

Unit#2: Binary Computing

A. Fill in the blanks.

1. numerical 2. binary 3. 1010 4. octal 5. Expansion

B. State whether the following statements are true or false.

Rewrite the false statements to make them true.

1. True. 2. False. 3. True. 4. True. 5. True. 6. False. 7. False.

C. Select the correct option for each question.

1. b 2. c 3. c 4. d 5. C

Answer the following questions.

1. Describe three forms of data.

Ans: Data can exist in three forms:

1. **Numerical data:** Numeric data is comprised of digits and the decimal point. It is used for calculations.

2. **Alphabetic data:** Alphabetic data includes the 26 letters of the English alphabet, i.e. A-Z and a-z.

3. **Alphanumeric data:** Alphanumeric data is comprised of alphabetic data, numeric data, and special characters such as @, #, and %.

2. What two states do the digits 0 and 1 represent under the binary system?

Ans: The digits 0 and 1 represent the absence or presence of electronic signals in a circuit. The digit 0 represents the absence of electric current, while the digit 1 represents the presence of electric current.

3. Why do we use binary digits to represent the presence or absence of electronic signals?

Ans: We use binary digits to represent the presence or absence of electronic signals because data travels in the form of electronic signals in the computer. It is processed and stored in the form of electronic signals.

4. What is a bit?

Ans: A bit is the smallest unit of data that can be processed by a computer. The word bit is derived from Binary digit. Data is stored on a computer in the form of bits.
