**ALVA’S P.U. COLLEGE, MOODUBIDIRE.**

**CET CRASH COURSE [MATHS] – 2019 – 20**

**TOPIC : Linear Inequalities, Complex Numbers and Quadratic Equations**

1. If then

a) b)

c) d)

1. Solution set of the inequation is

b) c) d)

1. The solution set of the inequation is

a) b) c) d)

1. Number of pairs of consecutive odd integers both of which are larger than 8 and such that sum is less than 34 is

a) b) c) d)

1. Solution set of the in equality when x is an integer is

a) b) c) d)

1. Solution set of the inequation is

a) b)

c) d)

1. The number of integral solutions of is

b) c) d)

1. If  then the maximum value of  is

a) b) c) d) 10

1. Imaginary part of  is

a)  b)  c) d) 

1. If  then 

a) b) c) d)

1. If  then the 10th term of the series  is

a) b) c) d)

1. The modulus and amplitude of  is

a)  b)  c)  d) 

1. The amplitude of  is

b) c) d)

1. If is a root of the equation , where are real then

a) b) c) d)

1. If In a triangle PQR ,  . If and the roots of the equation , then

a) b) c) d)

1. If  then 

 b)  c)  d) 

1. If  then  upto 1000 times is equal to
2. 1 b) c) 0 d)

1. The multiplicative inverse of is

b) c) d)

1. Given that  then z =

b) c) d)

1. The complex number z which satisfies the condition  lies on

a)circle b)the x – axis

c)the y – axis d) the line

1. If  is a cube root of unity and  then A and B are respectively

a) b) c) d)

1. The real value of for which the expression  is a real number is

b)  c) d)none of these

1. The point represented by the complex number is rotated about origin through an angle in the clockwise direction, the new position of the point is

a) b) c) d)

1. Number of non - zero integral solutions of the equation  is

a) b) c)infinite d) none of these

1. If  then

a) b) c) d)

1. and are conjugate to each other for

a)  b) c) d) no value of x

1. If lies in the third quadrant then, also lies in the third quadrant if

b) c) d)

1. The value of  is equivalent to

a) b) c) d) none of these

1. A real value of x satisfies the equation  if 

a) b) c) d)

1. If  then 

a) b) c) d)none

1. If then

a) b) c) d)

1. Which of the following is correct for any two complex number  ?

a)  b) 

c)  d) 

1. If  where then is

b) c) d)none of these

1. 

a) positive b)negative c) d) cannot be evaluated

1. If  then 

a) b)  c)  d) 

1. Number of solution of the equation is

b) c) d)infinitely many

1. The amplitude of  is

a) b) c) d)

1. If the equations  and  have a common root then

a) b) c) d)

1. If  is purely imaginary then 

b) c) d)

a) b) c) d)

1. If are roots of then  is

a) b) c) d)

1. Let two numbers have A.M 9 and G.M 4 then these numbers are the roots of the quadratic equation

a)  b) 

c)  d) 

1. The real value of for which the expression  is purely real is

 b)  c)  d) none of these

1. The area of the triangle on the complex plane formed by the complex number and is

a)  b) c) d) none of these

1. If  then

a) b) c) d)

1. The complex number lies in

a)fourth quadrant b)first quadrant c)second quadrant d)third quadrant

1. Solution of is

a) b) c) d)

1. The solution set of is

b) c) d)

1. The solution set of is

a) b) c) d)

1. If then

a) b) c) d)

1. The least positive integers ‘n’ for which is positive is

b) c) d)

1. The length of a rectangle is 3 times the breadth. If the minimum perimeter of the rectangle is 160 cm, then

a)breadth b)breadth c)breadth d) breadth

1. The solution set of the inequation is

a) b) c) d)

1. The number of integral solutions of is

b) c) d) 4

1. The solution set of is

a) b) c) d)

1. The value of when x < 0 is

a) b) c) d)none of these

1. If  then 

a) b) c) d)

1. If then

b)  c)  d) 

1. The value of k, (k > 0) for which the equation and  both will have equal roots is

a) b) c) d)

1. If are three cube roots of unity then is

a) b) c) d) 4