DAYANANDA SAGAR COLLEGE OF ENGINEERING
(An Autonomous Institute Affiliated to VTU, Belagavi)
Shavige Malleshwara Hills, Kumaraswamy Layout, Bengaluru-560078
DEPARTMENT OF MATHEMATICS

COURSE : MATHEMATICAL STRUCTURES

COURSE CODE : 21MAT41A

MODULE – 3- FUNCTIONS

Multiple Choice Questions

Q.No.	Questions
1.	The Cartesian product of the (Set Y) x (Set X) is equal to the Cartesian product of (Set X) x (Set Y) or Not? (a) equal (b) Not equal (c) none of the above (d) not sure
2	How many injections are defined from set A to set B if set A has 4 elements and set B has 5 elements? (a) 24 (b) 64 (c) 144 (d)120
3.	The function (gof) is _____ , if the function f and g are onto function? (a) Into function (b) one to one function (c) onto function (d) one-to-many function
4.	Composition does not hold? (a) associative property (b) commutative property (c) one-to-one function (d) Both A and B
5.	What is range of function $f(x) = x^{-1}$ which is defined everywhere on its domain? (a) $(-\infty, \infty)$ (b) $(-\infty, \infty) - \{0\}$ (c) $[0, \infty)$ (d) None of the mentioned
6.	A function f: A → B is an onto function if every element of B has (a) Pre-image in A(b) Image in A(c) more than one images in A (d) None of these
7.	The value of S (5,4) is (a) 34 (b) 12 (c)10 (d)56
8.	Which of the following function is not a mathematics function? (a) many to one (b) one-to-many (c) one to one (d) All of the mentioned
9.	Which of the following is true? (a) The function $f(x) = x^3$ is bijection from R to R. (b) The function f(x)=x+1 from the set of integers to itself is onto. (c) Both A and B (d) None of the above

10.	What is the range of a function? a) the maximal set of numbers for which a function is defined b) the maximal set of numbers which a function can take values c) it is set of natural numbers for which a function is defined d) none of the mentioned