DELHI PUBLIC SCHOOL, JAMMU
REVISION SHEET(Cycle Test –I)
SESSION: 2018-19

Class: IX **Sub: Mathematics**

TOPICS :

1. Number System
2. Polynomials.
3. Coordinate Geometry
4. Lines and Angles

Objective Type

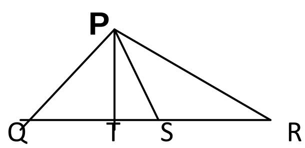
1.Find Value of $(16^{\frac{1}{4}})^3$
2 Find zeroes of the polynomial P(x) = x^2- 25.
3.Find 5 rational numbers between 1 and $\frac{-1}{3}$.
4. If the point (5,4) lies on the graph of the equation 2y = bx + 5

Very Short type Questions:-

5.Plot a point P(-5,6) on graph, draw perpendicular PM on X-axis, PN on Y-axis. Name the coordinates of M and N.
6 for what value of m is $x^3 - 2mx^2 + 16$ divisible by x-2
7.Prove that if two lines intersects then vertically opposite angles are equal .
8.find the value of b.If x = 5+ $2\sqrt{3}$, find value of x-$\frac{1}{x}$.
9.If x,y,z are all non zeroes and x+y+z =0 . prove that $\frac{x^2}{yz} + \frac{y^2}{xz} + \frac{z^2}{xy}$ = 3

Short Type Questions:-

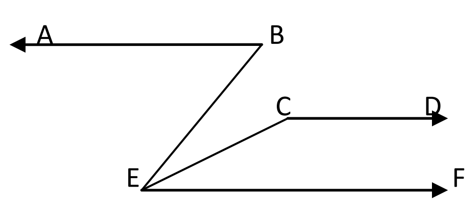
10.Rationalise the denominator of $\frac{1}{\sqrt{5}-\sqrt{2}-\sqrt{3}}$
11. Represent $\sqrt{5}$ and $\sqrt{5.3}$ on number line.
12. Factorise $2x^3 + x^2 - 2x - 1$
13.Find a and b if x+2 and x- 2 are factors of $x^3 + ax^2 + 2x - 3x + b$
14.BO and CO are interior bisectors of angles B and C of ΔABC. Prove that $\angle BOC = 90° + \frac{1}{2}\angle A$
15.Plot the points (5,4), (-5,4), (-5,-4) and (5,-4) join them to form a figure name and find area.
16.Draw the figure with vertices (-5,5), (-6,0), (-5,-5), (-2,0). Name the fig. and find area.
17. In ΔPQR, PT ⊥ QR and PS is bisector of $\angle P$. If $\angle Q$= 60^0 and $\angle R$= 30^0, Find $\angle TPS$.



Long Type Questions

18. Plot a point (1,2), (-3,0) and (4,0) on the graph. Join to form figure. Name the figure and find area.

19. In Fig, prove that AB||CD and CD||EF.



If $\angle ABE = x$, $\angle BEC = 36°$, $\angle CEF = y$ and $\angle ECD = 130°$. Find x and y

20. AB and CD are intersected by transversal EF at G and H respectively. If GM is bisector of $\angle BGH$ and HN is bisector of $\angle GHC$. If GM ∥ HN prove that AB ∥ CD.