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(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. What is Logic? Explain briefly the subject matter of Logic. 5+10=15

2. How is the truth of a proposition related to the validity of an argument? Discuss in detail with the help of illustration. 10+5=15

3. 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 stipulative definition with examples. 2+2+2+9=15

4. What are the rules for definition by genus and difference? Explain fully. 15

5. What do you mean by Fallacies? Explain and examine the fallacies of relevance with examples. 3+12=15

6. With reference to the categorical syllogism, answer any *three* of the following : 5×3=15

   (a) How are the four figures of syllogism determined?

   (b) What is the fallacy of undistributed middle?

   (c) Why cannot we infer the conclusion when both the premises are particular?

   (d) How do we commit the fallacy of four terms?

   (e) What is the fallacy of illicit major?

7. What are the fundamental laws of thought in logic? Why are they called fundamental? Discuss. 10+5=15

8. Write short notes on any *two* of the following : 7½×2=15

   (a) Fallacies of ambiguity

   (b) Logical connectives

   (c) Square of opposition

   (d) Concept of denotation and connotation

   (e) Constants and variables

9. Symbolize any *five* of the following : 3×5=15

   (a) Not both Milan and Jayant wear braces on their teeth.

   (b) It is not the case that if you stop studying, then you will both pass the course and keep your scholarship.

   (c) Jane's painting is valuable, and either she can keep it or sell it for a lot of money.

   (d) Shane is athletic and creative, unless I am mistaken.

   (e) Joyce has visited Hawaii, but neither Judy nor Eddie has been there.

(f) If the cat is on the mat, unless the mat is on fire, then the mat is on fire, unless the cat is on the mat.

(g) You will definitely win the match if and only if you work hard.

(h) Sheila and Leela both work late only if it is not a holiday.

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

(a) $(p \vee \sim p) \vee q$

(b) $[(p \cdot \sim p) \supset p] \supset \sim p$

(c) $\{[(p \cdot q) \vee r] \cdot \sim r\}$

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

(e) $(\sim p \supset \sim q) \equiv (p \supset q)$

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