



Date: 10-04-2018

Dept. No.

Max. : 100 Marks

Time: 09:30-12:30

PART –A

Answer all the questions (6 X 6 = 36 marks)

1. What are the motives for doing philosophy?
2. State the differences between a proposition and a sentence.
3. List out the conditions for a valid disjunctive syllogism.
4. State the structure of a categorical syllogism.
5. What is Sangrahanaya in Jaina Logic? Illustrate it with an example.
6. If it is true that “Pani goes to college” (P) & if it is False that “Queen goes to work” (Q) then find the truth values of
 - i) $P, \sim P$; ii) $\sim P \supset Q$; iii) $P \vee \sim Q$; iv) $\sim P \equiv Q$; v) $\{(P \vee Q) \supset \sim Q\}$;
 - vi) $\{(Q.P) \equiv (\sim Q \supset P)\}$

Part B

Answer the following (4 X 16= 64 marks)

7. A) Write in detail the benefits of studying Philosophy. **16**

OR

B) Discuss in detail the philosophical attitudes. **16**
8. A) Distinguish positive, negative and privative terms. **08**

08

B) Present a justification for the fallacies of hypothetical syllogism **08**

OR

C) Describe the classification of propositions in formal logic. **16**
9. A) Illustrate any four material fallacies in formal logic. **08**

04

B) Refute the following dilemmas:
 - i) If you tell me what I already understand, you do not enlarge my understanding; while if you tell me something which I do not understand, then your remarks are unintelligible to me. Whatever you tell me must be either something I already understand or something which I do not understand. Hence, whatever you say either do not enlarge my understanding or else is unintelligible to me.

ii) I must either devote myself to the interests of my soul, or to secular pursuits. **04**

If I devote myself to the interests of my soul, my business will fail; if I devote myself to secular pursuits, I shall lose my soul. Therefore, either my business will fail or else I shall lose my soul.

OR

C) Illustrate in detail the concept of *anekantavadain* Jaina logic. **16**

10. A) State all the rules of replacements. **07**

B) Prove the following using the symbols of propositional logic. **03**

If either Algebra is required or Geometry is required, then all students will study Mathematics. Algebra is required and Trigonometry is required. Therefore, all students will study Mathematics.

C) Using the symbols of predicate logic, construct a formal proof: **06**

It is not the case that fluent speakers are efficient writers.

All fluent speakers are knowledgeable persons.

Therefore, some knowledgeable persons are not efficient writers.

OR

10. D) Define the First Type of Rules of Inference. **04**

E) Prove the following using the symbols of propositional logic. **05**

If the King does not castle and the Pawn advances, then either the Bishop is blocked or the Rook is pinned. If the King does not castle, then if the Bishop is blocked, then the Game is a draw. Either the King castles or if the Rook is pinned, then the Exchange is lost. The King does not castle and the Pawn advances. Therefore, either the game is a draw or the exchange is lost.

F) Using the symbols of predicate logic, construct a formal proof: **07**

Some teachers are hard working. All hard-working people are successful.

No successful person is lazy. Therefore, some teachers are not lazy.
