TB153130A **Reg. No: ……..**

Name: ……..

B. Sc. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER, 2016

SEMESTER III - CORE COURSE (COMPUTER APPLICATIONS)

CAC3B06TB - OPERATING SYSTEMS

Time: Three Hours **Maximum Marks: 80**

PART A

I. Answer all questions. Each question carries 1 mark

1. Define Turnaround time.
2. Define Dispatcher.
3. What is Swapping?
4. What do you mean by Critical Section?
5. What is aging?
6. What is a frame?

(6x1=6)

PART B

II. Answer any seven of the following questions. Each question carries 2 marks

7. Define System calls. What are the different types of System Calls.
8. Differentiate I/O bound and CPU bound Process.
9. What is the difference between Logical address and Physical address?
10. Define Deadlocks. What are the necessary Conditions for deadlock?
11. What is a file? List the different attributes of a file.
12. What do you mean by context switching?
13. Define different states of process.
14. Explain Resource Allocation Graph.
15. Define Internal and External Fragmentation.
16. Differentiate Contiguous and Linked allocation methods.

(7x2=14)

PART C

III. Answer any five of the following questions. Each question carries 6 marks

17. Explain the various services provided by OS.
18. Explain Virtual Memory in detail.
19. Define PCB. Explain its content with neat diagram.
20. Explain message passing system in Inter Process Communication.
21. Explain Single level and two level directory structure.
22. Explain different deadlock recovery methods.

23. Define Semaphore and its different types. How do you implement it?
24. Discuss various operations that could be performed on a file.

(5x6=30)

PART D

IV. Answer any two of the following questions. Each question carries 15 marks

25. Explain different CPU Scheduling Algorithms.
26. Explain different types of OS.
27. Explain Paging and Segmentation methods in detail.
28. Explain the different problems of Synchronization.

(2x15=30)