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**Conclusions:**

The following conclusions are made by referring to the consolidated output is given in the table (at the end of the report):

* In First and Third cases, we observe that RMS scheduler tries to respond to the task with lesser period as much as possible and LST tries to respond to the task with the least slack time as much as possible.

In Case 1:

RMS tries to complete Tasks 2 and Task 3

LST tries to complete Task 1 and Task 3

In Case 3:

RMS tries to complete Task 3

LST tries to complete Task 1

* EDF in all three cases tries to complete tasks with the earliest deadline and thus spreading out response. We can observe this by looking at the deadline misses in all three cases.
* In case 2 where all tasks are completed by all schedulers, we see that RMS and LST have the same schedule. This is because the order which RMS and LST would consider the tasks is the same.

Task1, Task2 and Task3 have periods 3,4 and 5 respectively.

Task1, Task2 and Task3 have slack times 2, 3 and 3 respectively at (time 0).

Since all tasks can be completed with a total time of 1 + 1 + 2 = 4 < 5(max period in task set) the order in which RMS and LST respond to the tasks are the same.

In this case, we can clearly see that the deviation in response time by EDF is lesser than those of RMS and LST.

**Consolidated Results For the Discussion**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| For First Input |  |  |  |  |
| RMS | Task | Completions | Deadline Misses | Average Response Time |
|  | 1,10,4 | 12 | 50 | 12 |
|  | 2,7,1 | 90 | 0 | 1 |
|  | 3,9,5 | 70 | 0 | 5.71 |
|  |  |  |  |  |
| EDF | Task | Completions | Deadline Misses | Average Response Time |
|  | 1,10,4 | 45 | 17 | 10.88 |
|  | 2,7,1 | 90 | 0 | 6.02 |
|  | 3,9,5 | 38 | 32 | 9.26 |
|  |  |  |  |  |
| LST | Task | Completions | Deadline Misses | Average Response Time |
|  | 1,10,4 | 63 | 0 | 7.33 |
|  | 2,7,1 | 28 | 62 | 6 |
|  | 3,9,5 | 70 | 0 | 5 |
|  |  |  |  |  |
|  |  |  |  |  |
| For Second Input |  |  |  |  |
| RMS | Task | Completions | Deadline Misses | Average Response Time |
|  | 1,3,1 | 20 | 0 | 1 |
|  | 2,4,1 | 15 | 0 | 1.33 |
|  | 3,5,2 | 12 | 0 | 4.58 |
|  |  |  |  |  |
| EDF | Task | Completions | Deadline Misses | Average Response Time |
|  | 1,3,1 | 20 | 0 | 1.1 |
|  | 2,4,1 | 15 | 0 | 1.86 |
|  | 3,5,2 | 12 | 0 | 3.75 |
|  |  |  |  |  |
| LST | Task | Completions | Deadline Misses | Average Response Time |
|  | 1,3,1 | 20 | 0 | 1 |
|  | 2,4,1 | 15 | 0 | 1.33 |
|  | 3,5,2 | 12 | 0 | 4.58 |
|  |  |  |  |  |
|  |  |  |  |  |
| For Third Input |  |  |  |  |
| RMS | Task | Completions | Deadline Misses | Average Response Time |
|  | 1,5,4 | 0 | 3 | 0 |
|  | 2,10,3 | 0 | 1 | 0 |
|  | 3,4,2 | 5 | 0 | 2 |
|  |  |  |  |  |
| EDF | Task | Completions | Deadline Misses | Average Response Time |
|  | 1,5,4 | 2 | 1 | 6.5 |
|  | 2,10,3 | 0 | 1 | 0 |
|  | 3,4,2 | 4 | 1 | 4 |
|  |  |  |  |  |
| LST | Task | Completions | Deadline Misses | Average Response Time |
|  | 1,5,4 | 4 | 0 | 4 |
|  | 2,10,3 | 0 | 1 | 0 |
|  | 3,4,2 | 0 | 3 | 0 |