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SUBJECT CODE NO: - 2103
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. F.Y (Sem. II)
Examination March/April-2022 (To Be Held In June/July-2022)
Computer Science Paper-IV CS04
Operating System-I

[Time: 1.53 Hours]

[Max.Marks:50]

- N.B Please check whether you have got the right question paper.
- i) Attempt all questions
 ii) Illustrate your answer with suitable example.
- Q.1 a) Define operating system. Explain the structure of operating system. 10
 b) What are schedules? Write about the scheduling criteria for CPU scheduling. 10
 OR
 c) Define deadlock. Explain in detail about methods for handling deadlock. 10
 d) Define process and explain process states in detail with diagram. 10
- Q.2 a) What are critical sections? Explain semaphore in detail. 10
 b) What is a thread? explain operation on processes 10
 OR
 Write short note on (any four) 20
 1) Memory allocation
 2) Page replacement algorithms
 3) File management
 4) OS as a resource manager
 5) I/O devices
 6) Batch operating system
- Q.3 Multiple choice questions 10
 1) Process is -----
 a) Program in High level language kept on disk
 b) Contents of main memory
 c) a program in execution
 d) None of the above
 2) The FIFO algorithm -----
 a) Executes first the job that last entered the queue.
 b) Executes first the job that first entered the queue
 c) Execute first job that first entered in the queue longest
 d) Executes first the job with the least processor needs

- 3) Which of the following scheduling algorithm gives minimum average waiting time
 - a) FIFO algorithm
 - b) Round robin algorithm
 - c) SJF
 - d) Priority algorithm
- 4) The technique of breaking a process into same size blocks is called -----
 - a) Paging
 - b) Processing
 - c) Fragmenting
 - d) None of these
- 5) Virtual memory is -----
 - a) An illusion of extremely large main memory
 - b) A large main memory
 - c) A large secondary memory
 - d) none of these
- 6) Which one of the following is the address generated by CPU?
 - a) Physical address
 - b) Absolute address
 - c) Logical address
 - d) None of these
- 7) The objective of operating system is -----
 - a) Scan the system
 - b) Provide connectivity
 - c) Managing system hardware
 - d) All the above
- 8) Which of the following is not the function of operating system?
 - a) Memory management
 - b) Disk management
 - c) application management
 - d) Virus protection
- 9) Semaphore used for solving -----
 - a) Wait and signal
 - b) Deadlock
 - c) Synchronization
 - d) Priority
- 10) Breaking physical memory into fixed size blocks called -----
 - a) page
 - b) Segment
 - c) frame
 - d) none of these