K24U 0922

Reg. No. : .....

Name : .....

IV Semester B.Sc. Degree (CBCSS – Supplementary / One Time Mercy Chance) Examination, April 2024
(2014 to 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) _____ is a non-preemptive CPU scheduling algorithm.
   b) If the page size increases, the internal fragmentation
   c) _____ is also called a job scheduler.
   d) In a timeshare operating system, when the time slot assigned to a process is completed, the process switches from the current state to _____ state.
   e) A deadlock avoidance algorithm dynamically examines the _____ to ensure that a circular wait condition can never exist.
   f) A state of the system is called _____, if the system can allocate all the resources requested by all the processes without entering into deadlock.
   g) In resource allocation graph, the process is represented by a
   h) TLB stands for

SECTION – B

Write short notes on **any seven** of the following questions. **(7×2=14)**

2. What is a ready queue ?
3. What is real-time operating systems ? Mention 2 types of real-time systems.
4. What is demand paging ?

P.T.O.

5. Which are the 2 important information in a segment table ?
6. What is a binary semaphore ?
7. What is a mutex ?
8. What is burst time ?
9. What are the disadvantages of FCFS disk scheduling algorithm ?
10. What is the concept of C-SCAN algorithm ?
11. What is RAG ? What is its use ?

SECTION – C

Answer **any four** of the following questions. **(4×3=12)**

12. What is batch operating system ? Mention its disadvantages.
13. Explain the concept of swapping.
14. What is fragmentation ? Explain 2 types of fragmentation.
15. What are the advantages and disadvantages of paging ?
16. Explain the use of compaction.
17. Explain SSTF disk scheduling algorithm.

SECTION – D

Write an essay on **any two** of the following questions. **(2×5=10)**

18. What is a semaphore ? Explain its advantages and disadvantages.
19. Explain how deadlock prevention could be done.
20. Explain resource request algorithm.
21. Compare and contrast long-term and short-term scheduler.

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