D 72398 (Pages : 2) 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 x 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 x **1** = 9 weightage)

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 x 2 = 10 weightage)

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 x 4 = 8 weightage)