

'समानो मन्त्रः समितिः समानी' UNIVERSITY OF NORTH BENGAL D. A. Honoura 1st Semaster Examination 2021

B.A. Honours 1st Semester Examination, 2021

CC2-PHILOSOPHY

WESTERN LOGIC-I

Time Allotted: 2 Hours

Full Marks: 60

 $3 \times 4 = 12$

The figures in the margin indicate full marks All symbols are of usual significance.

SECTION-I

1	Answer	any four	questions	of the	following:
1.	Allswei	any jour	questions	or the	ionowing.

- (a) What do you mean by connotation and denotation of term?
- (b) When a deductive argument is invalid?
- (c) Contradictory opposition of Proposition holds between which propositions? Give examples.
- (d) What do you mean by conversion by limitation? Give example.
- (e) What do you mean by complementary class? Give example.
- (f) What is variable?

SECTION-II

 (a) Distinguish between Deductive and Inductive argument with examples. (b) Explain contrary and sub-contrary opposition of propositions with examples. (c) What is analogical argument? Explain with example. Mention any one criterion for the appraisal of analogical argument. (d) Determine the validity or invalidity of the following argument/argument form with the help of truth table. (i) (p∨q)⊃(p·q) ~(p∨q) ∴~(p·q) 	2.		Answer any <i>four</i> questions of the following:	$6 \times 4 = 24$
 (c) What is analogical argument? Explain with example. Mention any one criterion for the appraisal of analogical argument. (d) Determine the validity or invalidity of the following argument/argument form with the help of truth table. (i) (p∨q)⊃(p·q) ~(p∨q) 		(a)) Distinguish between Deductive and Inductive argument with examples.	6
 for the appraisal of analogical argument. (d) Determine the validity or invalidity of the following argument/argument form with the help of truth table. (i) (p∨q)⊃(p·q) ~(p∨q) 		(b)	Explain contrary and sub-contrary opposition of propositions with examples.	6
with the help of truth table. (i) $(p \lor q) \supset (p \cdot q)$ $\sim (p \lor q)$				
$\sim (p \lor q)$				3+3
			(i) $(p \lor q) \supset (p \cdot q)$	
$\therefore \sim (p \cdot q)$			$\sim (p \lor q)$	
			$\therefore \sim (p \cdot q)$	

 (ii) If Anil is elected class-representative, then if Sunil is elected Vice-President then Kamal is elected as treasurer. Sunil is not elected Vice-President. Therefore, either Anil is elected class-representative or Sunil is elected treasurer. (A, S, K)

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. ,	(e) Determine the validity or invalidity of the following argument/argument form with the help of Venn diagram:	
(i)) OAO-3rd figure	
(ii	i) None but whites are civilized, the ancient Germans were white. So they are civilized.	
(f) C	ontrapose the following:	2+2+2
(i)) Roses are not red.	

- (ii) There are white tigers.
- (iii) Every man is liable to error.

SECTION-III

3.		Answer any <i>two</i> questions of the following:		$12 \times 2 = 24$
	(a)	Explain the structure and characteristics of categorical syllogism. What are the rules of categorical syllogism? Explain.		6+6
	(b)	b) Construct formal proof of validity of the following: (i) $(A \supset B) \cdot (C \supset D)$ $E \supset F$		4+4+4
		$(A \lor E) \cdot (C \lor G)$		
		$\therefore B \lor F$		
	(ii) $(A \lor B) \supset \sim C$			
			С	
		$\therefore \sim A$		
		(iii)	If either Socrates was happily married or else he wasn't, then Socrates was a great Philosopher. Therefore, Socrates was a great Philosopher.(H, G)	
	(c)		ermine the validity or invalidity of the following argument/argument form the help of syllogistic rules:	4+4+4
		(i)	AEE — 3rd figure	
		(ii)	Some Philosophers are Mathematicians; hence some Scientists are Philosophers. Since all Scientists are Mathematicians.	
		(iii)	Some Mammals are horses, for no horses are centaurs, and centaurs are mammals.	
	(d)		ermine the nature of the following statement form/statement as tautologous, ingent, or self-contradictory with the help of truth table.	4+4+4

- (i) $\sim (p \lor q) \equiv (\sim p \lor \sim q)$
- (ii) $p \supset [\sim p \supset (q \lor \sim q)]$
- (iii) $A = [A \cdot (B \cdot \sim A)]$

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