E 6542 (Pages : 2) Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MAY 2017

Second Semester

Vocational Subject : Computer Science

INTRODUCTION TO OPERATING SYSTEM AND OS AS RESOURCE MANAGER

(For Model II – B.Sc. Mathematics)

[2013 Admission onwards]

Time : Three Hours Maximum Marks : 80

Part A (Short Answer Questions)

Answer **all** *questions.*

1 *mark each.*

1. The programming of first generation computer was done in _____.
2. Give an example of server operating system.
3. The inner layer of an operating system is the _____.
4. A _____ scheduling philosophy allows a current running process to retain of its CPU and resources.
5. What is blocked state?
6. Collection of free space through compaction is called _____.
7. What is compaction?
8. SRTF policy stands for _____.
9. What is the expansion of MS DOS?
10. The part of the OS dealing with files is known as _____.

(10 × 1 = 10)

Part B (Brief Answer Questions)

Answer any **eight** *questions.*

2 *marks each.*

11. Define System call.
12. What are the characteristics of DOS?
13. What are the file types supported by modern OS?
14. How can we avoid dead lock?
15. What is demand paging?

Turn over

16. What are device controllers?
17. What do you meant by content switching?
18. What are the different file access methods?
19. Explain the concept of virtual memory.
20. What do you meant by page fault?
21. What is bit vector in free space management?
22. Define Fragmentation. What are its types?

(8 × 2 = 16)

Part C (Descriptive/Short Essay Type Questions)

Answer any **six** *questions.*

4 *marks each.*

23. Explain different types of process termination.
24. Define Banker's Algorithm.
25. Explain process priority and its various types.
26. Discuss critical section problem.
27. What is the difference between Physical address and Virtual address?
28. What is contiguous memory allocation?
29. Explain file allocation method.
30. Discuss directories in file system.
31. Discuss in detail about file protection and security.

(6 × 4 = 24)

Part D (Long Essays)

Answer any **two** *questions.*

15 *marks each.*

32. Discuss in detail about file system implementation.
33. Discuss paging and segmentation.
34. Explain various page replacement algorithms.
35. Explain the directory structure of Information Management.

(2 × 15 = 30)