Total No. of Questions: 09

PGDCA (2014 & Onwards) (Sem. – 1)
COMPUTER OPERATING SYSTEM
M Code: 50503
Subject Code: PDCA-103
Paper ID: [B0143]

Time: 3 Hrs.   **Max. Marks: 60**

INSTRUCTIONS TO CANDIDATES:
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION A

1. Write Short notes on the following

   a) Multiprogramming

   b) Boot Process

   c) Deadlock Detection

   d) Root Directory

   e) Buffering

   f) RAID

   g) File Locking

   h) Polled I/O

   i) Critical Section

   j) Shortest Job-First Algorithm

SECTION B

2. Write the general structure of any Operating System. What are its components? Discuss all of them.

3. Explain how process Scheduling is done. What are different types of scheduling criteria and how they are useful in different contexts?

4. How security plays an important role? Discuss various methods to identify the security threats so that these can be dealt appropriately.

5. Discuss File System Architecture of any one operating System.

6. Number of devices attached to a system is on the rise. How different devices are managed and synchronized.

SECTION C

7. Memory Management is an important component of any OS. Discuss different schemes of Memory Management in detail.

8. What are different Threat categories for any system? How these threats can be dealt with to secure a system?

9. How the Interprocess communication takes place? Discuss different mechanisms to enable proper interprocess communication.