KCP SIDDHARTHA ADARSH RESIDENTIAL PUBLIC SCHOOL
Kanuru, Vijayawada – 520 007
FORMATIVE ASSESSMENT – I (PAPER PEN TEST) 2014–15

Class : X   Marks : 30

Sub : Mathematics   Time : 1 Hr.

General Instructions:
1. All questions are compulsory.
2. Section A comprises of 5 questions carrying one mark each.
    Section B Comprises of 4 questions of two marks each.
    Section C Comprises of 3 questions of three marks each.
    Section D Comprises of 2 questions of four marks each.

Section – A

1. Write the condition to be satisfied by q so that a number p/q has a non terminating decimal expansion.

2. Write two irrational numbers between 1 and 2.

3. Find the Polynomial, if sum of the zeroes is $-3/2$ and product of the zeroes is $5/2$.

4. If x+a is a factor of $2x^2 + 2ax + 5x + 10$, then find 'a'.

5. Give that 2x+3y-8=0, write another linear equation in 2 variables such that pair of linear equations so formed are parallel.

Section - B

6. Prove that $2 + 3\sqrt{2}$ is irrational number.

7. Find the quadratic polynomial if one of its root is $2 + \sqrt{3}$.

8. If α and β are zeroes of $5y^2 - 7y + 1$. Find $\dfrac{1}{\alpha} + \dfrac{1}{\beta}$.

9. Find k, if 2x+3y=k, (k-1)x+(k+2)y=3k have infinity many solutions.

Section - C

10. Use Euclid's division lemma, to show that square of any positive integer is either of the form 3m or 3m+1, for some integer m.

11. Draw the graph of following equations and also find the area formed by these lines with x-axis 2x-y-2=0, 4x+3y-24=0

12. Solve by cross multiplication method ax+by=a-b, bx-ay=a+b.

Section – D

13. On dividing p(x)=x^3-3x^2+x+2 by polynomial g(x), the quotient and remainders were (x-2) and (-2x+4) respectively. Find g(x).

14. A boat goes 30 km upstream and 44 km downstream in 10 hrs. In 13 hrs it can go 40 km, upstream and 55 km downstream. Determine the speed of the stream and boat still in water.

-:0:-