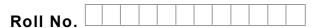


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Total No. of Pages : 02

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.



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#### **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)
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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.