THIRD SEMESTER B.C.A. DEGREE EXAMINATION, NOVEMBER 2013

(UG–CCSS)

Core Course

CA 3B 04—OPERATING SYSTEMS

Time : Three Hours   Maximum : 30 Weightage

I. Answer *all* **questions** :

1 An example of real time operating system is ————

2 Give an example of time sharing operating system.

3 For Operating System, processor is also ^{E} ·

    (a) Memory.   **(b)** Process.

    (c) Resource.   **(d)** None of the above.

4 Give an example of non-preemptive scheduling algorithm.

5 Circular wait condition can be braked by ———— ordering/numbering.

6 Semaphore is used for :

    (a) File Management.   **(b)** Device management.

    (c) Booting.   **(d)** Process synchronization.

    Name any one page replacement policy.

8 Virtual memory = Main memory + ————

9 ———— is concerned wit providing the mechanism for files to be stored, referenced, shared and secured.

10 Data structure used for free space management is ————

11 An example of disk scheduling policy is

12 Name any one of the functionality in Device Management.

                        (12 x   = 3 weightage)

II. Answer *all* **questions. Each question carries a weight of 1** :

13 Define Batch system.

14 Discus. bout real time systems.

15 Writ- short note on process.

16 Define hold and wait condition.

Turn over

17 Discuss about LRU page replacement algorithm.

18 Write short note on virtual memory.

19 Discuss about file system functions.

20 Write short note on file system structure.

21 Write short note on any one of the techniques for device management.

(9 x 1= 9 weightage)

III. Answer any *five* questions :

22 Discuss about multiprocessor systems.

23 Discuss about booting process.

24 Discuss about any one of the classical problem of mutual exclusion.

25 What are problems in contiguous memory allocation.

26 Discuss about physical file system layer.

27 Discuss about paging.

28 Write note on disk scheduling.

(5 x 2 = 10 weightage)

W. Answer any *two* questions :

29 Compare and contrast segmentation and paging.

30 Discuss deadlock prevention mechanisms.

31 Discuss any one of the page replacement policies with examples.

(2 x 4 = 8 weightage)