

Roll No.

Total No. of Questions : 09]

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Paper ID [MC101]

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MCA (Sem. - 1st)**INTRODUCTION TO INFORMATION TECHNOLOGY (MCA - 101) (N2)****Time : 03 Hours****Maximum Marks : 60****Instruction to Candidates:**

- 1) Attempt any **One** question from each Sections A,B,C,&D.
- 2) Section - E is **Compulsory**.

Section - A**(1 × 10 = 10)****Q1) Fill in the blanks.**

Binary	Octal	Decimal	Duodecimal	Hexadecimal
10101010	-----	-----	-----	-----
-----	4567	-----	-----	-----
-----	-----	6789	-----	-----
-----	-----	-----	89ab	-----
-----	-----	-----	-----	cdef

- Q2) (a)** Draw the block diagram of computer and explain the function of each block.
- (b)** Perform binary subtraction using 2's complement (i) 10101010-01010101
(ii) 01010101-10101010.

Section - B**(1 × 10 = 10)**

- Q3) (a)** Differentiate between High level language, assembly level language and machine language.
- (b)** List various input output devices and explain any one of them.
- Q4)** What do you understand by system software and application software? Discuss them with applications.

Section - C

(1 × 10 = 10)

Q5) What do you understand by Operation System? Give its various views. What are the services provided by operating system?

Q6) What do you understand by Internet? Discuss its various applications.

Section - D

(1 × 10 = 10)

Q7) What do you understand by Decision support system? At what level this system supports managers. How is different from MIS?

Q8) Write short notes on the following :

- (a) Inventory Control.
- (b) Remote sensing.
- (c) Multilingual applications.

Section - E

Q9) *(10 × 2 = 20)*

- a) Convert the following numbers to hexadecimal number and vice versa :-
(i) 101010 (ii) 0101000.
- b) Why 2's complement is used in computers for representation of negative numbers?
- c) Realize an And gate using NOR gates only.
- d) Differentiate between combinational circuit and sequential circuit?
- e) Differentiate between ROM and RAM.
- f) What is telnet?
- g) What is TCP/IP protocol?
- h) Differentiate between on line and Real time operating system.
- i) How email is delivered to its recipient?
- j) What are the applications of Computers in Railways.

