_delete	1.0	50.47	-16.28	-24.390%	34.982	-20.058	-36.443%	63.298	-9.712	-13.302%
random_word_insert	1.0	66.71	-0.04	-0.060%	52.568	-2.472	-4.491%	71.308	-1.702	-2.332%
random_word_delete	1.0	66.55	-0.2	-0.300%	53.896	-1.144	-2.079%	72.255	-0.755	-1.034%
swap_syn_word_emb	1.0	55.57	-11.18	-16.749%	46.232	-8.808	-16.004%	67.604	-5.406	-7.404%
swap_syn_word_net	1.0	58.71	-8.04	-12.045%	47.535	-7.505	-13.635%	70.533	-2.477	-3.393%
random_word_swap	1.0	66.67	-0.08	-0.120%	54.071	-0.969	-1.761%	72.47	-0.54	-0.739%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	55.49	-11.26	-16.869%	39.998	-15.042	-27.328%	65.509	-7.501	-10.274%
typos	2.0	56.43	-10.32	-15.461%	41.294	-13.746	-24.974%	66.241	-6.769	-9.272%
keyboard	2.0	55.84	-10.91	-16.345%	40.022	-15.018	-27.285%	65.652	-7.358	-10.078%
spell_error	2.0	57.18	-9.57	-14.337%	42.28	-12.76	-23.183%	66.671	-6.339	-8.682%
random_char_insert	2.0	41.54	-25.21	-37.768%	26.101	-28.939	-52.578%	59.05	-13.96	-19.121%
random_char_replace	2.0	36.15	-30.6	-45.843%	22.404	-32.636	-59.295%	56.796	-16.214	-22.207%
random_char_swap	2.0	32.66	-34.09	-51.071%	20.782	-34.258	-62.241%	54.816	-18.194	-24.920%
random_char_delete	2.0	38.71	-28.04	-42.007%	25.338	-29.702	-53.965%	57.887	-15.123	-20.713%
random_word_insert	2.0	65.25	-1.5	-2.247%	47.233	-7.807	-14.184%	68.724	-4.286	-5.870%
random_word_delete	2.0	60.35	-6.4	-9.588%	48.434	-6.606	-12.003%	69.686	-3.324	-4.553%
swap_syn_word_emb	2.0	55.13	-11.62	-17.408%	42.113	-12.927	-23.486%	62.94	-10.07	-13.793%
swap_syn_word_net	2.0	57.75	-9.0	-13.483%	44.443	-10.597	-19.254%	66.557	-6.453	-8.839%
random_word_swap	2.0	65.49	-1.26	-1.888%	51.868	-3.172	-5.762%	72.126	-0.884	-1.211%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	50.29	-16.46	-24.659%	31.881	-23.159	-42.077%	59.968	-13.042	-17.863%
typos	3.0	51.4	-15.35	-22.996%	34.306	-20.734	-37.671%	63.901	-9.109	-12.476%
keyboard	3.0	50.14	-16.61	-24.884%	31.857	-23.183	-42.120%	62.581	-10.429	-14.285%
spell_error	3.0	51.32	-15.43	-23.116%	34.616	-20.424	-37.108%	62.753	-10.257	-14.049%
random_char_insert	3.0	33.4	-33.35	-49.963%	21.259	-33.781	-61.375%	55.82	-17.19	-23.544%
random_char_replace	3.0	28.51	-38.24	-57.288%	18.771	-36.269	-65.896%	54.83	-18.18	-24.901%
random_char_swap	3.0	28.26	-38.49	-57.663%	18.588	-36.452	-66.228%	51.859	-21.151	-28.970%
random_char_delete	3.0	31.71	-35.04	-52.494%	21.021	-34.019	-61.808%	54.557	-18.453	-25.274%
random_word_insert	3.0	63.51	-3.24	-4.854%	41.628	-13.412	-24.367%	66.341	-6.669	-9.134%
random_word_delete	3.0	57.44	-9.31	-13.948%	43.862	-11.178	-20.308%	67.188	-5.822	-7.974%
swap_syn_word_emb	3.0	50.7	-16.05	-24.045%	36.039	-19.001	-34.522%	59.61	-13.4	-18.354%
swap_syn_word_net	3.0	54.09	-12.66	-18.966%	39.323	-15.717	-28.556%	64.375	-8.635	-11.827%
random_word_swap	3.0	64.85	-1.9	-2.846%	50.024	-5.016	-9.114%	70.963	-2.047	-2.804%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	43.5	-23.25	-34.831%	26.88	-28.16	-51.162%	56.854	-16.156	-22.129%
typos	4.0	43.21	-23.54	-35.266%	27.54	-27.5	-49.963%	59.925	-13.085	-17.922%
keyboard	4.0	40.5	-26.25	-39.326%	25.298	-29.742	-54.037%	59.064	-13.946	-19.101%
spell_error	4.0	43.0	-23.75	-35.581%	28.518	-26.522	-48.187%	58.72	-14.29	-19.573%
random_char_insert	4.0	27.94	-38.81	-58.142%	19.145	-35.895	-65.217%	54.342	-18.668	-25.569%
random_char_replace	4.0	23.72	-43.03	-64.464%	17.427	-37.613	-68.337%	53.108	-19.902	-27.260%
random_char_swap	4.0	26.2	-40.55	-60.749%	18.047	-36.993	-67.210%	51.514	-21.496	-29.442%
random_char_delete	4.0	26.09	-40.66	-60.914%	18.97	-36.07	-65.535%	53.222	-19.788	-27.103%
random_word_insert	4.0	59.59	-7.16	-10.727%	37.963	-17.077	-31.026%	65.093	-7.917	-10.844%
random_word_delete	4.0	50.03	-16.72	-25.049%	37.987	-17.053	-30.983%	66.04	-6.97	-9.547%
swap_syn_word_emb	4.0	46.8	-19.95	-29.888%	32.994	-22.046	-40.054%	57.485	-15.525	-21.264%
swap_syn_word_net	4.0	50.61	-16.14	-24.180%	36.476	-18.564	-33.727%	61.059	-11.951	-16.369%
random_word_swap	4.0	64.18	-2.57	-3.850%	48.839	-6.201	-11.266%	71.537	-1.473	-2.017%

Table 25: Performance and decrease ratio of Full Finetuning on CLIP-BART against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	40.23	-26.52	-39.730%	23.66	-31.38	-57.012%	54.17	-18.84	-25.805%
punctuation	5.0	65.94	-0.81	-1.213%	54.309	-0.731	-1.328%	72.355	-0.655	-0.897%
typos	5.0	30.35	-36.4	-54.532%	19.979	-35.061	-63.700%	53.136	-19.874	-27.221%
keyboard	5.0	27.34	-39.41	-59.041%	18.055	-36.985	-67.196%	50.854	-22.156	-30.346%
spell_error	5.0	36.24	-30.51	-45.708%	24.257	-30.783	-55.929%	55.691	-17.319	-23.721%
random_char_insert	5.0	23.51	-43.24	-64.779%	17.849	-37.191	-67.572%	52.591	-20.419	-27.968%
random_char_replace	5.0	19.82	-46.93	-70.307%	16.092	-38.948	-70.764%	51.974	-21.036	-28.813%
random_char_swap	5.0	25.33	-41.42	-62.052%	18.922	-36.118	-65.621%	52.591	-20.419	-27.968%
random_char_delete	5.0	22.22	-44.53	-66.712%	18.095	-36.945	-67.124%	51.615	-21.395	-29.305%
to_passive	5.0	62.82	-3.93	-5.888%	51.224	-3.816	-6.932%	70.131	-2.879	-3.944%
tense	5.0	65.81	-0.94	-1.408%	54.826	-0.214	-0.389%	73.044	0.034	0.047%
to_formal	5.0	66.24	-0.51	-0.764%	53.935	-1.105	-2.007%	72.47	-0.54	-0.739%
to_casual	5.0	63.58	-3.17	-4.749%	51.566	-3.474	-6.311%	71.107	-1.903	-2.607%
to_active	5.0	64.88	-1.87	-2.801%	53.26	-1.78	-3.235%	72.384	-0.626	-0.857%
double_denial	5.0	66.63	-0.12	-0.180%	55.033	-0.007	-0.013%	73.016	0.006	0.008%
insert_adv	5.0	61.67	-5.08	-7.610%	49.61	-5.43	-9.865%	70.547	-2.463	-3.374%
append_irr	5.0	60.56	-6.19	-9.273%	47.194	-7.846	-14.256%	66.571	-6.439	-8.819%
random_word_insert	5.0	55.76	-10.99	-16.464%	32.0	-23.04	-41.860%	63.356	-9.654	-13.223%
drop_nn	5.0	43.85	-22.9	-34.307%	30.919	-24.121	-43.824%	60.672	-12.338	-16.899%
drop_rand_one_nn	5.0	57.5	-9.25	-13.858%	45.476	-9.564	-17.376%	71.049	-1.961	-2.686%
drop_vb	5.0	58.63	-8.12	-12.165%	40.356	-14.684	-26.678%	68.451	-4.559	-6.244%
drop_vb_nn	5.0	43.14	-23.61	-35.371%	27.373	-27.667	-50.267%	57.858	-15.152	-20.753%
only_nn	5.0	32.64	-34.11	-51.101%	20.234	-34.806	-63.238%	52.16	-20.85	-28.557%
only_vb	5.0	51.97	-14.78	-22.142%	39.831	-15.209	-27.632%	65.265	-7.745	-10.608%
only_vb_nn	5.0	37.61	-29.14	-43.655%	21.848	-33.192	-60.306%	54.084	-18.926	-25.923%
drop_rand_one_vb	5.0	63.63	-3.12	-4.674%	47.257	-7.783	-14.140%	71.035	-1.975	-2.705%
drop_first	5.0	56.8	-9.95	-14.906%	39.744	-15.296	-27.791%	70.748	-2.262	-3.098%
drop_last	5.0	54.22	-12.53	-18.772%	45.548	-9.492	-17.246%	69.068	-3.942	-5.399%
drop_first_and_last	5.0	40.6	-26.15	-39.176%	31.436	-23.604	-42.885%	65.294	-7.716	-10.569%
shuffle_order	5.0	59.93	-6.82	-10.217%	41.724	-13.316	-24.194%	68.408	-4.602	-6.303%
random_word_delete	5.0	42.58	-24.17	-36.210%	31.849	-23.191	-42.134%	63.959	-9.051	-12.397%
swap_syn_word_emb	5.0	46.06	-20.69	-30.996%	32.0	-23.04	-41.860%	57.916	-15.094	-20.674%
swap_syn_word_net	5.0	46.31	-20.44	-30.622%	35.165	-19.875	-36.111%	58.619	-14.391	-19.711%
back_trans	5.0	62.77	-3.98	-5.963%	50.549	-4.491	-8.160%	71.781	-1.229	-1.683%
random_word_swap	5.0	63.54	-3.21	-4.809%	47.917	-7.123	-12.942%	70.69	-2.32	-3.177%
nonsense	5.0	0.0	-66.75	-100.000%	17.038	-38.002	-69.045%	51.227	-21.783	-29.835%

Table 26: Performance and decrease ratio of Half-shared Adapters on CLIP-BART against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	55.06	-10.14	-15.552%	42.662	-10.298	-19.445%	55.304	-14.726	-21.029%
typos	1.0	56.41	-8.79	-13.482%	45.015	-7.945	-15.002%	67.963	-2.067	-2.951%
keyboard	1.0	55.45	-9.75	-14.954%	43.91	-9.05	-17.088%	67.332	-2.698	-3.853%
spell_error	1.0	55.93	-9.27	-14.218%	45.031	-7.929	-14.972%	67.389	-2.641	-3.771%
random_char_insert	1.0	51.8	-13.4	-20.552%	36.087	-16.873	-31.860%	62.064	-7.966	-11.375%
random_char_replace	1.0	47.95	-17.25	-26.457%	32.644	-20.316	-38.360%	60.126	-9.904	-14.142%
random_char_swap	1.0	41.02	-24.18	-37.086%	26.515	-26.445	-49.935%	55.476	-14.554	-20.783%
random_char_delete	1.0	49.17	-16.03	-24.586%	34.107	-18.853	-35.598%	61.131	-8.899	-12.707%
random_word_insert	1.0	65.15	-0.05	-0.077%	51.328	-1.632	-3.082%	69.714	-0.316	-0.451%
random_word_delete	1.0	65.02	-0.18	-0.276%	51.813	-1.147	-2.166%	69.815	-0.215	-0.307%
swap_syn_word_emb	1.0	55.38	-9.82	-15.061%	45.659	-7.301	-13.786%	65.738	-4.292	-6.128%
swap_syn_word_net	1.0	57.86	-7.34	-11.258%	45.54	-7.42	-14.011%	68.006	-2.024	-2.890%
random_word_swap	1.0	65.1	-0.1	-0.153%	52.163	-0.797	-1.506%	69.714	-0.316	-0.451%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	54.41	-10.79	-16.549%	38.822	-14.138	-26.696%	63.313	-6.717	-9.592%
typos	2.0	55.4	-9.8	-15.031%	40.595	-12.365	-23.348%	64.834	-5.196	-7.419%
keyboard	2.0	54.98	-10.22	-15.675%	39.768	-13.192	-24.910%	64.174	-5.856	-8.362%
spell_error	2.0	55.42	-9.78	-15.000%	41.93	-11.03	-20.826%	64.791	-5.239	-7.481%
random_char_insert	2.0	41.39	-23.81	-36.518%	26.419	-26.541	-50.115%	55.347	-14.683	-20.967%
random_char_replace	2.0	37.23	-27.97	-42.899%	22.619	-30.341	-57.291%	53.352	-16.678	-23.816%
random_char_swap	2.0	32.29	-32.91	-50.475%	19.447	-33.513	-63.280%	50.854	-19.176	-27.383%
random_char_delete	2.0	38.42	-26.78	-41.074%	25.449	-27.511	-51.946%	56.021	-14.009	-20.004%
random_word_insert	2.0	64.26	-0.94	-1.442%	47.837	-5.123	-9.672%	68.681	-1.349	-1.926%
random_word_delete	2.0	59.85	-5.35	-8.206%	45.635	-7.325	-13.831%	68.064	-1.966	-2.808%
swap_syn_word_emb	2.0	54.59	-10.61	-16.273%	42.574	-10.386	-19.610%	61.791	-8.239	-11.765%
swap_syn_word_net	2.0	57.46	-7.74	-11.871%	43.632	-9.328	-17.614%	65.968	-4.062	-5.800%
random_word_swap	2.0	63.95	-1.25	-1.917%	49.897	-3.063	-5.784%	69.083	-0.947	-1.353%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	49.77	-15.43	-23.666%	31.221	-21.739	-41.048%	58.992	-11.038	-15.761%
typos	3.0	50.85	-14.35	-22.009%	34.147	-18.813	-35.523%	61.289	-8.741	-12.482%
keyboard	3.0	49.41	-15.79	-24.218%	33.042	-19.918	-37.610%	60.098	-9.932	-14.183%
spell_error	3.0	50.33	-14.87	-22.807%	35.029	-17.931	-33.857%	61.576	-8.454	-12.072%
random_char_insert	3.0	34.78	-30.42	-46.656%	21.275	-31.685	-59.828%	52.203	-17.827	-25.456%
random_char_replace	3.0	31.33	-33.87	-51.948%	18.119	-34.841	-65.788%	50.696	-19.334	-27.608%
random_char_swap	3.0	28.51	-36.69	-56.273%	17.149	-35.811	-67.619%	50.208	-19.822	-28.305%
random_char_delete	3.0	33.0	-32.2	-49.387%	20.266	-32.694	-61.734%	53.05	-16.98	-24.247%
random_word_insert	3.0	63.47	-1.73	-2.653%	44.872	-8.088	-15.272%	68.293	-1.737	-2.480%
random_word_delete	3.0	57.15	-8.05	-12.347%	41.954	-11.006	-20.781%	65.494	-4.536	-6.477%
swap_syn_word_emb	3.0	50.79	-14.41	-22.101%	37.065	-15.895	-30.014%	58.921	-11.109	-15.864%
swap_syn_word_net	3.0	53.94	-11.26	-17.270%	38.591	-14.369	-27.131%	62.566	-7.464	-10.658%
random_word_swap	3.0	63.24	-1.96	-3.006%	48.656	-4.304	-8.126%	68.767	-1.263	-1.803%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	43.02	-22.18	-34.018%	26.276	-26.684	-50.385%	55.863	-14.167	-20.229%
typos	4.0	42.01	-23.19	-35.567%	27.588	-25.372	-47.908%	57.672	-12.358	-17.647%
keyboard	4.0	40.04	-25.16	-38.589%	26.014	-26.946	-50.881%	56.882	-13.148	-18.774%
spell_error	4.0	41.43	-23.77	-36.457%	28.701	-24.259	-45.806%	57.155	-12.875	-18.385%
random_char_insert	4.0	30.45	-34.75	-53.298%	17.554	-35.406	-66.853%	50.452	-19.578	-27.956%
random_char_replace	4.0	28.05	-37.15	-56.979%	15.145	-37.815	-71.402%	50.438	-19.592	-27.977%
random_char_swap	4.0	26.75	-38.45	-58.972%	15.869	-37.091	-70.036%	50.065	-19.965	-28.510%
random_char_delete	4.0	29.76	-35.44	-54.356%	17.936	-35.024	-66.133%	51.385	-18.645	-26.624%
random_word_insert	4.0	61.26	-3.94	-6.043%	41.724	-11.236	-21.217%	67.217	-2.813	-4.017%
random_word_delete	4.0	50.83	-14.37	-22.040%	35.928	-17.032	-32.160%	64.217	-5.813	-8.301%
swap_syn_word_emb	4.0	46.53	-18.67	-28.635%	34.258	-18.702	-35.313%	57.959	-12.071	-17.237%
swap_syn_word_net	4.0	50.42	-14.78	-22.669%	35.888	-17.072	-32.236%	59.638	-10.392	-14.839%
random_word_swap	4.0	62.6	-2.6	-3.988%	47.194	-5.766	-10.888%	68.896	-1.134	-1.619%

Table 27: Performance and decrease ratio of Half-shared Adapters on CLIP-BART against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	39.61	-25.59	-39.248%	23.644	-29.316	-55.354%	53.337	-16.693	-23.837%
punctuation	5.0	64.58	-0.62	-0.951%	51.63	-1.33	-2.512%	69.628	-0.402	-0.574%
typos	5.0	29.71	-35.49	-54.433%	19.908	-33.052	-62.410%	51.687	-18.343	-26.194%
keyboard	5.0	27.36	-37.84	-58.037%	18.986	-33.974	-64.151%	50.61	-19.42	-27.731%
spell_error	5.0	34.42	-30.78	-47.209%	24.503	-28.457	-53.733%	54.457	-15.573	-22.238%
random_char_insert	5.0	28.04	-37.16	-56.994%	16.147	-36.813	-69.510%	49.677	-20.353	-29.063%
random_char_replace	5.0	26.58	-38.62	-59.233%	13.54	-39.42	-74.434%	50.079	-19.951	-28.489%
random_char_swap	5.0	26.08	-39.12	-60.000%	16.227	-36.733	-69.360%	51.112	-18.918	-27.014%
random_char_delete	5.0	27.36	-37.84	-58.037%	16.6	-36.36	-68.655%	51.184	-18.846	-26.911%
to_passive	5.0	62.61	-2.59	-3.972%	45.937	-7.023	-13.260%	67.159	-2.871	-4.099%
tense	5.0	64.41	-0.79	-1.212%	52.608	-0.352	-0.665%	69.7	-0.33	-0.471%
to_formal	5.0	64.81	-0.39	-0.598%	52.123	-0.837	-1.581%	69.585	-0.445	-0.635%
to_casual	5.0	62.36	-2.84	-4.356%	48.171	-4.789	-9.042%	68.537	-1.493	-2.131%
to_active	5.0	63.44	-1.76	-2.699%	50.143	-2.817	-5.319%	69.327	-0.703	-1.004%
double_denial	5.0	65.15	-0.05	-0.077%	52.965	0.005	0.010%	70.016	-0.014	-0.020%
insert_adv	5.0	62.0	-3.2	-4.908%	50.294	-2.666	-5.034%	68.911	-1.119	-1.598%
append_irr	5.0	61.15	-4.05	-6.212%	48.37	-4.59	-8.667%	64.102	-5.928	-8.465%
random_word_insert	5.0	58.49	-6.71	-10.291%	37.407	-15.553	-29.368%	65.566	-4.464	-6.374%
drop_nn	5.0	45.44	-19.76	-30.307%	32.644	-20.316	-38.360%	63.801	-6.229	-8.895%
drop_rand_one_nn	5.0	57.06	-8.14	-12.485%	44.872	-8.088	-15.272%	68.667	-1.363	-1.947%
drop_vb	5.0	59.61	-5.59	-8.574%	38.289	-14.671	-27.702%	67.231	-2.799	-3.997%
drop_vb_nn	5.0	46.1	-19.1	-29.294%	22.619	-30.341	-57.291%	60.801	-9.229	-13.179%
only_nn	5.0	34.27	-30.93	-47.439%	12.22	-40.74	-76.926%	56.193	-13.837	-19.758%
only_vb	5.0	52.86	-12.34	-18.926%	39.005	-13.955	-26.351%	65.337	-4.693	-6.702%
only_vb_nn	5.0	44.08	-21.12	-32.393%	30.522	-22.438	-42.369%	58.605	-11.425	-16.315%
drop_rand_one_vb	5.0	63.06	-2.14	-3.282%	46.112	-6.848	-12.930%	68.293	-1.737	-2.480%
drop_first	5.0	60.34	-4.86	-7.454%	43.187	-9.773	-18.454%	68.609	-1.421	-2.029%
drop_last	5.0	54.14	-11.06	-16.963%	46.08	-6.88	-12.990%	67.547	-2.483	-3.546%
drop_first_and_last	5.0	46.95	-18.25	-27.991%	34.68	-18.28	-34.517%	66.413	-3.617	-5.165%
shuffle_order	5.0	58.03	-7.17	-10.997%	40.698	-12.262	-23.153%	64.791	-5.239	-7.481%
random_word_delete	5.0	45.05	-20.15	-30.905%	30.243	-22.717	-42.894%	62.523	-7.507	-10.719%
swap_syn_word_emb	5.0	45.89	-19.31	-29.617%	33.026	-19.934	-37.640%	57.442	-12.588	-17.975%
swap_syn_word_net	5.0	47.68	-17.52	-26.871%	35.292	-17.668	-33.361%	57.93	-12.1	-17.278%
back_trans	5.0	61.61	-3.59	-5.506%	49.61	-3.35	-6.325%	68.81	-1.22	-1.742%
random_word_swap	5.0	61.69	-3.51	-5.383%	45.937	-7.023	-13.260%	67.762	-2.268	-3.238%
nonsense	5.0	11.67	-53.53	-82.101%	7.457	-45.503	-85.919%	51.285	-18.745	-26.768%

Table 28: Performance and decrease ratio of Hyperformer on CLIP-BART against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	54.68	-10.7	-16.366%	42.821	-9.699	-18.468%	56.94	-15.27	-21.147%
typos	1.0	56.24	-9.14	-13.980%	45.047	-7.473	-14.229%	69.772	-2.438	-3.377%
keyboard	1.0	55.04	-10.34	-15.815%	43.95	-8.57	-16.318%	69.198	-3.012	-4.172%
spell_error	1.0	55.72	-9.66	-14.775%	44.753	-7.767	-14.789%	69.241	-2.969	-4.112%
random_char_insert	1.0	51.13	-14.25	-21.796%	35.983	-16.537	-31.486%	63.815	-8.395	-11.626%
random_char_replace	1.0	47.55	-17.83	-27.271%	31.825	-20.695	-39.403%	62.007	-10.203	-14.130%
random_char_swap	1.0	41.02	-24.36	-37.259%	26.244	-26.276	-50.030%	57.04	-15.17	-21.008%
random_char_delete	1.0	49.05	-16.33	-24.977%	34.449	-18.071	-34.408%	63.241	-8.969	-12.421%
random_word_insert	1.0	65.32	-0.06	-0.092%	50.636	-1.884	-3.587%	71.652	-0.558	-0.773%
random_word_delete	1.0	65.21	-0.17	-0.260%	51.36	-1.16	-2.210%	71.681	-0.529	-0.733%
swap_syn_word_emb	1.0	55.18	-10.2	-15.601%	45.5	-7.02	-13.366%	67.317	-4.893	-6.776%
swap_syn_word_net	1.0	57.82	-7.56	-11.563%	46.128	-6.392	-12.170%	69.427	-2.783	-3.854%
random_word_swap	1.0	65.28	-0.1	-0.153%	51.725	-0.795	-1.513%	71.781	-0.429	-0.594%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	53.7	-11.68	-17.865%	39.307	-13.213	-25.159%	65.308	-6.902	-9.558%
typos	2.0	54.86	-10.52	-16.091%	41.048	-11.472	-21.843%	66.169	-6.041	-8.366%
keyboard	2.0	54.58	-10.8	-16.519%	40.269	-12.251	-23.327%	66.557	-5.653	-7.829%
spell_error	2.0	55.08	-10.3	-15.754%	42.217	-10.303	-19.618%	65.624	-6.586	-9.121%
random_char_insert	2.0	41.12	-24.26	-37.106%	25.529	-26.991	-51.392%	57.744	-14.466	-20.034%
random_char_replace	2.0	36.76	-28.62	-43.775%	22.571	-29.949	-57.024%	55.935	-16.275	-22.538%
random_char_swap	2.0	31.93	-33.45	-51.162%	19.868	-32.652	-62.171%	52.82	-19.39	-26.852%
random_char_delete	2.0	38.54	-26.84	-41.052%	25.401	-27.119	-51.635%	56.768	-15.442	-21.385%
random_word_insert	2.0	63.6	-1.78	-2.723%	46.947	-5.573	-10.611%	70.26	-1.95	-2.701%
random_word_delete	2.0	59.43	-5.95	-9.101%	46.454	-6.066	-11.550%	68.911	-3.299	-4.569%
swap_syn_word_emb	2.0	54.64	-10.74	-16.427%	42.391	-10.129	-19.285%	62.466	-9.744	-13.494%
swap_syn_word_net	2.0	57.61	-7.77	-11.884%	44.292	-8.228	-15.667%	67.002	-5.208	-7.213%
random_word_swap	2.0	64.03	-1.35	-2.065%	49.428	-3.092	-5.888%	71.193	-1.017	-1.409%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	49.21	-16.17	-24.732%	32.509	-20.011	-38.101%	61.648	-10.562	-14.627%
typos	3.0	50.18	-15.2	-23.249%	34.958	-17.562	-33.439%	63.528	-8.682	-12.023%
keyboard	3.0	48.68	-16.7	-25.543%	33.09	-19.43	-36.996%	62.308	-9.902	-13.713%
spell_error	3.0	50.07	-15.31	-23.417%	35.165	-17.355	-33.045%	62.466	-9.744	-13.494%
random_char_insert	3.0	33.75	-31.63	-48.379%	21.506	-31.014	-59.052%	54.299	-17.911	-24.804%
random_char_replace	3.0	30.61	-34.77	-53.181%	19.9	-32.62	-62.110%	51.687	-20.523	-28.422%
random_char_swap	3.0	28.17	-37.21	-56.913%	18.031	-34.489	-65.667%	50.954	-21.256	-29.436%
random_char_delete	3.0	32.97	-32.41	-49.572%	20.822	-31.698	-60.354%	53.997	-18.213	-25.222%
random_word_insert	3.0	61.46	-3.92	-5.996%	42.439	-10.081	-19.194%	67.949	-4.261	-5.901%
random_word_delete	3.0	56.52	-8.86	-13.552%	42.924	-9.596	-18.271%	67.059	-5.151	-7.133%
swap_syn_word_emb	3.0	50.61	-14.77	-22.591%	37.001	-15.519	-29.549%	60.299	-11.911	-16.496%
swap_syn_word_net	3.0	53.92	-11.46	-17.528%	40.022	-12.498	-23.796%	63.37	-8.84	-12.242%
random_word_swap	3.0	63.19	-2.19	-3.350%	48.267	-4.253	-8.098%	70.418	-1.792	-2.482%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	49.21	-16.17	-24.732%	32.509	-20.011	-38.101%	61.648	-10.562	-14.627%
typos	3.0	50.18	-15.2	-23.249%	34.958	-17.562	-33.439%	63.528	-8.682	-12.023%
keyboard	3.0	48.68	-16.7	-25.543%	33.09	-19.43	-36.996%	62.308	-9.902	-13.713%
spell_error	3.0	50.07	-15.31	-23.417%	35.165	-17.355	-33.045%	62.466	-9.744	-13.494%
random_char_insert	3.0	33.75	-31.63	-48.379%	21.506	-31.014	-59.052%	54.299	-17.911	-24.804%
random_char_replace	3.0	30.61	-34.77	-53.181%	19.9	-32.62	-62.110%	51.687	-20.523	-28.422%
random_char_swap	3.0	28.17	-37.21	-56.913%	18.031	-34.489	-65.667%	50.954	-21.256	-29.436%
random_char_delete	3.0	32.97	-32.41	-49.572%	20.822	-31.698	-60.354%	53.997	-18.213	-25.222%
random_word_insert	3.0	61.46	-3.92	-5.996%	42.439	-10.081	-19.194%	67.949	-4.261	-5.901%
random_word_delete	3.0	56.52	-8.86	-13.552%	42.924	-9.596	-18.271%	67.059	-5.151	-7.133%
swap_syn_word_emb	3.0	50.61	-14.77	-22.591%	37.001	-15.519	-29.549%	60.299	-11.911	-16.496%
swap_syn_word_net	3.0	53.92	-11.46	-17.528%	40.022	-12.498	-23.796%	63.37	-8.84	-12.242%
random_word_swap	3.0	63.19	-2.19	-3.350%	48.267	-4.253	-8.098%	70.418	-1.792	-2.482%

Table 29: Performance and decrease ratio of Hyperformer on CLIP-BART against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	39.58	-25.8	-39.462%	24.948	-27.572	-52.497%	54.729	-17.481	-24.208%
punctuation	5.0	64.57	-0.81	-1.239%	51.304	-1.216	-2.316%	71.509	-0.701	-0.971%
typos	5.0	29.88	-35.5	-54.298%	19.924	-32.596	-62.065%	51.73	-20.48	-28.362%
keyboard	5.0	27.13	-38.25	-58.504%	18.898	-33.622	-64.017%	50.969	-21.241	-29.416%
spell_error	5.0	34.74	-30.64	-46.864%	24.67	-27.85	-53.027%	55.031	-17.179	-23.791%
random_char_insert	5.0	27.42	-37.96	-58.061%	18.747	-33.773	-64.305%	51.184	-21.026	-29.118%
random_char_replace	5.0	25.64	-39.74	-60.783%	18.286	-34.234	-65.183%	50.165	-22.045	-30.529%
random_char_swap	5.0	25.53	-39.85	-60.951%	18.58	-33.94	-64.623%	51.242	-20.968	-29.038%
random_char_delete	5.0	27.21	-38.17	-58.382%	17.825	-34.695	-66.061%	51.572	-20.638	-28.581%
to_passive	5.0	62.96	-2.42	-3.701%	47.209	-5.311	-10.112%	68.882	-3.328	-4.609%
tense	5.0	64.51	-0.87	-1.331%	52.425	-0.095	-0.181%	72.14	-0.07	-0.097%
to_formal	5.0	64.84	-0.54	-0.826%	51.948	-0.572	-1.089%	71.681	-0.529	-0.733%
to_casual	5.0	62.6	-2.78	-4.252%	47.83	-4.69	-8.931%	70.174	-2.036	-2.820%
to_active	5.0	63.74	-1.64	-2.508%	50.223	-2.297	-4.374%	70.834	-1.376	-1.906%
double_denial	5.0	65.27	-0.11	-0.168%	52.504	-0.016	-0.030%	72.198	-0.012	-0.017%
insert_adv	5.0	62.02	-3.36	-5.139%	49.523	-2.997	-5.706%	70.949	-1.261	-1.747%
append_irr	5.0	61.82	-3.56	-5.445%	46.446	-6.074	-11.565%	66.083	-6.127	-8.485%
random_word_insert	5.0	54.55	-10.83	-16.565%	34.576	-17.944	-34.166%	62.179	-10.031	-13.892%
drop_nn	5.0	44.68	-20.7	-31.661%	33.567	-18.953	-36.088%	61.289	-10.921	-15.124%
drop_rand_one_nn	5.0	56.79	-8.59	-13.139%	44.641	-7.879	-15.001%	70.533	-1.677	-2.323%
drop_vb	5.0	58.74	-6.64	-10.156%	41.779	-10.741	-20.451%	68.437	-3.773	-5.225%
drop_vb_nn	5.0	44.4	-20.98	-32.089%	30.601	-21.919	-41.734%	57.471	-14.739	-20.411%
only_nn	5.0	31.7	-33.68	-51.514%	20.711	-31.809	-60.566%	50.911	-21.299	-29.495%
only_vb	5.0	50.58	-14.8	-22.637%	37.844	-14.676	-27.944%	65.164	-7.046	-9.757%
only_vb_nn	5.0	33.83	-31.55	-48.256%	22.794	-29.726	-56.600%	52.663	-19.547	-27.070%
drop_rand_one_vb	5.0	62.77	-2.61	-3.992%	47.822	-4.698	-8.946%	71.049	-1.161	-1.607%
drop_first	5.0	55.2	-10.18	-15.571%	44.848	-7.672	-14.607%	70.834	-1.376	-1.906%
drop_last	5.0	53.48	-11.9	-18.201%	45.762	-6.758	-12.867%	68.911	-3.299	-4.569%
drop_first_and_last	5.0	41.86	-23.52	-35.974%	37.542	-14.978	-28.519%	66.097	-6.113	-8.465%
shuffle_order	5.0	57.24	-8.14	-12.450%	40.897	-11.623	-22.131%	68.179	-4.031	-5.583%
random_word_delete	5.0	44.82	-20.56	-31.447%	31.921	-20.599	-39.222%	63.083	-9.127	-12.639%
swap_syn_word_emb	5.0	46.01	-19.37	-29.627%	33.543	-18.977	-36.133%	58.576	-13.634	-18.881%
swap_syn_word_net	5.0	47.69	-17.69	-27.057%	36.294	-16.226	-30.896%	57.988	-14.222	-19.696%
back_trans	5.0	61.92	-3.46	-5.292%	49.579	-2.941	-5.600%	71.207	-1.003	-1.389%
random_word_swap	5.0	61.94	-3.44	-5.262%	46.335	-6.185	-11.777%	70.102	-2.108	-2.919%
nonsense	5.0	8.62	-56.76	-86.816%	13.905	-38.615	-73.524%	51.801	-20.409	-28.263%

Table 30: Performance and decrease ratio of Multiple Adapters on CLIP-BART against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	54.59	-10.71	-16.401%	41.747	-11.643	-21.807%	54.758	-14.652	-21.109%
typos	1.0	56.65	-8.65	-13.247%	43.457	-9.933	-18.605%	67.389	-2.021	-2.912%
keyboard	1.0	55.55	-9.75	-14.931%	42.272	-11.118	-20.824%	67.619	-1.791	-2.581%
spell_error	1.0	56.09	-9.21	-14.104%	44.021	-9.369	-17.548%	66.987	-2.423	-3.491%
random_char_insert	1.0	51.31	-13.99	-21.424%	35.681	-17.709	-33.168%	62.337	-7.073	-10.191%
random_char_replace	1.0	47.81	-17.49	-26.784%	32.183	-21.207	-39.721%	59.782	-9.628	-13.871%
random_char_swap	1.0	41.08	-24.22	-37.090%	26.045	-27.345	-51.217%	56.466	-12.944	-18.648%
random_char_delete	1.0	49.7	-15.6	-23.890%	33.209	-20.181	-37.800%	61.519	-7.891	-11.369%
random_word_insert	1.0	65.27	-0.03	-0.046%	49.825	-3.565	-6.677%	70.174	0.764	1.100%
random_word_delete	1.0	65.12	-0.18	-0.276%	50.453	-2.937	-5.501%	69.571	0.161	0.232%
swap_syn_word_emb	1.0	55.66	-9.64	-14.763%	44.188	-9.202	-17.235%	65.337	-4.073	-5.869%
swap_syn_word_net	1.0	58.23	-7.07	-10.827%	44.49	-8.9	-16.669%	67.375	-2.035	-2.932%
random_word_swap	1.0	65.21	-0.09	-0.138%	50.755	-2.635	-4.935%	70.044	0.634	0.914%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	54.06	-11.24	-17.213%	38.122	-15.268	-28.597%	63.227	-6.183	-8.908%
typos	2.0	55.31	-9.99	-15.299%	39.959	-13.431	-25.157%	64.49	-4.92	-7.089%
keyboard	2.0	54.76	-10.54	-16.141%	38.774	-14.616	-27.376%	63.844	-5.566	-8.019%
spell_error	2.0	55.47	-9.83	-15.054%	41.278	-12.112	-22.685%	64.605	-4.805	-6.923%
random_char_insert	2.0	41.08	-24.22	-37.090%	25.863	-27.527	-51.559%	56.423	-12.987	-18.710%
random_char_replace	2.0	36.94	-28.36	-43.430%	22.786	-30.604	-57.322%	54.902	-14.508	-20.902%
random_char_swap	2.0	32.02	-33.28	-50.965%	20.075	-33.315	-62.400%	52.002	-17.408	-25.080%
random_char_delete	2.0	38.7	-26.6	-40.735%	24.614	-28.776	-53.897%	56.495	-12.915	-18.607%
random_word_insert	2.0	64.55	-0.75	-1.149%	46.041	-7.349	-13.765%	69.356	-0.054	-0.078%
random_word_delete	2.0	60.42	-4.88	-7.473%	45.111	-8.279	-15.508%	67.863	-1.547	-2.229%
swap_syn_word_emb	2.0	54.89	-10.41	-15.942%	41.445	-11.945	-22.372%	61.935	-7.475	-10.770%
swap_syn_word_net	2.0	57.6	-7.7	-11.792%	42.495	-10.895	-20.407%	64.432	-4.978	-7.171%
random_word_swap	2.0	64.07	-1.23	-1.884%	48.45	-4.94	-9.253%	69.198	-0.212	-0.306%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	49.47	-15.83	-24.242%	31.086	-22.304	-41.776%	58.418	-10.992	-15.836%
typos	3.0	50.77	-14.53	-22.251%	33.249	-20.141	-37.725%	61.806	-7.604	-10.956%
keyboard	3.0	49.31	-15.99	-24.487%	31.865	-21.525	-40.316%	60.227	-9.183	-13.230%
spell_error	3.0	50.5	-14.8	-22.665%	34.719	-18.671	-34.970%	61.676	-7.734	-11.142%
random_char_insert	3.0	34.33	-30.97	-47.427%	21.72	-31.67	-59.317%	52.964	-16.446	-23.694%
random_char_replace	3.0	30.93	-34.37	-52.634%	19.518	-33.872	-63.442%	51.687	-17.723	-25.534%
random_char_swap	3.0	28.1	-37.2	-56.968%	18.111	-35.279	-66.078%	50.61	-18.8	-27.085%
random_char_delete	3.0	33.59	-31.71	-48.560%	20.87	-32.52	-60.911%	52.677	-16.733	-24.108%
random_word_insert	3.0	63.74	-1.56	-2.389%	42.654	-10.736	-20.109%	68.652	-0.758	-1.092%
random_word_delete	3.0	57.76	-7.54	-11.547%	41.151	-12.239	-22.923%	65.38	-4.03	-5.807%
swap_syn_word_emb	3.0	51.29	-14.01	-21.455%	36.524	-16.866	-31.590%	58.849	-10.561	-15.216%
swap_syn_word_net	3.0	54.43	-10.87	-16.646%	37.248	-16.142	-30.235%	61.834	-7.576	-10.914%
random_word_swap	3.0	63.46	-1.84	-2.818%	46.478	-6.912	-12.946%	69.068	-0.342	-0.492%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	42.33	-22.97	-35.176%	25.648	-27.742	-51.961%	54.586	-14.824	-21.357%
typos	4.0	41.86	-23.44	-35.896%	26.92	-26.47	-49.579%	58.059	-11.351	-16.353%
keyboard	4.0	39.79	-25.51	-39.066%	24.805	-28.585	-53.540%	57.055	-12.355	-17.800%
spell_error	4.0	42.07	-23.23	-35.574%	28.121	-25.269	-47.330%	57.313	-12.097	-17.428%
random_char_insert	4.0	30.15	-35.15	-53.828%	19.351	-34.039	-63.755%	51.658	-17.752	-25.576%
random_char_replace	4.0	28.39	-36.91	-56.524%	18.175	-35.215	-65.959%	51.242	-18.168	-26.176%
random_char_swap	4.0	26.51	-38.79	-59.403%	17.944	-35.446	-66.391%	50.309	-19.101	-27.520%
random_char_delete	4.0	30.31	-34.99	-53.583%	18.532	-34.858	-65.289%	51.643	-17.767	-25.597%
random_word_insert	4.0	61.74	-3.56	-5.452%	39.331	-14.059	-26.333%	67.633	-1.777	-2.560%
random_word_delete	4.0	51.76	-13.54	-20.735%	35.403	-17.987	-33.690%	63.571	-5.839	-8.412%
swap_syn_word_emb	4.0	47.52	-17.78	-27.228%	33.63	-19.76	-37.010%	57.83	-11.58	-16.684%
swap_syn_word_net	4.0	50.68	-14.62	-22.389%	34.616	-18.774	-35.164%	58.662	-10.748	-15.484%
random_word_swap	4.0	62.58	-2.72	-4.165%	45.373	-8.017	-15.016%	68.179	-1.231	-1.774%

Table 31: Performance and decrease ratio of Multiple Adapters on CLIP-BART against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	39.27	-26.03	-39.862%	23.064	-30.326	-56.801%	52.993	-16.417	-23.653%
punctuation	5.0	64.64	-0.66	-1.011%	50.89	-2.5	-4.682%	69.155	-0.255	-0.368%
typos	5.0	29.45	-35.85	-54.900%	19.741	-33.649	-63.025%	51.328	-18.082	-26.051%
keyboard	5.0	27.31	-37.99	-58.178%	17.896	-35.494	-66.480%	50.624	-18.786	-27.065%
spell_error	5.0	35.0	-30.3	-46.401%	24.217	-29.173	-54.642%	54.615	-14.795	-21.316%
random_char_insert	5.0	27.68	-37.62	-57.611%	18.524	-34.866	-65.304%	50.28	-19.13	-27.561%
random_char_replace	5.0	26.9	-38.4	-58.806%	17.642	-35.748	-66.957%	50.337	-19.073	-27.478%
random_char_swap	5.0	26.1	-39.2	-60.031%	18.755	-34.635	-64.872%	51.242	-18.168	-26.176%
random_char_delete	5.0	27.47	-37.83	-57.933%	18.008	-35.382	-66.272%	51.256	-18.154	-26.155%
to_passive	5.0	62.59	-2.71	-4.150%	45.126	-8.264	-15.478%	68.092	-1.318	-1.898%
tense	5.0	64.64	-0.66	-1.011%	51.463	-1.927	-3.610%	69.844	0.434	0.625%
to_formal	5.0	64.91	-0.39	-0.597%	50.962	-2.428	-4.548%	69.6	0.19	0.273%
to_casual	5.0	62.02	-3.28	-5.023%	46.629	-6.761	-12.663%	68.193	-1.217	-1.753%
to_active	5.0	63.62	-1.68	-2.573%	48.792	-4.598	-8.613%	68.939	-0.471	-0.678%
double_denial	5.0	65.27	-0.03	-0.046%	51.725	-1.665	-3.118%	70.03	0.62	0.893%
insert_adv	5.0	60.92	-4.38	-6.708%	48.259	-5.131	-9.611%	68.868	-0.542	-0.782%
append_irr	5.0	58.2	-7.1	-10.873%	45.588	-7.802	-14.614%	63.514	-5.896	-8.495%
random_word_insert	5.0	58.78	-6.52	-9.985%	34.322	-19.068	-35.715%	67.403	-2.007	-2.891%
drop_nn	5.0	45.5	-19.8	-30.322%	32.08	-21.31	-39.914%	63.7	-5.71	-8.226%
drop_rand_one_nn	5.0	57.31	-7.99	-12.236%	44.053	-9.337	-17.488%	68.982	-0.428	-0.616%
drop_vb	5.0	59.56	-5.74	-8.790%	40.619	-12.771	-23.921%	67.346	-2.064	-2.974%
drop_vb_nn	5.0	46.33	-18.97	-29.051%	28.685	-24.705	-46.273%	61.935	-7.475	-10.770%
only_nn	5.0	35.72	-29.58	-45.299%	14.947	-38.443	-72.005%	57.873	-11.537	-16.622%
only_vb	5.0	52.14	-13.16	-20.153%	36.262	-17.128	-32.081%	64.82	-4.59	-6.613%
only_vb_nn	5.0	41.2	-24.1	-36.907%	25.37	-28.02	-52.482%	59.15	-10.26	-14.781%
drop_rand_one_vb	5.0	63.54	-1.76	-2.695%	45.731	-7.659	-14.346%	68.824	-0.586	-0.844%
drop_first	5.0	60.76	-4.54	-6.953%	42.495	-10.895	-20.407%	68.609	-0.801	-1.154%
drop_last	5.0	54.49	-10.81	-16.554%	44.141	-9.249	-17.324%	67.045	-2.365	-3.408%
drop_first_and_last	5.0	47.37	-17.93	-27.458%	37.542	-15.848	-29.684%	66.399	-3.011	-4.338%
shuffle_order	5.0	57.98	-7.32	-11.210%	37.717	-15.673	-29.356%	65.695	-3.715	-5.352%
random_word_delete	5.0	46.07	-19.23	-29.449%	29.997	-23.393	-43.816%	62.437	-6.973	-10.046%
swap_syn_word_emb	5.0	46.71	-18.59	-28.469%	32.962	-20.428	-38.261%	56.796	-12.614	-18.173%
swap_syn_word_net	5.0	47.98	-17.32	-26.524%	34.385	-19.005	-35.596%	57.399	-12.011	-17.304%
back_trans	5.0	61.77	-3.53	-5.406%	48.116	-5.274	-9.879%	69.14	-0.27	-0.389%
random_word_swap	5.0	61.96	-3.34	-5.115%	44.037	-9.353	-17.518%	67.36	-2.05	-2.953%
nonsense	5.0	24.34	-40.96	-62.726%	16.736	-36.654	-68.654%	51.443	-17.967	-25.886%

Table 32: Performance and decrease ratio of Multiple Compacters on CLIP-BART against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	53.92	-10.99	-16.931%	42.026	-10.724	-20.330%	55.964	-13.486	-19.419%
typos	1.0	56.2	-8.71	-13.419%	44.125	-8.625	-16.351%	67.303	-2.147	-3.091%
keyboard	1.0	54.99	-9.92	-15.283%	43.091	-9.659	-18.311%	67.375	-2.075	-2.988%
spell_error	1.0	55.79	-9.12	-14.050%	44.244	-8.506	-16.125%	67.073	-2.377	-3.422%
random_char_insert	1.0	50.54	-14.37	-22.138%	35.244	-17.506	-33.187%	62.236	-7.214	-10.387%
random_char_replace	1.0	47.13	-17.78	-27.392%	32.104	-20.646	-39.140%	60.241	-9.209	-13.260%
random_char_swap	1.0	40.85	-24.06	-37.067%	25.918	-26.832	-50.866%	55.792	-13.658	-19.667%
random_char_delete	1.0	48.7	-16.21	-24.973%	33.439	-19.311	-36.608%	60.758	-8.692	-12.516%
random_word_insert	1.0	64.94	0.03	0.046%	50.692	-2.058	-3.902%	69.226	-0.224	-0.322%
random_word_delete	1.0	64.79	-0.12	-0.185%	51.248	-1.502	-2.847%	68.982	-0.468	-0.673%
swap_syn_word_emb	1.0	55.51	-9.4	-14.482%	44.912	-7.838	-14.859%	65.337	-4.113	-5.923%
swap_syn_word_net	1.0	57.54	-7.37	-11.354%	45.103	-7.647	-14.498%	67.289	-2.161	-3.112%
random_word_swap	1.0	64.82	-0.09	-0.139%	51.741	-1.009	-1.913%	69.327	-0.123	-0.177%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	53.54	-11.37	-17.517%	38.361	-14.389	-27.278%	63.169	-6.281	-9.044%
typos	2.0	54.82	-10.09	-15.545%	40.157	-12.593	-23.872%	64.361	-5.089	-7.328%
keyboard	2.0	54.43	-10.48	-16.145%	39.736	-13.014	-24.671%	64.102	-5.348	-7.700%
spell_error	2.0	54.95	-9.96	-15.344%	41.414	-11.336	-21.491%	64.274	-5.176	-7.452%
random_char_insert	2.0	40.57	-24.34	-37.498%	25.791	-26.959	-51.107%	56.323	-13.127	-18.902%
random_char_replace	2.0	36.4	-28.51	-43.922%	22.786	-29.964	-56.804%	54.787	-14.663	-21.113%
random_char_swap	2.0	31.96	-32.95	-50.763%	19.423	-33.327	-63.180%	52.074	-17.376	-25.019%
random_char_delete	2.0	38.32	-26.59	-40.964%	24.591	-28.159	-53.383%	56.538	-12.912	-18.592%
random_word_insert	2.0	64.31	-0.6	-0.924%	47.233	-5.517	-10.458%	68.767	-0.683	-0.983%
random_word_delete	2.0	59.42	-5.49	-8.458%	45.134	-7.616	-14.437%	67.375	-2.075	-2.988%
swap_syn_word_emb	2.0	54.98	-9.93	-15.298%	42.391	-10.359	-19.637%	61.418	-8.032	-11.565%
swap_syn_word_net	2.0	56.96	-7.95	-12.248%	42.884	-9.866	-18.703%	64.662	-4.788	-6.894%
random_word_swap	2.0	63.68	-1.23	-1.895%	49.189	-3.561	-6.751%	68.968	-0.482	-0.694%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	48.87	-16.04	-24.711%	31.595	-21.155	-40.105%	59.265	-10.185	-14.665%
typos	3.0	50.18	-14.73	-22.693%	33.741	-19.009	-36.035%	61.016	-8.434	-12.144%
keyboard	3.0	48.88	-16.03	-24.696%	32.446	-20.304	-38.492%	60.227	-9.223	-13.280%
spell_error	3.0	49.82	-15.09	-23.248%	34.735	-18.015	-34.151%	60.657	-8.793	-12.660%
random_char_insert	3.0	33.67	-31.24	-48.128%	21.482	-31.268	-59.276%	54.012	-15.438	-22.229%
random_char_replace	3.0	30.79	-34.12	-52.565%	19.614	-33.136	-62.818%	53.064	-16.386	-23.593%
random_char_swap	3.0	28.51	-36.4	-56.078%	16.903	-35.847	-67.957%	51.242	-18.208	-26.218%
random_char_delete	3.0	32.61	-32.3	-49.761%	20.027	-32.723	-62.034%	52.892	-16.558	-23.841%
random_word_insert	3.0	63.9	-1.01	-1.556%	44.045	-8.705	-16.502%	67.834	-1.616	-2.327%
random_word_delete	3.0	56.79	-8.12	-12.510%	40.237	-12.513	-23.721%	65.164	-4.286	-6.171%
swap_syn_word_emb	3.0	51.14	-13.77	-21.214%	36.834	-15.916	-30.172%	58.906	-10.544	-15.182%
swap_syn_word_net	3.0	53.25	-11.66	-17.963%	37.772	-14.978	-28.394%	61.605	-7.845	-11.296%
random_word_swap	3.0	63.16	-1.75	-2.696%	47.567	-5.183	-9.825%	68.494	-0.956	-1.376%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	41.92	-22.99	-35.418%	25.934	-26.816	-50.836%	55.792	-13.658	-19.667%
typos	4.0	41.66	-23.25	-35.819%	27.604	-25.146	-47.671%	57.873	-11.577	-16.670%
keyboard	4.0	39.29	-25.62	-39.470%	25.688	-27.062	-51.303%	56.882	-12.568	-18.096%
spell_error	4.0	41.32	-23.59	-36.343%	28.979	-23.771	-45.063%	57.012	-12.438	-17.910%
random_char_insert	4.0	30.03	-34.88	-53.736%	18.795	-33.955	-64.370%	52.246	-17.204	-24.771%
random_char_replace	4.0	28.09	-36.82	-56.725%	17.077	-35.673	-67.626%	51.328	-18.122	-26.094%
random_char_swap	4.0	26.72	-38.19	-58.835%	15.599	-37.151	-70.429%	51.313	-18.137	-26.115%
random_char_delete	4.0	29.35	-35.56	-54.784%	17.523	-35.227	-66.782%	52.017	-17.433	-25.102%
random_word_insert	4.0	62.39	-2.52	-3.882%	42.073	-10.677	-20.240%	67.748	-1.702	-2.451%
random_word_delete	4.0	50.93	-13.98	-21.538%	34.823	-17.927	-33.985%	63.04	-6.41	-9.230%
swap_syn_word_emb	4.0	47.52	-17.39	-26.791%	34.568	-18.182	-34.468%	57.801	-11.649	-16.773%
swap_syn_word_net	4.0	49.86	-15.05	-23.186%	34.878	-17.872	-33.880%	59.323	-10.127	-14.582%
random_word_swap	4.0	62.66	-2.25	-3.466%	46.526	-6.224	-11.800%	68.265	-1.185	-1.707%

Table 33: Performance and decrease ratio of Multiple Compacters on CLIP-BART against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	38.61	-26.3	-40.518%	23.422	-29.328	-55.598%	53.538	-15.912	-22.911%
punctuation	5.0	64.59	-0.32	-0.493%	51.685	-1.065	-2.018%	68.997	-0.453	-0.653%
typos	5.0	29.7	-35.21	-54.244%	19.645	-33.105	-62.758%	51.486	-17.964	-25.867%
keyboard	5.0	27.11	-37.8	-58.234%	18.564	-34.186	-64.807%	50.768	-18.682	-26.900%
spell_error	5.0	34.81	-30.1	-46.372%	24.964	-27.786	-52.674%	54.385	-15.065	-21.692%
random_char_insert	5.0	27.63	-37.28	-57.433%	17.888	-34.862	-66.088%	51.17	-18.28	-26.321%
random_char_replace	5.0	26.65	-38.26	-58.943%	16.64	-36.11	-68.455%	50.782	-18.668	-26.879%
random_char_swap	5.0	26.26	-38.65	-59.544%	16.298	-36.452	-69.103%	52.045	-17.405	-25.061%
random_char_delete	5.0	27.34	-37.57	-57.880%	16.107	-36.643	-69.464%	51.356	-18.094	-26.053%
to_passive	5.0	62.46	-2.45	-3.774%	43.067	-9.683	-18.356%	67.317	-2.133	-3.071%
tense	5.0	64.12	-0.79	-1.217%	52.473	-0.277	-0.526%	69.241	-0.209	-0.301%
to_formal	5.0	64.44	-0.47	-0.724%	51.932	-0.818	-1.551%	69.628	0.178	0.257%
to_casual	5.0	62.14	-2.77	-4.267%	45.707	-7.043	-13.352%	67.877	-1.573	-2.265%
to_active	5.0	63.37	-1.54	-2.373%	48.887	-3.863	-7.323%	68.753	-0.697	-1.004%
double_denial	5.0	64.82	-0.09	-0.139%	52.719	-0.031	-0.059%	69.442	-0.008	-0.012%
insert_adv	5.0	61.69	-3.22	-4.961%	49.443	-3.307	-6.268%	68.078	-1.372	-1.975%
append_irr	5.0	61.1	-3.81	-5.870%	46.995	-5.755	-10.910%	63.585	-5.865	-8.444%
random_word_insert	5.0	60.19	-4.72	-7.272%	37.216	-15.534	-29.449%	67.059	-2.391	-3.443%
drop_nn	5.0	46.48	-18.43	-28.393%	32.485	-20.265	-38.417%	63.643	-5.807	-8.362%
drop_rand_one_nn	5.0	56.9	-8.01	-12.340%	44.467	-8.283	-15.703%	68.638	-0.812	-1.169%
drop_vb	5.0	60.37	-4.54	-6.994%	34.91	-17.84	-33.820%	67.906	-1.544	-2.223%
drop_vb_nn	5.0	47.84	-17.07	-26.298%	23.271	-29.479	-55.885%	61.964	-7.486	-10.780%
only_nn	5.0	35.98	-28.93	-44.569%	16.314	-36.436	-69.073%	57.758	-11.692	-16.835%
only_vb	5.0	52.59	-12.32	-18.980%	38.909	-13.841	-26.238%	64.906	-4.544	-6.543%
only_vb_nn	5.0	41.42	-23.49	-36.189%	31.515	-21.235	-40.255%	60.442	-9.008	-12.970%
drop_rand_one_vb	5.0	63.62	-1.29	-1.987%	41.907	-10.843	-20.556%	68.236	-1.214	-1.748%
drop_first	5.0	58.62	-6.29	-9.690%	37.971	-14.779	-28.017%	68.322	-1.128	-1.624%
drop_last	5.0	54.76	-10.15	-15.637%	46.041	-6.709	-12.719%	67.777	-1.673	-2.409%
drop_first_and_last	5.0	45.91	-19.0	-29.271%	33.201	-19.549	-37.060%	66.298	-3.152	-4.538%
shuffle_order	5.0	57.91	-7.0	-10.784%	39.362	-13.388	-25.379%	64.992	-4.458	-6.419%
random_word_delete	5.0	45.22	-19.69	-30.334%	29.059	-23.691	-44.912%	61.72	-7.73	-11.131%
swap_syn_word_emb	5.0	46.64	-18.27	-28.147%	33.527	-19.223	-36.442%	57.17	-12.28	-17.682%
swap_syn_word_net	5.0	46.98	-17.93	-27.623%	33.487	-19.263	-36.517%	57.227	-12.223	-17.600%
back_trans	5.0	61.57	-3.34	-5.146%	49.149	-3.601	-6.826%	68.451	-0.999	-1.438%
random_word_swap	5.0	61.73	-3.18	-4.899%	45.047	-7.703	-14.603%	66.628	-2.822	-4.063%
nonsense	5.0	18.95	-45.96	-70.806%	4.023	-48.727	-92.374%	51.012	-18.438	-26.549%

Table 34: Performance and decrease ratio of Multiple LoRA on CLIP-BART against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	53.63	-11.81	-18.047%	41.469	-10.581	-20.328%	51.213	-0.107	-0.209%
typos	1.0	55.85	-9.59	-14.655%	43.282	-8.768	-16.845%	51.084	-0.236	-0.460%
keyboard	1.0	54.8	-10.64	-16.259%	42.225	-9.825	-18.877%	51.17	-0.15	-0.293%
spell_error	1.0	55.58	-9.86	-15.067%	44.021	-8.029	-15.425%	51.055	-0.265	-0.516%
random_char_insert	1.0	50.71	-14.73	-22.509%	34.473	-17.577	-33.770%	51.428	0.108	0.211%
random_char_replace	1.0	47.34	-18.1	-27.659%	31.213	-20.837	-40.032%	51.313	-0.007	-0.013%
random_char_swap	1.0	40.74	-24.7	-37.744%	25.004	-27.046	-51.962%	51.141	-0.179	-0.349%
random_char_delete	1.0	49.25	-16.19	-24.740%	32.803	-19.247	-36.977%	51.5	0.18	0.351%
random_word_insert	1.0	65.36	-0.08	-0.122%	50.302	-1.748	-3.358%	51.859	0.539	1.050%
random_word_delete	1.0	65.24	-0.2	-0.306%	50.62	-1.43	-2.747%	51.572	0.252	0.490%
swap_syn_word_emb	1.0	55.34	-10.1	-15.434%	44.641	-7.409	-14.234%	51.572	0.252	0.490%
swap_syn_word_net	1.0	57.92	-7.52	-11.491%	44.482	-7.568	-14.539%	51.299	-0.021	-0.041%
random_word_swap	1.0	65.33	-0.11	-0.168%	51.105	-0.945	-1.815%	51.127	-0.193	-0.377%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	53.02	-12.42	-18.979%	37.287	-14.763	-28.362%	51.155	-0.165	-0.321%
typos	2.0	54.39	-11.05	-16.886%	39.354	-12.696	-24.391%	51.5	0.18	0.351%
keyboard	2.0	54.21	-11.23	-17.161%	38.186	-13.864	-26.636%	51.399	0.079	0.155%
spell_error	2.0	54.77	-10.67	-16.305%	40.801	-11.249	-21.611%	51.385	0.065	0.127%
random_char_insert	2.0	40.53	-24.91	-38.065%	25.195	-26.855	-51.595%	51.586	0.266	0.518%
random_char_replace	2.0	36.61	-28.83	-44.056%	22.229	-29.821	-57.292%	52.045	0.725	1.413%
random_char_swap	2.0	31.8	-33.64	-51.406%	19.264	-32.786	-62.990%	50.567	-0.753	-1.467%
random_char_delete	2.0	38.65	-26.79	-40.938%	24.193	-27.857	-53.520%	51.227	-0.093	-0.181%
random_word_insert	2.0	63.77	-1.67	-2.552%	47.408	-4.642	-8.918%	51.758	0.438	0.854%
random_word_delete	2.0	60.07	-5.37	-8.206%	45.095	-6.955	-13.363%	51.184	-0.136	-0.265%
swap_syn_word_emb	2.0	54.66	-10.78	-16.473%	40.992	-11.058	-21.245%	51.17	-0.15	-0.293%
swap_syn_word_net	2.0	57.28	-8.16	-12.469%	41.724	-10.326	-19.839%	51.371	0.051	0.099%
random_word_swap	2.0	64.59	-0.85	-1.299%	48.553	-3.497	-6.718%	51.098	-0.222	-0.433%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	47.96	-17.48	-26.711%	30.156	-21.894	-42.064%	50.926	-0.394	-0.768%
typos	3.0	49.17	-16.27	-24.862%	32.779	-19.271	-37.023%	51.514	0.194	0.379%
keyboard	3.0	48.31	-17.13	-26.177%	30.553	-21.497	-41.300%	51.242	-0.078	-0.153%
spell_error	3.0	49.66	-15.78	-24.114%	34.075	-17.975	-34.533%	50.811	-0.509	-0.992%
random_char_insert	3.0	33.64	-31.8	-48.594%	20.806	-31.244	-60.027%	52.146	0.826	1.609%
random_char_replace	3.0	30.81	-34.63	-52.919%	20.194	-31.856	-61.203%	51.945	0.625	1.218%
random_char_swap	3.0	28.23	-37.21	-56.861%	18.071	-33.979	-65.281%	51.041	-0.279	-0.544%
random_char_delete	3.0	32.98	-32.46	-49.603%	20.512	-31.538	-60.592%	50.696	-0.624	-1.216%
random_word_insert	3.0	61.88	-3.56	-5.440%	43.83	-8.22	-15.792%	52.175	0.855	1.665%
random_word_delete	3.0	57.3	-8.14	-12.439%	40.483	-11.567	-22.222%	51.055	-0.265	-0.516%
swap_syn_word_emb	3.0	51.07	-14.37	-21.959%	35.316	-16.734	-32.151%	51.285	-0.035	-0.069%
swap_syn_word_net	3.0	53.97	-11.47	-17.528%	36.23	-15.82	-30.394%	51.313	-0.007	-0.013%
random_word_swap	3.0	63.86	-1.58	-2.414%	46.693	-5.357	-10.293%	51.342	0.022	0.043%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	41.18	-24.26	-37.072%	24.4	-27.65	-53.122%	50.883	-0.437	-0.852%
typos	4.0	40.5	-24.94	-38.111%	26.475	-25.575	-49.136%	51.643	0.323	0.630%
keyboard	4.0	38.82	-26.62	-40.678%	24.32	-27.73	-53.275%	51.213	-0.107	-0.209%
spell_error	4.0	41.1	-24.34	-37.194%	27.492	-24.558	-47.181%	51.098	-0.222	-0.433%
random_char_insert	4.0	29.92	-35.52	-54.279%	19.113	-32.937	-63.280%	51.141	-0.179	-0.349%
random_char_replace	4.0	27.87	-37.57	-57.411%	18.771	-33.279	-63.937%	51.127	-0.193	-0.377%
random_char_swap	4.0	26.59	-38.85	-59.367%	17.022	-35.028	-67.297%	51.242	-0.078	-0.153%
random_char_delete	4.0	29.93	-35.51	-54.263%	17.92	-34.13	-65.571%	50.553	-0.767	-1.495%
random_word_insert	4.0	58.79	-6.65	-10.162%	40.523	-11.527	-22.146%	51.758	0.438	0.854%
random_word_delete	4.0	51.38	-14.06	-21.485%	35.085	-16.965	-32.594%	50.581	-0.739	-1.439%
swap_syn_word_emb	4.0	47.16	-18.28	-27.934%	32.342	-19.708	-37.863%	51.672	0.352	0.686%
swap_syn_word_net	4.0	50.08	-15.36	-23.472%	33.217	-18.833	-36.183%	51.199	-0.121	-0.237%
random_word_swap	4.0	63.24	-2.2	-3.362%	45.659	-6.391	-12.278%	51.17	-0.15	-0.293%

Table 35: Performance and decrease ratio of Multiple LoRA on CLIP-BART against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	37.98	-27.46	-41.962%	21.959	-30.091	-57.812%	51.356	0.036	0.071%
punctuation	5.0	64.86	-0.58	-0.886%	51.208	-0.842	-1.617%	51.342	0.022	0.043%
typos	5.0	29.5	-35.94	-54.921%	18.668	-33.382	-64.135%	50.682	-0.638	-1.244%
keyboard	5.0	27.3	-38.14	-58.282%	17.356	-34.694	-66.656%	51.658	0.338	0.658%
spell_error	5.0	34.57	-30.87	-47.173%	23.39	-28.66	-55.062%	51.17	-0.15	-0.293%
random_char_insert	5.0	27.81	-37.63	-57.503%	18.389	-33.661	-64.670%	51.844	0.524	1.022%
random_char_replace	5.0	26.16	-39.28	-60.024%	18.365	-33.685	-64.716%	51.371	0.051	0.099%
random_char_swap	5.0	26.04	-39.4	-60.208%	18.485	-33.565	-64.487%	52.175	0.855	1.665%
random_char_delete	5.0	27.41	-38.03	-58.114%	17.268	-34.782	-66.824%	51.055	-0.265	-0.516%
to_passive	5.0	62.8	-2.64	-4.034%	43.95	-8.1	-15.562%	51.572	0.252	0.490%
tense	5.0	64.6	-0.84	-1.284%	51.654	-0.396	-0.761%	51.242	-0.078	-0.153%
to_formal	5.0	64.99	-0.45	-0.688%	51.296	-0.754	-1.449%	51.184	-0.136	-0.265%
to_casual	5.0	62.47	-2.97	-4.539%	45.484	-6.566	-12.614%	50.352	-0.968	-1.887%
to_active	5.0	63.37	-2.07	-3.163%	48.466	-3.584	-6.887%	51.299	-0.021	-0.041%
double_denial	5.0	65.34	-0.1	-0.153%	52.035	-0.015	-0.028%	51.328	0.008	0.015%
insert_adv	5.0	61.41	-4.03	-6.158%	48.521	-3.529	-6.780%	51.141	-0.179	-0.349%
append_irr	5.0	59.52	-5.92	-9.046%	45.611	-6.439	-12.370%	51.428	0.108	0.211%
random_word_insert	5.0	55.27	-10.17	-15.541%	36.047	-16.003	-30.745%	51.443	0.123	0.239%
drop_nn	5.0	45.07	-20.37	-31.128%	31.34	-20.71	-39.788%	51.328	0.008	0.015%
drop_rand_one_nn	5.0	56.58	-8.86	-13.539%	43.767	-8.283	-15.914%	51.256	-0.064	-0.125%
drop_vb	5.0	58.68	-6.76	-10.330%	40.658	-11.392	-21.886%	51.974	0.654	1.274%
drop_vb_nn	5.0	44.94	-20.5	-31.326%	27.818	-24.232	-46.554%	52.146	0.826	1.609%
only_nn	5.0	27.0	-38.44	-58.741%	22.508	-29.542	-56.758%	52.175	0.855	1.665%
only_vb	5.0	50.54	-14.9	-22.769%	38.162	-13.888	-26.682%	51.658	0.338	0.658%
only_vb_nn	5.0	29.47	-35.97	-54.966%	27.596	-24.454	-46.982%	52.002	0.682	1.329%
drop_rand_one_vb	5.0	63.16	-2.28	-3.484%	46.176	-5.874	-11.286%	51.916	0.596	1.162%
drop_first	5.0	45.9	-19.54	-29.859%	42.113	-9.937	-19.091%	51.6	0.28	0.546%
drop_last	5.0	53.95	-11.49	-17.558%	44.999	-7.051	-13.546%	51.5	0.18	0.351%
drop_first_and_last	5.0	34.39	-31.05	-47.448%	36.214	-15.836	-30.425%	51.356	0.036	0.071%
shuffle_order	5.0	59.74	-5.7	-8.710%	38.909	-13.141	-25.246%	51.098	-0.222	-0.433%
random_word_delete	5.0	45.47	-19.97	-30.517%	29.369	-22.681	-43.576%	51.184	-0.136	-0.265%
swap_syn_word_emb	5.0	46.29	-19.15	-29.263%	30.665	-21.385	-41.086%	51.055	-0.265	-0.516%
swap_syn_word_net	5.0	48.52	-16.92	-25.856%	31.849	-20.201	-38.810%	51.055	-0.265	-0.516%
back_trans	5.0	62.07	-3.37	-5.150%	48.179	-3.871	-7.436%	51.744	0.424	0.826%
random_word_swap	5.0	62.66	-2.78	-4.248%	44.395	-7.655	-14.707%	51.371	0.051	0.099%
nonsense	5.0	8.37	-57.07	-87.210%	13.77	-38.28	-73.545%	50.797	-0.523	-1.020%

Table 36: Performance and decrease ratio of Multiple Prompts on CLIP-BART against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			CIDer	NLVR	
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio		Decrease	Decrease Ratio
ocr	1.0	41.44	-5.37	-11.472%	29.758	-4.252	-12.501%	50.251	0.381	0.764%
typos	1.0	39.78	-7.03	-15.018%	29.599	-4.411	-12.969%	49.978	0.108	0.218%
keyboard	1.0	39.47	-7.34	-15.680%	29.48	-4.53	-13.319%	49.978	0.108	0.218%
spell_error	1.0	39.38	-7.43	-15.873%	30.259	-3.751	-11.029%	49.921	0.051	0.102%
random_char_insert	1.0	38.69	-8.12	-17.347%	26.244	-7.766	-22.834%	50.452	0.582	1.167%
random_char_replace	1.0	37.03	-9.78	-20.893%	24.575	-9.435	-27.743%	50.754	0.884	1.772%
random_char_swap	1.0	33.51	-13.3	-28.413%	21.387	-12.623	-37.117%	50.194	0.324	0.649%
random_char_delete	1.0	37.19	-9.62	-20.551%	24.36	-9.65	-28.374%	49.878	0.008	0.016%
random_word_insert	1.0	46.83	0.02	0.043%	33.455	-0.555	-1.631%	49.892	0.022	0.045%
random_word_delete	1.0	46.69	-0.12	-0.256%	33.59	-0.42	-1.234%	49.964	0.094	0.189%
swap_syn_word_emb	1.0	43.73	-3.08	-6.580%	31.468	-2.542	-7.475%	49.921	0.051	0.102%
swap_syn_word_net	1.0	44.91	-1.9	-4.059%	30.752	-3.258	-9.579%	49.964	0.094	0.189%
random_word_swap	1.0	46.77	-0.04	-0.085%	33.821	-0.189	-0.556%	50.036	0.166	0.333%

corruption	severity	VQA			GQA			CIDer	NLVR	
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio		Decrease	Decrease Ratio
ocr	2.0	41.17	-5.64	-12.049%	28.462	-5.548	-16.312%	50.079	0.209	0.419%
typos	2.0	39.39	-7.42	-15.851%	28.423	-5.587	-16.429%	49.95	0.08	0.160%
keyboard	2.0	38.83	-7.98	-17.048%	28.089	-5.921	-17.410%	50.495	0.625	1.254%
spell_error	2.0	38.87	-7.94	-16.962%	28.669	-5.341	-15.704%	49.433	-0.437	-0.876%
random_char_insert	2.0	33.92	-12.89	-27.537%	21.657	-12.353	-36.322%	50.409	0.539	1.081%
random_char_replace	2.0	31.53	-15.28	-32.643%	20.178	-13.832	-40.670%	50.725	0.855	1.714%
random_char_swap	2.0	28.86	-17.95	-38.347%	18.357	-15.653	-46.023%	50.022	0.152	0.304%
random_char_delete	2.0	31.78	-15.03	-32.109%	20.536	-13.474	-39.618%	50.194	0.324	0.649%
random_word_insert	2.0	45.83	-0.98	-2.094%	31.953	-2.057	-6.049%	50.079	0.209	0.419%
random_word_delete	2.0	42.35	-4.46	-9.528%	31.102	-2.908	-8.551%	49.734	-0.136	-0.272%
swap_syn_word_emb	2.0	43.35	-3.46	-7.392%	29.416	-4.594	-13.506%	49.935	0.065	0.131%
swap_syn_word_net	2.0	44.62	-2.19	-4.678%	29.814	-4.196	-12.338%	49.763	-0.107	-0.214%
random_word_swap	2.0	46.18	-0.63	-1.346%	33.479	-0.531	-1.561%	49.907	0.037	0.074%

corruption	severity	VQA			GQA			CIDer	NLVR	
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio		Decrease	Decrease Ratio
ocr	3.0	38.72	-8.09	-17.283%	24.781	-9.229	-27.135%	49.878	0.008	0.016%
typos	3.0	36.34	-10.47	-22.367%	24.805	-9.205	-27.065%	50.05	0.18	0.361%
keyboard	3.0	35.76	-11.05	-23.606%	24.495	-9.515	-27.977%	49.935	0.065	0.131%
spell_error	3.0	35.55	-11.26	-24.055%	25.258	-8.752	-25.732%	49.892	0.022	0.045%
random_char_insert	3.0	30.25	-16.56	-35.377%	19.645	-14.365	-42.236%	49.821	-0.049	-0.099%
random_char_replace	3.0	28.76	-18.05	-38.560%	18.898	-15.112	-44.434%	50.266	0.396	0.793%
random_char_swap	3.0	27.14	-19.67	-42.021%	17.602	-16.408	-48.244%	49.763	-0.107	-0.214%
random_char_delete	3.0	28.88	-17.93	-38.304%	18.524	-15.486	-45.532%	50.366	0.496	0.995%
random_word_insert	3.0	45.27	-1.54	-3.290%	30.649	-3.361	-9.883%	50.51	0.64	1.282%
random_word_delete	3.0	40.34	-6.47	-13.822%	29.377	-4.633	-13.623%	49.993	0.123	0.246%
swap_syn_word_emb	3.0	41.79	-5.02	-10.724%	26.586	-7.424	-21.829%	49.978	0.108	0.218%
swap_syn_word_net	3.0	43.28	-3.53	-7.541%	27.397	-6.613	-19.444%	50.108	0.238	0.477%
random_word_swap	3.0	45.65	-1.16	-2.478%	33.018	-0.992	-2.917%	50.122	0.252	0.505%

corruption	severity	VQA			GQA			CIDer	NLVR	
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio		Decrease	Decrease Ratio
ocr	4.0	34.95	-11.86	-25.336%	21.919	-12.091	-35.551%	50.38	0.51	1.023%
typos	4.0	32.05	-14.76	-31.532%	21.657	-12.353	-36.322%	50.782	0.912	1.829%
keyboard	4.0	30.97	-15.84	-33.839%	21.076	-12.934	-38.029%	50.366	0.496	0.995%
spell_error	4.0	31.32	-15.49	-33.091%	21.903	-12.107	-35.597%	49.964	0.094	0.189%
random_char_insert	4.0	28.93	-17.88	-38.197%	18.787	-15.223	-44.761%	50.309	0.439	0.879%
random_char_replace	4.0	27.32	-19.49	-41.636%	18.278	-15.732	-46.257%	49.964	0.094	0.189%
random_char_swap	4.0	26.13	-20.68	-44.179%	17.332	-16.678	-49.039%	49.763	-0.107	-0.214%
random_char_delete	4.0	27.23	-19.58	-41.829%	17.65	-16.36	-48.104%	50.136	0.266	0.534%
random_word_insert	4.0	44.37	-2.44	-5.213%	29.138	-4.872	-14.325%	50.954	1.084	2.175%
random_word_delete	4.0	36.63	-10.18	-21.747%	27.325	-6.685	-19.655%	49.835	-0.035	-0.070%
swap_syn_word_emb	4.0	40.46	-6.35	-13.565%	25.473	-8.537	-25.101%	49.821	-0.049	-0.099%
swap_syn_word_net	4.0	42.49	-4.32	-9.229%	26.053	-7.957	-23.395%	50.395	0.525	1.052%
random_word_swap	4.0	45.21	-1.6	-3.418%	32.819	-1.191	-3.501%	49.864	-0.006	-0.013%

Table 37: Performance and decrease ratio of Multiple Prompts on CLIP-BART against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	32.66	-14.15	-30.229%	20.496	-13.514	-39.735%	50.093	0.223	0.448%
punctuation	5.0	45.08	-1.73	-3.696%	33.344	-0.666	-1.958%	50.065	0.195	0.390%
typos	5.0	26.63	-20.18	-43.110%	16.855	-17.155	-50.442%	49.849	-0.021	-0.042%
keyboard	5.0	25.78	-21.03	-44.926%	15.789	-18.221	-53.574%	50.553	0.683	1.369%
spell_error	5.0	28.07	-18.74	-40.034%	19.28	-14.73	-43.312%	50.596	0.726	1.455%
random_char_insert	5.0	27.32	-19.49	-41.636%	18.19	-15.82	-46.514%	49.835	-0.035	-0.070%
random_char_replace	5.0	26.41	-20.4	-43.580%	17.721	-16.289	-47.894%	50.395	0.525	1.052%
random_char_swap	5.0	25.71	-21.1	-45.076%	18.016	-15.994	-47.029%	49.519	-0.351	-0.704%
random_char_delete	5.0	26.47	-20.34	-43.452%	17.515	-16.495	-48.501%	49.95	0.08	0.160%
to_passive	5.0	43.64	-3.17	-6.772%	27.508	-6.502	-19.117%	49.706	-0.164	-0.329%
tense	5.0	46.64	-0.17	-0.363%	33.837	-0.173	-0.509%	49.821	-0.049	-0.099%
to_formal	5.0	46.62	-0.19	-0.406%	33.718	-0.292	-0.860%	49.95	0.08	0.160%
to_casual	5.0	43.71	-3.1	-6.623%	28.073	-5.937	-17.457%	49.978	0.108	0.218%
to_active	5.0	44.44	-2.37	-5.063%	31.778	-2.232	-6.564%	49.734	-0.136	-0.272%
double_denial	5.0	46.79	-0.02	-0.043%	34.012	0.002	0.005%	49.878	0.008	0.016%
insert_adv	5.0	45.23	-1.58	-3.375%	32.931	-1.079	-3.174%	49.964	0.094	0.189%
append_irr	5.0	35.62	-11.19	-23.905%	27.699	-6.311	-18.556%	50.165	0.295	0.592%
random_word_insert	5.0	43.28	-3.53	-7.541%	27.5	-6.51	-19.140%	50.452	0.582	1.167%
drop_nn	5.0	40.11	-6.7	-14.313%	24.789	-9.221	-27.112%	50.28	0.41	0.822%
drop_rand_one_nn	5.0	43.3	-3.51	-7.498%	30.728	-3.282	-9.649%	50.036	0.166	0.333%
drop_vb	5.0	44.87	-1.94	-4.144%	27.238	-6.772	-19.912%	50.022	0.152	0.304%
drop_vb_nn	5.0	41.13	-5.68	-12.134%	22.333	-11.677	-34.335%	50.151	0.281	0.563%
only_nn	5.0	27.59	-19.22	-41.060%	22.261	-11.749	-34.545%	50.251	0.381	0.764%
only_vb	5.0	38.75	-8.06	-17.219%	27.174	-6.836	-20.099%	50.28	0.41	0.822%
only_vb_nn	5.0	26.41	-20.4	-43.580%	24.384	-9.626	-28.304%	50.366	0.496	0.995%
drop_rand_one_vb	5.0	46.18	-0.63	-1.346%	29.909	-4.101	-12.057%	49.935	0.065	0.131%
drop_first	5.0	27.59	-19.22	-41.060%	26.96	-7.05	-20.730%	50.208	0.338	0.678%
drop_last	5.0	45.33	-1.48	-3.162%	31.778	-2.232	-6.564%	50.165	0.295	0.592%
drop_first_and_last	5.0	27.7	-19.11	-40.825%	26.467	-7.543	-22.179%	50.495	0.625	1.254%
shuffle_order	5.0	40.81	-6.0	-12.818%	30.601	-3.409	-10.023%	49.993	0.123	0.246%
random_word_delete	5.0	33.65	-13.16	-28.114%	24.813	-9.197	-27.042%	49.548	-0.322	-0.646%
swap_syn_word_emb	5.0	40.05	-6.76	-14.441%	24.924	-9.086	-26.714%	49.878	0.008	0.016%
swap_syn_word_net	5.0	39.41	-7.4	-15.809%	24.535	-9.475	-27.860%	50.366	0.496	0.995%
back_trans	5.0	45.95	-0.86	-1.837%	32.422	-1.588	-4.670%	49.835	-0.035	-0.070%
random_word_swap	5.0	44.71	-2.1	-4.486%	32.477	-1.533	-4.506%	49.706	-0.164	-0.329%
nonsense	5.0	24.93	-21.88	-46.742%	17.427	-16.583	-48.758%	49.404	-0.466	-0.934%

Table 38: Performance and decrease ratio of Single Adapter on CLIP-BART against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	54.73	-10.62	-16.251%	42.853	-11.287	-20.849%	59.796	-14.094	-19.074%
typos	1.0	56.85	-8.5	-13.007%	43.338	-10.802	-19.953%	71.437	-2.453	-3.320%
keyboard	1.0	55.66	-9.69	-14.828%	42.36	-11.78	-21.759%	70.59	-3.3	-4.466%
spell_error	1.0	56.68	-8.67	-13.267%	43.846	-10.294	-19.013%	70.245	-3.645	-4.932%
random_char_insert	1.0	51.87	-13.48	-20.627%	35.602	-18.538	-34.241%	66.6	-7.29	-9.866%
random_char_replace	1.0	48.35	-17.0	-26.014%	32.97	-21.17	-39.102%	63.93	-9.96	-13.480%
random_char_swap	1.0	41.63	-23.72	-36.297%	28.311	-25.829	-47.707%	59.94	-13.95	-18.880%
random_char_delete	1.0	49.24	-16.11	-24.652%	34.576	-19.564	-36.135%	64.963	-8.927	-12.081%
random_word_insert	1.0	65.74	0.39	0.597%	48.362	-5.778	-10.672%	73.977	0.087	0.118%
random_word_delete	1.0	65.62	0.27	0.413%	49.07	-5.07	-9.365%	72.772	-1.118	-1.514%
swap_syn_word_emb	1.0	55.58	-9.77	-14.950%	43.171	-10.969	-20.261%	68.48	-5.41	-7.322%
swap_syn_word_net	1.0	58.29	-7.06	-10.803%	44.268	-9.872	-18.235%	71.107	-2.783	-3.767%
random_word_swap	1.0	65.7	0.35	0.536%	49.777	-4.363	-8.058%	73.087	-0.803	-1.086%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	54.05	-11.3	-17.292%	39.044	-15.096	-27.883%	66.557	-7.333	-9.925%
typos	2.0	55.82	-9.53	-14.583%	40.086	-14.054	-25.959%	67.547	-6.343	-8.584%
keyboard	2.0	55.16	-10.19	-15.593%	39.235	-14.905	-27.530%	66.743	-7.147	-9.672%
spell_error	2.0	55.97	-9.38	-14.353%	40.491	-13.649	-25.210%	67.791	-6.099	-8.254%
random_char_insert	2.0	41.58	-23.77	-36.373%	27.166	-26.974	-49.822%	60.614	-13.276	-17.967%
random_char_replace	2.0	37.16	-28.19	-43.137%	24.758	-29.382	-54.271%	57.543	-16.347	-22.124%
random_char_swap	2.0	32.62	-32.73	-50.084%	21.633	-32.507	-60.042%	55.103	-18.787	-25.426%
random_char_delete	2.0	39.07	-26.28	-40.214%	26.499	-27.641	-51.055%	58.533	-15.357	-20.783%
random_word_insert	2.0	65.05	-0.3	-0.459%	45.389	-8.751	-16.164%	73.733	-0.157	-0.212%
random_word_delete	2.0	60.87	-4.48	-6.855%	44.888	-9.252	-17.089%	69.901	-3.989	-5.399%
swap_syn_word_emb	2.0	54.71	-10.64	-16.282%	39.156	-14.984	-27.677%	64.303	-9.587	-12.974%
swap_syn_word_net	2.0	57.61	-7.74	-11.844%	42.089	-12.051	-22.258%	69.011	-4.879	-6.603%
random_word_swap	2.0	65.1	-0.25	-0.383%	48.299	-5.841	-10.789%	72.47	-1.42	-1.921%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	49.17	-16.18	-24.759%	33.598	-20.542	-37.942%	63.298	-10.592	-14.334%
typos	3.0	51.1	-14.25	-21.806%	34.592	-19.548	-36.106%	65.25	-8.64	-11.692%
keyboard	3.0	49.38	-15.97	-24.438%	32.74	-21.4	-39.528%	63.614	-10.276	-13.907%
spell_error	3.0	50.93	-14.42	-22.066%	33.916	-20.224	-37.354%	63.959	-9.931	-13.441%
random_char_insert	3.0	34.46	-30.89	-47.269%	23.541	-30.599	-56.518%	57.83	-16.06	-21.735%
random_char_replace	3.0	31.27	-34.08	-52.150%	21.18	-32.96	-60.880%	55.835	-18.055	-24.435%
random_char_swap	3.0	28.5	-36.85	-56.389%	20.099	-34.041	-62.877%	52.935	-20.955	-28.359%
random_char_delete	3.0	33.39	-31.96	-48.906%	23.016	-31.124	-57.487%	56.466	-17.424	-23.581%
random_word_insert	3.0	63.53	-1.82	-2.785%	42.471	-11.669	-21.553%	71.997	-1.893	-2.563%
random_word_delete	3.0	58.37	-6.98	-10.681%	41.104	-13.036	-24.079%	67.676	-6.214	-8.410%
swap_syn_word_emb	3.0	50.67	-14.68	-22.464%	34.401	-19.739	-36.459%	59.954	-13.936	-18.860%
swap_syn_word_net	3.0	54.31	-11.04	-16.894%	37.979	-16.161	-29.850%	65.308	-8.582	-11.615%
random_word_swap	3.0	64.55	-0.8	-1.224%	46.716	-7.424	-13.712%	72.083	-1.807	-2.446%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	42.41	-22.94	-35.103%	28.947	-25.193	-46.532%	58.677	-15.213	-20.589%
typos	4.0	42.13	-23.22	-35.532%	28.359	-25.781	-47.619%	60.916	-12.974	-17.559%
keyboard	4.0	39.82	-25.53	-39.067%	26.045	-28.095	-51.892%	60.428	-13.462	-18.219%
spell_error	4.0	42.01	-23.34	-35.715%	27.962	-26.178	-48.353%	59.911	-13.979	-18.919%
random_char_insert	4.0	30.42	-34.93	-53.451%	21.1	-33.04	-61.026%	55.347	-18.543	-25.096%
random_char_replace	4.0	27.58	-37.77	-57.796%	19.272	-34.868	-64.404%	54.084	-19.806	-26.805%
random_char_swap	4.0	26.37	-38.98	-59.648%	19.105	-35.035	-64.712%	52.591	-21.299	-28.826%
random_char_delete	4.0	30.1	-35.25	-53.940%	21.235	-32.905	-60.777%	54.371	-19.519	-26.417%
random_word_insert	4.0	61.98	-3.37	-5.157%	40.173	-13.967	-25.797%	70.662	-3.228	-4.369%
random_word_delete	4.0	53.05	-12.3	-18.822%	36.317	-17.823	-32.920%	66.126	-7.764	-10.507%
swap_syn_word_emb	4.0	47.08	-18.27	-27.957%	30.689	-23.451	-43.316%	58.935	-14.955	-20.240%
swap_syn_word_net	4.0	50.6	-14.75	-22.571%	35.363	-18.777	-34.682%	61.863	-12.027	-16.277%
random_word_swap	4.0	64.14	-1.21	-1.852%	46.383	-7.757	-14.328%	72.097	-1.793	-2.427%

Table 39: Performance and decrease ratio of Single Adapter on CLIP-BART against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	39.25	-26.1	-39.939%	26.475	-27.665	-51.099%	56.696	-17.194	-23.270%
punctuation	5.0	65.22	-0.13	-0.199%	49.658	-4.482	-8.278%	74.264	0.374	0.507%
typos	5.0	29.93	-35.42	-54.200%	20.671	-33.469	-61.819%	54.256	-19.634	-26.572%
keyboard	5.0	27.5	-37.85	-57.919%	19.232	-34.908	-64.477%	52.849	-21.041	-28.476%
spell_error	5.0	35.31	-30.04	-45.968%	23.772	-30.368	-56.092%	55.993	-17.897	-24.222%
random_char_insert	5.0	27.2	-38.15	-58.378%	19.121	-35.019	-64.683%	54.055	-19.835	-26.844%
random_char_replace	5.0	25.61	-39.74	-60.811%	18.516	-35.624	-65.799%	51.931	-21.959	-29.719%
random_char_swap	5.0	25.41	-39.94	-61.117%	19.351	-34.789	-64.257%	53.552	-20.338	-27.524%
random_char_delete	5.0	27.41	-37.94	-58.057%	20.21	-33.93	-62.671%	52.519	-21.371	-28.923%
to_passive	5.0	61.93	-3.42	-5.233%	45.357	-8.783	-16.223%	71.753	-2.137	-2.893%
tense	5.0	64.96	-0.39	-0.597%	50.151	-3.989	-7.368%	73.805	-0.085	-0.115%
to_formal	5.0	65.45	0.1	0.153%	49.626	-4.514	-8.337%	73.346	-0.544	-0.737%
to_casual	5.0	62.54	-2.81	-4.300%	46.144	-7.996	-14.769%	72.241	-1.649	-2.232%
to_active	5.0	63.97	-1.38	-2.112%	48.911	-5.229	-9.659%	73.518	-0.372	-0.503%
double_denial	5.0	65.67	0.32	0.490%	50.421	-3.719	-6.869%	73.862	-0.028	-0.037%
insert_adv	5.0	62.13	-3.22	-4.927%	46.987	-7.153	-13.212%	72.212	-1.678	-2.271%
append_irr	5.0	60.64	-4.71	-7.207%	44.212	-9.928	-18.337%	67.346	-6.544	-8.856%
random_word_insert	5.0	57.72	-7.63	-11.676%	36.111	-18.029	-33.301%	69.671	-4.219	-5.709%
drop_nn	5.0	47.26	-18.09	-27.682%	33.185	-20.955	-38.705%	64.188	-9.702	-13.130%
drop_rand_one_nn	5.0	58.25	-7.1	-10.865%	43.576	-10.564	-19.512%	72.398	-1.492	-2.019%
drop_vb	5.0	60.07	-5.28	-8.800%	42.487	-11.653	-21.524%	71.796	-2.094	-2.834%
drop_vb_nn	5.0	47.72	-17.63	-26.978%	32.088	-22.052	-40.732%	61.777	-12.113	-16.393%
only_nn	5.0	38.19	-27.16	-41.561%	25.561	-28.579	-52.788%	55.289	-18.601	-25.174%
only_vb	5.0	53.34	-12.01	-18.378%	37.725	-16.415	-30.320%	67.03	-6.86	-9.284%
only_vb_nn	5.0	43.62	-21.73	-33.252%	28.582	-25.558	-47.208%	58.461	-15.429	-20.881%
drop_rand_one_vb	5.0	64.17	-1.18	-1.806%	47.241	-6.899	-12.742%	73.13	-0.76	-1.028%
drop_first	5.0	61.73	-3.62	-5.539%	44.069	-10.071	-18.602%	73.13	-0.76	-1.028%
drop_last	5.0	55.02	-10.33	-15.807%	43.346	-10.794	-19.938%	70.949	-2.941	-3.981%
drop_first_and_last	5.0	49.3	-16.05	-24.560%	37.176	-16.964	-31.334%	69.399	-4.491	-6.079%
shuffle_order	5.0	62.05	-3.3	-5.050%	40.865	-13.275	-24.520%	69.485	-4.405	-5.962%
random_word_delete	5.0	47.16	-18.19	-27.835%	31.905	-22.235	-41.070%	63.93	-9.96	-13.480%
swap_syn_word_emb	5.0	46.35	-19.0	-29.074%	29.806	-24.334	-44.946%	58.375	-15.515	-20.997%
swap_syn_word_net	5.0	47.7	-17.65	-27.008%	34.449	-19.691	-36.370%	60.055	-13.835	-18.724%
back_trans	5.0	62.29	-3.06	-4.682%	46.629	-7.511	-13.873%	73.087	-0.803	-1.086%
random_word_swap	5.0	63.78	-1.57	-2.402%	44.896	-9.244	-17.075%	72.183	-1.707	-2.310%
nonsense	5.0	0.09	-65.26	-99.862%	0.0	-54.14	-100.000%	51.342	-22.548	-30.516%

Table 40: Performance and decrease ratio of Single Compacter on CLIP-BART against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	54.28	-10.19	-15.806%	41.779	-11.121	-21.022%	56.122	-13.818	-19.757%
typos	1.0	56.27	-8.2	-12.719%	43.171	-9.729	-18.392%	68.236	-1.704	-2.436%
keyboard	1.0	55.05	-9.42	-14.611%	42.145	-10.755	-20.331%	67.447	-2.493	-3.565%
spell_error	1.0	55.9	-8.57	-13.293%	42.892	-10.008	-18.918%	67.92	-2.02	-2.888%
random_char_insert	1.0	51.37	-13.1	-20.320%	35.427	-17.473	-33.030%	64.633	-5.307	-7.588%
random_char_replace	1.0	47.83	-16.64	-25.810%	33.002	-19.898	-37.614%	62.222	-7.718	-11.035%
random_char_swap	1.0	41.69	-22.78	-35.334%	27.962	-24.938	-47.143%	57.815	-12.125	-17.336%
random_char_delete	1.0	49.17	-15.3	-23.732%	34.743	-18.157	-34.323%	62.452	-7.488	-10.707%
random_word_insert	1.0	64.38	-0.09	-0.140%	48.322	-4.578	-8.653%	70.418	0.478	0.683%
random_word_delete	1.0	64.36	-0.11	-0.171%	48.593	-4.307	-8.142%	69.427	-0.513	-0.733%
swap_syn_word_emb	1.0	54.63	-9.84	-15.263%	42.741	-10.159	-19.204%	65.767	-4.173	-5.966%
swap_syn_word_net	1.0	56.92	-7.55	-11.711%	43.918	-8.982	-16.979%	67.662	-2.278	-3.257%
random_word_swap	1.0	64.34	-0.13	-0.202%	49.014	-3.886	-7.346%	69.686	-0.254	-0.364%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	53.82	-10.65	-16.519%	39.251	-13.649	-25.801%	63.657	-6.283	-8.983%
typos	2.0	55.05	-9.42	-14.611%	40.142	-12.758	-24.118%	64.92	-5.02	-7.177%
keyboard	2.0	54.56	-9.91	-15.371%	38.893	-14.007	-26.478%	64.992	-4.948	-7.074%
spell_error	2.0	55.03	-9.44	-14.642%	40.626	-12.274	-23.201%	64.432	-5.508	-7.875%
random_char_insert	2.0	41.58	-22.89	-35.505%	27.238	-25.662	-48.510%	59.567	-10.373	-14.832%
random_char_replace	2.0	36.69	-27.78	-43.090%	24.058	-28.842	-54.522%	56.897	-13.043	-18.649%
random_char_swap	2.0	32.41	-32.06	-49.729%	22.229	-30.671	-57.979%	54.93	-15.01	-21.461%
random_char_delete	2.0	38.9	-25.57	-39.662%	26.697	-26.203	-49.532%	57.126	-12.814	-18.321%
random_word_insert	2.0	63.54	-0.93	-1.443%	45.516	-7.384	-13.958%	70.332	0.392	0.560%
random_word_delete	2.0	59.56	-4.91	-7.616%	43.711	-9.189	-17.370%	67.82	-2.12	-3.032%
swap_syn_word_emb	2.0	53.58	-10.89	-16.892%	39.513	-13.387	-25.305%	61.49	-8.45	-12.082%
swap_syn_word_net	2.0	56.45	-8.02	-12.440%	41.803	-11.097	-20.977%	65.207	-4.733	-6.767%
random_word_swap	2.0	63.41	-1.06	-1.644%	47.201	-5.699	-10.772%	69.04	-0.9	-1.287%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	49.39	-15.08	-23.391%	33.455	-19.445	-36.758%	59.739	-10.201	-14.586%
typos	3.0	50.46	-14.01	-21.731%	34.576	-18.324	-34.638%	62.81	-7.13	-10.194%
keyboard	3.0	49.29	-15.18	-23.546%	32.724	-20.176	-38.140%	62.078	-7.862	-11.241%
spell_error	3.0	50.28	-14.19	-22.010%	34.195	-18.705	-35.360%	61.849	-8.091	-11.569%
random_char_insert	3.0	34.67	-29.8	-46.223%	23.263	-29.637	-56.025%	56.524	-13.416	-19.183%
random_char_replace	3.0	30.24	-34.23	-53.094%	20.687	-32.213	-60.894%	54.83	-15.11	-21.604%
random_char_swap	3.0	28.78	-35.69	-55.359%	20.329	-32.571	-61.571%	52.232	-17.708	-25.319%
random_char_delete	3.0	33.24	-31.23	-48.441%	23.318	-29.582	-55.920%	54.414	-15.526	-22.200%
random_word_insert	3.0	62.35	-2.12	-3.288%	42.407	-10.493	-19.835%	69.255	-0.685	-0.979%
random_word_delete	3.0	57.35	-7.12	-11.044%	40.817	-12.083	-22.841%	65.494	-4.446	-6.356%
swap_syn_word_emb	3.0	50.21	-14.26	-22.119%	34.179	-18.721	-35.390%	59.265	-10.675	-15.263%
swap_syn_word_net	3.0	53.02	-11.45	-17.760%	38.297	-14.603	-27.605%	62.193	-7.747	-11.076%
random_word_swap	3.0	62.96	-1.51	-2.342%	46.224	-6.676	-12.621%	69.255	-0.685	-0.979%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	42.76	-21.71	-33.675%	29.067	-23.833	-45.054%	56.28	-13.66	-19.532%
typos	4.0	42.49	-21.98	-34.093%	28.033	-24.867	-47.007%	58.677	-11.263	-16.104%
spell_error	4.0	42.41	-22.06	-34.217%	28.073	-24.827	-46.932%	58.16	-11.78	-16.843%
random_char_insert	4.0	30.63	-33.84	-52.490%	20.719	-32.181	-60.834%	54.988	-14.952	-21.379%
random_char_replace	4.0	26.52	-37.95	-58.865%	18.079	-34.821	-65.824%	52.978	-16.962	-24.252%
random_char_swap	4.0	26.33	-38.14	-59.159%	19.288	-33.612	-63.539%	53.194	-16.746	-23.944%
random_char_delete	4.0	29.97	-34.5	-53.513%	20.981	-31.919	-60.338%	53.323	-16.617	-23.759%
random_word_insert	4.0	60.56	-3.91	-6.065%	40.237	-12.663	-23.938%	68.365	-1.575	-2.252%
random_word_delete	4.0	51.55	-12.92	-20.040%	35.077	-17.823	-33.692%	63.428	-6.512	-9.311%
swap_syn_word_emb	4.0	46.5	-17.97	-27.873%	31.356	-21.544	-40.725%	58.102	-11.838	-16.925%
swap_syn_word_net	4.0	49.65	-14.82	-22.987%	35.952	-16.948	-32.038%	59.251	-10.689	-15.283%
random_word_swap	4.0	62.62	-1.85	-2.870%	45.277	-7.623	-14.409%	68.164	-1.776	-2.539%
random_word_swap	3.0	62.96	-1.51	-2.342%	46.224	-6.676	-12.621%	69.255	-0.685	-0.979%

Table 41: Performance and decrease ratio of Single Compacter on CLIP-BART against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	40.14	-24.33	-37.738%	26.475	-26.425	-49.953%	54.988	-14.952	-21.379%
punctuation	5.0	64.18	-0.29	-0.450%	48.768	-4.132	-7.812%	69.858	-0.082	-0.117%
typos	5.0	30.66	-33.81	-52.443%	20.83	-32.07	-60.624%	52.146	-17.794	-25.442%
keyboard	5.0	27.91	-36.56	-56.709%	18.922	-33.978	-64.231%	51.931	-18.009	-25.750%
spell_error	5.0	36.05	-28.42	-44.083%	24.09	-28.81	-54.462%	55.461	-14.479	-20.701%
random_char_insert	5.0	27.56	-36.91	-57.251%	19.447	-33.453	-63.239%	53.825	-16.115	-23.041%
random_char_replace	5.0	24.0	-40.47	-62.773%	16.529	-36.371	-68.755%	52.246	-17.694	-25.298%
random_char_swap	5.0	25.68	-38.79	-60.168%	20.122	-32.778	-61.961%	52.863	-17.077	-24.416%
random_char_delete	5.0	27.65	-36.82	-57.112%	19.86	-33.04	-62.457%	52.347	-17.593	-25.155%
to_passive	5.0	59.84	-4.63	-7.182%	44.761	-8.139	-15.386%	68.638	-1.302	-1.862%
tense	5.0	63.67	-0.8	-1.241%	49.459	-3.441	-6.504%	70.159	0.219	0.314%
to_formal	5.0	63.94	-0.53	-0.822%	48.879	-4.021	-7.601%	69.973	0.033	0.047%
to_casual	5.0	60.54	-3.93	-6.096%	45.572	-7.328	-13.853%	68.652	-1.288	-1.841%
to_active	5.0	62.53	-1.94	-3.009%	47.798	-5.102	-9.645%	69.528	-0.412	-0.589%
double_denial	5.0	64.43	-0.04	-0.062%	49.754	-3.146	-5.948%	69.944	0.004	0.006%
insert_adv	5.0	60.74	-3.73	-5.786%	45.588	-7.312	-13.823%	68.997	-0.943	-1.349%
append_irr	5.0	59.21	-5.26	-8.159%	43.171	-9.729	-18.392%	63.715	-6.225	-8.901%
random_word_insert	5.0	56.42	-8.05	-12.486%	36.484	-16.416	-31.031%	67.906	-2.034	-2.908%
drop_nn	5.0	47.12	-17.35	-26.912%	32.732	-20.168	-38.125%	63.815	-6.125	-8.757%
drop_rand_one_nn	5.0	57.7	-6.77	-10.501%	43.568	-9.332	-17.641%	69.241	-0.699	-1.000%
drop_vb	5.0	58.63	-5.84	-9.058%	42.447	-10.453	-19.760%	68.724	-1.216	-1.739%
drop_vb_nn	5.0	46.33	-18.14	-28.137%	30.72	-22.18	-41.928%	61.045	-8.895	-12.718%
only_nn	5.0	37.29	-27.18	-42.159%	23.072	-29.828	-56.386%	53.567	-16.373	-23.410%
only_vb	5.0	51.79	-12.68	-19.668%	36.19	-16.71	-31.588%	63.873	-6.067	-8.675%
only_vb_nn	5.0	41.8	-22.67	-35.164%	25.783	-27.117	-51.261%	56.581	-13.359	-19.101%
drop_rand_one_vb	5.0	62.38	-2.09	-3.242%	46.812	-6.088	-11.509%	69.614	-0.326	-0.466%
drop_first	5.0	59.78	-4.69	-7.275%	43.075	-9.825	-18.572%	69.772	-0.168	-0.241%
drop_last	5.0	54.38	-10.09	-15.651%	43.306	-9.594	-18.137%	67.891	-2.049	-2.929%
drop_first_and_last	5.0	47.38	-17.09	-26.508%	37.224	-15.676	-29.634%	66.987	-2.953	-4.222%
shuffle_order	5.0	59.98	-4.49	-6.964%	39.378	-13.522	-25.561%	66.14	-3.8	-5.433%
random_word_delete	5.0	46.11	-18.36	-28.478%	31.332	-21.568	-40.770%	62.696	-7.244	-10.358%
swap_syn_word_emb	5.0	45.82	-18.65	-28.928%	30.529	-22.371	-42.288%	57.844	-12.096	-17.295%
swap_syn_word_net	5.0	46.94	-17.53	-27.191%	34.433	-18.467	-34.909%	57.643	-12.297	-17.582%
back_trans	5.0	60.83	-3.64	-5.646%	46.224	-6.676	-12.621%	68.925	-1.015	-1.451%
random_word_swap	5.0	61.84	-2.63	-4.079%	43.878	-9.022	-17.054%	68.078	-1.862	-2.662%
nonsense	5.0	1.04	-63.43	-98.387%	0.922	-51.978	-98.257%	51.127	-18.813	-26.899%

Table 42: Performance and decrease ratio of Single LoRA on CLIP-BART against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	54.03	-11.31	-17.309%	41.294	-11.896	-22.364%	57.586	-15.994	-21.737%
typos	1.0	55.93	-9.41	-14.402%	42.36	-10.83	-20.362%	71.064	-2.516	-3.420%
keyboard	1.0	54.74	-10.6	-16.223%	41.278	-11.912	-22.394%	69.815	-3.765	-5.117%
spell_error	1.0	55.81	-9.53	-14.585%	42.956	-10.234	-19.241%	69.04	-4.54	-6.170%
random_char_insert	1.0	50.69	-14.65	-22.421%	34.457	-18.733	-35.219%	65.064	-8.516	-11.574%
random_char_replace	1.0	47.61	-17.73	-27.135%	31.754	-21.436	-40.301%	62.724	-10.856	-14.754%
random_char_swap	1.0	41.04	-24.3	-37.190%	27.413	-25.777	-48.462%	59.523	-14.057	-19.104%
random_char_delete	1.0	49.16	-16.18	-24.763%	33.877	-19.313	-36.310%	63.499	-10.081	-13.700%
random_word_insert	1.0	65.29	-0.05	-0.077%	47.09	-6.1	-11.468%	72.714	-0.866	-1.177%
random_word_delete	1.0	65.24	-0.1	-0.153%	48.243	-4.947	-9.301%	72.427	-1.153	-1.567%
swap_syn_word_emb	1.0	55.15	-10.19	-15.595%	42.407	-10.783	-20.272%	67.762	-5.818	-7.907%
swap_syn_word_net	1.0	57.75	-7.59	-11.616%	43.584	-9.606	-18.060%	71.336	-2.244	-3.049%
random_word_swap	1.0	65.29	-0.05	-0.077%	48.68	-4.51	-8.479%	73.331	-0.249	-0.338%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	53.46	-11.88	-18.182%	38.305	-14.885	-27.985%	65.609	-7.971	-10.833%
typos	2.0	55.05	-10.29	-15.748%	39.935	-13.255	-24.920%	66.758	-6.822	-9.272%
keyboard	2.0	54.0	-11.34	-17.355%	38.098	-15.092	-28.373%	66.815	-6.765	-9.194%
spell_error	2.0	55.24	-10.1	-15.458%	39.394	-13.796	-25.937%	66.499	-7.081	-9.623%
random_char_insert	2.0	40.12	-25.22	-38.598%	25.441	-27.749	-52.169%	59.236	-14.344	-19.494%
random_char_replace	2.0	35.78	-29.56	-45.240%	23.159	-30.031	-56.459%	57.414	-16.166	-21.971%
random_char_swap	2.0	32.25	-33.09	-50.643%	20.981	-32.209	-60.554%	54.701	-18.879	-25.658%
random_char_delete	2.0	38.83	-26.51	-40.572%	26.713	-26.477	-49.778%	57.83	-15.75	-21.406%
random_word_insert	2.0	63.88	-1.46	-2.234%	42.956	-10.234	-19.241%	71.509	-2.071	-2.815%
random_word_delete	2.0	59.92	-5.42	-8.295%	43.409	-9.781	-18.389%	69.399	-4.181	-5.683%
swap_syn_word_emb	2.0	54.19	-11.15	-17.065%	39.021	-14.169	-26.639%	62.452	-11.128	-15.124%
swap_syn_word_net	2.0	56.9	-8.44	-12.917%	41.342	-11.848	-22.275%	67.963	-5.617	-7.634%
random_word_swap	2.0	64.48	-0.86	-1.316%	47.027	-6.163	-11.588%	72.312	-1.268	-1.723%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	48.98	-16.36	-25.038%	31.643	-21.547	-40.510%	61.002	-12.578	-17.095%
typos	3.0	50.0	-15.34	-23.477%	33.082	-20.108	-37.805%	64.117	-9.463	-12.861%
keyboard	3.0	48.27	-17.07	-26.125%	31.643	-21.547	-40.510%	62.954	-10.626	-14.442%
spell_error	3.0	50.1	-15.24	-23.324%	33.018	-20.172	-37.924%	63.413	-10.167	-13.817%
random_char_insert	3.0	32.75	-32.59	-49.878%	21.697	-31.493	-59.209%	56.323	-17.257	-23.454%
random_char_replace	3.0	29.42	-35.92	-54.974%	19.343	-33.847	-63.634%	54.93	-18.65	-25.346%
random_char_swap	3.0	28.46	-36.88	-56.443%	19.407	-33.783	-63.514%	52.304	-21.276	-28.916%
random_char_delete	3.0	33.02	-32.32	-49.464%	22.452	-30.738	-57.789%	54.672	-18.908	-25.697%
random_word_insert	3.0	61.85	-3.49	-5.341%	39.521	-13.669	-25.698%	69.915	-3.665	-4.981%
random_word_delete	3.0	57.35	-7.99	-12.228%	39.696	-13.494	-25.369%	67.332	-6.248	-8.492%
swap_syn_word_emb	3.0	50.31	-15.03	-23.003%	33.408	-19.782	-37.192%	59.724	-13.856	-18.831%
swap_syn_word_net	3.0	53.93	-11.41	-17.463%	37.534	-15.656	-29.435%	64.791	-8.789	-11.945%
random_word_swap	3.0	63.77	-1.57	-2.403%	45.866	-7.324	-13.770%	71.953	-1.627	-2.211%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	42.16	-23.18	-35.476%	27.238	-25.952	-48.791%	57.528	-16.052	-21.815%
typos	4.0	41.83	-23.51	-35.981%	27.103	-26.087	-49.045%	60.212	-13.368	-18.167%
keyboard	4.0	39.16	-26.18	-40.067%	25.052	-28.138	-52.902%	59.782	-13.798	-18.753%
spell_error	4.0	41.9	-23.44	-35.874%	27.866	-25.324	-47.610%	58.949	-14.631	-19.884%
random_char_insert	4.0	28.5	-36.84	-56.382%	18.914	-34.276	-64.441%	54.112	-19.468	-26.458%
random_char_replace	4.0	25.34	-40.0	-61.218%	16.394	-36.796	-69.179%	53.495	-20.085	-27.297%
random_char_swap	4.0	25.75	-39.59	-60.591%	18.318	-34.872	-65.562%	53.021	-20.559	-27.940%
random_char_delete	4.0	29.86	-35.48	-54.301%	20.091	-33.099	-62.229%	53.596	-19.984	-27.160%
random_word_insert	4.0	59.19	-6.15	-9.412%	36.421	-16.769	-31.527%	69.097	-4.483	-6.092%
random_word_delete	4.0	51.52	-13.82	-21.151%	34.568	-18.622	-35.010%	65.581	-7.999	-10.872%
swap_syn_word_emb	4.0	46.82	-18.52	-28.344%	30.275	-22.915	-43.081%	58.346	-15.234	-20.703%
swap_syn_word_net	4.0	50.73	-14.61	-22.360%	35.244	-17.946	-33.739%	60.988	-12.592	-17.114%
random_word_swap	4.0	63.14	-2.2	-3.367%	44.983	-8.207	-15.429%	71.523	-2.057	-2.796%

Table 43: Performance and decrease ratio of Single LoRA on CLIP-BART against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	38.86	-26.48	-40.526%	24.837	-28.353	-53.305%	55.519	-18.061	-24.546%
punctuation	5.0	64.49	-0.85	-1.301%	48.37	-4.82	-9.062%	72.987	-0.593	-0.806%
typos	5.0	29.97	-35.37	-54.132%	20.902	-32.288	-60.704%	52.519	-21.061	-28.623%
keyboard	5.0	27.27	-38.07	-58.264%	18.691	-34.499	-64.859%	51.17	-22.41	-30.457%
spell_error	5.0	35.33	-30.01	-45.929%	23.43	-29.76	-55.951%	55.375	-18.205	-24.741%
random_char_insert	5.0	25.29	-40.05	-61.295%	17.244	-35.946	-67.580%	53.194	-20.386	-27.706%
random_char_replace	5.0	21.98	-43.36	-66.361%	14.676	-38.514	-72.408%	51.399	-22.181	-30.145%
random_char_swap	5.0	25.14	-40.2	-61.524%	18.946	-34.244	-64.381%	52.088	-21.492	-29.208%
random_char_delete	5.0	27.67	-37.67	-57.652%	19.391	-33.799	-63.544%	51.916	-21.664	-29.443%
to_passive	5.0	62.35	-2.99	-4.576%	44.896	-8.294	-15.593%	71.537	-2.043	-2.776%
tense	5.0	64.42	-0.92	-1.408%	48.823	-4.367	-8.210%	73.26	-0.32	-0.435%
to_formal	5.0	64.85	-0.49	-0.750%	48.37	-4.82	-9.062%	73.331	-0.249	-0.338%
to_casual	5.0	61.93	-3.41	-5.219%	45.365	-7.825	-14.712%	71.882	-1.698	-2.308%
to_active	5.0	63.44	-1.9	-2.908%	47.519	-5.671	-10.661%	72.7	-0.88	-1.196%
double_denial	5.0	65.29	-0.05	-0.077%	49.229	-3.961	-7.447%	73.59	0.01	0.013%
insert_adv	5.0	60.31	-5.03	-7.698%	44.928	-8.262	-15.534%	71.178	-2.402	-3.264%
append_irr	5.0	56.4	-8.94	-13.682%	40.475	-12.715	-23.904%	66.054	-7.526	-10.228%
random_word_insert	5.0	53.97	-11.37	-17.401%	32.04	-21.15	-39.763%	67.203	-6.377	-8.667%
drop_nn	5.0	45.29	-20.05	-30.686%	30.068	-23.122	-43.470%	63.629	-9.951	-13.525%
drop_rand_one_nn	5.0	57.52	-7.82	-11.968%	41.859	-11.331	-21.303%	71.81	-1.77	-2.406%
drop_vb	5.0	56.85	-8.49	-12.994%	37.407	-15.783	-29.674%	70.188	-3.392	-4.610%
drop_vb_nn	5.0	42.7	-22.64	-34.650%	26.435	-26.755	-50.301%	60.456	-13.124	-17.836%
only_nn	5.0	30.67	-34.67	-53.061%	17.324	-35.866	-67.430%	54.873	-18.707	-25.424%
only_vb	5.0	50.27	-15.07	-23.064%	35.332	-17.858	-33.575%	67.346	-6.234	-8.472%
only_vb_nn	5.0	36.27	-29.07	-44.490%	20.512	-32.678	-61.436%	57.414	-16.166	-21.971%
drop_rand_one_vb	5.0	62.12	-3.22	-4.928%	44.339	-8.851	-16.640%	72.183	-1.397	-1.898%
drop_first	5.0	53.88	-11.46	-17.539%	35.936	-17.254	-32.439%	72.154	-1.426	-1.937%
drop_last	5.0	53.97	-11.37	-17.401%	42.01	-11.18	-21.019%	69.844	-3.736	-5.078%
drop_first_and_last	5.0	40.95	-24.39	-37.328%	29.814	-23.376	-43.948%	68.179	-5.401	-7.341%
shuffle_order	5.0	60.39	-4.95	-7.576%	38.019	-15.171	-28.523%	68.494	-5.086	-6.912%
random_word_delete	5.0	45.97	-19.37	-29.645%	30.394	-22.796	-42.857%	63.069	-10.511	-14.285%
swap_syn_word_emb	5.0	45.85	-19.49	-29.829%	29.44	-23.75	-44.651%	57.571	-16.009	-21.757%
swap_syn_word_net	5.0	47.78	-17.56	-26.875%	33.749	-19.441	-36.549%	59.423	-14.157	-19.240%
back_trans	5.0	61.59	-3.75	-5.739%	45.611	-7.579	-14.248%	72.384	-1.196	-1.625%
random_word_swap	5.0	62.73	-2.61	-3.994%	43.902	-9.288	-17.462%	71.021	-2.559	-3.478%
nonsense	5.0	0.06	-65.28	-99.908%	0.064	-53.126	-99.880%	51.026	-22.554	-30.652%

Table 44: Performance and decrease ratio of Single Prompt on CLIP-BART against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	39.57	-4.43	-10.068%	33.789	-3.751	-9.992%	51.629	-0.321	-0.618%
typos	1.0	38.99	-5.01	-11.386%	33.447	-4.093	-10.902%	52.289	0.339	0.653%
keyboard	1.0	38.12	-5.88	-13.364%	32.787	-4.753	-12.660%	51.844	-0.106	-0.203%
spell_error	1.0	38.42	-5.58	-12.682%	33.686	-3.854	-10.267%	52.189	0.239	0.460%
random_char_insert	1.0	37.28	-6.72	-15.273%	29.925	-7.615	-20.284%	51.672	-0.278	-0.535%
random_char_replace	1.0	35.6	-8.4	-19.091%	27.89	-9.65	-25.706%	52.361	0.411	0.791%
random_char_swap	1.0	32.3	-11.7	-26.591%	24.694	-12.846	-34.220%	52.002	0.052	0.101%
random_char_delete	1.0	35.77	-8.23	-18.705%	28.621	-8.919	-23.758%	51.758	-0.192	-0.369%
random_word_insert	1.0	43.95	-0.05	-0.114%	36.953	-0.587	-1.563%	52.246	0.296	0.570%
random_word_delete	1.0	43.86	-0.14	-0.318%	36.468	-1.072	-2.854%	51.787	-0.163	-0.314%
swap_syn_word_emb	1.0	39.76	-4.24	-9.636%	34.998	-2.542	-6.772%	52.088	0.138	0.266%
swap_syn_word_net	1.0	41.92	-2.08	-4.727%	35.085	-2.455	-6.540%	51.988	0.038	0.073%
random_word_swap	1.0	43.96	-0.04	-0.091%	37.279	-0.261	-0.694%	51.916	-0.034	-0.065%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	39.83	-4.17	-9.477%	32.644	-4.896	-13.041%	52.189	0.239	0.460%
typos	2.0	38.31	-5.69	-12.932%	31.857	-5.683	-15.138%	52.131	0.181	0.349%
keyboard	2.0	37.82	-6.18	-14.045%	31.205	-6.335	-16.875%	51.514	-0.436	-0.839%
spell_error	2.0	38.19	-5.81	-13.205%	32.43	-5.11	-13.613%	51.902	-0.048	-0.093%
random_char_insert	2.0	33.14	-10.86	-24.682%	25.219	-12.321	-32.822%	51.945	-0.005	-0.010%
random_char_replace	2.0	30.73	-13.27	-30.159%	23.231	-14.309	-38.117%	51.959	0.009	0.018%
random_char_swap	2.0	28.42	-15.58	-35.409%	21.061	-16.479	-43.898%	52.131	0.181	0.349%
random_char_delete	2.0	30.9	-13.1	-29.773%	23.875	-13.665	-36.401%	51.801	-0.149	-0.286%
random_word_insert	2.0	43.38	-0.62	-1.409%	35.538	-2.002	-5.332%	52.175	0.225	0.432%
random_word_delete	2.0	39.26	-4.74	-10.773%	32.724	-4.816	-12.830%	52.103	0.153	0.294%
swap_syn_word_emb	2.0	39.47	-4.53	-10.295%	33.376	-4.164	-11.093%	51.787	-0.163	-0.314%
swap_syn_word_net	2.0	41.73	-2.27	-5.159%	34.274	-3.266	-8.700%	52.49	0.54	1.040%
random_word_swap	2.0	43.28	-0.72	-1.636%	36.445	-1.095	-2.918%	51.801	-0.149	-0.286%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	38.04	-5.96	-13.545%	29.122	-8.418	-22.423%	52.361	0.411	0.791%
typos	3.0	36.02	-7.98	-18.136%	27.977	-9.563	-25.473%	52.045	0.095	0.184%
keyboard	3.0	35.37	-8.63	-19.614%	27.373	-10.167	-27.083%	51.801	-0.149	-0.286%
spell_error	3.0	35.73	-8.27	-18.795%	28.494	-9.046	-24.096%	52.017	0.067	0.128%
random_char_insert	3.0	30.11	-13.89	-31.568%	23.462	-14.078	-37.502%	52.074	0.124	0.239%
random_char_replace	3.0	28.27	-15.73	-35.750%	21.045	-16.495	-43.941%	51.902	-0.048	-0.093%
random_char_swap	3.0	26.64	-17.36	-39.455%	19.661	-17.879	-47.626%	51.974	0.024	0.045%
random_char_delete	3.0	28.16	-15.84	-36.000%	21.466	-16.074	-42.818%	52.734	0.784	1.510%
random_word_insert	3.0	42.88	-1.12	-2.545%	34.409	-3.131	-8.340%	51.773	-0.177	-0.341%
random_word_delete	3.0	36.96	-7.04	-16.000%	29.114	-8.426	-22.445%	51.816	-0.134	-0.259%
swap_syn_word_emb	3.0	37.35	-6.65	-15.114%	30.776	-6.764	-18.018%	51.816	-0.134	-0.259%
swap_syn_word_net	3.0	40.58	-3.42	-7.773%	31.897	-5.643	-15.032%	51.945	-0.005	-0.010%
random_word_swap	3.0	43.21	-0.79	-1.795%	35.475	-2.065	-5.502%	51.773	-0.177	-0.341%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	35.04	-8.96	-20.364%	26.268	-11.272	-30.026%	51.974	0.024	0.045%
keyboard	4.0	30.96	-13.04	-29.636%	23.048	-14.492	-38.604%	51.816	-0.134	-0.259%
spell_error	4.0	31.55	-12.45	-28.295%	25.123	-12.417	-33.076%	51.801	-0.149	-0.286%
random_char_insert	4.0	28.57	-15.43	-35.068%	21.053	-16.487	-43.919%	51.615	-0.335	-0.645%
random_char_replace	4.0	27.02	-16.98	-38.591%	20.114	-17.426	-46.419%	52.361	0.411	0.791%
random_char_swap	4.0	25.94	-18.06	-41.045%	19.534	-18.006	-47.965%	51.715	-0.235	-0.452%
random_char_delete	4.0	26.91	-17.09	-38.841%	19.82	-17.72	-47.202%	52.189	0.239	0.460%
random_word_insert	4.0	42.33	-1.67	-3.795%	32.946	-4.594	-12.237%	51.859	-0.091	-0.176%
random_word_delete	4.0	32.87	-11.13	-25.295%	26.133	-11.407	-30.386%	51.931	-0.019	-0.037%
swap_syn_word_emb	4.0	35.94	-8.06	-18.318%	29.766	-7.774	-20.708%	51.816	-0.134	-0.259%
swap_syn_word_net	4.0	39.88	-4.12	-9.364%	30.037	-7.503	-19.988%	51.672	-0.278	-0.535%
random_word_swap	4.0	42.56	-1.44	-3.273%	34.815	-2.725	-7.260%	52.017	0.067	0.128%

Table 45: Performance and decrease ratio of Single Prompt on CLIP-BART against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	34.13	-9.87	-22.432%	24.654	-12.886	-34.326%	51.873	-0.077	-0.148%
punctuation	5.0	42.47	-1.53	-3.477%	34.751	-2.789	-7.429%	51.959	0.009	0.018%
typos	5.0	26.09	-17.91	-40.705%	19.367	-18.173	-48.409%	51.744	-0.206	-0.397%
keyboard	5.0	24.86	-19.14	-43.500%	18.501	-19.039	-50.718%	51.83	-0.12	-0.231%
spell_error	5.0	28.3	-15.7	-35.682%	22.516	-15.024	-40.023%	51.859	-0.091	-0.176%
random_char_insert	5.0	27.07	-16.93	-38.477%	20.17	-17.37	-46.270%	51.543	-0.407	-0.783%
random_char_replace	5.0	25.81	-18.19	-41.341%	19.463	-18.077	-48.155%	52.246	0.296	0.570%
random_char_swap	5.0	25.38	-18.62	-42.318%	18.898	-18.642	-49.659%	51.572	-0.378	-0.728%
random_char_delete	5.0	25.94	-18.06	-41.045%	19.502	-18.038	-48.049%	52.189	0.239	0.460%
to_passive	5.0	40.84	-3.16	-7.182%	33.439	-4.101	-10.923%	52.419	0.469	0.902%
tense	5.0	43.8	-0.2	-0.455%	37.462	-0.078	-0.207%	51.816	-0.134	-0.259%
to_formal	5.0	43.79	-0.21	-0.477%	37.359	-0.181	-0.482%	52.289	0.339	0.653%
to_casual	5.0	41.04	-2.96	-6.727%	33.749	-3.791	-10.097%	52.318	0.368	0.709%
to_active	5.0	42.52	-1.48	-3.364%	36.071	-1.469	-3.913%	51.945	-0.005	-0.010%
double_denial	5.0	43.93	-0.07	-0.159%	37.542	0.002	0.005%	51.974	0.024	0.045%
insert_adv	5.0	42.61	-1.39	-3.159%	35.912	-1.628	-4.337%	52.304	0.354	0.681%
append_irr	5.0	35.1	-8.9	-20.227%	26.833	-10.707	-28.523%	52.017	0.067	0.128%
random_word_insert	5.0	41.52	-2.48	-5.636%	32.096	-5.444	-14.503%	51.443	-0.507	-0.977%
drop_nn	5.0	35.18	-8.82	-20.045%	27.874	-9.666	-25.748%	52.074	0.124	0.239%
drop_rand_one_nn	5.0	39.3	-4.7	-10.682%	33.415	-4.125	-10.987%	51.974	0.024	0.045%
drop_vb	5.0	25.14	-18.86	-42.864%	20.385	-17.155	-45.698%	52.318	0.368	0.709%
drop_vb_nn	5.0	25.92	-18.08	-41.091%	17.539	-20.001	-53.280%	52.462	0.512	0.985%
only_nn	5.0	16.21	-27.79	-63.159%	12.824	-24.716	-65.839%	51.514	-0.436	-0.839%
only_vb	5.0	37.9	-6.1	-13.864%	30.712	-6.828	-18.188%	51.959	0.009	0.018%
only_vb_nn	5.0	35.09	-8.91	-20.250%	28.327	-9.213	-24.541%	51.543	-0.407	-0.783%
drop_rand_one_vb	5.0	29.64	-14.36	-32.636%	25.64	-11.9	-31.700%	51.959	0.009	0.018%
drop_first	5.0	20.03	-23.97	-54.477%	15.249	-22.291	-59.380%	52.16	0.21	0.405%
drop_last	5.0	42.14	-1.86	-4.227%	36.683	-0.857	-2.283%	52.203	0.253	0.487%
drop_first_and_last	5.0	17.78	-26.22	-59.591%	14.756	-22.784	-60.693%	52.218	0.268	0.515%
shuffle_order	5.0	40.09	-3.91	-8.886%	28.955	-8.585	-22.868%	52.304	0.354	0.681%
random_word_delete	5.0	29.11	-14.89	-33.841%	23.414	-14.126	-37.629%	52.16	0.21	0.405%
swap_syn_word_emb	5.0	35.43	-8.57	-19.477%	29.146	-8.394	-22.360%	52.002	0.052	0.101%
swap_syn_word_net	5.0	35.96	-8.04	-18.273%	28.693	-8.847	-23.567%	51.629	-0.321	-0.618%
back_trans	5.0	43.33	-0.67	-1.523%	36.357	-1.183	-3.151%	51.931	-0.019	-0.037%
random_word_swap	5.0	42.27	-1.73	-3.932%	33.956	-3.584	-9.547%	51.945	-0.005	-0.010%
nonsense	5.0	24.61	-19.39	-44.068%	18.0	-19.54	-52.052%	51.959	0.009	0.018%

Table 46: Performance and decrease ratio of Full Finetuning on CLIP-T5 against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	56.07	-10.22	-15.417%	44.84	-11.98	-21.084%	60.686	-13.374	-18.058%
punctuation	1.0	65.39	-0.9	-1.358%	54.333	-2.487	-4.377%	73.575	-0.485	-0.654%
typos	1.0	58.19	-8.1	-12.219%	47.464	-9.356	-16.466%	70.977	-3.083	-4.162%
keyboard	1.0	56.04	-10.25	-15.462%	45.047	-11.773	-20.720%	70.733	-3.327	-4.492%
spell_error	1.0	58.06	-8.23	-12.415%	47.694	-9.126	-16.061%	70.777	-3.283	-4.434%
random_char_insert	1.0	52.68	-13.61	-20.531%	35.721	-21.099	-37.133%	66.04	-8.02	-10.829%
random_char_replace	1.0	48.02	-18.27	-27.561%	32.088	-24.732	-43.527%	64.03	-10.03	-13.542%
random_char_swap	1.0	41.2	-25.09	-37.849%	26.801	-30.019	-52.832%	59.767	-14.293	-19.299%
random_char_delete	1.0	50.56	-15.73	-23.729%	35.976	-20.844	-36.685%	64.849	-9.211	-12.438%
random_word_insert	1.0	66.18	-0.11	-0.166%	52.592	-4.228	-7.441%	73.633	-0.427	-0.577%
random_word_delete	1.0	66.09	-0.2	-0.302%	54.412	-2.408	-4.237%	72.7	-1.36	-1.837%
swap_syn_word_emb	1.0	55.34	-10.95	-16.518%	46.621	-10.199	-17.950%	67.935	-6.125	-8.271%
swap_syn_word_net	1.0	58.79	-7.5	-11.314%	48.14	-8.68	-15.277%	71.064	-2.996	-4.046%
random_word_swap	1.0	66.19	-0.1	-0.151%	54.412	-2.408	-4.237%	73.231	-0.829	-1.119%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	55.61	-10.68	-16.111%	40.412	-16.408	-28.877%	68.322	-5.738	-7.748%
punctuation	2.0	65.31	-0.98	-1.478%	54.023	-2.797	-4.923%	74.135	0.075	0.102%
typos	2.0	56.71	-9.58	-14.452%	42.853	-13.967	-24.582%	68.193	-5.867	-7.922%
keyboard	2.0	55.57	-10.72	-16.171%	40.388	-16.432	-28.919%	68.064	-5.996	-8.097%
spell_error	2.0	57.71	-8.58	-12.943%	44.785	-12.035	-21.182%	68.006	-6.054	-8.174%
random_char_insert	2.0	40.83	-25.46	-38.407%	24.503	-32.317	-56.876%	59.811	-14.249	-19.240%
random_char_replace	2.0	33.87	-32.42	-48.906%	19.693	-37.127	-65.341%	56.969	-17.091	-23.078%
random_char_swap	2.0	29.57	-36.72	-55.393%	18.016	-38.804	-68.294%	54.256	-19.804	-26.741%
random_char_delete	2.0	39.07	-27.22	-41.062%	25.576	-31.244	-54.987%	58.059	-16.001	-21.605%
random_word_insert	2.0	63.61	-2.68	-4.043%	47.909	-8.911	-15.683%	72.7	-1.36	-1.837%
random_word_delete	2.0	60.78	-5.51	-8.312%	48.974	-7.846	-13.808%	69.772	-4.288	-5.790%
swap_syn_word_emb	2.0	54.79	-11.5	-17.348%	42.447	-14.373	-25.295%	62.739	-11.321	-15.287%
swap_syn_word_net	2.0	58.08	-8.21	-12.385%	45.731	-11.089	-19.517%	69.068	-4.992	-6.740%
random_word_swap	2.0	64.72	-1.57	-2.368%	52.043	-4.777	-8.407%	72.599	-1.461	-1.972%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	50.9	-15.39	-23.216%	33.352	-23.468	-41.303%	63.715	-10.345	-13.969%
punctuation	3.0	65.58	-0.71	-1.071%	54.476	-2.344	-4.125%	73.604	-0.456	-0.616%
typos	3.0	52.43	-13.86	-20.908%	34.783	-22.037	-38.784%	65.035	-9.025	-12.186%
keyboard	3.0	50.05	-16.24	-24.498%	33.074	-23.746	-41.792%	63.643	-10.417	-14.066%
spell_error	3.0	53.33	-12.96	-19.550%	37.55	-19.27	-33.915%	64.088	-9.972	-13.465%
random_char_insert	3.0	30.69	-35.6	-53.703%	18.389	-38.431	-67.636%	56.667	-17.393	-23.485%
random_char_replace	3.0	23.86	-42.43	-64.007%	13.555	-43.265	-76.143%	53.524	-20.536	-27.729%
random_char_swap	3.0	23.29	-43.0	-64.866%	14.382	-42.438	-74.688%	51.887	-22.173	-29.939%
random_char_delete	3.0	31.76	-34.53	-52.089%	20.043	-36.777	-64.726%	55.16	-18.9	-25.520%
random_word_insert	3.0	62.9	-3.39	-5.114%	43.075	-13.745	-24.190%	71.58	-2.48	-3.348%
random_word_delete	3.0	57.36	-8.93	-13.471%	44.3	-12.52	-22.035%	68.552	-5.508	-7.438%
swap_syn_word_emb	3.0	50.63	-15.66	-23.623%	35.936	-20.884	-36.755%	59.911	-14.149	-19.105%
swap_syn_word_net	3.0	54.35	-11.94	-18.012%	40.499	-16.321	-28.724%	64.518	-9.542	-12.884%
random_word_swap	3.0	63.53	-2.76	-4.164%	49.801	-7.019	-12.353%	71.178	-2.882	-3.891%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	44.74	-21.55	-32.509%	28.017	-28.803	-50.691%	61.289	-12.771	-17.244%
punctuation	4.0	65.59	-0.7	-1.056%	54.365	-2.455	-4.321%	73.992	-0.068	-0.092%
typos	4.0	44.4	-21.89	-33.022%	28.431	-28.389	-49.964%	61.705	-12.355	-16.682%
spell_error	4.0	45.25	-21.04	-31.739%	31.166	-25.654	-45.150%	61.418	-12.642	-17.070%
random_char_insert	4.0	22.93	-43.36	-65.410%	15.018	-41.802	-73.569%	54.385	-19.675	-26.566%
random_char_replace	4.0	16.96	-49.33	-74.415%	8.881	-47.939	-84.371%	52.619	-21.441	-28.950%
random_char_swap	4.0	19.0	-47.29	-71.338%	11.989	-44.831	-78.900%	51.816	-22.244	-30.036%
random_char_delete	4.0	26.11	-40.18	-60.612%	16.354	-40.466	-71.218%	53.725	-20.335	-27.458%
random_word_insert	4.0	61.25	-5.04	-7.603%	39.307	-17.513	-30.822%	70.748	-3.312	-4.472%
random_word_delete	4.0	50.96	-15.33	-23.126%	37.939	-18.881	-33.229%	65.509	-8.551	-11.546%
swap_syn_word_emb	4.0	46.4	-19.89	-30.005%	32.938	-23.882	-42.030%	57.126	-16.934	-22.865%
swap_syn_word_net	4.0	51.32	-14.97	-22.583%	37.581	-19.239	-33.859%	60.988	-13.072	-17.651%
random_word_swap	4.0	63.09	-3.2	-4.827%	47.877	-8.943	-15.739%	70.762	-3.298	-4.453%

Table 47: Performance and decrease ratio of Full Finetuning on CLIP-T5 against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	41.68	-24.61	-37.125%	25.592	-31.228	-54.959%	57.227	-16.833	-22.729%
punctuation	5.0	65.39	-0.9	-1.358%	54.055	-2.765	-4.867%	73.805	-0.255	-0.344%
typos	5.0	31.24	-35.05	-52.874%	20.393	-36.427	-64.110%	53.854	-20.206	-27.283%
keyboard	5.0	26.9	-39.39	-59.421%	18.071	-38.749	-68.196%	52.72	-21.34	-28.815%
spell_error	5.0	38.79	-27.5	-41.484%	26.864	-29.956	-52.720%	58.634	-15.426	-20.830%
random_char_insert	5.0	17.18	-49.11	-74.084%	11.759	-45.061	-79.305%	52.706	-21.354	-28.834%
random_char_replace	5.0	11.99	-54.3	-81.913%	6.71	-50.11	-88.191%	52.289	-21.771	-29.396%
random_char_swap	5.0	16.77	-49.52	-74.702%	12.14	-44.68	-78.634%	52.232	-21.828	-29.473%
random_char_delete	5.0	22.44	-43.85	-66.149%	14.573	-42.247	-74.352%	52.16	-21.9	-29.570%
to_passive	5.0	63.3	-2.99	-4.510%	52.003	-4.817	-8.477%	72.083	-1.977	-2.670%
tense	5.0	65.47	-0.82	-1.237%	54.826	-1.994	-3.510%	73.963	-0.097	-0.131%
to_formal	5.0	65.84	-0.45	-0.679%	54.571	-2.249	-3.957%	73.762	-0.298	-0.402%
to_casual	5.0	63.61	-2.68	-4.043%	52.027	-4.793	-8.435%	72.269	-1.791	-2.418%
to_active	5.0	64.81	-1.48	-2.233%	54.269	-2.551	-4.489%	73.274	-0.786	-1.061%
double_denial	5.0	66.22	-0.07	-0.106%	55.565	-1.255	-2.208%	74.107	0.047	0.063%
insert_adv	5.0	61.91	-4.38	-6.607%	50.779	-6.041	-10.632%	71.207	-2.853	-3.852%
append_irr	5.0	64.51	-1.78	-2.685%	48.426	-8.394	-14.773%	67.317	-6.743	-9.104%
random_word_insert	5.0	58.7	-7.59	-11.450%	35.793	-21.027	-37.007%	69.585	-4.475	-6.042%
drop_nn	5.0	43.96	-22.33	-33.685%	31.627	-25.193	-44.339%	63.873	-10.187	-13.756%
drop_rand_one_nn	5.0	55.85	-10.44	-15.749%	45.699	-11.121	-19.573%	71.107	-2.953	-3.988%
drop_vb	5.0	56.77	-9.52	-14.361%	38.559	-18.261	-32.138%	70.934	-3.126	-4.220%
drop_vb_nn	5.0	42.66	-23.63	-35.646%	26.189	-30.631	-53.910%	60.844	-13.216	-17.845%
only_nn	5.0	15.14	-51.15	-77.161%	14.462	-42.358	-74.548%	54.672	-19.388	-26.179%
only_vb	5.0	51.32	-14.97	-22.583%	40.483	-16.337	-28.752%	67.159	-6.901	-9.317%
only_vb_nn	5.0	42.42	-23.87	-36.008%	28.59	-28.23	-49.684%	57.629	-16.431	-22.186%
drop_rand_one_vb	5.0	61.59	-4.7	-7.090%	46.08	-10.74	-18.901%	72.241	-1.819	-2.457%
drop_first	5.0	58.55	-7.74	-11.676%	42.932	-13.888	-24.442%	72.442	-1.618	-2.185%
drop_last	5.0	51.9	-14.39	-21.708%	46.359	-10.461	-18.411%	69.714	-4.346	-5.868%
drop_first_and_last	5.0	38.01	-28.28	-42.661%	31.953	-24.867	-43.765%	68.58	-5.48	-7.399%
shuffle_order	5.0	57.01	-9.28	-13.999%	38.265	-18.555	-32.655%	66.557	-7.503	-10.131%
random_word_delete	5.0	42.79	-23.5	-35.450%	30.919	-25.901	-45.584%	62.882	-11.178	-15.093%
swap_syn_word_emb	5.0	46.23	-20.06	-30.261%	31.969	-24.851	-43.737%	57.887	-16.173	-21.837%
swap_syn_word_net	5.0	47.24	-19.05	-28.737%	37.558	-19.262	-33.901%	59.294	-14.766	-19.938%
back_trans	5.0	62.6	-3.69	-5.566%	51.503	-5.317	-9.358%	72.944	-1.116	-1.507%
random_word_swap	5.0	61.84	-4.45	-6.713%	46.542	-10.278	-18.089%	70.461	-3.599	-4.860%
nonsense	5.0	0.0	-66.29	-100.000%	12.339	-44.481	-78.284%	51.227	-22.833	-30.830%

Table 48: Performance and decrease ratio of Hyperformer on CLIP-T5 against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	54.25	-10.93	-16.769%	44.705	-9.945	-18.198%	58.691	-11.869	-16.821%
punctuation	1.0	64.64	-0.54	-0.828%	52.457	-2.193	-4.013%	70.647	0.087	0.124%
typos	1.0	56.88	-8.3	-12.734%	47.05	-7.6	-13.906%	68.982	-1.578	-2.236%
spell_error	1.0	56.94	-8.24	-12.642%	46.573	-8.077	-14.779%	68.064	-2.496	-3.538%
random_char_insert	1.0	50.88	-14.3	-21.939%	37.001	-17.649	-32.294%	64.762	-5.798	-8.216%
random_char_replace	1.0	46.86	-18.32	-28.107%	33.765	-20.885	-38.215%	61.705	-8.855	-12.549%
random_char_swap	1.0	40.92	-24.26	-37.220%	27.699	-26.951	-49.315%	58.174	-12.386	-17.554%
random_char_delete	1.0	49.57	-15.61	-23.949%	36.723	-17.927	-32.804%	63.557	-7.003	-9.925%
random_word_insert	1.0	65.13	-0.05	-0.077%	50.97	-3.68	-6.734%	70.188	-0.372	-0.527%
random_word_delete	1.0	65.01	-0.17	-0.261%	52.409	-2.241	-4.101%	69.528	-1.032	-1.463%
swap_syn_word_emb	1.0	54.91	-10.27	-15.756%	46.836	-7.814	-14.299%	65.868	-4.692	-6.650%
swap_syn_word_net	1.0	58.65	-6.53	-10.018%	47.456	-7.194	-13.164%	68.58	-1.98	-2.805%
random_word_swap	1.0	65.09	-0.09	-0.138%	52.767	-1.883	-3.446%	69.844	-0.716	-1.015%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	53.56	-11.62	-17.828%	40.444	-14.206	-25.995%	64.978	-5.582	-7.911%
punctuation	2.0	64.71	-0.47	-0.721%	52.139	-2.511	-4.595%	70.274	-0.286	-0.405%
typos	2.0	55.96	-9.22	-14.145%	42.36	-12.29	-22.489%	66.399	-4.161	-5.897%
spell_error	2.0	56.7	-8.48	-13.010%	44.093	-10.557	-19.318%	65.652	-4.908	-6.955%
random_char_insert	2.0	40.34	-24.84	-38.110%	27.588	-27.062	-49.519%	58.49	-12.07	-17.106%
random_char_replace	2.0	35.49	-29.69	-45.551%	24.249	-30.401	-55.629%	55.519	-15.041	-21.317%
random_char_swap	2.0	31.74	-33.44	-51.304%	18.85	-35.8	-65.507%	52.605	-17.955	-25.446%
random_char_delete	2.0	38.59	-26.59	-40.795%	26.578	-28.072	-51.367%	57.643	-12.917	-18.306%
random_word_insert	2.0	63.76	-1.42	-2.179%	47.973	-6.677	-12.218%	69.14	-1.42	-2.012%
random_word_delete	2.0	60.14	-5.04	-7.732%	47.265	-7.385	-13.513%	67.159	-3.401	-4.819%
swap_syn_word_emb	2.0	54.15	-11.03	-16.922%	43.608	-11.042	-20.205%	62.007	-8.553	-12.122%
swap_syn_word_net	2.0	58.08	-7.1	-10.893%	45.158	-9.492	-17.368%	66.212	-4.348	-6.162%
random_word_swap	2.0	63.54	-1.64	-2.516%	50.7	-3.95	-7.228%	69.528	-1.032	-1.463%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	48.9	-16.28	-24.977%	33.908	-20.742	-37.954%	62.322	-8.238	-11.675%
punctuation	3.0	64.59	-0.59	-0.905%	52.361	-2.289	-4.188%	70.159	-0.401	-0.568%
typos	3.0	51.02	-14.16	-21.724%	35.864	-18.786	-34.375%	63.772	-6.788	-9.620%
spell_error	3.0	51.79	-13.39	-20.543%	37.995	-16.655	-30.476%	63.227	-7.333	-10.393%
random_char_insert	3.0	33.48	-31.7	-48.635%	22.571	-32.079	-58.699%	54.816	-15.744	-22.314%
random_char_replace	3.0	30.02	-35.16	-53.943%	19.097	-35.553	-65.056%	52.232	-18.328	-25.975%
random_char_swap	3.0	27.97	-37.21	-57.088%	14.653	-39.997	-73.188%	51.328	-19.232	-27.257%
random_char_delete	3.0	32.67	-32.51	-49.877%	20.798	-33.852	-61.943%	54.213	-16.347	-23.168%
random_word_insert	3.0	63.1	-2.08	-3.191%	43.64	-11.01	-20.147%	69.112	-1.448	-2.053%
random_word_delete	3.0	57.38	-7.8	-11.967%	43.314	-11.336	-20.743%	66.356	-4.204	-5.959%
swap_syn_word_emb	3.0	50.18	-15.0	-23.013%	38.384	-16.266	-29.763%	58.375	-12.185	-17.269%
swap_syn_word_net	3.0	54.48	-10.7	-16.416%	40.571	-14.079	-25.762%	63.341	-7.219	-10.230%
random_word_swap	3.0	63.53	-2.76	-4.164%	49.801	-7.019	-12.353%	71.178	-2.882	-3.891%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	42.03	-23.15	-35.517%	28.717	-25.933	-47.453%	58.49	-12.07	-17.106%
punctuation	4.0	64.62	-0.56	-0.859%	52.298	-2.352	-4.304%	70.518	-0.042	-0.059%
typos	4.0	42.24	-22.94	-35.195%	29.997	-24.653	-45.111%	60.456	-10.104	-14.319%
spell_error	4.0	44.06	-21.12	-32.403%	32.318	-22.332	-40.863%	60.729	-9.831	-13.933%
random_char_insert	4.0	29.46	-35.72	-54.802%	19.145	-35.505	-64.969%	52.361	-18.199	-25.792%
random_char_replace	4.0	27.43	-37.75	-57.917%	16.243	-38.407	-70.279%	50.754	-19.806	-28.070%
random_char_swap	4.0	26.3	-38.88	-59.650%	12.514	-42.136	-77.102%	50.897	-19.663	-27.867%
random_char_delete	4.0	29.24	-35.94	-55.140%	15.837	-38.813	-71.021%	52.002	-18.558	-26.301%
random_word_insert	4.0	61.76	-3.42	-5.247%	40.642	-14.008	-25.631%	68.997	-1.563	-2.216%
random_word_delete	4.0	51.41	-13.77	-21.126%	37.311	-17.339	-31.727%	63.93	-6.63	-9.396%
swap_syn_word_emb	4.0	46.37	-18.81	-28.859%	35.602	-19.048	-34.855%	56.61	-13.95	-19.771%
swap_syn_word_net	4.0	51.49	-13.69	-21.003%	38.122	-16.528	-30.243%	60.643	-9.917	-14.055%
random_word_swap	4.0	61.82	-3.36	-5.155%	47.71	-6.94	-12.698%	68.265	-2.295	-3.253%

Table 49: Performance and decrease ratio of Hyperformer on CLIP-T5 against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	38.87	-26.31	-40.365%	26.109	-28.541	-52.225%	55.189	-15.371	-21.785%
punctuation	5.0	64.59	-0.59	-0.905%	52.488	-2.162	-3.955%	70.375	-0.185	-0.263%
typos	5.0	29.7	-35.48	-54.434%	20.639	-34.011	-62.234%	52.806	-17.754	-25.161%
keyboard	5.0	26.47	-38.71	-59.389%	18.532	-36.118	-66.089%	51.758	-18.802	-26.646%
spell_error	5.0	37.8	-27.38	-42.007%	27.914	-26.736	-48.923%	57.844	-12.716	-18.021%
random_char_insert	5.0	27.43	-37.75	-57.917%	17.189	-37.461	-68.548%	51.17	-19.39	-27.480%
random_char_replace	5.0	26.18	-39.0	-59.834%	15.169	-39.481	-72.243%	50.84	-19.72	-27.948%
random_char_swap	5.0	25.84	-39.34	-60.356%	12.403	-42.247	-77.305%	51.572	-18.988	-26.911%
random_char_delete	5.0	27.25	-37.93	-58.193%	13.786	-40.864	-74.774%	51.945	-18.615	-26.382%
to_passive	5.0	62.68	-2.5	-3.836%	50.318	-4.332	-7.927%	68.107	-2.453	-3.477%
tense	5.0	64.34	-0.84	-1.289%	53.458	-1.192	-2.180%	70.504	-0.056	-0.080%
to_formal	5.0	64.71	-0.47	-0.721%	52.687	-1.963	-3.592%	69.987	-0.573	-0.812%
to_casual	5.0	62.48	-2.7	-4.142%	50.111	-4.539	-8.305%	69.485	-1.075	-1.524%
to_active	5.0	63.79	-1.39	-2.133%	52.52	-2.13	-3.897%	69.614	-0.946	-1.341%
double_denial	5.0	65.13	-0.05	-0.077%	53.602	-1.048	-1.919%	70.561	0.001	0.002%
insert_adv	5.0	61.04	-4.14	-6.352%	50.62	-4.03	-7.374%	68.537	-2.023	-2.867%
append_irr	5.0	62.95	-2.23	-3.421%	45.262	-9.388	-17.179%	64.016	-6.544	-9.274%
random_word_insert	5.0	59.59	-5.59	-8.576%	37.534	-17.116	-31.320%	68.25	-2.31	-3.273%
drop_nn	5.0	45.81	-19.37	-29.718%	33.376	-21.274	-38.928%	63.054	-7.506	-10.637%
drop_rand_one_nn	5.0	56.58	-8.6	-13.194%	46.009	-8.641	-15.812%	68.193	-2.367	-3.355%
drop_vb	5.0	57.72	-7.46	-11.445%	37.2	-17.45	-31.931%	68.781	-1.779	-2.521%
drop_vb_nn	5.0	46.33	-18.85	-28.920%	24.312	-30.338	-55.513%	61.547	-9.013	-12.773%
only_nn	5.0	33.76	-31.42	-48.205%	13.85	-40.8	-74.658%	53.165	-17.395	-24.653%
only_vb	5.0	52.2	-12.98	-19.914%	39.521	-15.129	-27.683%	63.715	-6.845	-9.701%
only_vb_nn	5.0	41.64	-23.54	-36.115%	29.369	-25.281	-46.260%	55.993	-14.567	-20.645%
drop_rand_one_vb	5.0	62.16	-3.02	-4.633%	45.421	-9.229	-16.888%	69.413	-1.147	-1.626%
drop_first	5.0	58.75	-6.43	-9.865%	41.334	-13.316	-24.366%	69.384	-1.176	-1.666%
drop_last	5.0	52.99	-12.19	-18.702%	47.042	-7.608	-13.920%	67.719	-2.841	-4.026%
drop_first_and_last	5.0	46.58	-18.6	-28.536%	33.646	-21.004	-38.434%	66.959	-3.601	-5.104%
shuffle_order	5.0	57.7	-7.48	-11.476%	39.426	-15.224	-27.857%	65.839	-4.721	-6.691%
random_word_delete	5.0	46.23	-18.95	-29.073%	31.762	-22.888	-41.881%	62.265	-8.295	-11.756%
swap_syn_word_emb	5.0	45.5	-19.68	-30.193%	34.568	-20.082	-36.746%	56.926	-13.634	-19.323%
swap_syn_word_net	5.0	47.61	-17.57	-26.956%	36.572	-18.078	-33.080%	58.088	-12.472	-17.676%
back_trans	5.0	61.99	-3.19	-4.894%	50.541	-4.109	-7.519%	69.987	-0.573	-0.812%
random_word_swap	5.0	61.02	-4.16	-6.382%	46.414	-8.236	-15.070%	67.36	-3.2	-4.535%
nonsense	5.0	15.33	-49.85	-76.481%	3.999	-50.651	-92.682%	50.768	-19.792	-28.050%

Table 50: Performance and decrease ratio of Multiple Adapters on CLIP-T5 against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	56.21	-9.94	-15.026%	42.368	-13.292	-23.881%	51.486	-0.454	-0.875%
punctuation	1.0	65.86	-0.29	-0.438%	52.25	-3.41	-6.127%	51.945	0.005	0.009%
typos	1.0	58.0	-8.15	-12.320%	44.482	-11.178	-20.082%	51.887	-0.053	-0.101%
spell_error	1.0	58.27	-7.88	-11.912%	45.627	-10.033	-18.025%	51.931	-0.009	-0.018%
random_char_insert	1.0	52.05	-14.1	-21.315%	33.948	-21.712	-39.008%	51.457	-0.483	-0.930%
random_char_replace	1.0	48.43	-17.72	-26.788%	29.488	-26.172	-47.021%	51.6	-0.34	-0.654%
random_char_swap	1.0	42.1	-24.05	-36.357%	24.694	-30.966	-55.634%	51.084	-0.856	-1.649%
random_char_delete	1.0	50.7	-15.45	-23.356%	33.543	-22.117	-39.736%	51.73	-0.21	-0.405%
random_word_insert	1.0	66.12	-0.03	-0.045%	51.026	-4.634	-8.326%	51.916	-0.024	-0.046%
random_word_delete	1.0	65.99	-0.16	-0.242%	52.886	-2.774	-4.984%	51.974	0.034	0.065%
swap_syn_word_emb	1.0	55.5	-10.65	-16.100%	46.367	-9.293	-16.697%	51.959	0.019	0.037%
swap_syn_word_net	1.0	58.86	-7.29	-11.020%	46.303	-9.357	-16.811%	52.017	0.077	0.148%
random_word_swap	1.0	66.05	-0.1	-0.151%	53.148	-2.512	-4.512%	51.974	0.034	0.065%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	55.52	-10.63	-16.070%	36.739	-18.921	-33.994%	51.816	-0.124	-0.239%
punctuation	2.0	65.8	-0.35	-0.529%	52.266	-3.394	-6.098%	51.945	0.005	0.009%
typos	2.0	56.95	-9.2	-13.908%	39.808	-15.852	-28.481%	51.873	-0.067	-0.129%
spell_error	2.0	57.52	-8.63	-13.046%	42.193	-13.467	-24.196%	51.931	-0.009	-0.018%
random_char_insert	2.0	41.01	-25.14	-38.005%	23.199	-32.461	-58.320%	51.026	-0.914	-1.759%
random_char_replace	2.0	35.89	-30.26	-45.745%	18.914	-36.746	-66.019%	51.084	-0.856	-1.649%
random_char_swap	2.0	32.14	-34.01	-51.413%	17.236	-38.424	-69.033%	50.926	-1.014	-1.953%
random_char_delete	2.0	39.09	-27.06	-40.907%	22.905	-32.755	-58.848%	51.443	-0.497	-0.958%
random_word_insert	2.0	64.5	-1.65	-2.494%	46.391	-9.269	-16.654%	51.787	-0.153	-0.295%
random_word_delete	2.0	61.29	-4.86	-7.347%	46.748	-8.912	-16.011%	51.801	-0.139	-0.267%
swap_syn_word_emb	2.0	54.73	-11.42	-17.264%	42.113	-13.547	-24.338%	52.074	0.134	0.258%
swap_syn_word_net	2.0	58.27	-7.88	-11.912%	43.028	-12.632	-22.696%	52.447	0.507	0.977%
random_word_swap	2.0	64.61	-1.54	-2.328%	50.413	-5.247	-9.426%	51.873	-0.067	-0.129%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	50.2	-15.95	-24.112%	29.734	-25.926	-46.578%	51.758	-0.182	-0.350%
punctuation	3.0	65.93	-0.22	-0.333%	52.29	-3.37	-6.055%	52.017	0.077	0.148%
keyboard	3.0	49.68	-16.47	-24.898%	29.575	-26.085	-46.864%	51.629	-0.311	-0.599%
spell_error	3.0	53.07	-13.08	-19.773%	35.339	-20.321	-36.508%	52.045	0.105	0.203%
random_char_insert	3.0	33.16	-32.99	-49.872%	18.262	-37.398	-67.190%	50.624	-1.316	-2.533%
random_char_replace	3.0	29.7	-36.45	-55.102%	15.257	-40.403	-72.589%	50.452	-1.488	-2.865%
random_char_swap	3.0	27.97	-38.18	-57.717%	14.136	-41.524	-74.603%	50.495	-1.445	-2.782%
random_char_delete	3.0	32.99	-33.16	-50.128%	17.3	-38.36	-68.918%	51.184	-0.756	-1.455%
random_word_insert	3.0	64.18	-1.97	-2.978%	41.867	-13.793	-24.781%	51.916	-0.024	-0.046%
random_word_delete	3.0	58.46	-7.69	-11.625%	42.527	-13.133	-23.596%	51.744	-0.196	-0.377%
swap_syn_word_emb	3.0	50.68	-15.47	-23.386%	35.96	-19.7	-35.394%	51.744	-0.196	-0.377%
swap_syn_word_net	3.0	54.64	-11.51	-17.400%	38.003	-17.657	-31.723%	52.261	0.321	0.617%
random_word_swap	3.0	63.53	-2.76	-4.164%	49.801	-7.019	-12.353%	71.178	-2.882	-3.891%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	43.59	-22.56	-34.104%	23.97	-31.69	-56.934%	51.543	-0.397	-0.764%
punctuation	4.0	65.79	-0.36	-0.544%	52.218	-3.442	-6.184%	51.974	0.034	0.065%
keyboard	4.0	39.63	-26.52	-40.091%	23.048	-32.612	-58.591%	51.428	-0.512	-0.985%
spell_error	4.0	45.18	-20.97	-31.701%	29.035	-26.625	-47.835%	51.801	-0.139	-0.267%
random_char_insert	4.0	29.28	-36.87	-55.737%	15.217	-40.443	-72.661%	50.61	-1.33	-2.561%
random_char_replace	4.0	27.14	-39.01	-58.972%	11.83	-43.83	-78.746%	50.969	-0.971	-1.870%
random_char_swap	4.0	26.33	-39.82	-60.197%	12.896	-42.764	-76.832%	50.38	-1.56	-3.003%
random_char_delete	4.0	29.29	-36.86	-55.722%	14.08	-41.58	-74.703%	51.112	-0.828	-1.593%
random_word_insert	4.0	62.99	-3.16	-4.777%	39.116	-16.544	-29.723%	51.73	-0.21	-0.405%
random_word_delete	4.0	52.44	-13.71	-20.726%	36.095	-19.565	-35.151%	51.959	0.019	0.037%
swap_syn_word_emb	4.0	46.4	-19.75	-29.856%	33.368	-22.292	-40.051%	51.801	-0.139	-0.267%
swap_syn_word_net	4.0	51.54	-14.61	-22.086%	35.069	-20.591	-36.994%	51.988	0.048	0.092%
random_word_swap	4.0	63.41	-2.74	-4.142%	47.392	-8.268	-14.854%	51.73	-0.21	-0.405%

Table 51: Performance and decrease ratio of Multiple Adapters on CLIP-T5 against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	40.21	-25.94	-39.214%	20.52	-35.14	-63.133%	51.414	-0.526	-1.013%
punctuation	5.0	65.68	-0.47	-0.711%	52.512	-3.148	-5.655%	51.988	0.048	0.092%
typos	5.0	30.16	-35.99	-54.407%	18.739	-36.921	-66.333%	50.94	-1.0	-1.925%
keyboard	5.0	26.89	-39.26	-59.350%	15.575	-40.085	-72.018%	51.199	-0.741	-1.428%
spell_error	5.0	38.47	-27.68	-41.844%	25.751	-29.909	-53.735%	51.658	-0.282	-0.543%
random_char_insert	5.0	26.97	-39.18	-59.229%	14.032	-41.628	-74.789%	50.294	-1.646	-3.169%
random_char_replace	5.0	25.94	-40.21	-60.786%	10.097	-45.563	-81.860%	50.682	-1.258	-2.422%
random_char_swap	5.0	26.0	-40.15	-60.695%	13.46	-42.2	-75.817%	50.495	-1.445	-2.782%
random_char_delete	5.0	26.92	-39.23	-59.305%	13.166	-42.494	-76.346%	51.127	-0.813	-1.566%
to_passive	5.0	63.94	-2.21	-3.341%	49.793	-5.867	-10.540%	51.931	-0.009	-0.018%
tense	5.0	65.6	-0.55	-0.831%	53.927	-1.733	-3.113%	51.873	-0.067	-0.129%
to_formal	5.0	65.77	-0.38	-0.574%	53.307	-2.353	-4.227%	51.959	0.019	0.037%
to_casual	5.0	63.87	-2.28	-3.447%	50.366	-5.294	-9.512%	52.017	0.077	0.148%
to_active	5.0	65.03	-1.12	-1.693%	52.457	-3.203	-5.755%	51.83	-0.11	-0.212%
double_denial	5.0	66.06	-0.09	-0.136%	54.174	-1.486	-2.670%	51.959	0.019	0.037%
insert_adv	5.0	62.02	-4.13	-6.243%	49.316	-6.344	-11.397%	52.189	0.249	0.479%
append_irr	5.0	63.63	-2.52	-3.810%	45.381	-10.279	-18.468%	51.844	-0.096	-0.184%
random_word_insert	5.0	61.21	-4.94	-7.468%	35.324	-20.336	-36.537%	51.744	-0.196	-0.377%
drop_nn	5.0	46.98	-19.17	-28.980%	30.879	-24.781	-44.522%	51.615	-0.325	-0.626%
drop_rand_one_nn	5.0	57.98	-8.17	-12.351%	43.393	-12.267	-22.039%	51.887	-0.053	-0.101%
drop_vb	5.0	58.97	-7.18	-10.854%	33.893	-21.767	-39.108%	51.988	0.048	0.092%
drop_vb_nn	5.0	47.81	-18.34	-27.725%	21.379	-34.281	-61.591%	51.443	-0.497	-0.958%
only_nn	5.0	32.59	-33.56	-50.733%	9.199	-46.461	-83.474%	51.141	-0.799	-1.538%
only_vb	5.0	53.28	-12.87	-19.456%	39.816	-15.844	-28.466%	51.873	-0.067	-0.129%
only_vb_nn	5.0	43.48	-22.67	-34.271%	24.853	-30.807	-55.349%	51.328	-0.612	-1.179%
drop_rand_one_vb	5.0	62.94	-3.21	-4.853%	42.543	-13.117	-23.567%	51.959	0.019	0.037%
drop_first	5.0	60.92	-5.23	-7.906%	35.721	-19.939	-35.823%	51.931	-0.009	-0.018%
drop_last	5.0	53.82	-12.33	-18.639%	45.754	-9.906	-17.796%	51.873	-0.067	-0.129%
drop_first_and_last	5.0	47.88	-18.27	-27.619%	28.049	-27.611	-49.607%	51.701	-0.239	-0.460%
shuffle_order	5.0	59.47	-6.68	-10.098%	38.504	-17.156	-30.823%	51.83	-0.11	-0.212%
random_word_delete	5.0	46.73	-19.42	-29.358%	29.13	-26.53	-47.664%	51.902	-0.038	-0.074%
swap_syn_word_emb	5.0	45.91	-20.24	-30.597%	32.676	-22.984	-41.293%	51.701	-0.239	-0.460%
swap_syn_word_net	5.0	46.74	-19.41	-29.342%	33.996	-21.664	-38.922%	51.931	-0.009	-0.018%
back_trans	5.0	62.86	-3.29	-4.974%	50.445	-5.215	-9.369%	51.887	-0.053	-0.101%
random_word_swap	5.0	62.52	-3.63	-5.488%	46.16	-9.5	-17.068%	51.859	-0.081	-0.156%
nonsense	5.0	13.3	-52.85	-79.894%	11.671	-43.989	-79.031%	51.887	-0.053	-0.101%

Table 52: Performance and decrease ratio of Multiple Compacters on CLIP-T5 against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	56.09	-9.41	-14.366%	44.069	-10.611	-19.406%	52.835	0.205	0.389%
punctuation	1.0	65.02	-0.48	-0.733%	52.671	-2.009	-3.673%	52.763	0.133	0.253%
typos	1.0	58.04	-7.46	-11.389%	45.103	-9.577	-17.515%	52.591	-0.039	-0.075%
keyboard	1.0	56.15	-9.35	-14.275%	44.125	-10.555	-19.304%	52.749	0.119	0.225%
spell_error	1.0	58.07	-7.43	-11.344%	46.581	-8.099	-14.811%	52.634	0.004	0.007%
random_char_insert	1.0	52.37	-13.13	-20.046%	35.92	-18.76	-34.309%	52.95	0.32	0.607%
random_char_replace	1.0	48.48	-17.02	-25.985%	32.199	-22.481	-41.114%	52.634	0.004	0.007%
random_char_swap	1.0	41.69	-23.81	-36.351%	26.976	-27.704	-50.666%	52.921	0.291	0.553%
random_char_delete	1.0	50.45	-15.05	-22.977%	35.681	-18.999	-34.745%	52.806	0.176	0.335%
random_word_insert	1.0	65.51	0.01	0.015%	51.089	-3.591	-6.567%	52.634	0.004	0.007%
random_word_delete	1.0	65.42	-0.08	-0.122%	52.679	-2.001	-3.659%	52.505	-0.125	-0.238%
swap_syn_word_emb	1.0	55.32	-10.18	-15.542%	46.184	-8.496	-15.538%	52.691	0.061	0.116%
swap_syn_word_net	1.0	58.51	-6.99	-10.672%	46.963	-7.717	-14.113%	52.835	0.205	0.389%
random_word_swap	1.0	65.49	-0.01	-0.015%	52.759	-1.921	-3.514%	52.576	-0.054	-0.102%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	55.24	-10.26	-15.664%	40.11	-14.57	-26.646%	52.462	-0.168	-0.320%
punctuation	2.0	65.13	-0.37	-0.565%	52.703	-1.977	-3.615%	52.505	-0.125	-0.238%
typos	2.0	56.76	-8.74	-13.344%	40.945	-13.735	-25.120%	52.576	-0.054	-0.102%
keyboard	2.0	55.84	-9.66	-14.748%	38.949	-15.731	-28.769%	52.447	-0.183	-0.347%
spell_error	2.0	57.51	-7.99	-12.198%	43.353	-11.327	-20.714%	52.72	0.09	0.171%
random_char_insert	2.0	41.9	-23.6	-36.031%	26.483	-28.197	-51.568%	52.806	0.176	0.335%
random_char_replace	2.0	36.5	-29.0	-44.275%	23.048	-31.632	-57.849%	52.806	0.176	0.335%
random_char_swap	2.0	32.15	-33.35	-50.916%	20.862	-33.818	-61.847%	52.863	0.233	0.444%
random_char_delete	2.0	39.44	-26.06	-39.786%	26.332	-28.348	-51.844%	52.447	-0.183	-0.347%
random_word_insert	2.0	64.02	-1.48	-2.260%	47.957	-6.723	-12.296%	52.591	-0.039	-0.075%
random_word_delete	2.0	60.66	-4.84	-7.389%	46.78	-7.9	-14.448%	52.619	-0.011	-0.020%
swap_syn_word_emb	2.0	54.6	-10.9	-16.641%	42.638	-12.042	-22.023%	52.634	0.004	0.007%
swap_syn_word_net	2.0	58.0	-7.5	-11.450%	44.101	-10.579	-19.347%	52.763	0.133	0.253%
random_word_swap	2.0	63.9	-1.6	-2.443%	50.326	-4.354	-7.963%	52.691	0.061	0.116%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	50.66	-14.84	-22.656%	33.241	-21.439	-39.209%	52.863	0.233	0.444%
punctuation	3.0	65.1	-0.4	-0.611%	52.576	-2.104	-3.848%	52.663	0.033	0.062%
typos	3.0	52.35	-13.15	-20.076%	34.425	-20.255	-37.042%	52.734	0.104	0.198%
keyboard	3.0	49.94	-15.56	-23.756%	32.39	-22.29	-40.765%	52.562	-0.068	-0.129%
spell_error	3.0	52.94	-12.56	-19.176%	36.58	-18.1	-33.102%	52.39	-0.24	-0.456%
random_char_insert	3.0	34.36	-31.14	-47.542%	21.943	-32.737	-59.870%	52.964	0.334	0.635%
random_char_replace	3.0	30.41	-35.09	-53.573%	20.019	-34.661	-63.389%	52.648	0.018	0.035%
random_char_swap	3.0	28.04	-37.46	-57.191%	18.819	-35.861	-65.584%	52.691	0.061	0.116%
random_char_delete	3.0	33.37	-32.13	-49.053%	21.744	-32.936	-60.234%	52.347	-0.283	-0.538%
random_word_insert	3.0	62.96	-2.54	-3.878%	43.059	-11.621	-21.252%	52.878	0.248	0.471%
random_word_delete	3.0	57.83	-7.67	-11.710%	42.892	-11.788	-21.558%	52.591	-0.039	-0.075%
swap_syn_word_emb	3.0	50.75	-14.75	-22.519%	36.993	-17.687	-32.346%	52.691	0.061	0.116%
swap_syn_word_net	3.0	54.67	-10.83	-16.534%	39.235	-15.445	-28.246%	52.663	0.033	0.062%
random_word_swap	3.0	63.04	-2.46	-3.756%	48.227	-6.453	-11.801%	52.576	-0.054	-0.102%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	44.0	-21.5	-32.824%	28.224	-26.456	-48.384%	52.964	0.334	0.635%
punctuation	4.0	65.04	-0.46	-0.702%	52.512	-2.168	-3.964%	52.663	0.033	0.062%
keyboard	4.0	40.22	-25.28	-38.595%	25.409	-29.271	-53.531%	52.691	0.061	0.116%
spell_error	4.0	45.31	-20.19	-30.824%	31.03	-23.65	-43.251%	52.548	-0.082	-0.156%
random_char_insert	4.0	29.9	-35.6	-54.351%	20.067	-34.613	-63.301%	52.49	-0.14	-0.265%
random_char_replace	4.0	27.68	-37.82	-57.740%	18.445	-36.235	-66.268%	52.605	-0.025	-0.047%
random_char_swap	4.0	26.24	-39.26	-59.939%	18.246	-36.434	-66.631%	52.562	-0.068	-0.129%
random_char_delete	4.0	29.73	-35.77	-54.611%	18.954	-35.726	-65.337%	52.892	0.262	0.498%
random_word_insert	4.0	61.52	-3.98	-6.076%	39.696	-14.984	-27.403%	52.72	0.09	0.171%
random_word_delete	4.0	51.76	-13.74	-20.977%	36.818	-17.862	-32.666%	52.835	0.205	0.389%
swap_syn_word_emb	4.0	46.65	-18.85	-28.779%	33.916	-20.764	-37.973%	52.634	0.004	0.007%
swap_syn_word_net	4.0	51.37	-14.13	-21.573%	36.953	-17.727	-32.419%	52.878	0.248	0.471%
random_word_swap	4.0	62.28	-3.22	-4.916%	47.48	-7.2	-13.168%	52.663	0.033	0.062%

Table 53: Performance and decrease ratio of Multiple Compacters on CLIP-T5 against text corruptions given severity 5.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	5.0	41.0	-24.5	-37.405%	25.648	-29.032	-53.094%	52.691	0.061	0.116%
punctuation	5.0	65.07	-0.43	-0.656%	52.449	-2.231	-4.081%	52.605	-0.025	-0.047%
typos	5.0	30.91	-34.59	-52.809%	20.472	-34.208	-62.560%	52.749	0.119	0.225%
keyboard	5.0	26.77	-38.73	-59.130%	18.501	-36.179	-66.166%	52.619	-0.011	-0.020%
spell_error	5.0	38.84	-26.66	-40.702%	27.5	-27.18	-49.707%	52.576	-0.054	-0.102%
random_char_insert	5.0	27.82	-37.68	-57.527%	18.978	-35.702	-65.293%	52.792	0.162	0.307%
random_char_replace	5.0	26.28	-39.22	-59.878%	17.825	-36.855	-67.402%	52.677	0.047	0.089%
random_char_swap	5.0	25.39	-40.11	-61.237%	19.025	-35.655	-65.206%	52.619	-0.011	-0.020%
random_char_delete	5.0	27.45	-38.05	-58.092%	18.127	-36.553	-66.849%	52.734	0.104	0.198%
to_passive	5.0	63.2	-2.3	-3.511%	50.533	-4.147	-7.585%	52.892	0.262	0.498%
tense	5.0	64.88	-0.62	-0.947%	53.299	-1.381	-2.525%	52.72	0.09	0.171%
to_formal	5.0	65.13	-0.37	-0.565%	53.029	-1.651	-3.019%	52.663	0.033	0.062%
to_casual	5.0	63.47	-2.03	-3.099%	50.628	-4.052	-7.410%	52.591	-0.039	-0.075%
to_active	5.0	64.3	-1.2	-1.832%	52.52	-2.16	-3.950%	52.706	0.076	0.144%
double_denial	5.0	65.38	-0.12	-0.183%	53.689	-0.991	-1.812%	52.605	-0.025	-0.047%
insert_adv	5.0	61.87	-3.63	-5.542%	48.815	-5.865	-10.725%	52.691	0.061	0.116%
append_irr	5.0	63.24	-2.26	-3.450%	46.247	-8.433	-15.422%	52.749	0.119	0.225%
random_word_insert	5.0	59.47	-6.03	-9.206%	36.19	-18.49	-33.815%	52.749	0.119	0.225%
drop_nn	5.0	44.59	-20.91	-31.924%	31.476	-23.204	-42.437%	52.691	0.061	0.116%
drop_rand_one_nn	5.0	57.16	-8.34	-12.733%	44.785	-9.895	-18.097%	52.447	-0.183	-0.347%
drop_vb	5.0	58.28	-7.22	-11.023%	39.911	-14.769	-27.010%	52.404	-0.226	-0.429%
drop_vb_nn	5.0	44.28	-21.22	-32.397%	26.117	-28.563	-52.237%	52.691	0.061	0.116%
only_nn	5.0	28.05	-37.45	-57.176%	18.373	-36.307	-66.398%	52.375	-0.255	-0.484%
only_vb	5.0	52.25	-13.25	-20.229%	39.172	-15.508	-28.362%	52.232	-0.398	-0.756%
only_vb_nn	5.0	42.0	-23.5	-35.878%	29.09	-25.59	-46.799%	52.332	-0.298	-0.565%
drop_rand_one_vb	5.0	62.42	-3.08	-4.702%	45.929	-8.751	-16.003%	52.519	-0.111	-0.211%
drop_first	5.0	59.21	-6.29	-9.603%	40.483	-14.197	-25.963%	52.548	-0.082	-0.156%
drop_last	5.0	53.91	-11.59	-17.695%	46.724	-7.956	-14.549%	52.505	-0.125	-0.238%
drop_first_and_last	5.0	46.85	-18.65	-28.473%	33.535	-21.145	-38.671%	52.835	0.205	0.389%
shuffle_order	5.0	57.27	-8.23	-12.565%	39.959	-14.721	-26.923%	52.576	-0.054	-0.102%
random_word_delete	5.0	46.13	-19.37	-29.573%	30.951	-23.729	-43.396%	52.677	0.047	0.089%
swap_syn_word_emb	5.0	46.29	-19.21	-29.328%	32.716	-21.964	-40.169%	52.648	0.018	0.035%
swap_syn_word_net	5.0	48.37	-17.13	-26.153%	35.88	-18.8	-34.382%	52.591	-0.039	-0.075%
back_trans	5.0	62.16	-3.34	-5.099%	50.262	-4.418	-8.079%	52.648	0.018	0.035%
random_word_swap	5.0	61.58	-3.92	-5.985%	46.096	-8.584	-15.698%	52.648	0.018	0.035%
nonsense	5.0	22.31	-43.19	-65.939%	9.103	-45.577	-83.352%	52.663	0.033	0.062%

Table 54: Performance and decrease ratio of Single Adapter on CLIP-T5 against text corruptions given severity 1 to 4.

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	1.0	56.11	-10.3	-15.510%	40.539	-15.361	-27.479%	58.892	-13.888	-19.082%
punctuation	1.0	65.58	-0.83	-1.250%	48.998	-6.902	-12.347%	72.686	-0.094	-0.130%
typos	1.0	58.35	-8.06	-12.137%	42.399	-13.501	-24.151%	69.829	-2.951	-4.054%
keyboard	1.0	56.45	-9.96	-14.998%	41.0	-14.9	-26.654%	69.7	-3.08	-4.232%
spell_error	1.0	58.46	-7.95	-11.971%	43.274	-12.626	-22.587%	69.47	-3.31	-4.547%
random_char_insert	1.0	52.25	-14.16	-21.322%	34.179	-21.721	-38.857%	64.49	-8.29	-11.391%
random_char_replace	1.0	48.57	-17.84	-26.863%	32.199	-23.701	-42.399%	62.566	-10.214	-14.034%
random_char_swap	1.0	42.15	-24.26	-36.531%	27.477	-28.423	-50.847%	58.16	-14.62	-20.088%
random_char_delete	1.0	51.55	-14.86	-22.376%	34.123	-21.777	-38.957%	62.868	-9.912	-13.619%
random_word_insert	1.0	66.19	-0.22	-0.331%	47.329	-8.571	-15.333%	72.083	-0.697	-0.958%
random_word_delete	1.0	66.26	-0.15	-0.226%	48.72	-7.18	-12.844%	71.738	-1.042	-1.431%
swap_syn_word_emb	1.0	56.0	-10.41	-15.675%	42.487	-13.413	-23.995%	66.528	-6.252	-8.590%
swap_syn_word_net	1.0	59.38	-7.03	-10.586%	44.292	-11.608	-20.766%	70.403	-2.377	-3.266%
random_word_swap	1.0	66.33	-0.08	-0.120%	48.672	-7.228	-12.930%	72.083	-0.697	-0.958%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	2.0	55.18	-11.23	-16.910%	36.826	-19.074	-34.121%	66.37	-6.41	-8.807%
punctuation	2.0	65.91	-0.5	-0.753%	48.847	-7.053	-12.617%	72.7	-0.08	-0.110%
typos	2.0	57.18	-9.23	-13.899%	38.536	-17.364	-31.063%	66.715	-6.065	-8.334%
keyboard	2.0	55.54	-10.87	-16.368%	36.771	-19.129	-34.221%	65.939	-6.841	-9.399%
spell_error	2.0	57.9	-8.51	-12.814%	40.261	-15.639	-27.977%	66.801	-5.979	-8.216%
random_char_insert	2.0	41.71	-24.7	-37.193%	26.491	-29.409	-52.611%	59.222	-13.558	-18.629%
random_char_replace	2.0	36.75	-29.66	-44.662%	24.288	-31.612	-56.550%	56.265	-16.515	-22.691%
random_char_swap	2.0	32.67	-33.74	-50.806%	21.458	-34.442	-61.613%	53.036	-19.744	-27.129%
random_char_delete	2.0	40.07	-26.34	-39.663%	26.268	-29.632	-53.009%	56.466	-16.314	-22.415%
random_word_insert	2.0	64.71	-1.7	-2.560%	44.49	-11.41	-20.411%	70.877	-1.903	-2.615%
random_word_delete	2.0	61.02	-5.39	-8.116%	43.719	-12.181	-21.790%	69.327	-3.453	-4.745%
swap_syn_word_emb	2.0	55.17	-11.24	-16.925%	39.108	-16.792	-30.039%	61.389	-11.391	-15.651%
swap_syn_word_net	2.0	58.73	-7.68	-11.565%	42.336	-13.564	-24.265%	67.246	-5.534	-7.604%
random_word_swap	2.0	64.78	-1.63	-2.454%	46.613	-9.287	-16.613%	71.25	-1.53	-2.102%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	3.0	50.43	-15.98	-24.063%	30.712	-25.188	-45.058%	62.739	-10.041	-13.797%
punctuation	3.0	65.87	-0.54	-0.813%	48.712	-7.188	-12.859%	72.585	-0.195	-0.268%
typos	3.0	51.92	-14.49	-21.819%	32.851	-23.049	-41.233%	63.772	-9.008	-12.377%
keyboard	3.0	49.64	-16.77	-25.252%	31.078	-24.822	-44.404%	61.964	-10.816	-14.862%
spell_error	3.0	53.28	-13.13	-19.771%	34.036	-21.864	-39.113%	62.954	-9.826	-13.501%
random_char_insert	3.0	34.49	-31.92	-48.065%	22.73	-33.17	-59.338%	54.241	-18.539	-25.472%
random_char_replace	3.0	31.23	-35.18	-52.974%	21.1	-34.8	-62.253%	52.476	-20.304	-27.898%
random_char_swap	3.0	28.53	-37.88	-57.040%	19.558	-36.342	-65.013%	50.926	-21.854	-30.028%
random_char_delete	3.0	34.21	-32.2	-48.487%	22.667	-33.233	-59.452%	53.552	-19.228	-26.419%
random_word_insert	3.0	62.86	-3.55	-5.346%	40.547	-15.353	-27.465%	71.121	-1.659	-2.279%
random_word_delete	3.0	58.6	-7.81	-11.760%	40.444	-15.456	-27.650%	67.131	-5.649	-7.762%
swap_syn_word_emb	3.0	51.04	-15.37	-23.144%	33.893	-22.007	-39.369%	58.361	-14.419	-19.812%
swap_syn_word_net	3.0	55.32	-11.09	-16.699%	38.289	-17.611	-31.504%	63.686	-9.094	-12.495%
random_word_swap	3.0	64.14	-2.27	-3.418%	44.888	-11.012	-19.700%	69.556	-3.224	-4.429%

corruption	severity	VQA			GQA			NLVR		
		Acc	Decrease	Decrease Ratio	Acc	Decrease	Decrease Ratio	CIDer	Decrease	Decrease Ratio
ocr	4.0	43.45	-22.96	-34.573%	26.777	-29.123	-52.099%	58.734	-14.046	-19.299%
punctuation	4.0	65.73	-0.68	-1.024%	48.648	-7.252	-12.972%	72.485	-0.295	-0.406%
typos	4.0	43.92	-22.49	-33.865%	27.262	-28.638	-51.231%	59.854	-12.926	-17.761%
keyboard	4.0	39.88	-26.53	-39.949%	25.25	-30.65	-54.829%	57.959	-14.821	-20.364%
spell_error	4.0	45.13	-21.28	-32.043%	29.695	-26.205	-46.879%	59.94	-12.84	-17.643%
random_char_insert	4.0	30.58	-35.83	-53.953%	20.806	-35.094	-62.780%	52.72	-20.06	-27.563%
random_char_replace	4.0	27.97	-38.44	-57.883%	19.661	-36.239	-64.828%	51.27	-21.51	-29.554%
random_char_swap	4.0	26.83	-39.58	-59.599%	18.437	-37.463	-67.018%	50.94	-21.84	-30.008%
random_char_delete	4.0	29.97	-36.44	-54.871%	20.544	-35.356	-63.249%	52.993	-19.787	-27.188%
random_word_insert	4.0	60.6	-5.81	-8.749%	38.138	-17.762	-31.775%	69.7	-3.08	-4.232%
random_word_delete	4.0	52.07	-14.34	-21.593%	35.196	-20.704	-37.037%	64.935	-7.845	-10.779%
swap_syn_word_emb	4.0	47.34	-19.07	-28.716%	30.855	-25.045	-44.802%	56.911	-15.869	-21.804%
swap_syn_word_net	4.0	51.87	-14.54	-21.894%	35.92	-19.98	-35.743%	59.839	-12.941	-17.781%
random_word_swap	4.0	62.94	-3.47	-5.225%	43.632	-12.268	-21.947%	68.997	-3.783	-5.198%