Sr. No.	Questions	A	B	C	D
1	Which of the following expressions is often related to inductive reasoning?	based on repeated experiments✓	if and only if statements	Statement is proven by a theorem	based on general principles
2	Which of the following sentences describe deductive reasoning?	general conclusions from a limited number of observations	based on repeated experiments	based on units of information that are accurate	draw conclusion from well-known facts✓
3	Which one of the following statements is true?	The set of integers is finite	The sum of the interior angles of any quadrilateral is always 180°	$\frac{22}{7} \notin Q'$✓	All isosceles triangles are equilateral triangles
4	Which of the following statements is the best negation of the statement "The stove is burning"?	the stove is not burning✓	the stove is dim	the stove is turned to low heat	it is both burning and not burning
5	The conjunction of two statements p and q is true when:	both p and q are false	both p and q are true✓	only q is true	only p is true
6	A conditional is regarded as false only when:	antecedent is true and consequent is false✓	consequent is true and antecedent is false	antecedent is true only	consequent is false only
7	The contrapositive of $q \to p$ is:	$q \to \sim p$	$\sim q \to p$	$\sim p \to \sim q$✓	$\sim q \to \sim p$
8	The statement "Every integer greater than 2 is a sum of two prime numbers" is:	theorem	conjecture✓	axiom	postulates
9	The statement "A straight line can be drawn between any two points" is:	theorem	conjecture	axiom✓	logic
10	The statement "The sum of the interior angles of a triangle is 180°" is:	converse	theorem✓	axiom	conditional

Solution of MCQs

1	Inductive reasoning is based on repeated patterns/experiments.
2	**Deductive reasoning** starts from general truths (facts) to conclusions.
3	$\frac{22}{7}$ is not exactly $\pi \Rightarrow$ it's not in Q' (irrational numbers)
4	Negation of "The stove is burning" is "The stove is not burning"
5	Conjunction ($p \wedge q$) is only true when both are true
6	A conditional $p \to q$ is false only when the antecedent p is true and the consequent q is false.

7	The contrapositive of $q \rightarrow p$ is $\sim p \rightarrow \sim q$.
8	This is Goldbach's Conjecture, which remains unproven (a conjecture).
9	This is Euclid's first postulate, an axiom (self-evident truth).
10	This is a proven geometric theorem.