

Exponential Penalty

Scheme-1: Largest Degree + Kemp + Pairswap [Done]

| Benchmark Data | Known Best Solution | | Scheme-1 Largest Degree + Kemp + Pairswap | | | |
|----------------|---------------------|---------|--|----------------------|-------------|----------------|
| | Timeslots | Penalty | Timeslots | Penalty | | |
| | | | | After Largest Degree | After Kempe | After Pairswap |
| CARF92 | 32 | 3.74 | 32 | 9.5912 | 5.7917 | 5.7187 |
| CARS91 | 35 | 4.42 | 34 | 10.6015 | 7.0687 | 7.0004 |
| KFU93 | 20 | 12.96 | 20 | 36.7519 | 17.3395 | 17.0331 |
| TRE92 | 23 | 7.75 | 23 | 14.2481 | 9.9344 | 9.9302 |
| YOR83 | 21 | 34.84 | 23 | 49.9600 | 33.2649 | 33.0488 |

Scheme-2: Saturation Degree + Kemp + Pairswap done

| Benchmark Data | Known Best Solution | | Scheme-2 Saturation Degree + Kemp + Pairswap | | | |
|----------------|---------------------|---------|---|-------------------------|-------------|----------------|
| | Timeslots | Penalty | Timeslots | Penalty | | |
| | | | | After Saturation Degree | After Kempe | After Pairswap |
| CARF92 | 32 | 3.74 | 34 | 9.5918 | 5.2569 | 5.2402 |
| CARS91 | 35 | 4.42 | 34 | 11.3043 | 7.0400 | 7.0186 |
| KFU93 | 20 | 12.96 | 20 | 34.1811 | 17.4366 | 16.6379 |
| TRE92 | 23 | 7.75 | 24 | 13.9763 | 9.5820 | 9.5486 |
| YOR83 | 21 | 34.84 | 22 | 47.2326 | 34.7366 | 34.7366 |

Scheme-3: Largest Enrollment + Kemp + Pairswap

| Benchmark Data | Known Best Solution | | Scheme-3 Largest Enrollment + Kemp + Pairswap | | | |
|----------------|---------------------|---------|--|--------------------------|------------|----------------|
| | Timeslots | Penalty | Timeslots | Penalty | | |
| | | | | After Largest Enrollment | After Kemp | After Pairswap |
| CARF92 | 32 | 3.74 | 34 | 9.7661 | 5.2927 | 5.2540 |
| CARS91 | 35 | 4.42 | 36 | 12.1592 | 6.4815 | 6.4459 |
| KFU93 | 20 | 12.96 | 21 | 40.4655 | 15.8041 | 15.5158 |
| TRE92 | 23 | 7.75 | 22 | 15.0082 | 10.3180 | 10.2087 |
| YOR83 | 21 | 34.84 | 23 | 49.0078 | 33.8727 | 33.8727 |

Scheme-4: Random Ordering + Kemp + Pairswap

| Benchmark Data | Known Best Solution | | Scheme-4 Random Ordering + Kemp + Pairswap | | | |
|----------------|---------------------|---------|---|-----------------------|------------|----------------|
| | Timeslots | Penalty | Timeslots | Penalty | | |
| | | | | After Random Ordering | After Kemp | After Pairswap |
| CARF92 | 32 | 3.74 | 42 | 7.4045 | 4.0281 | 3.9814 |
| CARS91 | 35 | 4.42 | 45 | 8.4072 | 5.3537 | 5.3264 |
| KFU93 | 20 | 12.96 | 23 | 27.8547 | 13.7321 | 13.2157 |
| TRE92 | 23 | 7.75 | 30 | 10.8928 | 7.2809 | 7.2018 |
| YOR83 | 21 | 34.84 | 28 | 39.7804 | 27.3699 | 27.2413 |

Linear Penalty

Scheme-1: Largest Degree + Kemp + Pairswap

| Benchmark Data | Scheme-1 Largest Degree + Kempe + Pairswap | | | |
|----------------|---|----------------------|-------------|----------------|
| | Timeslots | Penalty | | |
| | | After Largest Degree | After Kempe | After Pairswap |
| CARF92 | 32 | 5.8345 | 3.5867 | 3.5467 |
| CARS91 | 34 | 6.6138 | 4.4290 | 4.4142 |
| KFU93 | 20 | 20.6741 | 11.1127 | 11.0330 |
| TRE92 | 23 | 8.7464 | 6.2948 | 6.2663 |
| YOR83 | 23 | 28.7863 | 21.3708 | 21.3602 |