(Pages : 4) N – 2957

Reg. No. : 33220958016

Name : Ashik Rahman B

Third Semester B.Sc./B.C.A. Degree Examination, March 2022

Career Related First Degree Programme under CBCSS

Group 2(b)-Computer Science / Computer Applications

Core Course

CS 1343/CP 1342 : OPERATING SYSTEMS

(2019 & 2020 Admission)

Time : 3 Hours Max. Marks : 80

PART – A (Very Short Answer Questions)

Answer **all** questions.

Each question carries **1** mark.

1. What is multi-threading?
2. What is a system call?
3. What do you mean by preemptive scheduling?
4. Write any 2 file attributes.
5. Name an Operating system.
6. What do you mean by operating system interfaces?
7. What is a critical section?
8. What do you mean by swapping?

P.T.O.

9. What do you mean by deadlock?

10. Name any four operating system functions

(10 x 1 = 10 Marks)

PART – B (Brief Answer Questions)

Answer any **eight** questions.

Each question carries **2** marks.

11. Explain various uses of thread.

12. Explain process synchronization.

13. What do you mean by semaphores?

14. Write note on deadlock prevention.

15. Write notes on any one memory management technique.

16. Write the need for protection.

17. What is the use of a kernel?

18. Give a short note on directory structure.

19. Give a short note on various security threats.

20. What is dining philosopher's problem?

21. Mention two non-preemptive scheduling mechanisms.

22. Mention two operations on process?

23. What do you mean by demand paging?

24. Explain logical address space.

25. What is a Process Control Block?

26. Mention various system calls.

(8 x 2 = 16 Marks)

2:30

PART – C (Short Essay Type Questions)

Answer any **six** questions.

Each question carries **4** marks.

27. Explain about various types of operating system.

28. Discuss on reader writer problem.

29. Explain disk structure.

30. Explain the concept of thrashing.

31. Explain about memory mapping.

32. Explain any one deadlock avoidance mechanism.

33. Write a Short note on critical section problem.

34. Explain File system structure.

35. Write note on segmentation.

36. Give a Short note on deadlock.

37. Give a short note on process scheduling.

38. Explain Resource Allocation Graph.

3:30

(6 × 4 = 24 Marks)

PART – D (Long Essays)

Answer any **two** questions.

Each question carries **15** marks.

39. Describe various protection and security mechanisms.

40. Explain banker's algorithm.

41. Explain non contiguous memory allocations.

4:30

42. Discuss on disk scheduling.

43. Explain various demand paging algorithms.

44. Elaborate on the concept of thread and multithreading.

(2 × 15 = 30 Marks)
