

END TERM EXAMINATION

THIRD SEMESTER [MCA] DECEMBER 2007

Paper Code: MCA201

Subject: Operating System

Time: 3Hours

Maximum Marks: 60

Note: Attempt Five questions in all including Q.no. 1. Which is compulsory. All question carry equal marks.

Q.1 (a) Define operating system.

- (b) What is Race condition?
- (c) Define physical file system.
- (d) What is job scheduling?
- (e) What is a device controller?
- (f) What is an interrupt vector?

Q.2 Describe various function of an operating system briefly.

Q.3 Explain the following briefly: -

- (a) Segmented Memory Management
- (b) Paged Memory Management
- (c) Relevance of Multiprogramming to Memory Management

Q.4 (a) Define Semaphores. How these are useful and used? Explain with examples.

- (b) What are the various criteria to be taken for selecting a scheduling policy?
Explain briefly with example.

Q.5 Differentiate between the following: -

- (a) Multiplexing and Buffering
- (b) Channels and Controls Units
- (c) Dedicated and Shared devices

Q.6 (a) Differentiate between logical and physical file system with their relative merits and demerits.

- (b) Describe the concept of fragmentation briefly.

Q.7 Write short notes on the following: -

- (a) Virtual devices
- (b) Direct Memory Access (DMA)
- (c) Symbolic file system