2023/06

SET

B.Sc. CHEMISTRY SIXTH SEMESTER IT FUNDAMENTALS BSC - 607A [USE OMR FOR OBJECTIVE PART]

Duration: 1.30 hrs.

Time: 15 min.

Full Marks: 35

(Objective)

Marks: 10

1X20 = 20

Choose the correct answer from the following:

Which of the following is a volatile memory?

a. RAM

b ROM

c. Both

- d None
- How to erase data in EPROM?
 - a. Using Electrical signal.
- b. Using ultraviolet rays d. None

- c. Both
 - CPU consists of
 - a. ALU & Memory

- b. ALU & Control Unit
- c. Control Unit & Memory
- d. All of these
- The binary equivalent of decimal number $(80.275)_{10}$ is
 - b. 1010001.10

a. 1100000.01 c. 1010000.01

- d. 1010000.10
- 5. In 8:1 MUX, the number of select lines are

b. 2

c. 1

- d. 4
- 6. DEMUX is also called
 - a. Data distributor

b. Data selector

c. Data analyzer

- d. none
- The 2's compliment of the number 10101101 is
 - a. 01010010

c. Transistor

b. 11010010

c. 01010011

- d. 11101111
- The main feature of 2nd generation of computer was

- b. Vacuum tube d. All of these
- 9. Half adder is an example of
 - a. Memory circuit

b. Combinational circuit

c. Both

d. None

10 How many NOR gates are required to realize an AND gate?
a. 4
b. 2
c. 1
d. 3

$\left(\underline{\textbf{Descriptive}}\right)$

Time: 1 hr. 15 mins. Marks: 25

[Answer question no.1 & any two (2) from the rest]

1.	Discuss the features, advantages and disadvantages of generation of computer.	5
2.	a. Define Half Sub-tractor? Design a half sub-tractor with the help of truth table.b. What do you mean by Universal gate? Construct an AND gate using NOR gate only.	5+5=10
3.	 a. Find the binary equivalent of the decimal number (20.275)₁₀. b. Convert (11011.101)₂ into decimal. c. Subtract (20)₁₀ from (15)₁₀ using 2's complement method. 	4+4+2 =10
4.	a. Construct a full adder with the help of truth table.b. What Do you mean by Volatile memory? Give example.	7+3=10
5.	Write short notes on the followings: a. Computer Memory. b. Architecture of Computer.	5+5=10

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