B.A. LL.B. Five Years Course (CBS) Second Semester Examination

PHILOSOPHY-II

Compulsory Paper—2

Time : Three Hours]

[Maximum Marks : 80

 $1 \times 10 = 10$

N.B. :- (1) Attempt all sections. Section A consists of 10 marks, Section B consists of 30 marks and Section C consists of 40 marks.

(2) Follow the instructions given in each section.

(3) Marks are indicated against each question.

SECTION-A

1. Choose the correct alternative (any **TEN**) :

- (i) In the method of direct deductive proof, the conclusion is _____ from premises.
 - (a) reduced (b) deduced
 - (c) formed (d) None of the above
- (ii) 'Not' is called _____ connective.
 - (a) dydic (b) manadic
 - (c) multi (d) None of the above

(iii) _____ is a statement which does not contain another statement as its component.

- (a) Simple proposition (b) Singular proposition
 - (c) General proposition (d) Compound proposition
- (iv) 'Line is either straight or curve' is known as _____ proposition.
 - (a) conjunctive (b) inclusive disjunctive
 - (c) exclusive disjunctive (d) bi-conditional
- (v) In any case; if antecedent is false then its consequent may be _____, the implicative proposition remains true.
 - (a) True (b) False
 - (c) Either True or False (d) Both True and False

(vi) ~ (~ p · ~ q) \equiv _____

- (a) $\sim p \lor \sim q$ (b) $p \sim q$ (c) $p \lor q$ (d) $\sim p \cdot q$
- (vii) A definition which reports the meaning of a word or phrase, as actually used by people is called _____ definition.
 - (a) Hexical(b) Stipulative(c) Biverbal(d) Extensive

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(viii)On the basis of general proposition are classified into universal and existential. (a) quality (b) quantity (c) both quality and quantity (d) None above (ix) A statement which states that when an Individual being possesses a specific property is called : (a) General (b) Simple (c) Singular (d) Compound (x) Rules of replacement can be applied to the _____ proposition. (a) Whole (b) Part (c) Whole as well as part (d) None of these (xi) $[(p \cdot q) \supset r] \equiv [p \supset (q \supset r)]$ is the rule of _____. (b) Transposition (0) (a) Association (d) Exportation (c) Distribution (xii) I believe that "this class is 5 years Fifth sem." what types of proposition is this ? (b) General (a) Singular (d) Non-truth Functional Statement (c) Truth Functional Statement (xiii) _____ is an expression which contains an individual variable and which becomes proposition when the individual variable is replaced by an individual constant. (a) Propositional function (b) Singular proposition (c) General proposition (d) All of these (xiv) "If Naresh buys the land, then a restaurant will be constructed; whereas if Poonam buys the land, then it will be quickly sold again" is expressed in symbol such as _____. (a) $(N \supset O) \cdot (P \supset Q)$ (c) $(N \lor O) \cdot (P \supset Q)$ (b) $(N \supset O) \lor (P \supset Q)$ (d) $(N \lor O) \cdot (P \lor Q)$ (xv) A compound statement that assets that its two component statements imply each other is called a _____ (a) Logically equivalent (b) Biconditional (c) Materially equivalent (d) Biconditional and materially equivalent SECTION—B Note :— Both the questions in this section are compulsory. Write short notes on (any THREE) : 2. $5 \times 3 = 15$ (1) Inconsistency (2) The three 'Laws of thoughts' (3) Formal proof of validity

(4) Need of quantification theory.

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- 3. Distinguish between (any THREE) :
 - (1) Truth functional statement and non-truth functional statement
 - (2) Strong and weak disjunctive proposition
 - (3) Truth and validity
 - (4) Argument and form of Argument.

SECTION-C

Note :— Answer any FIVE questions of the following.

- 4. Use truth tables to determine the validity or invalidity of the following arguments (any TWO) :
 - (1) $\sim E \supset \sim F$ $\sim F \lor \sim G / \therefore E \lor G$ (2) $(S \supset T) \cdot (T \lor S)$
 - $\mathbf{S} \lor \mathbf{\sim} \mathbf{S} / \therefore \mathbf{T}$
 - (3) $(K \supset L) \cdot (K \cdot L)$ ~ $(K \lor L) / \therefore L$
- 5. Write down two methods of obtaining proposition from propositional functions.
- 6. Explain the Primary Rules of Quantification.
- 7. Use truth tables to characterise the following statement form as tautologous, self contradictory or contingent (any two) :
 - (1) $p \supset [p \supset (q \cdot \sim q)]$
 - (2) $p \supset [\sim p \supset (q \lor \sim q)]$
 - (3) $(p \supset q) \equiv (\sim q \supset \sim p)$
- 8. Construct formal proof of validity (any TWO) :
 - (1) 1. $[R \supset (S \supset T)] \cdot [(R \cdot T) \supset U]$
 - 2. $\mathbf{R} \cdot (\mathbf{S} \lor \mathbf{T}) / \therefore \mathbf{T} \lor \mathbf{U}$
 - (2) 1. $W \supset X$
 - 2. $Y \supset X / \therefore (W \lor Y) \supset x$

(3) If a political leader who sees her former opinions to be wrong does not alter her course. She is guilty of deceit; and if she does after her course, she is open to a charge of inconsistency. She either alters her course or she doesn't. Therefore either she is guilty of deceit or else she is open to a change of inconsistency (A, D, I).

- 9. What is 'Definition'. Explain the types of Definition.
- 10. Prove the invalidity of each of the following by the method of assigning truth value (any TWO) :
 - (1) 1. ~ $(E \cdot F)$
 - 2. $(\sim E \cdot \sim F) \supset (G \cdot H)$
 - 3. $H \supset G / \therefore G$

8×5=40

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- (2) 1. $M \equiv P$ 2. $N \supset O$ 3. $\sim (\sim O \lor M) / \therefore N \supset P$
 - $(3) 1. A \supset B$
 - 2. $B \supset C$
 - 3. $C \supset D$
 - 4. $D \supset E / \therefore A \cdot \sim E$
- 11. Construct the formal proof of validity for the following arguments, using (any **TWO**) suggested notations :
 - (a) No industrialists are not wealthy. There are no wealthy factory workers therefore industrialists are never factory workers. (Ix, Wx, Fx)
 - (b) Only vegetarians are Jains. There are religious Jains. Therefore vegetarians are sometimes religious. (Vx, Jx, Rx)