

NES High School Bhandup (W)
Sub: Mathematics-I

Marks: 10
Time: 30 mins

I Solve the following

(2)

1 Find the value of the following determinants

$$A = \begin{vmatrix} 3\sqrt{5} & 11 \\ 2 & 4\sqrt{5} \end{vmatrix}$$

2 If $3x+5y=9$ and $5x+3y=7$ find the value of $x-y$

II Solve the following.

(4)

1 Without actually solving the simultaneous equations given below, decide which simultaneous equations have unique solution, no solution or infinitely many solutions.

a $3x+5y=16$, $4x-y=6$

2 Solve the following simultaneous equations.

$$3a+5b=26; a+5b=22$$

III Solve the following

(4)

1 The denominator of a fraction is 4 more than twice its numerator. Denominator becomes 12 times the numerator, if both the numerator and the denominator are reduced by 6. Find the fraction.