2015

PHILOSOPHY

(Major)

Paper : 1.1

(Logic)

Full Marks : 80

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Answer the following as directed : 1×10=10

(a) 'Logos' means 'thought as expressed in language'. Is it true?

(b) Is an argument a mere collection of propositions?

(c) The validity of an argument depends on what—Form or Matter?

(d) Under what condition, a conjunctive function becomes true?

(e) If p is true (T) and q is false (F), what will be the truth-value of $p \supset q$?

(f) The truth or the falsity of a proposition is called ——.

(Fill in the blank)

(g) How many kinds of propositions are there according to modern classification of proposition?

(h) How many forms of compound proposition are there?

(i) Who is the pioneer of the concept of set?

(j) Can an empty set be the member of another set?

2. Answer very briefly : 2×5=10

(a) What is set intersection?

(b) What is logical constant?

(c) Give an example of a set.

(d) Define subject-predicate proposition.

(e) What is an empty or a null set?

3. Answer briefly (any *four*) : 5×4=20

(a) Analyze the structure of an argument.

(b) Briefly explain—tautologous, contradictory and contingent statements.

(c) Define relational proposition and class-membership proposition with example.

(d) What do you mean by disjunctive truth function? Construct a truth table of disjunctive function.

(e) Write a short note on set difference.

(f) What do you mean by membership of set?

4. What is logic? Explain the nature of logic. 10

Or

What is an argument? Explain the relation between argument and argument form. 5+5=10

5. Explain the nature of conjunctive and implicative truth function with example, giving truth table for each of them. 5+5=10

Or

Construct truth table of the following and find out which of the following are tautologies : 5+5=10

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

(b) $(\sim p \supset \sim q) \vee (\sim p \vee q)$

6. What is a simple proposition? Define each of the different forms of simple proposition with example. 2+8=10

Or

Explain the different forms of general proposition with examples. 10

7. What is a set? Symbolize the traditional AEIO proposition by means of set notations. 10

Or

Symbolize the following by means of set notations : 10

(a) All philosophers are wise.

(b) Some teachers are sincere and hard workers.

(c) No policemen are teachers.

(d) Some roses are not white.

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