



K22U 1732

Reg. No. :

Name :

**IV Semester B.Sc. Degree (CBCSS – Supplementary) Examination, April 2022
(2016 – 18 Admissions)**

**GENERAL COURSE IN COMPUTER SCIENCE
4A14CSC – Operating System**

Time : 3 Hours

Max. Marks : 40

SECTION – A

1. **One** word answer. **(8×0.5=4)**
- a) _____ occurs when requested page does not exist in memory.
 - b) _____ is maintained for a process throughout its lifetime, and is deleted once the process terminates.
 - c) _____ queue keeps all the processes in the system.
 - d) CPU scheduler is also known as _____
 - e) When a process is in a blocked state waiting for some I/O service and after it is completed, it goes to the _____ state.
 - f) The total amount of time spent by the process from its arrival to its completion, is called _____ time.
 - g) SSTF disk scheduling stands for _____
 - h) _____ condition lies when a process holds a resource and waiting for some other resource to complete its task.

SECTION – B

- Write short notes on **any seven** of the following questions. **(7×2=14)**
- 2. Mention the names of any 4 CPU scheduling algorithms.
 - 3. What do you mean by deadlock in an operating system ?
 - 4. What is fragmentation ?
 - 5. Define process synchronization in operating system.
 - 6. What is a semaphore ?
 - 7. What is a page table ?

P.T.O.



8. What do you mean by waiting queue ?
9. What is seek time ?
10. What is the purpose of disk scheduling ?
11. What is TLB ?

SECTION – C

Answer **any four** of the following questions.

(4×3=12)

12. Explain Round Robin scheduling.
13. Explain the concept of swapping.
14. What are the problems with fixed partitioning ?
15. Explain multithreading model.
16. Explain the concept of LOOK scheduling.
17. Explain inverted page table.

SECTION – D

Write an essay on **any two** of the following questions.

(2×5=10)

18. Explain dining philosopher's problem and suggest solution for that.
 19. Explain Banker's algorithm for deadlock avoidance.
 20. Explain the following.
 - a) Paging
 - b) Segmentation.
 21. Explain the concept of
 - a) SSTF
 - b) SCAN algorithms in disk scheduling.
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