

[illegible]

I Year/ II Semester Examination

Subject Code- B180201T

[Max. Marks : 75]

[15×1=15]

1. **What is operating system?**
 - a) collection of programs that manages hardware resources
 - b) system service provider to the application programs
 - c) link to interface the hardware and application programs
 - d) All of the mentioned
2. **To access the services of operating system, the interface is provided the service?**
 - a) System Calls
 - b) API
 - c) Library
 - d) Assembly instructions
3. **Which one is the objective of multitasking?**
 - a) Have multiple programs waiting in a queue ready to Run
 - b) Have some process running at all times
 - c) To minimize CPU utilization
 - d) None of the mentioned
4. **In multiprogramming environment?**
 - a) A single user can execute many programs at the same time
 - b) The processor executes more than one process at a time
 - c) the programs are developed by more than one person
 - d) More than one process resides in the memory
5. **Demand Paging is a?**
 - a) solves the memory fragmentation problem
 - b) allows modular programming
 - c) allows structured programming
 - d) avoids deadlock
6. **What are the necessary conditions to occur the deadlock?**
 - a) Sharable resource, Hold and wait, Preemption, Circular wait
 - b) Mutual exclusion, Hold and wait, No preemption, Circular wait
 - c) Mutual exclusion, wait, Preemption, Circular wait
 - d) None of the above.
7. **Which one is a category of operating system's task?**
 - a) Memory management
 - b) File Management
 - c) Process management
 - d) All of the above
8. **The operating system manages?**
 - a) Memory
 - b) Processor
 - c) Disk and I/O devices
 - d) All of the above

9. Round Robin scheduling is most suitable for?
 - a) time shared OS b) distributed OS
 - c) real time OS d) an Ordinary OS
 10. A process is created and is initially put in the?
 - a) Ready Queue b) Device Queue
 - c) I/O queue d) Waiting Queue
 11. A thread is a?
 - a) task b) process c) Program d) Light Weight Process
 12. Which type of condition can be prevented by defining a linear ordering of resource types?
 - a) Mutual Exclusion b) Hold and Wait
 - c) Circular Wait d) Channel Wait
 13. The simplest directory structure is?
 - a) single level directory b) two level directory
 - c) tree structure directory d) none of these
 14. Semaphore is a?
 - a) Integer variable b) A program only
 - c) A window type d) A process only
 15. FIFO scheduling is?
 - a) preemptive scheduling b) non preemptive scheduling
 - c) deadline scheduling d) fair share scheduling
- II Long Question : Answer Any Three** [10×3=30]
1. Explain Process states with the help of a suitable diagram.
 2. What is swapping and what is its purpose?
 3. What do you mean by Deadlock? Explain deadlock recovery and deadlock Avoidance..
 4. Write a brief note on the following terms:
 - (i) Scheduler (ii) Starvation (iii) Compaction
 5. What do you mean by contiguous memory allocation? Explain in detail.
- III. Short Question: Answer any Five** [6×5=30]
1. What does PCB contain? Explain.
 2. What do you mean by Inter-process communication (IPC) with the help of a diagram?
 3. Explain OS structure?
 4. What is virtual memory? Mention its advantages
 5. Write a short note on:
 - (i) MultiTasking OS
 - (ii) MultiProgramming OS
 6. How an operating system manages file in computer?
 7. What do you virtual memory? Explain its advantages.