



QP CODE: 20100312



Reg No :

Name :

BSc DEGREE (CBCS) EXAMINATION, FEBRUARY 2020

Fifth Semester

B.Sc Computer Science Model III

Core Course - CC5CRT04 - SYSTEM SOFTWARE AND OPERATING SYSTEM

2017 Admission Onwards

67964889

Time: 3 Hours

Maximum Marks :80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Define the term production.
2. Define Operator Grammar.
3. Define finite state automaton.
4. What is the purpose of code optimization?
5. What is a context switch?
6. What is preemptive scheduling?
7. Define process synchronization.
8. What is binary semaphore?
9. What is the significance of safety algorithm in deadlock avoidance?
10. Differentiate between logical address and physical address.
11. What is swapping?
12. Which are the common file types?

(10×2=20)





Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Explain different assembly language statements.
14. Explain Macros expansion in detail.
15. Explain topdown parsing with an example.
16. Explain Macro Expansion.
17. Explain the operating system services.
18. Explain queueing diagram.
19. Explain the various methods for handling deadlocks.
20. Explain deadlock detection algorithm.
21. What are the different types of memory fragmentations? What is the solution to it?

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **15** marks.

22. Explain phases of compiler with neat diagram.
23. Explain types of operating system in detail.
24. How can a system recover from a deadlock? Explain the Resource-Allocation Graph Algorithm for deadlock prevention.
25. Explain the hardware of segmentation.

(2×15=30)

