

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

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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

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(Continued)

(3)

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) $(p \supset q) \supset (p \cdot q)$
 $\therefore p \vee r$
 - (b) $(p \vee q) \supset (p \cdot q)$
 $\sim (p \vee q)$
 $\therefore \sim (p \cdot q)$

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(4)

- (c) $(p \cdot q) \equiv (p \supset \sim q)$
 $\therefore (p \cdot q)$
- (d) $(p \cdot \sim q) \vee (r \supset q)$
 $\therefore (p \vee r)$
- (e) $(p \supset q) \supset (\sim q \supset \sim p)$
 $\therefore \sim (\sim q \vee p)$
- (f) $[(p \supset q) \supset q] \supset q$
 $\therefore (p \vee q)$

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