

Subject Code—4264

JUN 2006

**M.C.A. (First Year) EXAMINATION**

June, 2006

(5 Years Integrated Course)

MCA-101

**COMPUTER FUNDAMENTALS**

*Time : 3 Hours*

*Maximum Marks : 100*

**Note :** Attempt any *Five* questions. All questions carry equal marks.

1. (a) Discuss the ways in which characters and fractional numbers are represented in computers.  
(b) Why Hexadecimal Representation of Numbers is important in computers ?
2. (a) Describe a digital computer with its basic components.  
(b) Why Random Access Memory is called so ? Differentiate between Static and Dynamic RAM.

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3. (a) Discuss the subtraction of numbers using 2's complement form. 10
- (b) 48 and 8 are two numbers in Decimal numbers system. Convert them to Binary and carry out division and multiplication.
4. (a) What should be the characteristics of a good programming language ?
- (b) Compare the advantages of Assembly Language and High Level Language.
5. (a) What are the functions of an Operating System ?
- (b) Differentiate between Multiprogramming and Time Sharing.
6. (a) Discuss the various characteristics of First Generation of Computers.
- (b) What are Distributed and Parallel Computer Systems ?

7. (a) Define the terms networks, internet, intranet.
- (b) Discuss the characteristics of Twisted Pair and Optical Fibre.
8. (a) Write a note on Network Topologies.
- (b) Differentiate between LAN, WAN, MAN.