

Table 1: Detailed results for Type I instances

Instance	Tabu Search		GVNS				Impr.	
	OBJ	CPU (sec)	Best	Avg.	Worst	Time	Best	Avg.
MDPI1_150	45.92	23.1	45.92	45.92	45.92	0.00	0.000	0.000
MDPI2_150	43.39	19.52	43.39	43.39	43.39	7.62	0.000	0.000
MDPI3_150	40.05	18.06	40.05	40.05	40.05	0.01	0.000	0.000
MDPI4_150	44.04	22.06	44.04	44.04	44.04	0.00	0.000	0.000
MDPI5_150	42.48	18.56	42.48	42.48	42.48	0.04	0.000	0.000
MDPI6_150	43.72	19.11	43.72	43.72	43.72	0.06	0.000	0.000
MDPI7_150	46.08	20.7	46.08	46.08	46.08	0.00	0.000	0.000
MDPI8_150	42.45	18.23	42.45	42.45	42.45	0.09	0.000	0.000
MDPI9_150	42.48	18.85	42.48	42.48	42.48	0.84	0.000	0.000
MDPI10_150	41.80	17.37	41.80	41.80	41.80	0.00	0.000	0.000
Average	43.24	19.56	43.24	43.24	43.24	0.87	0.000	0.000
MDPI1_500	81.28	90.36	81.28	81.28	81.28	0.75	0.00	0.00
MDPI2_500	77.60	90.13	78.61	78.28	77.99	76.86	1.30	0.88
MDPI3_500	75.65	90.30	76.30	76.09	75.98	87.62	0.86	0.58
MDPI4_500	81.47	90.74	82.33	82.31	82.31	3.54	1.06	1.03
MDPI5_500	79.92	90.71	80.35	80.31	79.98	73.02	0.54	0.49
MDPI6_500	79.93	90.18	81.25	81.08	80.43	46.50	1.65	1.44
MDPI7_500	77.71	90.21	78.16	78.02	77.56	80.44	0.58	0.40
MDPI8_500	78.70	90.78	79.14	79.14	79.14	3.54	0.56	0.56
MDPI9_500	77.15	90.45	77.37	77.36	77.32	59.46	0.28	0.27
MDPI10_500	81.02	90.57	81.31	81.31	81.31	1.49	0.36	0.36
Average	79.04	90.44	79.61	79.52	79.33	43.32	0.72	0.61
MDPI1_750	95.86	601.22	96.63	96.38	96.04	58.67	0.80	0.54
MDPI2_750	97.42	600.75	97.56	97.54	97.37	106.10	0.15	0.12
MDPI3_750	96.97	600.86	97.80	97.54	97.22	119.97	0.85	0.59
MDPI4_750	95.21	600.85	95.88	95.75	95.64	108.79	0.70	0.57
MDPI5_750	96.65	601.58	96.76	96.76	96.76	52.16	0.11	0.11
MDPI6_750	99.25	602.69	99.72	99.45	98.73	89.43	0.48	0.20
MDPI7_750	96.26	602.08	96.55	96.07	95.20	219.43	0.30	-0.20
MDPI8_750	96.46	601.48	96.73	96.49	96.27	202.35	0.28	0.03
MDPI9_750	96.78	600.86	98.06	97.77	97.38	227.97	1.32	1.02
MDPI10_750	99.85	600.49	100.06	99.91	99.12	19.62	0.21	0.06
Average	97.07	601.29	97.57	97.37	96.97	120.45	0.52	0.31
MDPI1_1000	118.76	1803.35	119.17	118.90	118.36	335.60	0.35	0.12
MDPI2_1000	113.22	1805.56	113.52	113.41	113.19	199.62	0.27	0.17
MDPI3_1000	114.51	1806.20	114.83	114.62	114.29	254.93	0.28	0.10
MDPI4_1000	110.53	1805.10	111.15	110.76	109.92	304.17	0.56	0.21
MDPI5_1000	111.24	1803.67	112.72	112.02	110.10	67.02	1.33	0.70
MDPI6_1000	112.08	1805.88	113.18	112.83	112.25	382.65	0.98	0.67
MDPI7_1000	110.94	1801.61	111.56	111.16	110.84	284.62	0.55	0.20
MDPI8_1000	110.29	1806.37	111.07	110.64	109.23	331.39	0.71	0.32
MDPI9_1000	115.78	1806.25	115.96	115.87	115.38	105.09	0.15	0.08
MDPI10_1000	114.29	1804.46	114.73	114.34	114.20	91.50	0.39	0.04
Average	113.16	1804.85	113.79	113.46	112.78	235.66	0.56	0.26

Table 2: Detailed results for Type II instances

Instance	Tabu Search		GVNS				Impr.	
	OBJ	CPU (sec)	Best	Avg.	Worst	Time	Best	Avg.
MDPII1.150	57.48	20.63	57.48	57.48	57.48	0.00	0.000	0.000
MDPII2.150	57.82	19.38	57.82	57.82	57.82	0.06	0.000	0.000
MDPII3.150	58.42	18.95	58.42	58.42	58.42	0.06	0.000	0.000
MDPII4.150	57.38	19.37	57.38	57.38	57.38	0.11	0.000	0.000
MDPII5.150	54.23	17.09	54.23	54.23	54.23	0.05	0.000	0.000
MDPII6.150	56.44	19.33	56.44	56.44	56.44	0.00	0.000	0.000
MDPII7.150	58.89	19.8	58.89	58.89	58.89	0.02	0.000	0.000
MDPII8.150	57.97	21.09	57.97	57.97	57.97	0.00	0.000	0.000
MDPII9.1150	58.3	18.37	58.30	58.30	58.30	0.06	0.000	0.000
MDPII10.150	57.18	17.53	57.18	57.18	57.18	0.00	0.000	0.000
Average	57.41	19.15	57.41	57.41	57.41	0.04	0.000	0.000
MDPII1.500	109.33	90.25	109.61	109.61	109.61	1.03	0.26	0.26
MDPII2.500	104.81	90.32	105.72	105.58	105.20	13.34	0.87	0.74
MDPII3.500	107.18	90.66	107.82	107.77	107.59	13.45	0.60	0.55
MDPII4.500	105.69	90.12	106.10	106.10	106.10	5.05	0.39	0.39
MDPII5.500	106.59	90.47	106.75	106.74	106.66	0.52	0.15	0.14
MDPII6.500	106.17	90.46	106.30	106.18	106.17	14.91	0.12	0.01
MDPII7.500	106.92	90.51	107.15	107.15	107.15	11.24	0.21	0.21
MDPII8.500	103.49	90.73	103.78	103.78	103.78	0.35	0.28	0.28
MDPII9.500	105.97	90.21	106.62	106.52	106.07	2.80	0.61	0.52
MDPII10.500	103.56	90.48	104.65	104.23	104.10	9.75	1.05	0.65
Average	105.97	90.42	106.45	106.37	106.24	7.24	0.45	0.38
MDPII1.750	127.69	600.50	128.72	128.49	127.92	206.66	0.81	0.63
MDPII2.750	130.79	600.52	130.95	130.52	129.50	30.88	0.13	-0.21
MDPII3.750	129.40	600.44	129.72	129.50	129.10	169.83	0.25	0.08
MDPII4.750	125.68	600.94	126.58	126.58	126.58	28.89	0.72	0.72
MDPII5.750	128.13	600.76	129.05	128.80	128.31	96.16	0.72	0.52
MDPII6.750	128.55	600.96	129.02	128.82	128.33	87.80	0.36	0.21
MDPII7.750	124.91	601.74	125.65	125.37	125.18	267.80	0.59	0.37
MDPII8.750	130.66	600.87	130.94	130.88	130.88	68.90	0.21	0.17
MDPII9.750	128.89	602.35	128.67	127.32	126.78	108.51	-0.17	-1.22
MDPII10.750	132.99	601.33	133.17	133.03	132.83	158.44	0.14	0.03
Average	128.77	601.04	129.25	128.93	128.54	122.39	0.38	0.12
MDPII1.1000	145.46	1803.29	147.94	147.20	145.96	155.02	1.70	1.20
MDPII2.1000	150.49	1802.44	151.38	150.98	150.35	237.94	0.59	0.33
MDPII3.1000	149.36	1803.53	150.79	149.65	148.13	227.01	0.96	0.19
MDPII4.1000	147.91	1805.40	149.18	148.57	147.60	180.51	0.86	0.45
MDPII5.1000	150.23	1804.38	151.49	150.97	149.84	96.20	0.84	0.49
MDPII6.1000	147.29	1801.41	148.25	147.20	146.48	94.32	0.65	-0.06
MDPII7.1000	148.41	1806.67	148.73	148.34	146.05	404.66	0.21	-0.05
MDPII8.1000	145.87	1801.12	147.83	147.08	146.69	125.13	1.34	0.83
MDPII9.1000	145.67	1801.72	147.08	146.18	145.35	144.99	0.97	0.35
MDPII10.1000	148.40	1801.38	150.05	149.57	148.82	203.82	1.11	0.79
Average	147.91	1803.13	149.27	148.58	147.53	186.96	0.92	0.45