GURU HARKRISHAN PUBLIC SCHOOL

CLASS-IX

SUBJECT-MATHS

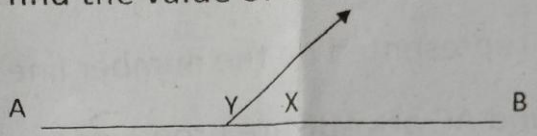
PERIODIC TEST - I

TIME: 2Hours M.M-50

Q.1 Write a number whose decimal expansion is non-terminating non – recurring. 1

Q.2 Find the zero of the polynomial $1-x^3$. 1

Q.3 In the fig. $x = 30^\circ$, find the value of Y. 1



Q.4 Write the co-ordinates of the origin.

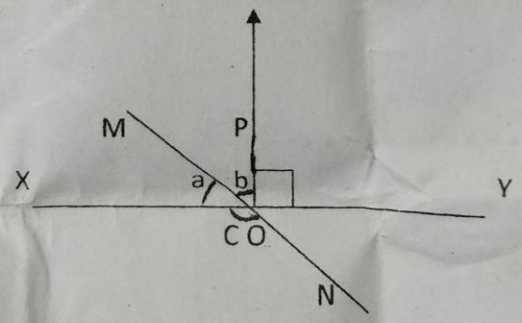
Q.5 Write down any one Euclid's Postulates.

Q.6 Write $\frac{3}{13}$ in decimal form and write what kind of decimal expansion it has.

Q.7 Find the value of K if $x - 1$ is a factor of $p(x)$ where $p(x) = Kx^2 - 2x + 1$.

Q.8 If a point C lies between two points A and B such that AC = BC, then prove that $AC = \frac{1}{2}AB$. Explain by drawing the figure.

Q.9 In fig. lines XY and MN intersect at O. If $POY = 90^0$ and a:b = 2:3 find c.



Q.10 Rationalise the denominator of $\frac{1}{7+3\sqrt{2}}$

Q.11 Divide the polynomial x^3+1 by $x+1$.

12) Prove that the sum of the angles of a triangle is 180^0 . 4

13) Plot the following ordered pairs (x, y) of numbers as points in the Cartesian plane. Use the scale 1cm = 1 unit on the axes. 4

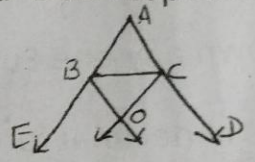
X	-3	0	1	4	2
Y	7	-3.5	-3	4	-3

14) Expand the following , using suitable identities. 4

i) $(3a+4b+5c)^2$ ii) $(5p-3q)^3$

15) Show how $\sqrt{3}$ can be represented on the number line. 4

16) In ABC, the sides AB and AC of ABC are produced to points E and D respectively. If bisectors BO and CO of CBE and BCD respectively meet at point O, then prove that $\angle BOC = 90^\circ - \frac{1}{2} A$. 4



17) If $\frac{\sqrt{2}-\sqrt{3}}{\sqrt{2}+\sqrt{3}} = a+b\sqrt{6}$ where 'a'& ' b' are rational numbers then find 5

The values of a & b. Type equation here.

18) Factorise any two: 5

i) $27y^3+125z^3$

ii) $9x^2+6xy+y^2$

iii) $8a^3+b^3+12a^2b+6ab^2$

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