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SUBJECT CODE NO:- B-2103
FACULTY OF SCIENCE & TECHNOLOGY
B.Sc. F.Y. (Sem-II)
Examination November/December- 2022
Computer Science Paper-IV CS04
Operating System-I

[Time: 1:30 Hours]

[Max. Marks:50]

“Please check whether you have got the right question paper.”

- N.B
- i) Attempt all questions.
 - ii) Illustrate your answer with suitable example.
- Q.1
- a) Define software. explain in detail functions of operating system. 10
 - b) Explain classification and components of software. 10
- OR
- c) Define paging. Differentiate between paging and segmentation. 10
 - d) What is Semaphore? Explain need for synchronization. 10
- Q.2
- a) Define file. Explain free space management. 10
 - b) Write in detail about characteristics of modern operating system. 10
- OR
- Write short note on (any four) 20
- i) File access
 - ii) I/O Hardware
 - iii) thread
 - iv) Criteria for scheduling
 - v) Personal Computer Systems.
 - vi) Process State.

Q.3 Multiple choice questions.

10

01. Scheduling is _____
 - a) Use to increase CPU utilisation
 - b) making proper use of processor.
 - c) Both a and b.
 - d) None of the above.

02. NTFS stands for _____
 - a) New Type File System
 - b) New Table File System
 - c) New Technology File System
 - d) None of the above

03. The mechanism that bring page into main memory only when it is needed is called as _____
 - a) Demand paging
 - b) Swapping
 - c) Paging
 - d) Segmentation

04. Address location in main memory is referred to as _____
 - a) logical address
 - b) physical address
 - c) static address
 - d) Block associative

05. An Operating System is _____
 - a) Collection of hardware components.
 - b) Collection of I/O devices.
 - c) Collection of software routines.
 - d) all the above.

06. Breaking logical memory into blocks of same size is called _____
- a) Page
 - b) Segment
 - c) Frame
 - d) none of these
07. Segmentation is the solution of which memory management problem?
- a) Internal fragmentation
 - b) Segmentation
 - c) external fragmentation
 - d) none of these
08. Thread is a dispatch able unit of _____
- a) Program
 - b) Work
 - c) Time
 - d) Process
09. Which of the following requires a device driver?
- a) Register
 - b) Cache
 - c) main memory
 - d) Disk
10. The LRU algorithm _____.
- a) pages out pages that have been used recently
 - b) pages out pages that have not been used recently
 - c) pages out pages that have been least used recently.
 - d) pages out the first page in a given area.