'समानो मन्त्रः समितिः समानी'

UNIVERSITY OF NORTH BENGAL

B.A. Honours 2nd Semester Examination, 2023

GE1-P2-PHILOSOPHY

LOGIC (WESTERN)

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) What do you mean by a Deductive Argument? Explain with an example.   3

   (b) What is contraposition? Explain.   3

   (c) What is meant by existential fallacy? Give an example.   3

   (d) Explain the fallacy of undistributed middle term with suitable example.   3

   (e) What do you mean by inductive generalization?   3

   (f) Transform the following Propositions into standard-form of categorical   1+1+1
   propositions:(any **three**)

      (i) Roses are white.

      (ii) Only human beings have desire.

      (iii) All fruits are not sweet.

      (iv) There are no round circles.

SECTION-II

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

   (a) What is opposition of Propositions? Write the names of the different kinds of   3+3
   opposition of Propositions with examples.

   (b) What is an inference? Distinguish between mediate and immediate inference.   2+2+2
   Mention the names of different types of immediate inference.

   (c) What is obversion? What are the rules of obversion? Explain with examples.   2+4

   (d) What do you mean by an 'Individual Variable' and an 'Individual Constant'?   3+3
   Distinguish between 'an individual variable' and 'an individual constant' with
   example.

(e) Test the validity or invalidity of the following arguments by truth table:

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

$p \vee r \ / \therefore \ q \vee r$

(ii) $p \supset (p \vee q)$

$\sim (p \vee q) \ / \therefore \ \sim p$

(f) Test the validity or invalidity of the following arguments by syllogistic rules: (any **two**)

(i) AAI -1st figure.

(ii) Shyam is mortal because he is a man.

(iii) Students are brilliant persons, because they read book.

SECTION-III

3.   Answer any **two** questions from the following: $12 \times 2 = 24$

(a) Distinguish between a 'statement' and a 'statement form' with an example. Use   3+3+3+3
truth table to determine the following statements as tautology, self-contradictory
and contingent:

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

(ii) $[p \supset (p \supset p)] \supset p$

(iii) $(p \vee \sim q) \supset [q \equiv (p \vee r)]$

(b) Test the validity or invalidity of the following argument with the help of   4+4+4
Venn-diagram:

(i) EAE-4th figure.

(ii) AII-1st figure.

(iii) Ferocious animals are not calm, because tigers are not calm and tigers are
ferocious.

(c) What is existential import of propositions? Does all standard form categorical   2+10
proposition have existential import? Explain with examples.

(d) What is an analogical argument? Distinguish between argumentative and   4+8
non-argumentative use of analogies. Explain with examples.

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