IV Semester B.Sc. Degree (CBCSS – 2014 Admn.-Regular) Examination, May 2016
GENERAL COURSE IN COMPUTER SCIENCE
4A14 CSC : Operating System

Time : 3 Hours

Max. Marks : 40

SECTION – A

1. One word answer. (8×0.5 = 4)

   a) Two or more programs in memory at the same time, sharing the processor is referred to as _____

   b) A program in execution is referred to as _____

   c) The number of processes completed per time unit is called _____

   d) _____ scheduler controls the degree of multiprogramming.

   e) A system is in _____ state if it can allocate resources to each process and avoid deadlock.

   f) The address generated by the CPU is called _____

   g) The time taken to move the disk arm to the desired cylinder is called _____

   h) _____ is a memory management scheme that allows the physical address space of a process to be noncontiguous.

SECTION – B

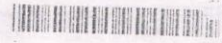Write short notes on **any seven** of the following questions. (7×2 = 14)

2. What is an Operating System ?

3. What are time-sharing systems ?

P.T.O.

4. List any two activities of operating system in connection with memory management.

5. What is a dispatcher ?

6. What is a resource allocation graph ?

7. Write notes on segmentation.

8. What is Belady's anomaly ?

9. What is thrashing ?

10. Write notes on scheduler.

11. Define deadlock.

SECTION – C

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

12. What are the necessary conditions for deadlock ?

13. Write notes on paging.

14. Write notes on PCB.

15. Explain fragmentation.

16. Write notes on TLB.

17. Explain optimal page replacement algorithm with example.

18. Explain multiprocessor systems.

SECTION – D

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

19. Explain any three CPU scheduling algorithms with examples.

20. Discuss any four disk scheduling algorithms.

21. Explain deadlock avoidance algorithms.

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