Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   **Total No. of Pages : 02**

Total No. of Questions : 07

BCA (2011 & Onwards)   (Sem.–4)
OPERATING SYSTEMS
Subject Code : BSBC-403
Paper ID : [B0242]

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.   **Write briefly :**

   (a) What is the need of operating system?

   (b) How you can classify operating systems?

   (c) What is File Protection?

   (d) What do you understand by identification?

   (e) Explain the physical address space.

   (f) What is thrashing?

   (g) What are the different device drivers?

   (h) Explain FIFO and Socket.

   (i) Define Anti Virus and its types.

   (j) What is Software and Hardware?

SECTION-B

2. a) What are the functions of an Operating System?

    b) Explain sub systems : Top Layer, Middle Layer and Bottom Layer

3. Write short notes on :

    a) Process State Diagram

    b) Inter process Communication

4. Write short notes on :

    a) Page replacement

    b) Loading, Linking and relocation

5. What are the different techniques of File Management? Explain in detail.

6. Explain :

    a) Different File Operations

    b) Directory Structures and management

7. What is the role of software and hardware in the security of system? How will the system be protected from unauthorized use and Virus?