

Overview Of Results- Population Based

Problem	TLBO	Runtime(sec)	BBA	Runtime(sec)	COA	Runtime(sec)	GA	Runtime(sec)	MMHPH	Runtime(sec)
I01-I13	3.54	1610	3.65	7530	2.74	5830	2.62	2010	2.58	5450
MMKP01	0.267	5.6	0.0575	20	0.0173	13.1	0.0395	6.77	0.114	17.2
MMKP02	0.632	15.1	0.933	31.3	0.287	40.5	0.426	10.9	0.29	37.6
MMKP03	1.36	52.2	3.39	98.8	0.957	184	0.824	26.6	0.683	136
MMKP04	1.52	11.4	0.995	40.5	0.2	17.2	0.956	10.5	0.583	23.4
MMKP05	1.11	17.7	2.05	44.9	0.388	43.8	0.64	14.2	0.49	42
MMKP06	1.99	59.1	4.54	133	1.47	194	1.27	33.4	1.19	147
MMKP07	1.93	40.7	0.98	227	0.985	53.5	2.01	52.9	0.64	80
MMKP08	2.17	37.2	4.06	109	1.21	63	1.37	37.4	0.967	68.4
MMKP09	3.75	74.7	7.08	230	3.42	226	2.68	46.1	2.68	182
MMKP10	2.7	24.6	5.72	61.1	1.94	94.3	1.51	13.4	1.64	67.1
MMKP11	5.2	40.1	9.28	158	4.45	242	4.18	27.8	3.42	158
MMKP12	3.96	65.4	6.62	183	3.43	457	3.72	46.4	2.97	279
MMKP13	5.43	63.3	8.85	222	4.26	579	4.34	43.4	3.87	341
MMKP14	5.54	80.5	8.17	288	3.88	882	4.75	58.9	3.73	513
MMKP15	4.23	115	6.83	263	2.44	1910	3.54	75	2.56	1040
MMKP16	3.68	159	6.39	284	1.89	3450	3.03	105	1.96	1790
MMKP17	2.88	185	5.92	340	1.32	5230	2.68	135	1.56	2690
MMKP18	2.32	220	5.38	324	1.04	7400	2.15	148	1.26	3840
MMKP19	2.2	229	1.78	175	0	9880	1.34	89.7	0.0188	4940
MMKP20	1.05	276	3.46	243	0.112	13100	1.06	142	0.307	6590
Average Dev:	2.74	3380	4.58	11000	1.73	49900	2.15	3130	1.6	28400