

MALDA WOMEN'S COLLEGE
B.A. SEMISTER II HONOURS EXAMINATION 2021
(HOME ASSIGNMENT)
SUBJECT – PHILOSOPHY HONOURS
Paper : 402 - PHIH – DC- 9
(Western Logic - II)
(CBCS)

Full Marks: 32

Time: Two Hours

Section - 1

Answer any one question of the following: 16 × 1= 16

1. Explain the method of Residues. Is it really a method of Induction? 12 + 4 = 16

2. Construct a formal proof of validity of the following: 4+4+4+4 = 16

(a) $(K \cdot L) \supset M$
 $K \supset L$
 $\therefore K \supset [(K \cdot L) \cdot M]$

(b) $(X) (Vx \supset Wx)$
 $(X) (Wx \supset \sim Xx)$
 $\therefore (X) (Xx \supset \sim Vx)$

(c) It is not the case that she either forgot or wasn't able to finish. Therefore she was able to finish. (F, A)

(d) Doctors and Lawyers are professional people. Professional people and executives are respected. Therefore doctors are respected. (Dx, Lx, Px, Ex, Rx)

3. Prove the invalidity by the method of assigning Truth-values. 4 +4 + 4 +4 = 16

(a) $I \vee \sim J$
 $\sim (\sim K \cdot L)$
 $\sim (\sim I \cdot \sim L)$
 $\therefore \sim J \supset K$

(b) $(\exists x) (Mx \cdot Nx)$

$(\exists x) (Mx \cdot Ox)$

$\therefore (X) (Ox \supset Nx)$

(c) None but the brave deserve the fair. Every soldier is brave. Therefore none but soldiers deserve the fair. (Dx , Bx, Sx,)

(d) Use truth table to determine the validity or invalidity of the following:

$(A \vee C) \supset B$

$B \supset (A \cdot C)$

$\therefore (A \cdot C) \supset (A \vee C)$

Section – II

Answer any one question of the following:

$8 \times 1 = 8$

(4) Test the validity or invalidity of the following arguments by truth tree method: $4 + 4 = 8$

(a) $(A \rightarrow B)$

$(C \rightarrow D)$

$\therefore (A \vee C) \rightarrow (B \vee D)$

(b) We shall fish if it rains, and we shall swim if does not.

We shall fish or swim.

(5) What is explanation? Distinguish between scientific and unscientific explanations.

$2 + 6 = 8$

Section – III

Answer any four questions of the following:

$2 \times 4 = 8$

- (6) (a) What is obversion?
- (b) What is a simple predicate?
- (c) Distinguish between 'rules of inference' and 'rules of equivalence'?
- (d) What do you mean by 'Argument by Analogy'?
- (e) What is decision procedure?
- (f) What are two paradoxes of material implication?