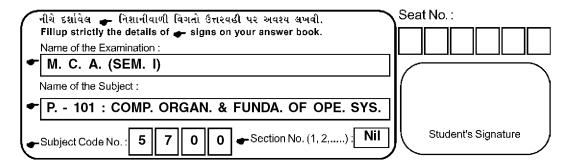# DE-5700

M. C. A. (Sem. I) Examination
March / April - 2016
Paper - 101 : Computer Organization & Fundamentals of Operating System
(Old & New Course)

Time : 3 Hours]   [Total Marks : 70

Instruction :

1   Do as directed. [Any Eight]   [16]

1. What is LAN Topology? List various types of LAN Topologies.
2. Explain about the UNIX Kernel?
3. Define: Address bus, Data bus and Control bus.
4. Compare RAM and ROM.
5. What is track and cylinder?
6. Define: Virtual memory.
7. Divide $(110110)_2$ by $(101)_2$
8. Convert decimal number 167 into hexadecimal number.
9. Explain the use of device drivers.

2   Answer the following: (Any Three)   [18]

1. Explain how caching works?
2. Define: Operating System. List and explain various types of Operating systems.
3. Define: Loader. Explain absolute and relocatable loader.
4. Discuss any one technique to represent floating point number in computer memory.

3   Answers the following: (Any Three)   [18]

1. Explain the role of various system and configuration files during booting process of DOS.
2. Explain analysis and synthesis phase of a compiler.
3. Define: Interrupt. How interrupt is handled by the processor?
4. Explain CPU instruction execution cycle.

4 Answer the following: (Any Three) [18]

1. What is Computer Network? Explain its application & advantages in detail.
2. Compare DOS internal and External Commands. Explain any 4 DOS External commands.
3. Explain how magnetic storage works?
4. Discuss Memory hierarchy used to boost computer performance.

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