

Roll No.

R
625

Annual Examination, 2016

B. Sc. I

COMPUTER SCIENCE

Paper I

[Computer Hardware]

TIME — 3 Hours)

(M. M. — 50

NOTE : All questions are compulsory.

Section 'A'

(5 × 2 = 10)

NOTE : Very short answer type question i.e. one/two line answer.

1. Give the full form of EBCDIC Code.
2. Draw the truth table of AND gate.
3. Prove that $X(X + Y) = X$.
4. A multiplexer is also known as.....
5. How many types of memory ? Only name them.

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(2)

Section 'B' (5 × 3 = 15)

NOTE : Short answer type questions with the word limit 75-100.

Unit—I

1. What is CPU ? Describe its different segments.

Or

What is software ? Describe applications of software.

Unit—II

2. What is computer communication code ? Describe any one.

Or

What is logic gate ? Describe NOR and NAND gates.

Unit—III

3. Describe merit and demerit of RTL family.

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Or

Solve the following equation and draw its K-map.

$$Y = \overline{A}BC + A\overline{B}C + A\overline{B}\overline{C} + AB\overline{C}$$

Unit—IV

4. Describe the working of 7-segment display.

Or

Describe the working of a RS-Flip-Flop.

Unit—V

5. Describe the working of a 4-bit synchronous Binary counter.

Or

What is computer memory ? Define the EPROM.

Section 'C' (5 × 5 = 25)

NOTE : Long answer type questions with the word limit 150-200.

Unit—I

1. Explain the features of OOPs.

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Or

Define the Operating system. Discuss features of windows.

Unit—II

2. Discuss the working of basic logic gates.

Or

Explain Excess-3 code with example.

Unit—III

3. Explain the working of a full adder.

Or

Define the following terms :

(i) DTL,

(ii) TTL.

Unit—IV

4. What is Multiplexer ? Describe a 4 to 1 multiplexer.

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(5)

Or

Describe a T-Flip-Flop.

Unit—V

5. Define the following terms :

(i) PROM,

(ii) EEPROM,

(iii) DRAM,

(iv) SRAM.

Or

What is a shift-Register ? What are its applications ?

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100