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

Total No. of Questions : 18

B.Tech.(CSE)/(IT) (2011 Onwards) (Sem.–4)

OPERATING SYSTEMS

Subject Code : BTCS-401

M.Code : 56604

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 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. Explain the need of an Operating System.
2. Explain the term deadlock in brief.
3. Differentiate between External and Internal Fragmentation.
4. Write advantages of virtual memory concept.
5. Explain the term PCB in brief.
6. Differentiate between seek time and rotational latency.
7. Write two advantages of LINUX Operating System.
8. Why is disk scheduling important?
9. Define the term file. List various attributes of a file.
10. Write various goals of Protection.

SECTION-B

11. Explain different roles of operating system in brief. (5)

12. Explain in detail the following CPU scheduling algorithms :

    (a) Shortest Job First. (2.5)

    (b) Multilevel feedback Queue scheduling. (2.5)

13. Write a brief note on Segmentation scheme of memory management. (5)

14. Differentiate between UNIX and Windows based operating systems. (5)

15. Define the term security. Explain various goals of security (5)

SECTION-C

16. Explain in detail the various Algorithms of Disk Scheduling with an example. (10)

17. (a) Explain in detail the Layered Architecture of an OS. (5)

    (b) Write a brief note on Logical File System. (5)

18. Explain **any three** Page Replacement algorithms with an example. (10)

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.