

6/05/2020

MM 50.

TIME 1 hr.

- (1) Relation R in the set $A = \{1, 2, 3, 4, \dots, 13, 14\}$ defined as $R = \{(x, y) : 3x - y = 0\}$ are reflexive, Symmetric and Transitive.
- (2) Show that the function $f: N$ to N given by $f(x) = 2x$, is one-one but not onto.
- (3) Find the principal value of sine Invers $(-1/2)$.
- (4) What is the Symmetric and Skew Symmetric matrix with example.
- (5) Construct a 3×4 matrix, whose elements are given by $[a_{ij}] = 2i + j$
- (6) If a matrix has 24 elements, what are the possible order it can have?
- (7) Satisfy the associative law of addition matrix.
- (8) Let $*$ be the binary operation on N given by $a * b = \text{L.C.M. of } a \text{ and } b$. Find $5 * 6$ and $20 * 16$
- (9) Show that $f(x) = 2x + 1$ is bijective functions.
- (10) What is the composition function explain with example