

D 72398

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Name.....

Reg. No.....

**THIRD SEMESTER B.C.A. DEGREE EXAMINATION, NOVEMBER 2014**

(UG-CCSS)

Core Course

**CA 3B 04—OPERATING SYSTEMS**

Time : Three Hours

Maximum : 30 Weightage

**I. Answer all questions :**

- 1 The state of a process after it encounters an I/O instruction is \_\_\_\_\_.
- 2 The number of processes completed per unit time is known as \_\_\_\_\_.
- 3 The mechanism that bring a page into memory only when it is needed is called \_\_\_\_\_.
- 4 The principal of locality of reference justifies the use of \_\_\_\_\_.
- 5 In \_\_\_\_\_ dynamic address translation is necessary to implement paging.
- 6 The performance of round robin scheduling will be same as \_\_\_\_\_ algorithm when the time quantum is too high.
- 7 \_\_\_\_\_ is a mnemonic form of machine language.
- 8 Interval between the time of submission and completion of the job is called \_\_\_\_\_.
- 9 \_\_\_\_\_ defines the fundamental method of determining effective operand addresses.
- 10 The LRU algorithm pages out pages that have been \_\_\_\_\_.
- 11 The system program that sets up an executable program in main memory ready for execution is \_\_\_\_\_.
- 12 \_\_\_\_\_ scheduler determines which of the ready processes can have CPU resources, and for how long.

(12 × ¼ = 3 weightage)

**II. Answer all questions :**

- 13 What is virtual memory ?
- 14 What is a process ?
- 15 What is dynamic linking ?
- 16 What is a Translation look-aside buffer ?
- 17 What are the goals of file management system ?
- 18 What is a batch processing system ?
- 19 How does the system detect thrashing ?

**Turn over**



20 Differentiate logical and physical address spaces.

21 What are the meta data that a file system maintains about a file ?

(9 × 1 = 9 weight)

III. Answer any *five* questions :

22 What are the functions of an operating system as a resource manager ?

23 Write short note on process synchronization.

24 What is demand paging ?

25 Explain directory structure.

26 Distinguish between Real time and Timesharing systems.

27 Discuss about swap-space management.

28 What is a deadlock ? Explain the necessary conditions for deadlocks to occur in a system

(5 × 2 = 10 weight)

IV. Answer any *two* questions :

29 Explain process scheduling.

30 Explain file protection and security.

31 Explain various techniques for device management. What are the major device categories

(2 × 4 = 8 weight)