

TB221160V

Reg. No :

Name :

B. A. DEGREE (C.B.C.S.) EXAMINATION, NOVEMBER 2022
(2022 Admissions (regular) 2021 Admissions (Improvement / Supplementary), 2020, 2019, 2018, Admissions
Supplementary)

SEMESTER I - COMPLEMENTARY COURSE 1 (LOGIC) (For SOCIOLOGY)
EC1C02B18 - INTRODUCTION TO LOGIC

Time : 3 Hours

Maximum Marks : 80

Part A

I. Answer any Ten questions. Each question carries 2 marks

(10x2=20)

1. Distinguish between word and term,
2. What are general terms,
3. In the following categorical propositions identify the quantifier, subject term, copula, and predicate term.
 - a) No sex education courses that are taught competently are programs that are currently eroding public morals.
 - b) Some universities that emphasize research are not institutions that neglect undergraduate education
4. What is immediate inference?
5. Define conversion.
6. In the following categorical propositions identify the quantifier, subject term, copula, and predicate term.
 - a) Some college students are avid devotees of soap operas.
 - b) No persons who live near airports are persons who appreciate the noise of jets.
7. Define fallacy.
8. Define major term, minor term and middle term in categorical syllogism.
9. Define simple destructive dilemma
10. State existential fallacy.
11. What is unscientific induction?
12. State the postulates of scientific induction.

Part B

II. Answer any Six questions. Each question carries 5 marks

(6x5=30)

13. Distinguish between positive and negative terms.
14. Draw Euler's circle and explain different kinds of proposition.
15. Use the traditional square of opposition to find the answers to these problems. When a statement is given as false, simply enter an "F" into the square of opposition and compute (if possible) the other truth values. 1) If "No sting operations are cases of entrapment" is false, what is the truth value for the other categorical propositions? 2) If "All electric motors are machines that depend on magnetism." is false, what is the truth value for the other categorical propositions?
16. why does an 'O' proposition does not have conversion?
17. Elucidate the structure of categorical syllogism.
18. The following syllogisms are in standard form. Identify the major, minor, and middle terms, and the mood and figure
All ozone molecules are good absorbers of ultraviolet rays. All ozone molecules are things destroyed by chlorine.
Therefore, some things destroyed by chlorine are good absorbers of ultraviolet rays.
19. What is existential fallacy?

20. What is inductive leap? State any three characteristics of scientific induction.

21. What is uniformity of nature? Explain.

Part C

III. Answer any Two questions. Each question carries 15 marks

(2x15=30)

22. Perform the operations of conversion, obversion, and contraposition :

1) All physicians whose licenses have been revoked are physicians ineligible to practice.

2) No gases are incompressible substances.

3) Some states having limited powers are not slave states.

4) Some organ transplants are not sensible operations.

23. What is hypothetical syllogism? Explain with suitable examples the types, rules and its fallacies.

24. a) Use the rules to determine whether the following standard-form syllogisms are valid or invalid. For those that are invalid, name the fallacy or fallacies committed. Some nebulas are clouds of gas. Some clouds of gas are objects invisible to the naked eye. Therefore, some objects invisible to the naked eye are nebulas. b) State any three fallacies of categorical syllogism.

25. What is the problem of induction? Explain the postulates of induction.