

**D 51508**

(Pages : 2)

Name

Reg. No. ....

**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 <sup>E</sup> .
  - (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)