

**B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MAY 2014****Second Semester**

Vocational Subject—Computer Science

**INTRODUCTION TO OPERATING SYSTEM AND OS AS RESOURCE MANAGER**

(For Model II B.Sc. Mathematics)

[2013 Admissions]

Time : Three Hours

Maximum : 80 Marks

**Part A (Short Answer Questions)***Answer all questions.**Each question carries 1 mark.*

1. The process of loading the OS is called \_\_\_\_\_.
2. The programming of first generation computer was done in \_\_\_\_\_.
3. Process Control Block (PCB) is also known as \_\_\_\_\_.
4. The information about each process in a record is stored in \_\_\_\_\_.
5. When a process is waiting for an event, it is said to be in \_\_\_\_\_ state.
6. NTFS stands for \_\_\_\_\_.
7. SRTF policy stands for \_\_\_\_\_.
8. Heuristic scheduling is implemented using \_\_\_\_\_.
9. \_\_\_\_\_ allows programs to run even when they are only partially in main memory.
10. \_\_\_\_\_ are system files for maintaining the structure of the file system.

(10 × 1 = 10)

**Part B (Brief Answer Questions)***Answer any eight questions.**Each question carries 2 marks.*

11. What is a device driver ?
12. What is multi-threading ?
13. What is segmented paging ?
14. What are the file types supported by modern OS ?
15. What you mean by page fault ?

**Turn over**

16. What is Interrupt Service Routine (ISR) ?
17. Give the structure of THE OS.
18. What is fragmentation problem ?
19. What is pop-up thread ?
20. What is two phase locking ?
21. What are major extensions provided by Joliet ?
22. When can you say that a state is safe ?

(8 × 2 = 16)

**Part C (Descriptive/Short Essay Type Questions)**

*Answer any six questions.  
Each question carries 4 marks.*

23. Explain any four types of OS.
24. Explain multiprogramming vs multi-processing OS.
25. Explain different types of process termination.
26. What are the various components of a GUI ?
27. Explain the concept of swapping.
28. Discuss about various process states with a diagram.
29. What are the various components of a GUI like windows ?
30. What are the various steps involved in process deletion ?
31. How does MS-DOS implement random access to files ?

(6 × 4 = 24)

**Part D (Long Essay)**

*Answer any two questions.  
Each question carries 15 marks.*

32. In detail explain scheduling philosophies and levels of scheduling.
33. Explain the directory structure in information management.
34. Explain in detail about dead lock detection and recovery.
35. Explain various page replacement algorithms.

(2 × 15 = 30)