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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**

1. Write briefly :

- (a) What are various services of an operating system?
- (b) List various advantages and disadvantages of batch operating system.
- (c) What is semaphore? What are its types?
- (d) What is swapping?
- (e) List various CPU scheduling criterion.
- (f) What are various advantages and disadvantages of FCFS CPU scheduling algorithm?
- (g) What is process? How it is different from program?
- (h) What is logical address space?
- (i) What are advantages and disadvantages of paging?
- (j) What is authentication and authorization?

## SECTION-B

2. Compare and contrast multiprogramming, multitasking, distributed and real time operating system.
3. Write notes on the following :
  - (a) Inter Process Communication
  - (b) Process State Diagram
4. What is virtual memory? What is its need? Discuss various advantages and disadvantages of virtual memory.
5. What are different file allocation methods? Explain each method with its relative merits and demerits.
6. What is deadlock? Explain how deadlock can be avoided and prevented.
7. Explain the following : [a2zpapers.com](http://a2zpapers.com)
  - (a) Critical Section.
  - (b) System threats.