

# Sample Paper:Mathematics (July 2020)

Total marks: 20

Class: 9th

Time: 40min

Instructions: **1.** From Questions 1-8 , Each question carries 1 mark each. **2.** From Questions 9-10,Each question carries 2 marks each. **3.** From Questions 11-12,Each question carries 4 marks each

## Part-A

- There are ..... rational numbers between  $\frac{2}{3}$  and  $\frac{4}{3}$   
(a) 1 (b) 5 (c) none (d) infinite
- What kind of decimal expansion  $\frac{41}{100}$  has?  
(a) Terminating (b) Non-terminating recurring  
(c) Non-terminating non-recurring (d) none of these
- Write the power of polynomial  $3x^4-7x-2$ .  
(a) 1 (b) 2 (c) 3 (d) 4
- Find  $p(0)$  for polynomial  $p(x)=x^2-3x-12$   
(a) 0 (b) -12 (c) 4 (d) None of these
- Choose the suitable option for coordinates of a point on x-axis  
(a) Abscissa=0 (b) Ordinate =0 (c) (1,1) (d) None of these
- In which quadrant point T(12,-5)lies?  
(a) First quadrant (b) Second quadrant (c) Third quadrant (d) Fourth quadrant
- Choose the suitable option for "A straight line may be drawn from any one point to any other point."  
(a) True (b) false (c) incomplete information (d) None of these
- Abscissa of a point:  
(a) x-coordinate of the point (b) y-coordinate of the point  
(c) always y=0 (d) None of these
- Plot the following ordered pairs(x, y) of numbers as points in the Cartesian plan.

x	5	2	-4	-6
y	8	-9	0	1
- Write whether the following statements are True or False:
  - A terminated line can be produced indefinitely on both sides.
  - If two circles are equal then their radii are equal.

## Part-B

- Solve:  $(3+\sqrt{3})(3-\sqrt{3})$

OR

Match the columns:

Column A

Column B

(i)  $3^m \cdot 3^n$

$3^{mn}$

(ii)  $(3^m)^n$

$3^{m-n}, m > n$

(iii)  $\frac{3^m}{3^n}$

$(3 \times 5)^m$

(iv)  $3^m 5^m$

$3^{m+n}$

- Find the remainder obtained on dividing  $p(x) = x^3+1$  by  $x-1$ .

OR

Factorise: $3x^2-x-4$