**2022/TDC/ODD/SEM/**
**PHISEC–301T (A/B)/059**

**TDC (CBCS) Odd Semester Exam., 2022**

# PHILOSOPHY

**( 3rd Semester )**

Course No. : PHISEC–301T

*Full Marks* : 50
*Pass Marks* : 20

*Time* : 3 hours

*The figures in the margin indicate full marks for the questions*

For Honours students Option—A and
For Pass students Option—B

## OPTION—A

( For Honours students )

Course No. : PHISEC–301T (A)

**( Logical Reasoning )**

### UNIT—I

**1.** Answer any *three* of the following questions : 1×3=3

*(a)* Define argument.

(b) Does the conclusion of a Deductive Argument follow necessarily from the premises?

(c) "A Deductive Argument is concerned with both formal and material truth." Is it true?

(d) What is Analytical Reasoning?

2. Answer any *one* of the following questions : 2

(a) Discuss the structure of an Argument.

(b) State two points of differences between Deduction and Induction.

3. (a) Test the validity or invalidity of the following arguments by means of Venn Diagram Technique and name the figure and mood if any : 2½×2=5

(i) No weaklings are labour leaders, because no weaklings are true liberals, and all labour leaders are true liberals.

(ii) All great poets are philosophers, some scientists are philosophers, therefore, some scientists are great poets.

*Or*

(b) Explain briefly the Venn Diagram Technique for testing syllogistic argument. 5





UNIT—II

4. Answer any *three* of the following questions : 1×3=3

(a) Define syllogism.

(b) What is Major term?

(c) How many valid moods are there in the First Figure?

(d) Give an example of the Fallacy of Undistributed Middle Term.

5. Answer any *one* of the following questions : 2

(a) Discuss the structure of a syllogism.

(b) Name the valid moods of the Third Figure.

6. (a) Test the following syllogistic arguments using I. M. Copi's Six Rules : 2½×2=5

(i) Some snakes are not dangerous animals, but all snakes are reptiles, therefore, some dangerous animals are not reptiles.

(ii) No coal-tar derivatives are nourishing foods, because all artificial dyes are coal-tar derivatives, and no artificial dyes are nourishing foods.

*Or*

*(b)* State I. M. Copi's Six Rules for testing categorical syllogism. Mention the fallacies that arise upon the violation of these rules. 5

UNIT—III

**7.** Answer any *three* of the following questions : 1×3=3

*(a)* What is Anumāna?

*(b)* What is Svārthānumāna?

*(c)* What is Pakṣatā?

*(d)* On the basis of the nature of invariable concomitance, Anumāna is classified into how many kinds?

**8.** Answer any *one* of the following questions : 2

*(a)* What are the different kinds of Vyāpti? Give example of each.

*(b)* State the steps of the five-membered syllogism in Indian logic with an example.





**9.** *(a)* Briefly discuss the different classifications of Anumāna. 5

*Or*

*(b)* What is Hetvābhāsa? Discuss briefly the different kinds of Hetvābhāsa.

UNIT—IV

**10.** Answer any *three* of the following questions : 1×3=3

*(a)* How many basic truth-functional connectives are there?

*(b)* What is a variable?

*(c)* When is a conjunctive function true?

*(d)* What is truth-table?

**11.** Answer any *one* of the following questions : 2

*(a)* What is truth-function? What is the symbol for negative function?

*(b)* Draw truth-tables for disjunctive function and implicative function.

**12.** *(a)* Explain the five basic truth-functions with their respective truth-tables. 5

*Or*

*(b)* Test the validity or invalidity of the following arguments by truth-table : 2½×2=5

*(i)* $(p \vee q) \supset (p \cdot q)$
$\sim(p \vee q)$
$\therefore \sim(p \cdot q)$

*(ii)* $(p \supset \sim q) \supset (q \vee \sim p)$
$\sim(q \vee \sim p)$
$\therefore \sim(p \supset \sim q)$

UNIT—V

**13.** Answer any *three* of the following questions : 1×3=3

*(a)* How many kinds of symbols are used in symbolic logic?

*(b)* What is ideogram?

*(c)* State the rule of Modus Tollens.

*(d)* State the rule of exportation.

**14.** Answer any *one* of the following questions : 2

*(a)* State two uses of symbols in logic.





*(b)* Symbolize the following statements :

*(i)* If Angelo achieves stability, then both Botswana and Chad will adopt liberal policy.

*(ii)* Brazil will protest to UN if Argentina mobilizes.

**15.** *(a)* Construct formal proof of validity for the following arguments : 2½×2=5

*(i)* $(D \cdot E) \supset F$
$(D \supset F) \supset G / \therefore E \supset G$

*(ii)* $(M \vee N) \supset (O \cdot P)$
$\sim O / \therefore \sim M$

*Or*

*(b)* Construct an indirect proof of the following arguments : 2½×2=5

*(i)* $A \supset (B \cdot C)$
$(B \vee D) \supset E$
$D \vee A / \therefore E$

*(ii)* $(F \vee G) \supset (D \cdot E)$
$(E \vee H) \supset Q$
$(F \vee H) / \therefore Q$

OPTION—B

( For Pass students )

Course No. : PHISEC-301T (B)

**( Logical Reasoning—I )**

UNIT—I

**1.** Answer any *three* of the following questions : 1×3=3

*(a)* The validity of an argument does not guarantee the truth of its conclusion. Is it true?

*(b)* An inductive argument is concerned with both formal truth and material truth of an argument. Is it true?

*(c)* Is an argument a mere collection of propositions?

*(d)* Write the name of the opposition of the following pair of propositions :

Some men are honest.
Some men are not honest.

**2.** Answer any *one* of the following questions : 2

*(a)* What are the constituent parts of an argument? Explain.

*(b)* What is a sound argument?





**3.** Explain with example the differences between deductive reasoning and inductive reasoning. 5

*Or*

Explain the traditional square of opposition with diagram.

UNIT—II

**4.** Answer any *three* of the following questions : 1×3=3

*(a)* Define fallacy.

*(b)* Give an example of equivocation.

*(c)* What is the fallacy of relevance?

*(d)* What is the fallacy of division?

**5.** Answer any *one* of the following questions : 2

*(a)* What is fallacy of amphiboly?

*(b)* How can we avoid fallacies?

**6.** What is analytical reasoning? Give an example of it. What is the difference between analytical reasoning and logical reasoning? 2+1+2=5

*Or*

Mention and explain the different types of fallacies of ambiguity. 5

UNIT—III

7. Answer any *three* of the following as directed : 1×3=3

*(a)* Syllogism is a kind of mediate / immediate deductive inference.
( Choose the correct alternative )

*(b)* How many premises are there in a syllogism?

*(c)* Give an example of existential fallacy.

*(d)* How many figures are there in syllogism?

8. Answer any *one* of the following questions : 2

*(a)* Name the valid moods of Second figure.

*(b)* What is categorical syllogism?

9. How the figure of a syllogism can be determined? Explain the different figures of syllogism with symbolic example. 1+4=5

*Or*

Mention I. M. Copi's rules for standard form categorical syllogism. State the respective fallacies committed when these are violated. 5





UNIT—IV

10. Answer any *three* of the following questions : 1×3=3

*(a)* Who has formulated Venn diagram?

*(b)* In Venn diagram, how many interlocking circles are drawn?

*(c)* Draw a Venn diagram for the proposition, "All men are mortal".

*(d)* How an empty class is indicated in a Venn diagarm of a syllogistic argument?

11. Answer any *one* of the following questions : 2

*(a)* When does an argument become invalid in Venn Diagram technique?

*(b)* What is the difference between logical diagram and physical diagram?

12. Explain Venn diagram technique for testing standard form of categorical syllogism. 5

*Or*

Put any one of the following syllogism into standard form, name its mood and figure and test its validity by Venn diagram : 1+2+2=5

*(a)* Some reformers are fanatics, so some idealists are fanatics, since all reformers are idealists.

(b) No criminals are pioneers, for all criminals are unsavory persons and no pioneers are unsavory persons.

UNIT—V

13. Answer any *three* of the following questions : 1×3=3

(a) What is a disjunctive syllogism?

(b) Is dilemma a mixed syllogism?

(c) What type of propositions constitute a hypothetical syllogism?

(d) Give an example of hypothetical syllogism.

14. Answer any *one* of the following questions : 2

(a) What is a constructive dilemma?

(b) Name the different types of mixed syllogism.

15. Distinguish between disjunctive syllogism and hypothetical syllogism. 5

*Or*

What are the different kinds of dilemmas? Explain with example.

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