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

Total No. of Questions : 09

B.Tech (CSE/IT) (Sem.–4)
OPERATING SYSTEMS
Subject Code : CS-202
Paper ID : [A0458]

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTION TO CANDIDATES :
1.   **SECTION-A is COMPULSORY.**
2.   **Attempt any FOUR questions from SECTION-B.**
3.   **Attempt any TWO questions from SECTION-C.**

SECTION-A   **(10 × 2 = 20 Marks)**

I.   Explain the following

(a) Hash Table

(b) Semaphores

(c) Judgement field in the page table

(d) Fragmentation of memory

(e) Round Robin scheduling

(f) SOLARIS OS

(g) SCO-UNIX

(h) Security features in Linux

(i) Open Source Software

(j) Boot Process of a PC

SECTION-B   **(4 × 5 = 20 Marks)**

2.   Explain demand paging with proper diagram and example.

3.   What you understand by process scheduling ? Write a note.

4.   What is the overall structure of an OS? Draw a neat architecture and explain.

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5. Write a note on device management. How various devices work in synchronization to each other?

6. What are various kinds of interrupts? How we handle them?

SECTION-C **(2 × 10 = 20 Marks)**

7. Write a note on the following :

   a) Interprocess communication

   b) Preemptive and Non Preemptive scheduling

   c) Physical and logical address space

   d) Internal and external fragmentation

8. Write a detailed note on multiprocessor and distributed systems. What are their advantages and how these are implemented?

9. How the files are stored on the secondary memory storage ? Discuss in context of DOS and UNIX partitioning and file management schemes.

[A-12]