

QUESTION BANK

Department of Philosophy
Pattamundai College, Pattamundai
+3 1st Year Arts (1st Semester)

CORE – I

General Philosophy

GROUP-A

Each question carries one mark.

- The term 'Darsana' comes from the Sanskrit root _____.
- The word 'Philosophy' comes from the Greek word _____ and _____.
- _____ or _____ is the main root of both Philosophy and Science.
- Dialectical method is a process of discovering the _____.
- _____ is known as the father of Philosophy.
- The word 'Science' is derived from the Latin word _____.
- Monism believes that reality is _____.
- In the domain of ontology 'Being' stands for _____.
- 'Episteme' means _____.
- Those who believe 'reason' is the primary source of knowledge are called as _____.
- According to empiricism _____ is the valid means of knowledge.
- _____ is the pioneer of the dialectical method.
- The word 'Religion' is derived from the Latin root _____.
- _____ is the pioneer of mind-body dualism.
- According to pluralism, reality is _____.
- Spinoza defines substance is _____.
- For Spinoza, nature is _____.
- The word 'pan' means _____.
- Universal is a _____ concept.
- The 'theory of truth' proposed by William James is known as _____.
- Mind and body interact upon each other by the help of _____.
- The word 'ethics' is derived from the Greek word _____.
- 'Ethos' means _____.
- Morality can be meaningful only in the domain of _____.
- _____ is considered as the life-force according to Bergson.
- Philosophy is defined as the study of _____ and general problems concerning matters such as existence, knowledge, and ethics.
- The nature of philosophy involves critical and systematic thinking about fundamental _____.
- One primary function of philosophy is to clarify _____ and concepts.
- Philosophy is related to other modes of thinking like _____ and religion.
- _____ is the study of the fundamental nature of reality in philosophy.

- The metaphysical view that only one substance or reality exists is called _____.
- _____ is the metaphysical belief that reality consists of multiple substances or entities.
- The view that reality exists independently of our perception is known as _____.
- _____ is the philosophical position that reality is mentally constructed or immaterial.
- The problem of _____ addresses the nature of the relationship between mind and body.
- _____ is the study of the nature, origin, and limits of human knowledge.
- The theory of knowledge that emphasizes experience and sensory observation as the source of knowledge is called _____.
- _____ is the theory of knowledge that argues reason is the primary source of knowledge.
- The _____ theory of truth holds that a statement is true if it corresponds to reality.
- According to the _____ theory of truth, the truth of a statement is determined by its coherence with a set of beliefs.
- The _____ theory of truth suggests that the truth of a statement is determined by its practical consequences.
- In ethics, _____ refers to the quality of being morally good or virtuous.
- The theory of conduct that promotes self-interest as the basis for morality is known as _____.
- _____ is the ethical principle that suggests actions should be done for the benefit of others.
- According to philosophical analysis, _____ is the discipline that bridges the gap between science, ethics, and religion.
- What philosophical problem does Descartes' dualism primarily address?
- Who is the exponent of interactionism?
- What is the main idea of altruism?
- What is the principle of egoism?
- What is idealism?
- What is realism?
- Define the relationship between philosophy and science.
- What is universal?
- What is the scope of philosophy?
- What is epistemology?
- What is metaphysics?
- What is substance?
- What is monism?
- What is empiricism?
- Define coherence theory of truth.
- What is altruism?
- What is evil?
- What is knowledge according to Locke?
- What is absolute monism?
- Who is the chief exponent of pantheism?

- For whom all ideas are innate?

GROUP - B

Answer each of the following within two to three sentences. Each question carries two marks.

- What is the central concept of Spinoza's metaphysics?
- According to Spinoza, what is the nature of substance?
- In Spinoza's philosophy, what are the two attributes of substance?
- How is philosophy related to science?
- What is pineal gland according to Descartes?
- What is knowledge according to Plato?
- What is the problem of substance?
- 'Philosophy is search for truth'. Do you agree? Explain.
- What is dualism?
- What is the benefit of philosophy?
- Define the ethical view of Comte.
- Is egoism prescriptive?
- What is dialectical method?
- Define 'copy theory' following Plato.
- What is substance according to Aristotle?
- Define the relationship between universal and particular following Aristotle.
- What is empirical method?
- Define valid means of knowledge according to rationalism.
- What is the valid source of knowledge according to empiricism?
- What is the objective of philosophy?
- What do you mean by knowledge?
- Philosophy is an abstract monist?
- What is mood according to Spinoza?
- What is the primary goal of philosophy as a discipline?
- Explain how philosophy differs from science in its approach to understanding the world.
- How does philosophy contribute to clarifying concepts and ideas in other fields of study?
- Describe the relationship between philosophy and religion.
- What role does critical thinking play in the study of philosophy?
- How does philosophy relate to the development of ethical principles?
- Define the concept of "first principles" in the context of philosophy.
- How does philosophy help in understanding the nature of reality?
- Explain the function of philosophy in examining the meaning of life.
- In what way does philosophy question the assumptions underlying other forms of knowledge?
- What is metaphysics, and why is it considered a fundamental branch of philosophy?
- Describe the key idea behind monism.

- How does pluralism differ from monism in metaphysical thought?
- Explain the concept of realism in metaphysics.
- What is idealism, and how does it contrast with realism?
- Define the metaphysical concept of substance.
- How do metaphysicians understand the notion of a “universal”?
- Describe the problem of universals in metaphysics.
- What is the mind-body problem, and why is it significant in philosophy?
- Explain the dualistic view of mind and body.
- How does materialism approach the mind-body problem?
- What is the theory of interactionism in the context of mind and body?
- Describe the concept of panpsychism in metaphysical thought.
- How does metaphysics address the question of free will?
- What is the significance of causality in metaphysical discussions?
- Define knowledge according to traditional philosophical analysis.
- What is the “Justified True Belief” theory of knowledge?
- Explain the main idea behind empiricism as a source of knowledge.
- How does rationalism differ from empiricism in understanding knowledge?
- What is the significance of sensory experience in empiricist thought?
- Describe the role of reason in rationalist epistemology.
- What is the correspondence theory of truth?
- How does the coherence theory of truth define truth?
- What is the pragmatic theory of truth, and how does it differ from other theories?
- How does scepticism challenge the possibility of knowledge?
- What is the role of perception in acquiring knowledge?
- Explain the difference between a priori and a posteriori knowledge.
- How do philosophers distinguish between analytic and synthetic statements?
- What is the problem of induction in epistemology?
- Describe the concept of “innate ideas” in the context of rationalism.
- Define the concept of “goodness” in ethical theory.
- What is the ethical significance of distinguishing between good and evil?
- Explain the main idea behind ethical egoism.
- How does altruism differ from egoism in ethical theory?
- What is utilitarianism, and how does it approach the concept of goodness?
- Describe deontological ethics and its focus on duty.
- What is the “Golden Rule,” and how does it relate to ethics?
- Explain the difference between moral relativism and moral absolutism.
- How does virtue ethics define a good person?
- What role does the concept of justice play in ethical theory?

GROUP - C

Answer each of the following within 75 words. Each question carries three marks.

- What is philosophy?
- What is absolute monism?
- What is abstract monism?
- What is pluralism?
- Explain the concept of knowledge.
- Philosophy is a way of life. Give your comment.
- What is coherence theory of truth?
- What is correspondence theory of truth?
- What is pragmatic theory of truth?
- What is rationalism?
- What is the basic difference between rationalism and empiricism?
- What is the benefit of pursuing science?
- Name the theories of truth.
- What is the theory of goodness?
- What is meant by 'God is good'?
- Define altruism.
- What is the primary difference between egoism and altruism?
- Who are the rationalists?
- Who are known as empiricists?
- What is the aim of altruism?
- How does philosophy seek to answer fundamental questions about existence and reality?
- What is the relationship between philosophy and scientific inquiry?
- Explain how philosophy functions to clarify and analyse ethical concepts.
- How does philosophical inquiry differ from religious doctrine in its approach to truth?
- Discuss the role of critical thinking in the practice of philosophy.
- How does philosophy address the question of the meaning of life?
- In what ways does philosophy influence other fields of knowledge?
- What is the significance of questioning assumptions in philosophical analysis?
- How does philosophy contribute to the development of logical reasoning?
- What is the core idea of monism in metaphysics?
- How does pluralism address the diversity of existence in metaphysics?
- Compare and contrast realism and idealism in metaphysical thought.
- Explain the significance of the concept of substance in metaphysics.
- What is the problem of universals, and why is it important in metaphysical debates?
- Describe the dualistic perspective on the mind-body relationship.
- How does materialism explain the nature of the mind?
- What is the interactionist view of the mind-body problem?
- Discuss the concept of free will in metaphysical discussions.
- How does causality play a crucial role in metaphysical theories?
- How does the "Justified True Belief" theory define knowledge?

- Compare empiricism and rationalism as sources of knowledge.
- What is the role of sensory experience in empiricist epistemology?
- Explain the significance of reason in acquiring knowledge according to rationalists.
- What is the correspondence theory of truth, and how does it determine truth?
- How does the coherence theory of truth assess the validity of a statement?
- What is the pragmatic theory of truth, and how does it differ from other theories?
- How does scepticism challenge the idea of certain knowledge?
- Discuss the importance of perception in the acquisition of knowledge.
- Explain the distinction between a priori and a posteriori knowledge in epistemology.
- What is ethical egoism, and how does it justify self-interest in moral decisions?
- How does altruism promote the well-being of others as an ethical principle?
- Explain utilitarianism's approach to defining goodness.
- What are the key principles of deontological ethics, and how do they guide moral actions?
- How does virtue ethics define moral goodness through character and habits?
- What is moral relativism, and how does it differ from moral absolutism?
- Discuss the role of justice in ethical theory and its importance in society.

GROUP - D

Answer each of the following within 500 words. Each question carries seven marks.

- What is ethical egoism? Discuss.
- Are good and evil in the nature of things? Explain.
- What is knowledge? Discuss.
- Give an exposition of pragmatic theory of truth.
- What is correspondence theory of truth. Explain in detail.
- Bring out the different theories of truth.
- Describe the different views regarding mind-body relationship.
- What is interactionism? Critically explain.
- What is parallelism? Describe following Spinoza.
- Write an essay on Hegels idealism.
- Discuss the nature and function of philosophy.
- Describe the natures of philosophy in details.
- Explain the functions of philosophy.
- What is the scope of philosophy? How is it relevant to Religion? Explain.
- What is philosophy? How is it related to religion? Explain.
- What is philosophy? How is it related to science? Discuss.
- How Descartes tries to solve the mind body problem?
- What is evil, explain the problems of evil?
- Discuss Rationalism as a tradition of philosophy?
- Explain Metaphysical problem of universal?
- Define philosophy and explain its nature and subject matter of study?
- Explain the relationship of philosophy to scientific mode of thinking.

- Define philosophy and explain its significance in understanding fundamental questions about existence and reality.
- Discuss the nature of philosophical inquiry and how it differs from other forms of intellectual activity.
- How does philosophy function to clarify and critique concepts and beliefs in various domains of knowledge?
- Analyse the relationship between philosophy and science, highlighting their similarities and differences.
- Explore the connection between philosophy and religion, focusing on their approaches to truth and knowledge.
- What role does philosophy play in developing ethical frameworks and guiding moral decision-making?
- Explain how philosophy addresses questions related to the meaning and purpose of life.
- Discuss the importance of logical reasoning and argumentation in philosophical analysis.
- How does philosophy contribute to the critical examination of cultural and societal norms?
- Evaluate the function of philosophy in relation to other disciplines such as psychology, sociology, and political science.
- Discuss the role of philosophy in questioning and challenging established authority and traditional beliefs.
- Explain the concept of monism in metaphysics and its implications for understanding the nature of reality.
- Discuss the metaphysical theory of pluralism and how it accounts for the diversity of existence.
- Compare and contrast realism and idealism as metaphysical views of reality.
- What is the concept of substance in metaphysics, and why is it significant in philosophical discussions?
- Analyse the problem of universals in metaphysics, focusing on the debate between realism and nominalism.
- Discuss the mind-body problem and its importance in the philosophy of mind.
- Explain the dualist perspective on the relationship between mind and body.
- How does materialism address the nature of

CORE – II

Logic and Scientific Method

GROUP-A

Each question carries one mark.

- Logic directly concerned with _____.
- An argument is _____ if the conclusion is logically follows from the premises.

- _____ Law states that 'A' always 'A'.
- An argument is either _____ or _____.
- All sentences are not _____.
- Inference is a _____ process.
- In a syllogism the middle term is absent in _____.
- _____ term is present both the major and minor premises.
- _____ figure is perfect figure.
- The premise in which major term occur is called as _____.
- The premise in which minor term occur is known as _____.
- _____ term at least distributed once in a proposition.
- The term which is not distributed in the premises cannot be distributed in the _____.
- _____ reasoning always concerned with form.
- _____ method is known as statistical or graphical method.
- A syllogism must have _____ terms.
- A syllogism must have _____ propositions.
- There are _____ figures in syllogism.
- Premise of the conversion is called as _____.
- Conclusion of the conversion is called as _____.
- Premise of the obversion is called as _____.
- Conclusion of the obversion is called as _____.
- A copula copulates both _____ and _____.
- The Law of _____ states that something cannot both be and not be at the same time and in the same respect.
- The Law of _____ states that a statement must be either true or false, with no middle ground.
- The Law of _____ states that everything is identical to itself; in a syllogism, this ensures that terms are consistently used.
- The Method of _____ examines instances that share only one common factor and differ in all other respects to determine causality.
- Mill's Method of _____ involves identifying a common factor in all instances where an effect occurs.
- A syllogism is a form of reasoning in which a conclusion is drawn from _____ given or assumed propositions.
- In a standard syllogism, the _____ term is the term that appears in both premises but not in the conclusion.
- A categorical syllogism consists of three parts: the major premise, the minor premise, and the _____.
- The _____ term in a syllogism is the predicate of the conclusion.
- The _____ term in a syllogism is the subject of the conclusion.
- A valid syllogism must follow the rules of _____ to ensure that the conclusion logically follows from the premises.
- In the syllogism "All men are mortal. Socrates is a man. Therefore, Socrates is mortal," "mortal" is the _____ term.

- A syllogism where the major premise is a universal statement, and the minor premise is a particular statement, is called a ____ syllogism.
- If both premises in a syllogism are negative, the syllogism is ____.
- In a syllogism, the conclusion cannot be ____ if both premises are affirmative.
- The fallacy of ____ occurs when the middle term is not distributed in either of the premises.
- A ____ syllogism is a syllogism in which the conclusion necessarily follows from the premises, assuming the premises are true.
- The rule that states “no conclusion can be drawn from two particular premises” is known as the ____ rule.
- When a syllogism has a ____ middle, it commits the fallacy of undistributed middle, where the middle term does not appear in both premises.

GROUP - B

Answer each of the following within two to three sentences. Each question carries two marks.

- Give two examples of the laws of excluded middle.
- What is proposition?
- What is syllogism?
- Give an example of deductive logic?
- What is simple conversion?
- What do you mean by material obversion?
- What is universal proposition?
- What is formal truth?
- What is the purpose of experimental method of Mill?
- State any two demerits of the method of difference?
- What is figure?
- What is mood?
- What is immediate deductive inference?
- What is mediate deductive inference?
- What is obversion?
- How many propositions are there concerning quality and quantity?
- Who is the exponent of material obversion?
- Define deductive reasoning and provide an example.
- Explain inductive reasoning with an example.
- What is the main difference between deductive and inductive reasoning?
- How does the certainty of conclusions differ in deductive vs. inductive reasoning?
- Provide an example of a valid deductive argument and explain why it is valid.
- Provide an example of a strong inductive argument and explain why it is strong.
- Discuss the role of observation in inductive reasoning.
- Explain the concept of "soundness" in deductive reasoning.
- Describe a scenario where inductive reasoning might lead to a false conclusion.
- How does the principle of induction relate to scientific method?

- State and explain the Law of Identity with an example.
- What is the Law of Non-Contradiction? Provide an example.
- Explain the Law of Excluded Middle with an example.
- Discuss the significance of the Law of Identity in logical reasoning.
- How does the Law of Non-Contradiction prevent logical inconsistencies?
- Explain how the Law of Excluded Middle applies in a true/false test scenario.
- How do the laws of thought underpin the validity of logical arguments?
- Illustrate how the Law of Non-Contradiction is violated in a paradox.
- Describe a situation where the Law of Identity is crucial in problem-solving.
- Why are the laws of thought considered fundamental to logic?
- Define a syllogism and give an example.
- What is a categorical syllogism? Provide an example.
- Explain the difference between the major, minor, and middle terms in a syllogism.
- What makes a syllogism valid? Give an example of a valid syllogism.
- Define the fallacy of the undistributed middle and provide an example.
- Explain what it means for a syllogism to be sound.
- Provide an example of an invalid syllogism and explain why it is invalid.
- How does the structure of a syllogism ensure logical consistency?
- Discuss the role of the major premise in a syllogism.
- What is the difference between a valid and a sound syllogism?
- What is a proposition in logic? Provide an example.
- Explain the difference between a simple and a compound proposition.
- How does a proposition differ from a sentence in natural language?
- What are the four standard forms of categorical propositions?
- Provide an example of a universal affirmative proposition.
- Explain the role of quantifiers in a proposition.
- How does the truth value of a proposition determine its logical significance?
- Discuss the importance of clarity in formulating propositions.
- Provide an example of a contradictory proposition pair.
- Explain the relationship between a proposition and a syllogism.

GROUP - C

Answer each of the following within 75 words. Each question carries three marks.

- Write short note on opposition of proposition.
- What is structure of syllogism?
- What is the logical sequence of the propositions in a syllogism?
- Write short note on sound argument and unsound argument.
- Write short note on truth and validity.
- What is the difference between immediate inference and mediate inference?
- Write short note on four figures.
- What is the nature of inductive logic?
- What is the difference between sentence and proposition?
- Define law of identity and law of contradiction.

- Describe the concept of Aristotle's Dictum.
- Explain how deductive reasoning guarantees the truth of the conclusion if the premises are true. Give an example.
- Describe the process of inductive reasoning and its role in forming generalizations based on specific observations.
- Compare the certainty of conclusions reached through deductive reasoning with those reached through inductive reasoning.
- Discuss how deductive reasoning is used in mathematics and formal logic to derive conclusions.
- Explain the concept of "inductive strength" and how it affects the reliability of an inductive argument.
- Describe a situation where inductive reasoning might lead to a probable conclusion rather than a certain one.
- How does the principle of induction play a crucial role in scientific hypothesis formation and testing?
- Discuss the role of deductive reasoning in building structured arguments within a philosophical debate.
- Provide an example of a deductive argument and discuss its validity and soundness.
- Explain how inductive reasoning can lead to the development of theories in scientific research.
- Describe the Law of Identity and explain its importance in ensuring logical consistency.
- Explain the Law of Non-Contradiction and how it helps avoid contradictory conclusions in reasoning.
- Discuss the Law of Excluded Middle and its application in binary logic systems.
- How do the laws of thought form the foundation for all logical reasoning and argumentation?
- Illustrate the violation of the Law of Non-Contradiction with an example and discuss its implications.
- Explain how the Law of Identity applies to defining and distinguishing concepts in philosophy.
- Discuss the significance of the Law of Excluded Middle in determining the truth value of propositions.
- How do the laws of thought help in avoiding logical fallacies during argument construction?
- Describe a scenario where the Law of Non-Contradiction is essential in resolving a logical dilemma.
- How do the laws of thought ensure the clarity and precision of logical arguments?
- Define a syllogism and explain how it functions as a form of deductive reasoning with an example.
- Describe the structure of a categorical syllogism and the role of its three terms: major, minor, and middle.
- Explain the conditions under which a syllogism is considered valid and provide an example.
- Discuss the significance of the middle term in linking the major and minor premises of a syllogism.

- What is the fallacy of the undistributed middle? Provide an example and explain its impact on an argument.
- Explain how the validity of a syllogism is determined by its logical form rather than the truth of its premises.
- How does the soundness of a syllogism depend on both the validity of its form and the truth of its premises?
- Provide an example of a syllogism and analyze its logical structure for validity.
- Discuss the role of the major premise in establishing the general principle in a syllogism.
- Explain how a syllogism can lead to a false conclusion if one of the premises is false, even if the reasoning is valid.
- Define a proposition in logic and explain its role as the basic unit of meaning in logical analysis.
- Discuss the difference between a simple and a compound proposition, with examples.
- How do categorical propositions differ in their form and logical function? Provide examples.
- Explain the significance of quantifiers (universal and particular) in determining the logical scope of a proposition.
- Provide an example of a universal affirmative proposition and discuss its logical implications.
- How do the truth values of propositions contribute to the overall validity of an argument?
- Explain how a proposition differs from a mere statement in natural language, focusing on logical precision.
- Discuss the importance of clarity and precision in formulating propositions within logical arguments.
- How do contradictory propositions relate to each other in terms of truth value? Provide examples.
- Explain the relationship between propositions and syllogisms, highlighting how propositions form the basis of syllogistic reasoning.

GROUP - D

Answer each of the following. Each question carries seven marks.

- What is conversion? Explain the rules of conversion with example.
- Elucidate the general syllogistic rules of syllogism.
- What is logic? Discuss the nature and scope of logic.
- What are the characteristics of the method of agreement? Discuss it from different stand points.
- Discuss the special syllogistic rules.
- Discuss the classification of proposition from the stand point of quality and quantity.
- Describe the advantages and disadvantages of the method of concomitant variation.
- What do you mean by distribution of terms? Explain the distribution of terms in A, E, I and O proposition.

- Discuss the process of deductive reasoning, its structure, and how it leads to conclusions that are necessarily true if the premises are true. Include examples to illustrate your explanation.
- Explain the nature of inductive reasoning and how it differs from deductive reasoning.
- Compare and contrast the strengths and limitations of deductive and inductive reasoning.
- How does inductive reasoning contribute to scientific discoveries and theories? Discuss the role of hypothesis formation and testing within this context.
- Explain the concepts of validity and soundness in deductive reasoning. How do these concepts ensure the reliability of deductive arguments?
- Discuss the concept of “inductive strength” and how it affects the reliability of inductive conclusions. Provide examples to illustrate strong and weak inductive arguments.
- Explore the limitations of inductive reasoning, particularly the problem of induction, and discuss how this problem challenges the certainty of inductive conclusions.
- Explain the relationship between deductive and inductive reasoning in the scientific method.
- Analyze the Law of Identity and its fundamental importance in logical reasoning.
- Discuss the Law of Non-Contradiction.
- Explain the Law of Excluded Middle and its application in classical logic.
- Explore the interrelationship between the three laws of thought (Identity, Non-Contradiction, Excluded Middle) and how they form the foundation of logical reasoning.
- Discuss the implications of the Law of Identity for defining and distinguishing concepts in philosophy.
- Discuss how the laws of thought help in avoiding logical fallacies during argument construction.
- Explain the significance of the Law of Non-Contradiction in maintaining coherence in philosophical arguments.
- Discuss how the laws of thought contribute to the clarity and precision of logical arguments, making them essential tools for rigorous intellectual discourse.
- Define a syllogism and explain its role in deductive reasoning. Discuss the structure of a categorical syllogism, including its major, minor, and middle terms.
- Analyze the conditions that make a syllogism valid and discuss how these conditions ensure the logical consistency of the argument. Provide examples of valid syllogisms.
- Explore the concept of soundness in a syllogism. How does soundness differ from validity, and why is it important in evaluating the truth of a syllogistic argument?
- Discuss common syllogistic fallacies, such as the fallacy of the undistributed middle and the fallacy of illicit major or minor.
- Explain the process of constructing a syllogism. Discuss how premises are selected and structured to lead to a logically valid conclusion.
- Discuss the significance of the middle term in a syllogism. How does the middle term function as a link between the major and minor premises?
- Analyze the role of the major premise in establishing the general principle in a syllogism. How does this premise influence the conclusion of the syllogism?

- Discuss how a syllogism can be both valid and unsound. Provide an example where the logical form is valid, but the premises are false, leading to a false conclusion.
- Explain how propositions differ from other types of statements in natural language.
- Analyze the structure of categorical propositions, including their subject, predicate, and quantifier. Discuss how these elements determine the logical form of the proposition.
- Discuss the significance of truth values in propositions. How do the truth or falsity of propositions influence the validity of arguments in which they are used?
- Explain the role of quantifiers in propositions. Discuss how universal and particular quantifiers affect the logical scope of a proposition and its implications for argumentation.
- Analyze the relationship between propositions and syllogisms. How do propositions form the building blocks of syllogistic reasoning, and how are they used to construct valid arguments?
- Discuss the importance of clarity and precision in formulating propositions within logical arguments.
- Explain how propositions are used in formal logic to construct proofs and derive conclusions.
- Discuss the significance of propositions in ensuring the rigor and validity of logical arguments.

+3 1st Year Arts (2nd Semester)

CORE – III

Systems of Indian Philosophy-I

GROUP-A

Each question carries one mark.

- Indian philosophy is divided into two classes, that is _____ & _____.
- _____ system of Indian philosophy does not believe in the authority of Vedas.
- Carvaka accepts _____ as the valid source of knowledge.
- The metaphysical theory of Jainism is called as _____.
- The fourth noble truth of Buddhist philosophy is known as _____.
- _____ is the root cause of suffering according to Buddha.
- Asmin sati idam Bhavati (It being that arises) in the causal principle of _____.
- Name three gunas of prakrti.
- The meaning of Samkhya is _____.
- The first evolute of prakrti is _____.
- The second limb of Stanga yoga is _____.
- Syat means _____ in Jainism.
- _____ is the cosmic order that pervades the universe.
- The law of karma states that as you sow, so shall you _____.
- According to Charvaka philosophy _____ purusartha in the Summum Bonum of human life.
- In which other name, Charvaka Darsana is also known?

- Is the Jaina standpoint realistic or idealistic?
- What did Mahavir become after attaining perfect knowledge?
- What is the governing principle of rebirth according to Jaina?
- The third noble truth of Buddhist Philosophy is known as _____.
- The first noble truth of Buddhist Philosophy is known as _____.
- The second noble truth of Buddhist Philosophy is known as _____.
- The second limb of Bhava Chakra of Buddhism is _____.
- The first limb of Bhava Chakra of Buddhism is _____.
- Buddhism does not accept self as a _____ substance.
- Who is 'arhat' in Buddhist philosophy?
- Sankhya theory of causation is known as _____.
- _____ in the founder of Yoga Darsana.
- The concept of _____ in Indian philosophy refers to the cosmic order and law.
- In Indian tradition, _____ refers to the debt or obligation a person has towards gods, ancestors, and sages.
- The term _____ in Indian philosophy is often translated as "truth" or reality."
- _____ is the philosophical school in India that is known for its materialistic and atheistic views.
- _____ is the Vedic concept of moral and cosmic order that governs the universe.
- The three types of _____ in Indian philosophy are Deva Rna, Pitri Rna, and Rishi Rna.
- According to Indian tradition, fulfilling one's _____ is essential for achieving Moksha.
- The principle of _____ emphasizes the importance of living in harmony with the natural order.
- The Carvaka school rejects _____ as a valid source of knowledge, relying only on perception.
- According to Carvaka metaphysics, only _____ and perceivable matter are considered real.
- The Carvaka philosophy is also known as _____, which means "worldly" or "materialistic" view.
- _____ is the term used to describe the Carvaka's denial of the existence of the soul.
- _____ is the Jain doctrine that suggests reality is complex and can be perceived from multiple perspectives.
- The Jain principle of _____ teaches that truth is multi-faceted and cannot be fully captured by a single perspective.
- The three jewels or Triratna in Jainism are _____, Samyak Darshana, Samyak Jnana, and Samyak Charitra.
- _____ is the concept in Jainism that promotes non-absolutism and respect for different viewpoints.
- The first of the Four Noble Truths in Buddhism is the truth of _____, which recognizes the existence of suffering.
- The Buddhist doctrine of _____ suggests that all things are in a constant state of flux and change.

- _____ in Buddhism refers to the principle that all phenomena arise in dependence on causes and conditions.
- The Buddhist concept of _____ denies the existence of a permanent, unchanging soul or self.
- _____ is the ultimate goal in Buddhism, representing the cessation of suffering and liberation from the cycle of rebirth.
- In Samkhya philosophy, _____ refers to the pure consciousness or the true self.
- _____ in Samkhya philosophy represents the material cause of the universe and the source of physical reality.
- The Samkhya theory of _____ explains how the universe evolves from subtle to gross elements through a process of transformation.
- _____ is the practice in Patanjali's yoga system that involves eight stages or limbs for achieving spiritual liberation.
- The concept of _____ in Samkhya philosophy is based on the interaction between Purusa and Prakriti.

GROUP - B

Answer each of the following within two to three sentences. Each question carries two marks.

- Name six orthodox systems of Indian Philosophy.
- Why Indian Philosophy is out and out spiritual in character?
- What is Triratna in Jainism?
- Write short notes on Samvara?
- Name Tripitakas of buddhism.
- Name five skandhas of Buddhism.
- Name the four noble truths of Buddhism.
- Why Samkhya is a dualistic system?
- What are the three independent sources of knowledge that Samkhya admits?
- Name the four parts of patanjala-sutra or yoga-sutra.
- What are the three heterodox systems of Indian Philosophy?
- Write any two important features of Indian Philosophy.
- Name the realities of Carvaka metaphysics.
- What do you mean by anekantavada?
- Elaborate the second noble truth of Buddhism.
- Why do Buddhists believe in no-soul-theory?
- What is nirjara?
- Define prakriti.
- What is Sattva guna?
- What is Raja guna?
- What is Tamas?
- What is pranayama?
- How does Indian philosophy's focus on the concept of Dharma differ from Western philosophical traditions?
- What is the significance of the concept of Karma in Indian philosophy, and how does it influence ethical behaviour?

- Explain how the concept of Moksha is understood across different Indian philosophical schools.
- How does Indian philosophy emphasize the unity of all life, and what implications does this have for ethical living?
- What is the role of Rta in maintaining cosmic order, and how is it connected to human morality?
- Explain the concept of Rna in Indian philosophy and describe the three primary debts that every individual is said to owe.
- How does the concept of Rna relate to one's duty towards society and family in Indian thought?
- In what way is the concept of Rta reflected in the rituals and daily practices of Vedic society?
- How do the Carvakas view perception as the only reliable source of knowledge, and what are their criticisms of inference?
- Describe the Carvaka's stance on the afterlife and the existence of the soul.
- What is the Carvaka view on the nature of the universe, and how does it contrast with theistic perspectives in Indian philosophy?
- How does the Carvaka school interpret the concepts of pleasure and pain in life?
- What is Syadvada in Jainism, and how does it support the notion of non-absolutism in truth?
- Explain Anekantavada and its significance in promoting tolerance and understanding of different viewpoints.
- What are the three jewels (Triratna) in Jainism, and how do they guide a Jain practitioner's life?
- How does the concept of Ahimsa (non-violence) form the foundation of Jain ethics and daily practice?
- What are the Four Noble Truths in Buddhism, and how do they provide a framework for understanding suffering and liberation?
- Explain the Buddhist doctrine of Momentariness and its implications for the nature of reality.
- How does the principle of Dependent Origination explain the interconnectedness of all phenomena in Buddhism?
- What is the Buddhist No Soul Theory (Anatta), and how does it challenge the notion of a permanent self?
- Describe the concept of Nirvana in Buddhism and its significance as the ultimate goal of the spiritual path.
- How does the Noble Eightfold Path relate to the Four Noble Truths in leading a person toward Nirvana?
- What is the relationship between Purusa and Prakriti in the Samkhya system, and how do they interact to create the universe?
- Explain the Samkhya Theory of Causation and its view on how the world evolves from subtle to gross elements.
- How does the Samkhya philosophy describe the process of evolution, and what role does Prakriti play in it?

- What are the eight limbs (Astanga) of Patanjali's Yoga, and how do they guide practitioners toward spiritual liberation?
- How does Patanjali's concept of Yamas and Niyamas in Astanga Yoga contribute to the ethical foundation of the practice?
- Explain the significance of Dhyana (meditation) in Patanjali's Yoga system and its role in achieving Samadhi.
- What is Samadhi in Patanjali's Yoga, and how is it related to the attainment of Moksha?
- How does the Samkhya system's dualism of Purusa and Prakriti contrast with the non-dualism found in Advaita Vedanta?

GROUP - C

Answer each of the following within 75 words. Each question carries three marks.

- What is materialism?
- What is perception according to Carvaka?
- Distinguish between purusa and prakrti.
- Define citta vrtti nirodha.
- What is Rta?
- What is Lokayata Philosophy?
- What is Nirvana?
- Which evolutes are both causes and effects?
- Name five principles of yama.
- What is Niyama?
- On what ground Carvaka rejects inference as the source of knowledge?
- Why Carvaka do not see necessary connection between cause and effect.
- In Indian Philosophy other worldly? Explain.
- What is Rna?
- What is the fallacy of ekantavada?
- What is saptabhangi Naya?
- Discuss Buddhists view of Pratitya Samudpada.
- Distinguish between homogeneous and heterogeneous changes of gunas in Prakrti.
- Explain Sankhya concept of purusa.
- Dharana according to yoga.
- How does Indian philosophy's emphasis on the pursuit of liberation (Moksha) shape its understanding of human life and the ultimate goal?
- Discuss the role of Dharma in Indian philosophy as a guiding principle for ethical behaviour and social order.
- How do the concepts of Karma and Samsara interrelate in Indian thought, and what impact do they have on the cycle of rebirth?
- Explain the concept of Rta as the cosmic order in Vedic philosophy and its influence on moral and natural law.
- Discuss the significance of Rna (debts) in Indian philosophy and how fulfilling these debts is essential for achieving Moksha.
- How does the concept of Rta reflect the interconnectedness of the individual, society, and the universe in Indian thought?

- How do the Carvakas criticize the reliance on inference and testimony as valid sources of knowledge, favouring perception instead?
- Discuss the Carvaka school's materialistic worldview and its rejection of the soul, afterlife, and spiritual practices.
- What is the Carvaka stance on ethics, and how do they view the pursuit of pleasure in contrast to traditional Indian moral teachings?
- How does Syadvada in Jainism promote a non-absolutist approach to truth, allowing for multiple perspectives?
- Explain Anekantavada in Jainism and its importance in understanding the complexity of reality and promoting tolerance.
- Discuss the Triratna (three jewels) of Jainism: right faith, right knowledge, and right conduct, and their role in achieving liberation.
- How does the principle of Ahimsa (non-violence) influence Jaina ethics and everyday life practices?
- Explain the Four Noble Truths in Buddhism and how they outline the path to overcoming suffering.
- Discuss the Doctrine of Momentariness (Kshanika-vada) in Buddhism and its implications for the nature of existence.
- How does the principle of Dependent Origination explain the interconnectedness and causal relationships between all phenomena?
- What is the Buddhist No Soul Theory (Anatta), and how does it challenge the concept of a permanent self?
- Describe the significance of Nirvana in Buddhism as the cessation of suffering and liberation from the cycle of rebirth.
- How does the Noble Eightfold Path relate to the Four Noble Truths, guiding practitioners towards the attainment of Nirvana?
- What is the relationship between Purusa (consciousness) and Prakriti (nature) in the Samkhya system, and how does their interaction lead to the creation of the universe?
- Explain the Samkhya Theory of Causation and its view on how the world evolves through the interaction of Purusa and Prakriti.
- Discuss the Samkhya Theory of Evolution and how it describes the process of cosmic development from subtle to gross elements.
- How do the Yamas and Niyamas in Patanjali's Yoga provide an ethical foundation for the practice and guide the practitioner towards spiritual discipline?
- Explain the importance of Dhyana (meditation) in Patanjali's Yoga and its role in achieving concentration and inner peace.
- What is Samadhi in Patanjali's Yoga, and how is it the culmination of the yogic path leading to spiritual liberation?
- Discuss the eight limbs (Astanga) of Patanjali's Yoga and how they collectively guide a practitioner towards self-realization and liberation.
- How does the Samkhya system's dualism of Purusa and Prakriti contrast with the non-dualism of Advaita Vedanta?
- Explain the significance of the interaction between Purusa and Prakriti in the context of the Samkhya philosophy's Theory of Evolution.

- How does Patanjali's concept of Pranayama (breath control) in Astanga Yoga contribute to physical and mental well-being?
- What role does the concept of Ishvara (God) play in Patanjali's Yoga, and how does it differ from other Indian philosophical systems?

GROUP - D

Answer each of the following within 500 words. Each question carries seven marks.

- Why is Indian philosophy said to be pessimistic? Discuss.
- What is materialism? Discuss Carvaka's view on materialism.
- Discuss Syadvada of Jainism.
- Explain the salient features of Jaina Ethics.
- Explain four noble truths of Buddhism and state their significance and relevance.
- Explain Buddhists concept of no-soul theory.
- Explain arguments of Samkhya for the existence of Prakrti.
- Explain the salient features of astanga yoga in yoga philosophy.
- Explain salient features of Indian Philosophy.
- Why inference is not a valid means of knowledge for Carvaka? Explain.
- Discuss the theory of Anekantavada in Jaina Philosophy.
- Discuss the nature of Jaina Ethics.
- Is Nirvana possible in this life? Explain in detail.
- Discuss the Buddhist Doctrine of causan.
- Bring out the Samkhya arguments for the existence of Purusa.
- What is astanga yoga for Patanjali?

Salient Features of Indian Philosophy

- Discuss the concept of Dharma in Indian philosophy and its significance in maintaining social order and ethical living. How does it differ across various Indian philosophical schools?
- Explain the theory of Karma in Indian philosophy. How does it influence the cycle of rebirth (Samsara) and the ultimate goal of Moksha?
- Discuss the importance of the four Purusharthas (Dharma, Artha, Kama, Moksha) in Indian philosophy. How do they provide a framework for living a balanced life?
- Explain the concept of Rta in Vedic philosophy and its role in the maintenance of cosmic and moral order. How does this concept influence later Indian philosophical thought?
- Discuss the concept of Rna (debts) in Indian philosophy, focusing on the three types of Rna. How is fulfilling these debts essential for an individual's spiritual progress?
- Analyse the significance of Rta as a foundation for the ethical and ritual practices in Vedic society. How does it compare to similar concepts in other philosophical traditions?
- Critically examine the Carvaka school's rejection of inference and testimony as valid sources of knowledge. How does their emphasis on perception alone shape their materialistic worldview?

- Discuss the Carvaka school's understanding of the nature of reality. How does their metaphysical stance contrast with other Indian philosophical systems that accept the existence of the soul or spiritual entities?
- Analyse the Carvaka school's approach to ethics and morality. How do they view the pursuit of pleasure and the rejection of religious and spiritual practices?
- How does the Carvaka philosophy challenge the traditional Indian belief in the afterlife and reincarnation? What are the implications of their materialistic view on human behaviour and ethics?
- Explain the doctrine of Syadvada in Jainism. How does it promote the idea of non-absolutism and accommodate multiple perspectives in understanding truth?
- Discuss the principle of Anekantavada in Jainism. How does this concept support tolerance and understanding of different viewpoints in both philosophical and practical contexts?
- Analyse the Triratna (three jewels) of Jainism: right faith, right knowledge, and right conduct. How do these principles guide a Jain practitioner's path towards liberation (Moksha)?
- Discuss the role of Ahimsa (non-violence) in Jainism. How does it influence Jain ethical practices, and what are its implications for social and environmental responsibilities?
- Explain the Four Noble Truths in Buddhism. How do they provide a comprehensive framework for understanding the nature of suffering and the path to liberation?
- Discuss the Doctrine of Momentariness (Kshanika-vada) in Buddhism. How does it relate to the Buddhist understanding of impermanence and the transient nature of existence?
- Analyse the principle of Dependent Origination (Pratityasamutpada) in Buddhism. How does it explain the interconnectedness of all phenomena and the cycle of birth and death?
- Examine the Buddhist No Soul Theory (Anatta). How does it challenge the concept of a permanent, unchanging self, and what are the implications for personal identity and spiritual practice?
- Discuss the concept of Nirvana in Buddhism. How is it understood as the ultimate goal, and what does it signify in terms of liberation from the cycle of Samsara?
- How does the Noble Eightfold Path in Buddhism relate to the Four Noble Truths? Discuss how the Path serves as a practical guide for ethical living and spiritual development.
- Explain the dualistic relationship between Purusa (consciousness) and Prakriti (matter) in the Samkhya system. How does their interaction lead to the manifestation of the universe?
- Discuss the Samkhya Theory of Causation. How does it explain the evolution of the cosmos through the interaction of Purusa and Prakriti?
- Analyse the Samkhya Theory of Evolution. How does it describe the process of cosmic development, and what role does the interaction between Purusa and Prakriti play in this process?
- Discuss the eight limbs (Astanga) of Patanjali's Yoga. How do they collectively guide a practitioner towards self-realization and spiritual liberation?

- How does Patanjali's concept of Yamas and Niyamas in Astanga Yoga contribute to the ethical foundation of the practice? Discuss their relevance in achieving mental and physical discipline.
- Explain the significance of Dhyana (meditation) in Patanjali's Yoga system. How does it contribute to the attainment of Samadhi and spiritual liberation?
- What is Samadhi in Patanjali's Yoga, and how is it the culmination of the yogic path leading to liberation (Moksha)?
- Compare the dualism of Purusa and Prakriti in the Samkhya system with the non-dualism of Advaita Vedanta. How do these philosophical approaches differ in their understanding of reality and liberation?
- Discuss the role of Ishvara (God) in Patanjali's Yoga. How does it differ from the role of divine entities in other Indian philosophical systems, and what significance does it hold for practitioners of Yoga?

CORE – IV

Symbolic Logic

GROUP-A

Each question carries one mark.

Introduction

- Symbolic logic is a branch of logic where symbols are used to represent _____.
- In symbolic logic, the basic components of logical expressions are called _____.
- The study of symbolic logic often begins with the _____ calculus.
- The logical connective “ \wedge ” represents the logical operation of _____.
- The truth table for a proposition is used to determine its _____ in all possible scenarios.

The Calculus of Propositions

- A proposition is a statement that is either _____ or _____.
- The logical connective “ \vee ” represents the operation of _____.
- A _____ is a compound proposition that is always true, regardless of the truth values of its components.
- The symbol “ \neg ” represents the logical operation of _____.
- The proposition “ $P \rightarrow Q$ ” is read as “_____ implies _____.”
- A _____ is a compound proposition that is always false.
- The biconditional “ $P \leftrightarrow Q$ ” is true when both P and Q have the _____ truth value.

The Calculus of Propositions (Sections 1-6)

- A logical argument is valid if the _____ of the premises guarantees the truth of the conclusion.
- The _____ of an argument is the set of premises together with the conclusion.
- The rule of _____ allows one to infer “Q” from “ $P \rightarrow Q$ ” and “P.”
- A _____ is a sequence of formulas where each formula is either a premise or follows from earlier formulas by a rule of inference.
- In symbolic logic, a _____ is a formula that can be derived from a set of axioms by a sequence of applications of inference rules.

The Calculus of Propositions (Sections 7-9)

- The _____ rule allows one to infer “ $P \vee Q$ ” from “P.”
- The _____ rule allows one to infer “Q” from “ $\neg P$ ” and “ $P \vee Q$.”
- In symbolic logic, _____ reasoning involves deriving the conclusion from the premises based on the structure of the propositions.
- A _____ is a set of rules that define how propositions can be manipulated in a logical system.
- The _____ method is used to prove the validity of logical arguments by constructing truth tables.

The Elements of Predicate Calculus (Sections 1-9, Chapter V)

- In predicate calculus, a _____ is a symbol that stands for an individual in the domain of discourse.
- A _____ is a symbol that stands for a property or relation that can be attributed to individuals.
- The _____ quantifier (\forall) expresses that a statement is true for all elements in the domain.
- The _____ quantifier (\exists) expresses that a statement is true for at least one element in the domain.
- In predicate calculus, a _____ is a statement that can be true or false depending on the values of its variables.
- The formula “ $\forall x (P(x) \rightarrow Q(x))$ ” means “For all x, if P(x) then _____.”
- A _____ formula is a formula in which all quantifiers appear at the beginning.
- The rule of _____ allows one to move from “ $\forall x P(x)$ ” to “P(a)” for any individual “a” in the domain.
- The _____ of a predicate formula is the set of all individuals that make the formula true.
- A _____ is a variable that appears within the scope of a quantifier.
- The process of _____ involves replacing variables in a formula with specific values or other variables.

Appendix (Sections 1-4)

- The _____ rule is used to eliminate universal quantifiers in a logical argument.
- The _____ rule is used to eliminate existential quantifiers in a logical argument.
- A _____ is a logical structure that assigns truth values to propositions in a systematic way.
- The _____ method involves deriving a contradiction from the assumption of the negation of the conclusion to prove the conclusion.
- In symbolic logic, _____ is the process of deriving a conclusion from a set of premises using logical rules.
- A _____ is a logical expression where the variables are all bound by quantifiers.
- The concept of _____ refers to a proposition that is true in every interpretation of its variables.

GROUP - B

Answer each of the following within two to three sentences. Each question carries two marks.

Introduction

- Explain the significance of using symbols in symbolic logic compared to traditional logic.
- What is a truth table, and how is it used in symbolic logic?
- Define the logical connective “ \wedge ” and provide an example of how it is used in a proposition.
- How does symbolic logic handle the concept of negation, and what symbol is used to represent it?
- What are the basic components of a proposition in symbolic logic?

The Calculus of Propositions

- Differentiate between a tautology and a contradiction with examples.
- What does the logical connective “ \vee ” represent, and how does it affect the truth value of a compound proposition?
- Describe the meaning and use of the conditional proposition “ $P \rightarrow Q$.”
- How is the biconditional “ $P \leftrightarrow Q$ ” different from the conditional “ $P \rightarrow Q$ ”?
- Explain the concept of logical equivalence and give an example of two logically equivalent propositions.
- What role does the rule of inference play in the calculus of propositions?
- How can one prove the validity of an argument using the truth table method?

The Calculus of Propositions (Sections 1-6)

- What is a formal proof in symbolic logic, and how is it structured?
- Explain the importance of the rule of modus ponens in logical reasoning.
- Describe how the rule of modus tollens is applied in a logical argument.

- What is a substitution instance in the calculus of propositions, and how is it used?
- How does one use the rule of disjunction introduction in proving logical arguments?
- Define a logical argument and describe how its validity is determined.

The Calculus of Propositions (Sections 7-9)

- What is the purpose of using the rule of hypothetical syllogism in symbolic logic?
- How does the rule of simplification help in deriving conclusions from complex propositions?
- Explain the use of the conjunction introduction rule in building logical arguments.
- How is the resolution method used in the calculus of propositions to solve logical problems?
- Describe the process of constructing a formal proof using axioms and inference rules.

The Elements of Predicate Calculus (Sections 1-9, Chapter V)

- What is the difference between propositional calculus and predicate calculus?
- Explain the significance of quantifiers in predicate calculus and provide examples.
- How does the universal quantifier (\forall) function in a logical statement?
- Describe the role of the existential quantifier (\exists) in predicate calculus.
- How does predicate calculus handle variables and their scope within a formula?
- What is a bound variable, and how does it differ from a free variable in a logical formula?
- How is the process of instantiation used in predicate calculus to derive conclusions?
- What is the domain of discourse, and why is it important in predicate calculus?
- Describe how a logical structure can be used to assign truth values to predicate formulas.

Appendix (Sections 1-4)

- How does the rule of universal instantiation apply to logical arguments involving quantifiers?
- What is the rule of existential instantiation, and how is it used in logical proofs?
- Explain the process of deriving a contradiction in a proof by contradiction.
- How is the method of conditional proof used to establish the validity of an argument?
- What is a model in symbolic logic, and how does it help in evaluating logical expressions?
- Describe the significance of logical consistency in a set of propositions.
- How does one use logical rules to derive a conclusion from premises in predicate calculus?

GROUP - C

Answer each of the following within 75 words. Each question carries three marks.

Introduction

- Explain the importance of symbolic logic in formal reasoning and how it differs from traditional logic in terms of precision and clarity.
- How do truth tables assist in determining the validity of logical propositions? Provide an example.
- Describe how logical connectives are used in symbolic logic to form compound propositions and illustrate with examples.
- What role does the concept of negation play in symbolic logic, and how is it represented?
- Explain the significance of understanding the basic components of propositions in symbolic logic.

The Calculus of Propositions

- Differentiate between a tautology, a contradiction, and a contingency, providing examples of each.
- How does the logical connective “ \vee ” affect the truth value of compound propositions? Illustrate with examples.
- Explain the significance of the conditional proposition “ $P \rightarrow Q$ ” in logical arguments and its truth table.
- Discuss the differences between the biconditional “ $P \leftrightarrow Q$ ” and the conditional “ $P \rightarrow Q$ ” with examples.
- How is logical equivalence determined between two propositions, and why is it important in logical reasoning?
- Describe how the rule of inference is applied in the calculus of propositions, providing an example.
- What is the purpose of a formal proof in symbolic logic, and how does it demonstrate the validity of an argument?

The Calculus of Propositions (Sections 1-6)

- Explain the role of modus ponens in logical reasoning and how it can be used to derive conclusions.
- Describe the application of modus tollens in a logical argument and provide an example.
- How is substitution used in the calculus of propositions to transform logical expressions? Illustrate with an example.
- What is the disjunction introduction rule, and how does it contribute to logical proofs?
- Discuss how a logical argument's validity is determined using truth tables and the rules of inference.
- Explain how a sequence of formulas in a formal proof leads to the conclusion of a logical argument.

The Calculus of Propositions (Sections 7-9)

- How does the rule of hypothetical syllogism allow for the derivation of new propositions from existing ones? Provide an example.
- Describe the use of the simplification rule in breaking down complex propositions in logical reasoning.
- Explain the process of conjunction introduction and its significance in building compound propositions.
- How is the resolution method applied in the calculus of propositions to resolve logical contradictions? Provide an example.
- Discuss the importance of axioms and inference rules in constructing formal proofs in symbolic logic.

The Elements of Predicate Calculus (Sections 1-9, Chapter V)

- Differentiate between propositional calculus and predicate calculus, focusing on their respective scopes and applications.
- Explain the role of quantifiers in predicate calculus, and provide examples of how they modify the meaning of propositions.
- How does the universal quantifier (\forall) function within a logical statement, and what are its implications for logical reasoning?
- Describe the existential quantifier (\exists) and how it differs from the universal quantifier, providing examples.
- What is the significance of the scope of a variable in predicate calculus, and how does it affect the interpretation of formulas?
- Explain the difference between bound and free variables in predicate calculus and their relevance in logical expressions.
- Describe the process of instantiation in predicate calculus and its role in deriving specific conclusions from general statements.
- What is the domain of discourse in predicate calculus, and how does it influence the interpretation of logical statements?
- Explain how logical structures are used to assign truth values to predicate formulas and the implications of this process.

Appendix (Sections 1-4)

- Describe the rule of universal instantiation and how it is applied in logical arguments involving quantifiers.
- What is the rule of existential instantiation, and how does it help in deriving conclusions from existential statements?
- How does the proof by contradiction method work in symbolic logic, and why is it a powerful tool in logical reasoning?
- Explain the method of conditional proof and how it is used to establish the validity of logical arguments.

- What is a model in symbolic logic, and how does it assist in evaluating the truth of logical expressions?
- Discuss the importance of logical consistency within a set of propositions and how inconsistencies can be identified.
- How are logical rules applied in predicate calculus to derive conclusions from premises, and why is this process critical in formal reasoning?

GROUP - D

Answer each of the following within 500 words. Each question carries seven marks.

Introduction

- Explain the role of symbolic logic in modern logic and reasoning. Discuss how it differs from traditional logic, emphasizing its application in various fields.
- Discuss the importance of truth tables in symbolic logic. Construct a truth table for a complex proposition involving conjunction, disjunction, and negation.
- Analyse the use of logical connectives in symbolic logic. Provide examples of how each connective (\wedge , \vee , \neg , \rightarrow , \leftrightarrow) is used to form compound propositions.
- Describe the process of translating natural language statements into symbolic logic. Provide examples to illustrate how ambiguity in language can be resolved using symbols.
- Discuss the significance of formalizing logical arguments in symbolic logic. How does symbolic representation enhance clarity and precision in logical reasoning?

The Calculus of Propositions

- Differentiate between a tautology, a contradiction, and a contingency. Provide examples of each and explain how they are identified using truth tables.
- Explain the concept of logical equivalence. How can two propositions be proven logically equivalent using truth tables and logical identities? Provide examples.
- Discuss the conditional proposition " $P \rightarrow Q$ " in symbolic logic. Explain its truth table, logical properties, and real-world applications.
- Analyse the biconditional " $P \leftrightarrow Q$ " and compare it with the conditional " $P \rightarrow Q$ ". Provide examples to illustrate the differences in their truth conditions and logical implications.
- Explain the rules of inference in the calculus of propositions. How are they applied to derive conclusions from premises? Provide examples of key rules like modus ponens, modus tollens, and disjunction introduction.
- Describe the process of constructing formal proofs in symbolic logic. How does one use axioms and inference rules to build a valid argument?
- Discuss the significance of logical consistency in a set of propositions. How can one determine if a set of propositions is consistent using truth tables and logical rules?

The Calculus of Propositions (Sections 1-6)

- Explain the method of proving the validity of logical arguments using truth tables. Provide a detailed example where you determine the validity of a complex argument.
- Discuss the rule of modus ponens in logical reasoning. How does this rule contribute to the structure of a valid argument? Provide examples.
- Analyse the rule of modus tollens. How is it applied in logical arguments, and how does it differ from modus ponens? Provide examples.
- Explain the concept of substitution in the calculus of propositions. How is substitution used to transform logical expressions? Illustrate with examples.
- Discuss the importance of the disjunction introduction rule in logical proofs. How does it allow for the introduction of new propositions in a proof? Provide examples.
- Describe the resolution method in symbolic logic. How is it used to resolve contradictions in a set of propositions? Provide a step-by-step example.

The Calculus of Propositions (Sections 7-9)

- Analyse the role of hypothetical syllogism in logical reasoning. How does this rule help in deriving new propositions? Provide examples.
- Discuss the simplification rule in symbolic logic. How does it assist in breaking down complex propositions into simpler components? Provide examples.
- Explain the process of conjunction introduction. How is it used to combine propositions in a logical proof? Provide examples of its application in formal proofs.
- Describe the resolution method and its application in proving logical arguments. How does it differ from other methods like truth tables and formal proofs? Provide examples.
- Explain the significance of using axioms and inference rules in constructing formal proofs in symbolic logic. Provide examples of common axioms and how they are applied in proofs.

The Elements of Predicate Calculus (Sections 1-9, Chapter V)

- Differentiate between propositional calculus and predicate calculus. Discuss the scope, application, and significance of each in symbolic logic.
- Analyse the role of quantifiers in predicate calculus. Explain how the universal quantifier (\forall) and existential quantifier (\exists) modify the meaning of propositions. Provide examples.
- Discuss the function of the universal quantifier (\forall) in predicate calculus. How does it affect the interpretation of a logical statement? Provide examples.
- Explain the existential quantifier (\exists) in predicate calculus. How does it differ from the universal quantifier, and what are its implications for logical reasoning? Provide examples.
- Discuss the concept of scope in predicate calculus. How does the scope of a variable affect the interpretation of a logical formula? Provide examples.
- Analyse the difference between bound and free variables in predicate calculus. Why is this distinction important in logical reasoning? Provide examples.

- Explain the process of instantiation in predicate calculus. How is it used to derive specific conclusions from general statements? Provide a detailed example.
- Discuss the concept of the domain of discourse in predicate calculus. How does it influence the interpretation of logical statements? Provide examples of its application.
- Analyse the role of logical structures in predicate calculus. How are they used to assign truth values to formulas, and what are the implications for logical reasoning? Provide examples.

Appendix (Sections 1-4)

- Explain the rule of universal instantiation in symbolic logic. How is it applied in logical arguments involving quantifiers? Provide examples to illustrate its use.
- Discuss the rule of existential instantiation. How does it help in deriving conclusions from existential statements? Provide detailed examples.
- Analyse the method of proof by contradiction in symbolic logic. How is it used to establish the validity of an argument? Provide a step-by-step example.
- Explain the method of conditional proof in symbolic logic. How does it help in constructing valid arguments? Provide examples of its application in formal proofs.
- Discuss the concept of a model in symbolic logic. How does a model assist in evaluating the truth of logical expressions? Provide examples to illustrate its use.
- Analyse the importance of logical consistency within a set of propositions. How can one identify and resolve inconsistencies using symbolic logic? Provide examples.
- Explain how logical rules are applied in predicate calculus to derive conclusions from premises. Discuss the importance of these rules in formal reasoning and provide examples.

