B. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2020

SEMESTER –6: COMPUTER APPLICATIONS (CORE COURSE)

COURSE: **15U6CRCAP11: OPERATING SYSTEMS**

(Common for Regular 2017 Admission & Supplementary 2016 /2015 Admissions)

Time: Three Hours   Max Marks: 75

PART A

*Answer **all** questions. Each question carries **1** mark.*

1. What is a hard real time system?

2. What is meant by throughput?

3. What is preemptive scheduling?

4. What is a critical region?

5. What is a page fault?

6. What is hit ratio?

7. Whether RR scheduling is preemptive or non preemptive?

8. What is latency time?

9. What is a directory?

10. Expand i-node.   (1 x 10 = 10)

PART B

*Answer **any eight** questions. Each question carries **2** marks.*

11. Which are the various OS services?

12. What is Aging in priority scheduling?

13. Differentiate between non preemptive and preemptive scheduling.

14. What is a semaphore?

15. Differentiate between logical address and physical address.

16. Differentiate between contiguous and non-contiguous allocation.

17. Write about various file attributes.

18. Write any four advantages of Linux over other OS.

19. What is Linux Shell?

20. Which are the necessary conditions for deadlock?   (2 x 8 = 16)

PART C

*Answer **any five** questions. Each question carries **5** marks.*

21. Write short note on various types of system calls.

22. Explain the criteria for a good scheduling.

23. Write short note on shared paging.

24. Explain segmentation in detail.

25. What is demand paging? Explain with neat diagram.

26. Explain the various file operations.

27. Write any five commands in Linux. (5 x 5 = 25)

PART D

*Answer **any two** questions. Each question carries **12** marks.*

28. Define deadlock and explain the methods of detection and prevention of deadlocks.

29. Explain paging in detail.

30. Explain any three file allocation strategies.

31. Define process. Explain process states and its transitions with neat diagram. (12 x 2 = 24)

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