

Part B

Number of questions: Three (03)

Mark allocation: 40

1. Write short notes on any two (02) topics given below.

- a. Unicode data representation
- b. An emerging technology related to the computer field
- c. Computer memory

(13 mark)

2. Prove following algebraic equation using basic laws of boolean algebra.

a.  $X + XY = X$

(5 mark)

b.  $X + \bar{X}Y = X + Y$

(9 mark)

3. Develop an algorithm by designing a flow chart in order to solve the following problem.

When posting a registered letter, a postal fee should be charged based on its weight. The standard fee of Rs. 35.00 should be paid by the customer for the letters which are equal to or less than the weight of 0.150 mg. An additional fee of Rs. 10.00 should be charged for every increased 0.50 mg which is more than the standard weight.

(13 mark)

