

BCA-07 Operating System-I

SET : 1

Section-A

(Very Short Answer Questions)

1. (i) Define real time system.
(ii) Name three example of GUI.
(iii) What is time slice.
(iv) What is thread?
(v) What is race condition?
(vi) Define Overlaying.
(vii) What is thrashing?
(viii) When Belady's anomalies occur?
(ix) What is CPU burst and IO Burst?
(x) What is Virtual Memory.

Section-B

(Short Answer Questions)

2. What is PCB? Explain in detail.
3. When Critical Section Problem does occur?
4. Describe the features of Visual Basic.
5. Differentiate between Peer to Peer Computing and Client Server Computing.
6. Why security is needed in Operating System? Explain Principles of Security.
7. Explain the following:
 - a. Virus
 - b. Worm
 - c. Trojan Horse
 - d. Denial of Service
8. Explain various file accessing methods.
9. What is the concept of pre-paging and demand paging.

Section-C

(Long Answer Questions)

10. What is process? What are the different types of process state? Explain with neat diagram
11. Given the following information.

Process	Burst Time
P1	24
P2	3
P3	3

Compare average waiting time and turnaround time of FCFS and SJF Scheduling Algorithm

12. What is semaphore? Explain Producer-Consumer Problem using Semaphore.
13. What is deadlock? How deadlock is preventing? Explain in detail

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SET : 2

Section-A

(Very Short Answer Questions)

1. (i) Define distributed system.
- (ii) Give name of five operating systems.
- (iii) What is the function of fork()?
- (iv) Define Turnaround Time?
- (v) What is the use of paging?
- (vi) What is the memory hierarchy?
- (viii) What is dispatcher?
- (viii) Define Throughput.
- (ix) What is advantage of Round Robin Scheduling?
- (x) Define Trojan horse?

Section-B

(Short Answer Questions)

2. What are the function and services of Operating System?
3. What are Multiprogramming Operating system and its benefits?
4. Differentiate between CUI and GUI.
5. What is a system call? Give some examples of system calls.
6. Describe the following:
 - a. Message Passing System
 - b. Sockets
 - c. Remote Method Invocation (RMI)
 - d. Remote Procedure Calls (RPCs)
7. What is Thread? Explain Multithreading Models.
8. Explain Banker's Algorithm with Example.
9. What is segmentation? Explain address translation in segmentation.

Section-C

(Long Answer Questions)

10. What is Operating System? Explain with its types.
11. Explain scheduler with its types.
12. What is Process Synchronization? Explain with example.
13. Explain the use of Page replacement Polices used in Operating System with Example.