CSE 318
OFFLINE -3
On
Local Search Problems

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Collected Data

Largest Degree (Exponential Penalty)

Input Data	Known Best Solution		Scheme-1 Largest Degree + Kempe + PairSwap			
	Time Slot	Penalty	Time Slot	Penalty		
				After Largest Degree	After Kempe	After PairSwap
car-f-92	32	3.74	32	10.615	5.744	5.344
car-s-91	35	4.42	34	11.496	7.115	6.714
kfu-s-93	20	12.96	20	46.515	18.814	16.769
tre-s-92	23	7.75	23	15.894	10.211	9.722
yor-f-83	21	34.84	23	64.685	37.81	35.944

Saturation Degree (Exponential Penalty)

Input Data	Known Best Solution		Scheme-2 Saturation Degree + Kempe + PairSwap			
	Time Slot	Penalty	Time Slot	Penalty		
				After Saturation Degree	After Kempe	After PairSwap
car-f-92	32	3.74	30	9.687	6.297	5.956
car-s-91	35	4.42	31	12.452	8.255	7.745
kfu-s-93	20	12.96	19	46.699	19.568	18.008
tre-s-92	23	7.75	23	15.917	10.927	9.912
yor-f-83	21	34.84	20	61.658	46.46	45.669

Largest Enrollment (Exponential Penalty)

Input Data	Known Best Solution		Scheme-3 Largest Enrollment + Kempe + PairSwap			
	Time Slot	Penalty	Time Slot	Penalty		
				After Largest Enrollment	After Kempe	After PairSwap
car-f-92	32	3.74	35	10.696	5.325	4.917
car-s-91	35	4.42	36	13.781	6.653	6.277
kfu-s-93	20	12.96	21	54.512	17.433	15.606
tre-s-92	23	7.75	22	16.330	10.858	10.163
yor-f-83	21	34.84	25	63.271	32.771	30.93

Random Ordering (Exponential Penalty)

Input Data	Known Best Solution		Scheme-4 Random Ordering + Kempe + PairSwap			
	Time Slot	Penalty	Time Slot	Penalty		
				After Random Ordering	After Kempe	After PairSwap
car-f-92	32	3.74	43	8.410	4.379	3.838
car-s-91	35	4.42	45	9.009	5.197	4.651
kfu-s-93	20	12.96	28	35.671	12.231	9.781
tre-s-92	23	7.75	29	12.236	7.519	6.711
yor-f-83	21	34.84	26	50.992	32.472	30.180

Saturation Degree (Linear Penalty)

BenchMark Data	Known Best Solution		Scheme-5 Saturation Degree + Kempe + PairSwap			
	Time Slot	Penalty	Time Slot	Penalty		
				After Saturation Degree	After Kempe	After PairSwap
car-f-92	32	3.74	30	6.275	4.098	3.823
car-s-91	35	4.42	31	8.053	5.255	4.911
kfu-s-93	20	12.96	19	28.985	13.871	12.352
tre-s-92	23	7.75	23	10.135	6.845	6.422
yor-f-83	21	34.84	20	38.925	29.721	29.226