Reg. No ..... Name **23U211**

B. Sc. DEGREE END SEMESTER EXAMINATION : MARCH 2023

SEMESTER 2 : COMPUTER APPLICATION

COURSE : 19U2CRCAP3: OPERATING SYSTEM

(For Regular - 2022 Admission and Improvement / Supplementary – 2021 / 2020 / 2019 Admissions)

Time : Three Hours Max. Marks: 75

PART A

Answer All (1 mark each)

1. What you mean by priority scheduling?
2. Define push migration.
3. What do you mean by page table?
4. Define multiprogramming.
5. What is paging?
6. Define dispatcher.
7. What is relative access method?
8. What is an operating system? Give any two examples.
9. What is mutual exclusion?
10. What you mean by degree of multiprogramming?

(1 x 10 = 10)

PART B

Answer any 8 (2 marks each)

11. Differentiate CUI and GUI.
12. What is the function of TLB?
13. Write a short note on tree level directory structure with the help of a diagram.
14. What you mean by safe state?
15. Differentiate CPU burst time and I/O burst time.
16. What are the various methods for handling deadlocks?
17. Explain distributed system.
18. Differentiate logical address and physical address.
19. Differentiate push and pull migration.
20. What are necessary conditions for dead lock?

(2 x 8 = 16)

PART C

Answer any 5 (5 marks each)

21. Explain different file allocation methods.
22. Define a process. Describe about PCB.
23. Explain the following
    (a) Long term schedulers
    (b) Short term Schedulers
    (c) Medium term Schedulers.

24. Consider the following page reference using three frames that are initially empty. Find the page faults using FIFO algorithm, where the page reference sequence: 7,0,1, 2,0,3,0,4,2,3,0,3,2,1,2,0,1,7,0,1.

25. Write a note on multi feedback queue scheduling.

26. Explain about message passing.

27. Explain the queueing diagram with figure.

(5 x 5 = 25)

PART D

Answer any 2 (12 marks each)

28. Explain interprocess communication.

29. Consider the following page reference using four frames that are initially empty. Find the page faults using LRU algorithm, where the page reference sequence: 5,2,5,1,4,5,2,0,4,2,3,1,2,1,0,0,2,4,5,1.

30. What are the services of an operating System? Explain.

31. Explain deadlock detection and recovery methods.

(12 x 2 = 24)