R17

Code No: 843AC

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA III Semester Examinations, March/April - 2022
OPERATING SYSTEMS

Time: 3 Hours   Max.Marks:75

Answer any five questions
All questions carry equal marks
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1. Explain in detail about multiprogrammed, time-shared and real time systems in details.
    [15]

2. Discuss about various process and file handling utilities.   [15]

3. Find out average waiting time for given data using SJF and round robin (time quantum: 2units) scheduling algorithm: [15]

Process ID	Arrival time	Burst time
P01	0	5
P02	2	3
P03	4	2
P04	5	6
P05	6	4

4. What is a deadlock? How can it be detected and recovered?   [15]

5. How semaphores can be for process synchronization   ?   [15]

6. Explain IPC between processes on different systems using message queues and shared memory.   [15]

7. Simulate page replacement algorithms on following reference strings: [15]
    1,2,3,2,1,2,3,4,5,6,5,4,3,5

8. Explain various file allocation and access methods.   [15]

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