MASTER’S P.U COLLEGE, HASSAN, 573201.

KCET ONLINE TEST-35, MAY-2020  **MATHEMATICS**  **TIME: 45Mins MARKS: 30**

**TOPIC**: **1st ALGEBRA, LIMITS. DATE: 08/06/2020**

1. ***A set contains  elements. The number of subsets of this set containing more than n elements is equal to***

(a)  (b) 

(c)  (d) 

1. ***Let . Then the total number of subsets of S is***

(a) 64 (b) 32

(c) 40 (d) 20

1. ***If p is a prime number, then  is divisible by p when n is a***

(a) Natural number greater than 1 (b) Irrational number

(c) Complex number (d) Odd number

1. ***When  is divided by 5, the least positive remainder is***

(a) 4 (b) 8

(c) 2 (d) 6

1. ***The true statement for the graph of inequations  and , is***

(a) Both graphs are disjoint (b) Both do not contain origin

(c) Both contain point (1, 1) (d) None of these

1. ***The solution set of the inequation , is***

(a) Half plane that contains the origin (b) Open half plane not containing the origin

(c) Whole *xy*-plane except the points lying on the line  (d) None of these

1. ***The sum of the digits in the unit place of all numbers formed with the help of 3, 4, 5, 6 taken all at a time is***

(a) 18 (b) 432

(c) 108 (d) 144

1. ***In how many ways can 5 boys and 3 girls sit in a row so that no two girls are together***

(a)  (b) 

(c)  (d) 

1. 

(a)  (b) 

(c)  (d) None of these

1. ***In an examination there are three multiple choice questions and each question has 4 choices. Number of ways in which a student can fail to get all answers correct, is***

(a) 11 (b) 12

(c) 27 (d) 63

1. ***If  and , then ***

(a)  (b) 

(c)  (d) None of these

1. ***If  and  then value of k equals***

(a) 2 (b) 4

(c) 6 (d) 1

1. ***The conjugate of  in the form of a + ib, is***

(a)  (b) 

(c)  (d) 

1. ***The number of roots of the equation  is***

(a) 1 (b) 2

(c) 3 (d) 4

1. ***The number of solutions of  is***

(a) 2 (b) 3

(c) 1 (d) None of these

1. ***The  term of the series will be***

(a) 1600 (b) 1680

(c) 420 (d) 840

1. ***If  are  and terms of a G.P., then  is equal to***

(a) 1 (b) 

(c)  (d) 

1. I***f  and  are in A.P., then n =***

(a) 5/2 (b) 

(c)  (d) 3/2

1. ***If the sum of two extreme numbers of an A.P. with four terms is 8 and product of remaining two middle term is 15, then greatest number of the series will be***

(a) 5 (b) 7

(c) 9 (d) 11

1. ***If in the expansion of , the coefficient of x and are 3 and – 6 respectively, then m is***

(a) 6 (b) 9 (c) 12 (d) 24

1. ***If  then ***

(a)  (b)  (c)  (d) None of these

1. ***The sum of the coefficients of even power of x in the expansion of is***

(a) 256 (b) 128 (c) 512 (d) 64

1. =
2. (a) 0 (b) –1 (c) 1 (d) 
3. 
4. (a)  (b)  (c)  (d) 
5. ***is equal to***
6. (a) –1 (b) 0 (c) 1 (d) None of these
7. ***The value of is equal to***
8. (a) 0 (b) 1 (c) 2 (d) ½
9. The value of  is equal to
10. (a) *e* (b)  (c)  (d) 2
11. ***The value of  is equal to***
12. (a)  (b) 

(c)  (d) 

1. ***The value of  is equal to***
2. (a) 2 (b) 3

(c) 1 (d) 0

1. ***If  where [x] is greatest integer function, then ***

(a) –1 (b) 1

(c) 0 (d) None of these