

(Please write your Exam Roll No.)

Exam Roll No.

END TERM EXAMINATION

SECOND SEMESTER [MCA] MAY – JUNE 2013

Paper Code: MCA-106(New)

Subject: Operating Systems

Time : 3 Hours

Maximum Marks:60

**Note: Attempt any five questions. Select one question from each unit.
Q. 1 is compulsory.**

Q1. Answer all the following questions briefly: (10X2)

- (a) What about virtual device ?
- (b) Explain evolution of Computer ?
- (c) Define CISC & RISC processor ?
- (d) What is a time sharing parallel ?
- (e) Describe the Process scheduling ?
- (f) What is a real-time systems ?
- (g) What is Cooperating Processes ?
- (h) What is the function of storage device ?
- (i) List the different layers of Networking ?
- (j) Explain Algorithms Evaluation ?

UNIT-I

Q2. (5X2=10)

- (a) What is an operating system structure ? Explain the different Components of operating system with merits and demerits.
- (b) What is a Critical – Section problem ? How it effects the System. System the solution for improvement.

Q3. Write short notes on the following:

- (a) Page – replacement (3)
- (b) Segmentation (3)
- (c) Thrashing (4)

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UNIT-II

Q4. (10)

- (a) Define the Device Management. Explain various Techniques for device management.
- (b) What is Swap-Space Management? How it effects Device System ?

Q5. Write short notes on the following:

- (a) Disk Reliability
- (b) Buffering
- (c) Block Multiplexing

UNIT-III

Q6. (10)

- (a) Explain the Linux Operating System. Differentiate with Windows Operating System.
- (b) What is the Cryptography? Discuss its functionality in details.

Q7. Explain in short:

- (a) System threats
- (b) Goals of protection
- (c) Directory Implementation

UNIT-VI

Q8. (10)

- (a) Write about the file system structures. What is a basic file system?
- (b) Describe the security problem for the system ? How to protect our system from the security risk?

Q9. Write short notes on the following:

- (a) Multi programming
- (b) Semaphores
- (c) Message passing
- (d) Demand paging
- (e) Multiple Paths