

RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College affiliated to University of Calcutta)

B.A./B.Sc. SIXTH SEMESTER EXAMINATION, MAY 2025

THIRD YEAR [BATCH 2022-25]

PHILOSOPHY [HONOURS]

Date : 10/05/2025

Time : 11.00 am – 1.00 pm

Paper : DSE 3

Full Marks : 50

Western Logic

Group - A

1. Answer **any two** of the following questions : [2×5]
- a) What is meant by Boolean term schemata? Illustrate.
- b) Are the following logically equivalent?
- i) $\neg\exists F \vee \neg\exists G$
- ii) $\neg\exists(F \vee G)$
- Justify your answer.
- c) Explain the salient features of empty set.
- d) What is wrong with the following argument ? —
Socrates is a man. Men are numerous. Therefore, Socrates is numerous.
2. Answer **any one** of the following questions: [1×15]
- a) i) When can it be said that a Boolean term schema does not imply another? Explain and illustrate. (3)
- ii) Test the validity of **any two** of the following arguments by existential conditional method: (2×4)
- A) BRAMANTIP
- B) Everything is either a substance or an attribute. Modes are not substances. Therefore, Modes are attributes.
- C) Everyone who knows both Jadu and Madhu admires Madhu. Some who know Madhu do not admire him. Therefore, some who know Madhu do not know Jadu.
- iii) Test the consistency of the following schemata by the method of existential conditional (**any two**) : (2×2)
- A) Some F are G and some F are not G.
- B) All G are H and there is some G which is not H.
- C) All F are G and all G are F.
- b) i) Prove that the empty set is a subset of every set. (3)
- ii) Which of the following statements are true (for all sets A, B and C)? Answer **any two** : (2×1)
- A) If $A \in B$ and $B \in C$ then $A \notin C$.
- B) If $A \subset B$ and $B \subseteq C$ then $\sim(C \subset A)$.
- C) If $A \subseteq B$ and $B \in C$, then $A \notin C$.
- iii) If A is the set of all positive integers, B is the set of first three positive integers, $C = \{2, 4, 6\}$ and $D = \{1, 2, 4\}$, find the following sets : (2×2)
- A) $(A \sim B) \sim C$
- B) $(A \cap B) \sim (C \cap D)$

- iv) Let $A = \{2, \{4, 5\}, 4\}$ which statements are incorrect and why? (**any two**) (2×1)
- A) $\{4, 5\} \subset A$
- B) $\{4, 5\} \in A$
- C) $\{\{4, 5\}\} \subset A$
- v) if V is the set of positive integers, $A = \{1, 2\}$ and $B = \{1, 3\}$, find the following sets : (**any two**) : (2×1)
- A) $\sim A \sim B$
- B) $\sim A \sim C$
- C) $\sim A \cup \sim B$
- vi) Translate the following into set theoretic notations : (**any two**) (2×1)
- A) Poisonous animals are seldom ferocious.
- B) Planets are nine.
- C) Apples and oranges are sweet and nutritious.

Group - B

3. Answer **any two** of the following questions : [2×5]
- a) Explain with illustrations the relationship between words and terms.
- b) "A definition must be per genus et differentium" — explain after Joseph.
- c) Explain and illustrate equivocal, univocal and analogous terms.
- d) Distinguish between logical division, physical division and metaphysical division with examples.
4. Answer **any one** of the following question: [1×15]
- a) What is meant by predicable? Explain and illustrate after Joseph, the Aristotelian classification of predicables. (5+10)
- b) Explain and illustrate the following : (3×5)
- i) Summum genus and infima species.
- ii) Too narrow definition.
- iii) Circular definition.
- iv) Cross division.
- v) Overlapping division.

Hume's Enquiry

1. Answer **any two** question: [2×10]
- a) Distinguish after Hume, between impressions and ideas with examples.
- b) "Custom, then, is the great guide of human life". Discuss.
- c) Write the difference between fiction and belief. How does our belief originate? — Explain after Hume.
- d) How does Hume distinguish between relation of ideas and matter of fact? Explain.
2. Answer **any two** questions: [2×15]
- a) Discuss Hume's observation that we "must cultivate true metaphysics with some care, in order to destroy the false and adulterate". Discuss after Hume.
- b) What is law of association? Discuss the different types of law of association with examples. (7+8)
- c) How does Hume define cause? Explain Hume's constant conjunction theory of causation. (5+10)
- d) What do you mean by scepticism? Discuss, with examples, the various types of scepticism that Hume at first critically presents in his Enquiry. Briefly explain Hume's scepticism. (3+6+6)

————— × —————