

Paper Code & Roll No. to be filled in your Answer Book

Roll No.

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MCA I Year (I Sem.)

Odd Semester Examination-2015

FUNDAMENTALS OF COMPUTER & DIGITAL ELECTRONICS

Time : 3 Hours]

[Maximum Marks :100

Unit I

Attempt any Four

(4X5=20)

- Q1. Explain the Electronic Computer with the help of a block diagram.
- Q2. What are the advantages of modern computers.
- Q3. Differentiate between RAM & ROM
- Q4. What are basic components of Computers. Explain them.
- Q5. What do you mean by Operating Systems.

Unit II

Attempt any Four

(4X5=20)

- Q1. What is the role of input devices. Explain 5 input devices.
- Q2. What are different types of monitors.
- Q3. Explain two Non-Impact Printers.
- Q4. Explain the working of OCR system.
- Q5. Explain MICR process in detail.

Unit III

Attempt any Two

(2X10=20)

- Q1. What is Software. What are different types of Softwares.
- Q2. What do you understand by an algorithm. What is the need of algorithm.
- Q3. What are different flowchart symbols. Explain them with their description.

Unit IV

Attempt any Two

(2X10=20)

- Q1. Explain DeMorgan's Law with the help of an example.
- Q2. What do you mean by K-Map. What are the rules to minimize functions using K-Map. Also Explain Don't Care condition.
- Q3. Find the Value of X
 - a. $(1024)_8 = (X)_{16}$
 - b. $(ABC)_{16} = (X)_8$

Unit V

Attempt any Two

(2X10=20)

- Q1. What are basic logic gates. Explain with their truth table.
- Q2. What is half adder. Draw the truth table of half adder. Create a full adder using two half adders.
- Q3. Draw the realization of all basic gates using universal NAND gate.