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Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.-4<sup>th</sup>)

**OPERATING SYSTEM**

Subject Code : BC-404 (2007 to 2010 Batch)

Paper ID : [B0218]

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTION TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students has to attempt any FOUR questions.

**SECTION-A**

**I. Write briefly :**

- a. What two events can cause a process to loose control of the processor?
- b. How time sharing is different from multiprogramming?
- c. What is multi tasking?
- d. What would be the effect of the system running too many I/O intensive jobs?
- e. What is the main advantage of using deadlock detection instead of prevention or avoidance?
- f. What are the main purposes of an operating system?
- g. What is a thread?
- h. What is a logical address?
- i. What is encryption?
- j. What is the security requirements of an operating system?

## SECTION-B

2. A variable partition memory system has at some point in time the following hole sizes in the given order:- 20k,15k,40k,60k,10k,25k. A new process is to be loaded. Which hole size would be filled using best-fit, first-fit and worst-fit respectively?
3. In each of the listed memory management schemes, describe the functions performed by the memory management module.
  - i. Single Absolute Partition (with base register)
  - ii. Multiple Variable Partition
  - iii. Simple Paging
  - iv. Segmentation.
4. Distinguish between preemptive and non-preemptive scheduling policies.
5. List various free space management techniques and explain them.
6. What are the different directory structure? Explain with an example.
7. What are the main advantages of the multiprogramming?