

RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College affiliated to University of Calcutta)

M.A./M.Sc. SECOND SEMESTER EXAMINATION, OCTOBER 2020

FIRST YEAR [BATCH 2019-21]

Date : 08/10/2020

PHILOSOPHY

Time : 11.00 am - 3.00 pm

Paper : VIII & IX

Full Marks : 50

PAPER : VIII

5. Answer **any one** question of the following : (8 × 1)
- a) How does Hegel develop his understanding of ethical life? Why does he consider family as the first moment of ethical life? (5+3)
 - b) Explain the features of civil society after Hegel. How is civil society different from state? Discuss according to Hegel's *Philosophy of Right*. (5+3)
6. Answer **any one** question of the following : (9 × 1)
- a) Explain the materialistic conception of history of Marx.
 - b) How does Marx define the concept of class? Do you think that Marx is right in saying that a class is born in class struggle? Discuss. (3+6)
7. Answer **any one** question of the following : (8 × 1)
- a) i) 'By liberty was meant protection against the tyranny of the political rulers.' - Explain.
ii) What is Harm Principle', according to Mill?
iii) What are the three types of liberty of an individual, according to Mill? (2+2+4)
 - b) i) Why is social tyranny more formidable than political tyranny, according to Mill?
ii) Distinguish between individual and individuality.
iii) Does custom stand in the way to the development of an individual, according to Mill. (2+2+4)

PAPER : IX

8. Answer **any one** question of the following : (1.5 × 1)
- a) When can it be said that a formula is in Boolean disjunctive normal form.
 - b) Can we obtain a propositional function from a proposition? Illustrate your affirmative answer.
 - c) State the rule of existential instantiation (EI).
9. Simplify the following (**any one**): (1.5 × 1)
- a) $p \equiv (q \cdot p)$
 - b) $(p \vee q) \cdot (q \vee r) \cdot (p \vee r) \cdot r$
 - c) $(p \vee q) \supset (p \equiv q)$
10. Construct formal proof of validity for the following (**any two**): (2 × 2)
- a) Wolfhounds and terriers are hunting dogs. Hunting dogs and lap dogs are domesticated animals. Domesticated animals are gentle and useful. Some Wolfhounds are neither gentle nor small. Therefore, some terriers are small but not gentle.
 - b) $(x)(\exists y)(Gx \cdot Hy) / \therefore (x) Gx \cdot (\exists y)Hy$
 - c) $(x)(\exists y)(Kx \cdot Ly) / \therefore (\exists y)(x)(Kx \cdot Ly)$

- d) If any jewellery is missing, then if all the servants are honest, it will be returned. If any servant is honest, they all are. So if any jewellery is missing, then if at least one servant is honest, it will be returned.

11. Symbolize the following (**any one**): (1 × 1)

- If a car is new, then if all new cars have good brakes, it is safe to drive.
- A jack of all trades is a master of none.
- Anyone who accomplishes anything will be envied by everyone.
- No one loves anyone.

12. Construct demonstration for the following (**any one**): (1 × 1)

- $(x)(Fx \supset Q) \equiv [(\exists x) Fx \supset Q]$
- $(\exists x)(Fx \supset Q) \equiv [(x) Fx \supset Q]$
- $(\exists y)[Fy \supset (x) Fx]$

Or,

(1 × 1)

Proof the invalidity of the following by the model of universe method (**any one**):

- $(\exists x)(y)(Fx \supset Gy)$
 $(y)(\exists z)(Gy \supset Hz) / \therefore (x)(\exists z)(Fx \supset Hz)$
- $(x) (\exists y)(Hx \supset Iy)$
 $(\exists y)(z) (Iy \supset Jz) / \therefore (x)Hx \supset (z) Jz$
- $(x)(\exists y)(Fx \equiv Gy) / \therefore (\exists y)(x)(Fx \equiv Gy)$

13. Answer **any one** question of the following : (2 × 1)

- Why, is the truth tree method called a decision procedure?
- Explain and illustrate how the tree method can be used to test the logical equivalence of a pair of statements.
- How can the tree method be used to test the consistency of a set of statements.

14. Test the validity of the following arguments by the tree method (**any two**): (2 × 2)

- Everyone whom Alma loves, loves Alma. If Alma loves everyone, everyone loves Alma.
- Alma does not love all her lovers. Alma has a lover whom she does not love.
- $(\exists x)Fx \vee (\exists x)Gx / \therefore (\exists x)(Fx \vee Gx)$
- Any authors are successful if and only if they are well read. All authors are intellectuals. Some authors are successful but not well read. Therefore, any intellectuals are authors.

15. Determine by the tree method, whether the following statements are logical truth (**any one**): (2 × 1)

- If Alma's love is never reciprocated, she does not love herself.
- $[(\exists x)Fx \& (\exists x)Gx] \rightarrow (\exists x)(Fx \& Gx)$
- $(\exists y)[Fy \rightarrow (x) Fx]$
- $[(\exists x)Fx \rightarrow (\exists x)Gx] \rightarrow (\exists x)(Fx \rightarrow Gx)$

16. Answer the following questions: (4 × 2)

- 'Substitution of schemata for letters preserves inconsistency' – Explain with example.

Or,

'Substitution of schemata for letters preserves validity' – Explain with examples.

- ii) Test the validity of the following arguments by existential conditional method (**any one**) (2 × 1)
- Everything is either a substance or an attribute. Modes are not substances. Therefore, modes are attributes.
 - No European swans are black. All black swans are European. Therefore, no swans are black.
- iii) Test the validity of the following moods by cellular method (**any one**) (2 × 1)
- FELAPTON
 - FERIO
- iv) Give the Prenex normal form (PNF) of the following (**any one**) (2 × 1)
- $[Fxy \supset (x) (Gx \supset Fxy)] \supset (\exists x) (\sim Fxz \supset (\exists y) Gy)$
 - $(x) Cx \supset [(\exists y)(Dy \cdot Ey) \cdot (\exists z)(Dz \cdot \sim Ez)]$

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