

2/EH-20 (ii) (Syllabus-2015)

2024

(May/June)

PHILOSOPHY

(Elective/Honours)

(Logic)

(PHIL-11)

Marks : 75

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer any five questions

1. Logic is the science of correct reasoning. Do you agree with this statement? Give reasons for your answer. 1+14=15
2. Explain and examine the notions of truth and validity. Are they related to each other? Discuss. 5+10=15
3. Explain denotative, connotative and ostensive definition. 15

(2)

4. Explain and examine the fallacies of presumption with examples. 15
5. What do you mean by categorical syllogism? State and explain in brief the rules of categorical syllogism. $5+10=15$
6. What are the fundamental laws of thought in logic? Why are they called fundamental? Discuss. $10+5=15$
7. Write in brief on any three of the following : $5 \times 3 = 15$
- (a) Distinction among propositions, sentence and judgement
 - (b) Argument
 - (c) Rules of definition by genus and difference
 - (d) Post hoc ergo propter hoc
 - (e) Logical connectives
8. Write short notes on any two of the following : $7\frac{1}{2} \times 2 = 15$
- (a) Kinds of propositions
 - (b) Distinction between Moods and Figures of syllogism

(3)

- (c) Formal and informal fallacies
 - (d) Logical constants and variables
 - (e) The square of opposition
9. Symbolize any five the following : $3 \times 5 = 15$
- (a) Either Atlanta wins their conference championship and Baltimore wins their conference championship or Chicago wins the Superbowl.
 - (b) Both Amherst and Colgate win their first games only if Dartmouth does not win its first game.
 - (c) Lily will not come unless Mena is present and Tom is not present.
 - (d) If Alice is Elected President, then it is not the case that neither Betty is elected Vice-President nor Carol is elected treasurer.
 - (e) If government is re-elected, then it is false that public confidence will be restored and trade will improve. It is false that either public confidence won't be restored or trade won't improve. Therefore, government will be re-elected.
 - (f) Either taxes are increased or if expenditure rises, then the debt ceiling is raised.

(g) It is not the case that neither Mira nor Sita will win the election.

(h) Not both Meghalaya and Assam teams will join the tournament.

10. Construct the truth tables for any *three* of the following and find out whether they are valid or invalid :

5×3=15

$$(i) (p \vee q) \equiv (p \cdot \sim q)$$

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

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

$$(q \supset p)$$

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

$$(iii) (\sim q \supset \sim r)$$

$$\sim r$$

$$\therefore (q \vee r)$$

$$(iv) \sim p \cdot (q \vee r)$$

$$\sim p \vee \sim r$$

$$\therefore q \cdot r$$

$$(v) (p \vee q) \cdot r$$

$$q \supset r$$

$$\therefore p \supset r$$

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