(DMCA 105)

M.C.A. DEGREE EXAMINATION, MAY - 2015

First Year

Paper - V : OPERATING SYSTEMS

Time : 03 Hours **Maximum Marks : 75**

SECTION-A *(3 x 15 = 45)*

Answer Any Three of the following

1) What is process control block? What does it contains? Explain each of them.

2) Define mutual exclusion. Write the Dekker's algorithm for mutual exclusion.

3) Discuss about different page replacement algorithms.

4) Explain the following:

i) Hard disk scheduling ii) RAID

5) What are the major components of security? Briefly explain them.

SECTION-B *(5 x 5 = 25)*

Answer Any Five of the following

6) Write about the tasks performed by an operating system.

7) Explain the multilevel feedback Queues scheduling algorithm.

8) What is semaphore? Show the definition of the primitives for semaphores.

9) What is the dining philosophers problem? Write a monitor for it.

10) Write about the partition selection algorithms.

11) Discuss about different structures of a directory.

12) Explain about port and memory-mapped I/O.

13) Write about threat categories.

SECTION-C *(5 x 1 = 5)*

Answer All of the following

14) What is operating system kernel?

15) Define mono-programming.

16) What is a port?

17) What is swapping?

18) What is virus?

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