Gurudas College

Internal Assessment 2021

Sem-I, Paper-CC2

ECOA

Time: 30 mins   Total Marks: 10

Answer any **Five** Questions.   2x5

1. Enumerate all the subsets of the set A = { 1,3,5,7}. How many subsets are there altogether?
2. a) A quadratic function is polynomial in degree 2. True or False?
   b) Any quasi-concave function is a concave function. True or False?

3. Consider the following function

   Y = x , x>0

     = -x   x<0

     = 0   x=0

   Sketch the graph of the function

4. Find the extreme values of the following function:

   f(x) = $4x^2 - 5x + 10$

5. The total cost of a firm per day is a function of its daily output Q: C= 150+7Q. The firm has a capacity limit if 100 units of output per day. What are the domain and range of the cost function?
6. What is convex set?