

S. No. of Question Paper :
Unique Paper Code : **52101325_OC**
Name of the Paper : **Introduction to Logic**
Name of the Course : **B.Com. (P.) (In lieu of MIL)**
Semester : **III**

Duration: **3 Hours**

Maximum Marks: **75**

Instructions for the candidates

- I. Attempt **any four** questions
- II. **All** questions carry equal marks

1. Write short notes on the following: **9.37x2=18.75**
 - (a) Deduction and induction
 - (b) Truth and Validity

2. Answer the following: **9.37x2=18.75**
 - (a) What do you understand by a categorical proposition? Explain the classification of categorical propositions as per quality and quantity.
 - (b) Write a short note on the figure and mood of a syllogism.

3. (a) Give converse and obverse of the following: **6.25x2=12.5**
 - (i) Some scientist are genius.
 - (ii) No dancers are painters.

(b) If “All singers are artists” is true, then what can be inferred about the truth or falsity of its opposite propositions? **6.25**

4. Test the validity/ invalidity of the following by method of six rules: **6.25x3=18.75**
 - (a) IAI-2
 - (b) EAO-4
 - (c) OAO-2

5. (a) Symbolize the following: **2x6=12**
 - (i) Preeti is honest but not creative. (H, A)
 - (ii) Neither Lewis nor Clark will be selected. (L, C)
 - (iii) I do not go for shopping unless it is urgent. (S, U)

(iv) If it does not rain then we shall go for shopping. (R, S)

(v) Not both Abhishek and Rakesh won the match. (A,R)

(vi) Either Iran or Libya raises the price of oil. (I, L)

(b) Define 'Disjunction Function' with example.

6.75

6. (a) Use truth table method to test the validity or invalidity of the following arguments:

6x2=12

(i) $(P \vee Q) \supset (P \cdot Q)$

$P \cdot Q / \therefore P \vee Q$

(ii) $A \supset B$

$\sim B / \therefore \sim A$

(b) Reduce the following sentences into their standard categorical form:

2.25x3=6.75

(i) Snakes are not all poisonous.

(ii) Not every man is perfect.

(iii) Most of the students are bright.

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