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

## 2022

( 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

- Logic is the science of Correct Reasoning. Do you agree with this statement? Give reasons for your answer.
- 2. Define Proposition. Distinguish Proposition from Sentence and Judgement with the help of examples.

  3+12=15
- 3. What do you understand by Denotation and Connotation? Show how both are inversely related.

  5+10=15

- 4. Examine the rules for definition by genus and difference.
- What do you mean by Categorical Syllogism?
   State and explain in brief the rules of Categorical
   Syllogism.
- 6. What is square of opposition? Explain the modern and traditional square of opposition. 3+12=15
- 7. Write on any three of the following:  $5\times3=15$ 
  - (a) Argumentum Ad Ignorantiam
  - (b) Argumentum Ad Verecundiam
  - (c) Fallacy of False Cause
  - (d) Fallacy of Equivocation
  - (e) Petitio Principii
- 8. Write short notes on any two of the following:

 $7\frac{1}{2} \times 2 = 15$ 

- (a) Distinction between Moods and Figures of syllogism
- (b) Fundamental Laws of Thought
- (c) Logical Constants and Variables
- (d) Distinction between Truth and Validity
- (e) Argument

- 9. Symbolize any five of the following:
- $3 \times 5 = 15$
- (a) A society will prosper only if there is good will among its members.
- (b) If Mary does not win the game, then it is not the case that either Lily or Becky wins the game.
- (c) If John wins the chess competition, then Tom does not win the chess competition, but if Tom does not win the chess competition, then Peter wins the chess competition.
- (d) Lily and Sweety will not both be elected as class monitors.
- (e) John and Tom will both not be elected as captains of the team.
- (f) If you work hard, then you will succeed and you will be happy.
- (g) If the weather is pleasant and the sky is clear, then either we go driving or we go trekking. It is not the case that if we do not go driving, then the sky is clear. Therefore, either the weather is pleasant or we go trekking.
- (h) Shillong will win the football match unless Kolkata wins its football match.

10. Construct the truth tables for any three of the following and find out whether they are valid or invalid:  $5\times 3=15$ 

(i) 
$$p \supset q$$
  
  $\therefore \sim p \supset \sim q$ 

(ii) 
$$p \lor q$$
 $p$ 

(iii) 
$$p \supset q$$
  
 $q \supset p$   
 $\therefore p \lor q$ 

(iv) 
$$(p \lor q) \supset (p \cdot q)$$
  
 $p \lor q$ 

(v) 
$$(p \supset q) \lor \sim r$$
  
 $\sim p \lor \sim r$ 

$$\therefore q \cdot r$$

$$(vi) p ⊃ q$$

$$q ⊃ r$$

$$∴ p ⊃ r$$

**★★★**