Data & Information

1.

    a. Differentiate between data and information with their features.

    b. Explain briefly the conversion from data into information using an example.

    c. Write three main advantages in using computer to process data than manual system.

    d. Explain briefly the relevance of information with simple examples.

    e. Mention 2 factors to improve the quality of information.

    f. "Information is very important in an organization".

       i. Do you agree with this statement?

      ii. Give reasons for your answer.

2. There is an organization which does transportation activities as their business. When anybody needs to move their goods or any other item from one place to another place, this organization is ready to provide this service.

   When a customer informs his need, one of this employee meets him & get some answers to clarify about the task (Such as number of items to be moved, the two addresses (i.e. to calculate the distance of the move) etc., to help determining the size of the lorry and the number of workers needed to move the items). Then he processes it & provides the quotation.

    a. Mention "data" and "information" according to the above scenario.

    b. This information is stored in their database. A unique code is used to store them. List two benefits of using a code when storing them in a database, giving examples.

    c. This company has employees people with disabilities. Suggest a suitable method and a device that can be used to input data by a person who is unable to work with his hands.

Number Systems

3.

    a. Convert Following values into Binary

          i. 346_{10}

          ii. 36.20_{10}

          iii. 56.125_{10}

    b. Convert Following values into Octal

          i. 346_{10}

          ii. 36.20_{10}

          iii. 56.125_{10}

    c. Convert Following values into Hex Decimal

          i. 346_{10}

          ii. 36.20_{10}

          iii. 56.125_{10}

    d. Convert Following values into Decimal

          i. 111010101_{2}

          ii. 111101.0101_{2}

          iii. 1100111.1101_{2}

    e. Convert Following values into Decimal

          i. 236_{8}

          ii. 23.11_{8}

          iii. 733.31_{8}

    f. Convert Following values into Decimal

          i. 14_{16}

          ii. $A4.5_{16}$

          iii. $1.B4_{16}$