

Duration: 1 Hour

Total Marks: 24

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

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| Q1. | If the statement "some birds are animals" is true then which of the following statements can be immediately inferred to be false?
Justify your answer.
a) No birds are animals
b) All birds are animals
c) Some birds are not animals. | 3 Marks |
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| Q2 A i) | Identify whether the following Argument is Inductive or Deductive.
Justify your answer.
All Corporation lawyers are conservatives.
Miriam Graf is a corporate lawyer.
Therefore, Marriam Grag is Conservative. | 3 Marks |
| OR | | |
| Q2 A ii) | Read the passage given below and identify whether it is an Argument or an Explanation. Justify your answer.
The sun rises in the east because the Earth rotates from west to east, causing the appearance of the sun rising in the east. This phenomenon is consistent with the Earth's rotation and its orientation in space. | 3 Marks |
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| Q 3. A | Illustrate the following with examples.
a) Fallacy of Appeal to the Populace
b) Fallacy of Division. | 3 Marks |
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| Q 3. B | Consider the statements given below to be true and choose the conclusion that logically follows. Justify your answer.
Statement 1: Some plants are mountains.
Statement 2: All plants are rivers.
Conclusion I: All mountains are plants.
Conclusion II: Some mountains are rivers. | 3 Marks |
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| Q4. | Construct the truth table for the following statements.
a) $(p \wedge \sim q) \vee q$
b) $(p \rightarrow q) \leftrightarrow (q \rightarrow p)$ | 6 Marks |
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| Q 5 | Identify the formal fallacy committed in each of the following arguments. Justify your answer.
a) If you study hard, you will get good grades
You got good grades.
So, you must have studied hard.
b) All cups are mugs.
No plates are cups.
Therefore, no plates are mugs. | 6 Marks |