2021

(July)

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? Give an appropriate definition of logic. Explain the subject matter of logic. 3+2+10=15

2. Explain and examine the notions of truth and validity. Are they related to each other? Discuss. 5+10=15

3. What is a proposition? Examine the distinction between proposition, sentence and judgement. 3+12=15

4. Explain denotative, connotative and ostensive definition. 15

5. What is a syllogism? Explain the rules of categorical syllogism with the help of a concrete example. 5+10=15

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

7. Write short notes on any *three* of the following : 5×3=15

(a) Logical constants and variables

(b) Formal and informal fallacies

(c) Fallacies of presumptions

(d) Validity and soundness

(e) The square of opposition

8. Explain any *three* of the following : 5×3=15

(a) Conjunction and disjunction

(b) Kinds of proposition

(c) Fallacy of four terms

(d) Rules of definition by genus and difference

(e) Argument

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

(a) Tom and Sam both work late only if it is not a holiday.

(b) It is not the case that neither England nor India will not win the cricket.

(c) Lilly will not come unless Jadu is present and Tom is not present.

(d) America and Iran will not both raise the price of natural gas.

(e) If *A* is elected then *B* will resign. If *C* is elected then *B* will resign. If *A* is elected then *C* will not resign. Therefore, *B* will resign.

(f) If John wins the first game then either Peter or Rohim wins the first game.

(g) Either taxes are increased or if expenditure rise, then the debt ceiling is raised.

10. Construct truth table to find if the following arguments are valid or invalid (any *five*) : 3×5=15

(a) $(p \quad q) \quad (p \quad q)$
$p \quad r$

(b) $(p \quad q) \quad (p \quad q)$
$\sim (p \quad q)$
$\sim (p \quad q)$

(c) $(p \quad q) \quad (p \quad \sim q)$
$(p \quad q)$

(d) $(p \quad \sim q) \quad (r \quad q)$
$(p \quad r)$

(e) $(p \quad q) \quad (\sim q \quad \sim p)$
$\sim (\sim q \quad p)$

(f) $[(p \quad q) \quad q] \quad q$
$(p \quad q)$

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