



K23U 0865

Reg. No. :

Name :

**IV Semester B.Sc. Degree (CBCSS-Supplementary) Examination, April 2023
(2017 and 2018 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) PCB stands for _____
- b) _____ algorithm is used to prevent deadlock.
- c) For real time operating systems, interrupt latency should be _____
- d) The priority of a process will remain _____ if the scheduler assigns it a static priority.
- e) _____ page replacement algorithm replaces the page which will not be referred for so long in future.
- f) The time at which the process enters into the ready queue is called the _____ time.
- g) In deadlock _____, the request for any resource will be granted if the resulting state of the system doesn't cause deadlock in the system.
- h) In Resource allocation graph, the resource is represented by a _____

SECTION – B

Write short notes on **any seven** of the following questions.

(7×2=14)

2. What is meant by CPU scheduling ?
3. What is thrashing ?
4. What is a context switch ?
5. What is paging ?

P.T.O.



6. What do you mean by mutual exclusion ?
7. Name the strategies for handling deadlock.
8. What is the importance of counting semaphore ?
9. Which are the five states of a process ?
10. What do you mean by multi-programming operating system ?
11. What is rotational latency ?

SECTION – C

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

(4×3=12)

12. Explain demand paging.
13. Explain the concept of segmentation.
14. What are the advantages of dynamic partitioning ?
15. How virtual memory works ?
16. Explain safety algorithm.
17. Explain SCAN algorithm for disk scheduling.

SECTION – D

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

(2×5=10)

18. Explain the characteristics of a) Shortest Job Next b) Priority based scheduling.
 19. Explain time sharing operating system with its advantages and disadvantages.
 20. Explain the resource allocation graph with its purpose.
 21. How deadlock is recovered once it is detected ?
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