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Roll No.					Total No. of Pages: 02
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Total No. of Questions: 09

B.Tech.(CSE/IT) (2011 Onwards) (Sem.-4)
OPERATING SYSTEMS

Subject Code : BTCS-401 Paper ID : [A1183]

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. Write briefly:

- a) Explain the function of Shell in brief.
- b) Explain in brief about process synchronization
- c) Differentiate between Logical and Physical address space.
- d) Why page size is always power of 2?
- e) Differentiate between Local and Global Page Replacement.
- f) Define the term Disk Bandwidth
- g) Write two advantages of Windows based Operating System
- h) Why is disk scheduling important?
- i) Define the term file. List various attributes of a file.
- j) Write various goals of Security

1 M C o d e 5 6 6 0 4 (\$2) - 1 1 8

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SECTION-B

- 2. Write a detailed note on CPU scheduling criteria.
- 3. Explain in detail about views of an Operating System.
- 4. Write a detailed note on Paging scheme of memory management.
- 5. Explain in detail about Device Management policies.
- 6. Write a brief note on distributed operating system.

SECTION-C

- 7. a) Explain the various goals of protection in detail.
 - b) Explain the concept of semaphores in detail.
- 8. a) Explain in detail the concept of Multiprocessor Operating Systems.
 - b) Write a detailed note on role of I/O traffic controller.
- 9. What is the need of Page replacement? Consider the following reference string

Find the number of Page Faults with FIFO, Optimal Page replacement and LRU with four free frames which are empty initially. Which algorithm gives the minimum number of page faults?

2 | M C o d e 5 6 6 0 4 (\$2) - 1 1 8