

BCM SCHOOL, BASANT AVENUE, DUGRI, LUDHIANA.
APRIL ASSIGNMENT- ANSWER KEY
CLASS- X (MATHEMATICS)
TOPICS: PAIR OF LINEAR EQUATIONS IN TWO VARIABLES &
QUADRATIC EQUATIONS.

1.	B
2.	A
3.	C
4.	Let the number of students in halls A and B are x and y respectively Now, by given condition $x - 10 = y + 10$ $\Rightarrow x - y = 20$ and $(x + 20) = 2(y - 20)$ $\Rightarrow x - 2y = -60$ On solving: $x = 100$ and $y = 80$.
5.	Present age of Zeba is 14 years.
6.	By taking $D = 0$ and then by using the algebraic identity $(a + b + c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ca$.
7.	Let income of two persons be x and y respectively Equation 1: $7x - 9y = 0$ Equation 2: $3x - 4y = -2000$ On solving: $x = 18000$ and $y = 14000$
8.	Let the original speed of the aircraft be x km/hr. then new speed $= (x - 200)$ km.hr Duration of flight at original speed $= 600/x$ hr Duration of flight at reduced speed $= 600/(x - 200)$ hr $\therefore \frac{600}{x} - \frac{600}{x - 200} = \frac{1}{2}$ On solving: $x = 600$ km/h.
9.	Let the cost of full and half first class fare be Rs. x and Rs. $x/2$ respectively and reservation charges be Rs. Y per ticket. Case1: The cost of one reserved first class ticket from the stations A to B = Rs 2530 $\Rightarrow x + y = 2530$ Case 2: The cost of one reserved first class ticket and one reserved first class half ticket from stations A to B = Rs. 3810 $\Rightarrow x + y + x/2 + y = 3810$ On solving, $x = 2500$, $y = 30$.
10.	(i) $3x + 3m$ (ii) $8x + 6m$ (iii) $X = 20$ (iv) 43:20