

**BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, NOVEMBER 2024**  
**2023 ADMISSIONS REGULAR**  
**SEMESTER III - COMPLEMENTARY COURSE 2 (LOGIC )**  
**EC3B03B23 - Logic**

Time : 3 Hours

Maximum Marks : 80

**Part A**

**I. Answer any Ten questions. Each question carries 2 marks****(10x2=20)**

1. Differentiate between proposition and sentence.
2. What is deductive reasoning?
3. Define contraposition.
4. What is immediate inferences.
5. Define contradictories .
6. State quantity and quality.
7. What is mixed syllogism?
8. Find out the mood of the following  
All rabbits are mammals  
All dogs are mammals  
Therefore all rabbits are dogs
9. What is modus ponens?
10. List out the postulates of induction.
11. State problem of induction.
12. What do you mean by informal fallacy?

**Part B**

**II. Answer any Six questions. Each question carries 5 marks****(6x5=30)**

13. Differentiate between inductive and deductive method
14. Convert the sentence into its logical form:
  - i) Most of the students are not hostellers.
  - ii) Few discoveries are due to accidents.
15. Change the quality but not the quantity of the following statements:
  1. All owners of pit bull terriers are persons who can expect expensive lawsuits.
  2. No tax proposals that favor the rich are fair proposals.
16. Change both the quality and the quantity of the following statements.
  - All oil spills are events catastrophic to the environment.
  - No alcoholics are people with a healthy diet.
  - Some Mexican vacations are episodes that end with gastrointestinal distress.
  - Some corporate lawyers are not people with a social conscience.
  - All oil based paints are products that contribute to photochemical smog.
17. Name the fallacy committed by the given syllogism.  
All snakes are dangerous animals  
Some snakes are reptiles  
Therefore, some dangerous animals are not reptiles

18. What is categorical syllogism? State its rules and fallacies.
19. Describe any three relations in the traditional square of opposition.
20. What is Induction? Explain the problem of induction.
21. Comment on 'The argument from ignorance'.

**Part C**

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

**(2x15=30)**

22. Define immediate inference. Explain square of opposition.
23. Define categorical syllogism. Explain its rules and fallacies with examples.
24. What is scientific induction? Explain its characteristics of scientific induction.
25. Differentiate between the fallacy of appeal to emotion and fallacy of appeal to force.