Guess Paper 2013
Class – XII
Subject – Mathematics

MAX MARKS:40 TIME DURATION:90 MIN

 **SECTION-A(6X1=6M)**

1. Write the solution set of the equation $x^{2}+5x+6=0$ in Roster form.

2. Write the set Z$=\{ \frac{1}{3}, \frac{3}{5}, \frac{5}{7}, \frac{7}{9}, \frac{9}{11}, \frac{11}{13}, \frac{13}{15}, \frac{15}{17} \}$ in the set-builder form

3. Solve for x and y 3x + (2x-y) i = 6-3i

4 Sum of squares of first n natural numbers------------------.

5 In a right angled triangle, the difference between two acute angles is π/9 in circular measure. Express the angles in degrees.

6 If f(x ) = x2 , find f(1.1) - f(1)

 1.1- 1

**SECTION-B(4X4=16M)**

7. If $A=\{3,5,9,10\}$ $B=\{4,5,7,8\}$ , find $A-\left(B∩A\right) $ and $\left(A-B\right)∪\left(B-A\right).$

8 **Find the principal solutions of the equation:** 

9 **If , find the value of **

10 Solve √5x2 + x +√5 = 0

 Or Find the real numbers x and y if (x-iy) (3+5i) is the conjugate of -6-24i

**SECTION-C(3X6=18M)**

11 In an Auditorium, 80 students are sitting to see either Tennis or Badminton Matches. If 55 students are watching Tennis, 40 watching Badminton, find the number of students watching both Tennis and Badminton. Find the number of students who is neither watching Tennis nor Badminton.

12 **Solve:** 

13 Prove that 2.7n+ 3.5n – 5 is divisible by 24 for all n € N for all natural numbers.

  **Or** Using principle of mathematical induction prove that

 1.3+ 3.5+ 5.7+7.9…………….(2n-1) (2n+1) **=** $\frac{ n\left(4n2+6n-1\right)}{3}$JAWAHAR NAVODAYA VIDYALAYA- BAGALKOT

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