

Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

**BCA (2013 & Onward) (Sem.-4)**  
**OPERATING SYSTEMS**  
Subject Code : BSBC-403  
M.Code : 10068

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 a student has to attempt any FOUR questions.

**SECTION-A**

1. Answer briefly :

- a) What are Application Programs?
- b) What is multi user operating systems?
- c) Discuss the address space in Threads.
- d) What is the purpose of socket?
- e) Give main objectives of context switching.
- f) Define Virtual memory concept.
- g) Show the concept of Thrashing.
- h) What is disk scheduling?
- i) List file access methods used in OS.
- j) Write the functioning of Firewalls.

## SECTION-B

2. Explain the following :
  - a) Middle Layer Subsystems in OS
  - b) Shared Memory Model
3. What is thread management in operating system? Explain the applications of thread.
4. Explain the need of CPU Management. Which are the different scheduling schemes?
5. What is the importance of paging and segmentation in memory management? Explain with diagram.
6. Define concept of File Operations. Give the process of directory structures and File management.
7. Discuss various system threats to Operating System. What is access control and authentication?

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**