

01991

**BACHELORS DEGREE PROGRAMME**

**Term-End Examination**

**June, 2010**

**ELECTIVE COURSE : PHILOSOPHY**

**BPY-002 : LOGIC : CLASSICAL AND SYMBOLIC**

*Time : 3 hours*

*Maximum Marks : 100*

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- Note :** (i) *Answer all five questions.*  
(ii) *All questions carry equal marks.*  
(iii) *Answer to question no. 1 and 2 should be in about 300 words each.*
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1. Describe the history of logic and proposition. 20

OR

Describe the inductive method of attaining knowledge. 20

2. Explain the meaning and scope of logic. 20

OR

Distinguish between formal fallacies and informal fallacies. 20

3. Answer *any two* of the following in about 200 words each :
- (a) Explain briefly the rules of definition. 10
  - (b) Distinguish between contradictories, contraries and sub - contraries. 10
  - (c) What is formal proof of validity ? Discuss. 10
  - (d) Describe in brief tautologies and contradictions. 10
4. Answer *any four* of the following in about 150 words each :
- (a) Distinguish between propositions and sentences. 5
  - (b) What is division by dichotomy ? 5
  - (c) Briefly describe the kinds of generalizations. 5
  - (d) Explain stroke function. 5
  - (e) Describe the kinds of Dilemma. 5
  - (f) Give justification for the following : 5
    - (i)  $(A \wedge B - [A - (D \wedge E)])$
    - (ii)  $(A \wedge B - [\wedge - C/D \vee E])$
    - (iii)  $A \wedge B$
    - (iv)  $A - (D \wedge E)$
    - (v)  $A$
    - (vi)  $D \wedge E$
    - (vii)  $D$
    - (viii)  $D \vee E$

(g) What is Modus Tollens ? Prove its validity through truth table. 5

5. Write short notes on *any five* of the following in about 100 words each :

(a) What are truth values in validation ? 4

(b) Construct formal proof of validity : 4

$\neg A / \dots A - B :$

$(A \vee B) \rightarrow \neg C$

$C \vee D$

$A / \square D$

(c) Distinguish between constructive dilemma and destructive dilemma. 4

(d) What are constants and variables ? 4

(e) What is problem of induction ? 4

(f) Distinguish between analytic and synthetic propositions. 4

(g) Define Syllogism. 4

(h) What is a fallacy ? 4

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