UNIVERSITY OF NORTH BENGAL
B.A. Honours 2nd Semester Examination, 2024

GE1-P2-Philosophy

Logic

Time Allotted: 2 Hours   Full Marks: 60

The figures in the margin indicate full marks.

SECTION-I

1. Answer any *four* questions from the following: 3×4 = 12

   (a) Distinguish between mediate and immediate inference.   3

   (b) What is a class? In what context is the concept of class brought in Logic?   3

   (c) Transform the following sentences into standard form categorical propositions   1×3 = 3
   (any *three*):

       (i)   Snakes are poisonous

       (ii) Only the members are voters

       (iii) All men are not dishonest

       (iv) Eggs are not square.

   (d) What do you mean by analogical argument? Give an example.   3

   (e) Obvert the following: $1\frac{1}{2} \times 2 = 3$

       (i)   Only women are kind hearted.

       (ii) Flowers are white.

   (f) What is a syllogism? Give an example. State its figure and mood.   3

SECTION-II

2. Answer any *four* questions from the following: 6×4 = 24

   (a) What do you mean by distribution of terms? Reduce the following into logical   2+2+2
   form and show which term / terms are distributed:

       (i)   Scientists are educated

       (ii) Not all flowers are white.

   (b) Explain 'Contrary' and 'Contradictory' opposition of propositions with   3+3
   examples.

   (c) What is conversion? What are the rules of conversion?   2+4

(d) Test the validity of the following arguments by syllogistic rules: 3+3

     (i)   AII - 2nd Figure

     (ii)   Some philosophers are mathematician. So all politicians are philosopher, because all politicians are mathematicians.

(e) Use truth-table to determine the validity or invalidity of the following arguments: 3+3

     (i) $q \supset (p \supset r)$

        $\sim q\ /\ \therefore\ p \supset r$

     (ii)   Either Ramesh is a doctor or he is a teacher. He is not a doctor, therefore, he is a teacher.

(f) Distinguish between good analogy and bad analogy with examples.   3+3

SECTION-III

3.   Answer any *two* questions from the following: $12\times2 = 24$

(a) Explain the structure and characteristics of categorical syllogism. What are the rules of categorical syllogism? Explain with examples.   2+4+6

(b) Use truth table to determine the following statements form as tautologous, self-contradictory or contingent: $4\times3 = 12$

     (i) $[(p \supset q) \supset (p \supset r)]$

     (ii) $p \supset [\sim p \supset (q \cdot \sim q)]$

     (iii) $p \equiv [p \cdot (p \vee q)]$

(c) Test the validity of the following arguments with the help of Venn-diagram: $4\times3 = 12$

     (i)   AIO – 3rd Figure

     (ii)   EAE – 1st Figure

     (iii)   Some scholars are poets, all poets are educated, so some educated men are scholars.

(d) What are the criteria for the appraisal of analogical arguments? Discuss.   12

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