

November 2017
BCA Semester 3

Subject: CC303 Operating System - 20630

Marks: 70
Time 2 1/2 hour

Q – 1 Answer the following questions.

1. Explain Structure Operating System.
2. Explain Real Time and Distributed Operating System in detail.

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OR

Q – 1 Answer the following questions.

1. Define Term. Process, Job, File and Command Interpreter.
2. Explain Serial, Batch and multi Processor of Operating System.

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Q – 2 Answer the following questions.

1. Explain PCB in detail.
2. Find out Waiting Time, Average Waiting Time, Turnaround Time and Average Turnaround Time using FCFS and RR Scheduling Algorithm. Time Quantum is 3 MS.

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| Process | CPU Burst Time | Arrival Time |
|---------|----------------|--------------|
| P1 | 8 | 5 |
| P2 | 5 | 0 |
| P3 | 4 | 4 |
| P4 | 6 | 8 |
| P5 | 4 | 3 |

OR

Q – 2 Answer the following questions.

1. What is Scheduler? Explain its types in detail.
2. Find out Waiting Time, Average Waiting Time, Turnaround Time and Average Turnaround Time using FCFS and SJF Scheduling Algorithm.

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| Process | Burst Time | Arrival Time |
|---------|------------|--------------|
| P1 | 5 | 2 |
| P2 | 6 | 0 |
| P3 | 7 | 6 |
| P4 | 7 | 4 |
| P5 | 4 | 5 |

Q – 3 Answer the following questions.

1. Explain Characteristics and Necessary Conditions of Deadlock.
2. Explain various means of Deadlock Recovery..

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OR

Q – 3 Answer the following questions.

1. Explain Deadlock Prevention.
2. Explain Thread in detail with its Benefits.

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Q – 4 Answer the following questions.

1. Explain Paging in detail.
2. What is Logical and Physical Address? Explain Logical to Physical Address Map.

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OR

Q – 4 Answer the following questions.

1. What is Fragmentation? Explain its types with Example.
2. Explain Protection and Sharing in Paging.

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Q – 5 Answer the following questions.

1. Write down Short note on Segmentation. 07
2. Find out Page Fault and Page Hits for the following page detail using FIFO and Optimal Page Replacement Algorithm. 07
8,9,7,4,6,8,9,8,6,5,4,2,1,5,3,5,4,8,7,8,9
Frame size is 3

OR

Q – 5 Answer the following questions.

1. Write difference between Paging and Segmentation. 07
2. Find out Page Fault and Page Hits for the following page detail using FIFO and LRU Page Replacement Algorithm. 07
1,2,0,5,4,6,8,2,1,0,8,7,9,0,1,5,9,7,5,8,3
Frame size is 3