

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

2 0 1 6

(April)

PHILOSOPHY

(Elective/Honours)

SECOND PAPER

(Logic)

Marks : 75

Time : 3 hours

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

Answer any five questions

1. Distinguish between correct reasoning from incorrect reasoning. Is it correct to define logic as the science of reasoning? 5+10=15
2. What do you understand by definition in logic? What are the different kinds of logical definitions? What is the difference between 'definiendum' and 'definiens'? State and examine lexical definitions with example. 2+2+2+9=15

(2)

3. What is a proposition? Explain the distinction among sentence, judgment and proposition. $3+12=15$
4. What are the various fundamental laws of thought in logic? Why are they called fundamental? $12+3=15$
5. What is a categorical proposition? Explain the four basic categorical propositions. $5+10=15$
6. Write short notes on any *two* of the following : $7\frac{1}{2}\times 2=15$
- (a) Constant and variable
 - (b) Formal and informal fallacies
 - (c) Truth and validity
 - (d) Square of opposition
7. With reference to the categorical syllogism, answer any *three* of the following : $5\times 3=15$
- (a) How are the four figures of syllogism determined?
 - (b) What is the fallacy of undistributed middle?

(3)

- (c) Why cannot we infer the conclusion when both the premises are particulars?
 - (d) How do we commit the fallacy of four terms?
 - (e) What is the fallacy of illicit major?
8. Explain the denotative, connotative and ostensive definitions. 15
9. Symbolize any *five* of the following : $3\times 5=15$
- (a) Unless Maldives' tourism declines, Russia raises the price of natural gas.
 - (b) John is intelligent if not he is genius.
 - (c) I will study hard and pass the examination or I will fail the examination.
 - (d) Either Turkmenistan raises the price of natural gas and Maldives' tourism declines, or it is not the case that Indonesia requests more UN aid and that Sri Lanka's economy worsens.
 - (e) It is not the case that neither Maldives' tourism nor Indonesia requests more UN aid.
 - (f) Turkmenistan and Russia do not both raise the price of natural gas.

(g) Bangladesh will object only if either Pakistan imposes tariffs or India calls for a meeting of the South Asian Association of Regional Cooperation.

(h) If today is Tuesday or Friday, then we have a logic class today. Today is not Tuesday. Therefore, if we do not have a logic class today, then today is not Friday.

10. Construct the truth tables for any *three* of the following statement forms, and determine those as tautologous, self-contradictory or contingent : 5×3=15

(i) $[p \supset (p \supset q)] \supset q$

(ii) $p \supset [p \supset (q \cdot \sim q)]$

(iii) $[p \supset (q \supset r)] \supset [(p \supset q) \supset (p \supset r)]$

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

(v) $[(p \supset r) \vee (q \supset s)] \supset [(p \cdot q) \vee (r \cdot s)]$

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