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Course: Operating System

Programme: F.Y.Bsc.IT

Semester I

Practice Questions

Unit 1

1. What is Operating System? Discuss its role in computer system.
2. What is batch processing and time sharing operating system?
3. Discuss the generations of operating system.
4. What do you mean by assembler and compiler? Give an example of each.
5. Discuss the roles and responsibilities of an Operating System..
6. What is batch processing and multi processing operating system?
7. What do you mean by compiler and interpreter? Give an example of each.
8. What are the different types of system call?
9. Write down any ten MS DOS commands with its syntax.
10. What is Kernel? Discus any one type of it
11. Discuss the architecture of an Operating system.
12. Discuss client server architecture.
13. Discuss various types of OS.
14. What do you mean by a process in OS?
15. What is PCB?
16. What is Process state? Describe various process states.
17. What is Inter Process Communication?
18. Define Race Condition.
19. Discuss Peterson's Solution for Critical Section.
20. Write a short note on Dinning Philosophers' problem.
21. What is IPC Problem?
22. What do you mean by Deadlock? Discuss ways to avoid deadlock.
23. Discuss Resource allocation graph and its relation with deadlock.
24. What is process scheduling? Discuss FCFS.
25. Discuss scheduling in batch system.
26. What are schedulers?
27. Find out waiting time and Finish time for following using SJF preemptive algorithm.

Process	Burst time
P1	6
P2	8

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P3	7
P4	3

Unit 2

1. Explain the concept of Paging.
2. What is a page table? discuss two level page table.
3. Write a short note on Virtual memory.
4. What is demand paging?
5. What do you mean by page replacement? Discuss FIFO.
6. Discuss LRU.(Page replacement method.
7. What is memory management?
8. What do you mean by segmentation?
9. What are the various operation that could be performed on a file?
10. What do you mean by a file? Discuss its various attributes.
11. What is a directory? Discuss various operation that could be performed on it.
12. Discuss directory structure.
13. Discuss Linked list File allocation methods in brief.
14. Discuss NFS.
15. Describe MS-DOS File system structure.
16. Discuss Unix v7 File structure.
17. Explain RAID structure.
18. What is a deadlock?

Unit 3

1. Discuss how performance of a system is affected by I/O interface.
2. Discuss memory mapped I/O devices.
3. what do you mean by D.M.A.(Direct Memory Access)
4. What do you understand by an interrupt?
5. Write a short note on interrupt handler.
6. Discuss the structure of a hard Disk with the help of a diagram.
7. Discuss RAID structure.
8. Write a short note on clock in OS.
9. Discuss strategies to avoid deadlock.
10. What is resource allocation graph and its role in detecting Deadlock?

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Unit 4

1. Write a note on Type I and Type II hypervisor.
2. What do you mean by Virtualization?
3. Discuss memory virtualization.
4. What are the advantages of Virtualization?
5. What is cloud computing? Discuss its characteristics.
6. What is virtualization? What is the difference between full virtualization and para-virtualization?
7. What is the difference between a pure hypervisor and a pure kernel.
8. What do you mean by Virtual appliances? Give any two examples.
9. Write a short note on Multiprocessor Operating System.
10. Define RPC.
11. What is distributed system? Describe its characteristics

Unit 5

1. Write a brief note on the development of UNIX Operating System.
2. Compare the file system of Linux and MS. Windows 10
3. Write a short note on Android Architecture.
4. discuss architecture of LINUX
5. Describe kernel structure of linux with the help of diagram.
6. Describe process management in Windows.
7. Discuss Memory management of Linux.
8. Discuss Processes in Linux.
9. Discuss memory management in Windows operating system.
10. Write a short note on NTFS.
11. Discuss security management in Windows operating System

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