

\*Class-IX Test-1\*

\*MATHS\*

Date 6/05/2020

Time-60min. MM-60

Note-no.of question-10

and each question carry 5 marks

- 1) Explain rational and irrational number and also give the meaning of terminating and repeating decimal with example.
- 2) Find five rational number lying between  $\frac{1}{3}$  &  $\frac{1}{2}$ .
- 3) Express each of the following as a fraction in simplest form:  
0.33333333.....  
1.324324324.....  
1.235555555555.....
- 4) Represent  $\sqrt{5}$  on number line.
- 5) Give the definition of polynomial and also describe the types of polynomial with example.
- 6) Explain remainder theorem and factor theorem. Give the derivation and statement.
- 7) By using heron's formula prove that the area of equilateral triangle is  $\frac{\sqrt{3}a^2}{4}$ , where  $a$  is the side of triangle.
- 8) What is complementary and supplementary angles. explain with example.
- 9) find the value of  $a$  for which  $(x+a)$  is a factor of the polynomial  
 $f(x)=x^3+ax^2-2x+a+6$ .
- 10) Factorise the given polynomials:  
 $x^2+11x+30$ ,  $2x^2+3\sqrt{3}x+3$   
 $8a^2-27ab+9b^2$ ,  $6-x-x^2$   
 $\sqrt{2}x^2+3x+\sqrt{2}$