



Model Paper

Exam- 2016

BCA II

Operating System

Time: 3 Hrs.

MM:100

I) Very Short Answer Questions

2*10=20

- Q1. What is Semaphore?
- Q2. What do you mean by throughput?
- Q3. What is the purpose CPU scheduling?
- Q4. What do you mean by turnaround time?
- Q5. What do you understand by Deadlock
- Q6. What is PCB?
- Q7. What is the difference between synchronous and Asynchronous data transfer?
- Q8. What do you mean by memory management?.
- Q9. What do you mean by address space?
- Q10. Define the concept of virtual memory?

II) Short Answer Questions (each carrying 4 marks)

4*5=20

- Q1. What is the difference between pre-emptive and non-preemptive scheduling?
- Q2. Write the short note on Remote Procedure Call.
- Q3. What is a virus in context of computer?
- Q4. What is the difference between memory mapped I/O and Direct Memory Access?
- Q5- Explain the IPC?

III) Long Answer Questions

12*5=60

- Q1. What is CPU Scheduling? Define various types of schedulers in detail.
- Q2. Explain various Non-Pre-emptive Scheduling mechanisms in brief.
- Q3- What is resource allocation graph? Describe its various entities. Also draw separate resource. Allocation graphs showing a deadlock and a cycle but no deadlock
- Q4- What is the device management? Explain the various techniques used for device management?
- Q5- What do you mean by Operating System? Define the various categories of operating systems



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I) Very Short Answer Questions

2*10=20

- Q1. Write the definition of Operating System?
- Q2. What is the concept of spooling?
- Q3. What do you mean by process?
- Q4. What is the difference between I/o bound and CPU bound Processes?
- Q5. What is the concept of swapping?
- Q6. Explain the concept of Internal and External Fragmentation.
- Q7. What is thread?
- Q8. What do you understand by safe state?
- Q9. What is the real time operating system
- Q10. Explain parallel Processing.

II) Short Answer Questions (each carrying 4 marks)

4*5=20

- Q1. Define various process states with diagram?
- Q2. Explain various performance criteria for scheduling mechanisms.
- Q3. Explain the concept of mutual exclusion and critical section?
- Q4. What is the synchronization?
- Q5. Explain various security threats in computer environment?

III) Long Answer Questions

12*5=60

- Q1. What is the device management? Explain the various techniques used for device management?
- Q2. Discuss major security threats to computer based systems, as provided by their users and providers.
 - (b) What is a virus in context of computer?
- ..
- Q3- What is virtual memory? Discuss the two key techniques of virtual memory implementation-paging and segmentation.
- Q4- Explain various Pre-emptive Scheduling mechanisms in brief.
- Q5- What is Deadlock ? Explain various methods of deadlock prevention