



EFFORT CLASSES

Dare to Dream !.... Dreams come true !

Shop no. 29 & 30, Twin Tower, Sector 20, Behind Jalvayu Vihar, Kharghar, Navi Mumbai-410210.

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Q.P code-199/IMSET2

IX ICSE

Date: 04/10/19

Time – 1 hr

MATHEMATICS

Marks-20

Topic – Simultaneous Equations

1) Solve the following equations: (10)

i. $3x + 4y = 10$ and $5x - 3y = 24$

ii. $65x - 33y = 97$ and $33x - 65y = 1$

iii. $2x + 3y - 6 = 0$, $6x - 5y - 4 = 0$

iv. $\frac{30}{x-y} + \frac{44}{x+y} = 10$ and $\frac{40}{x-y} + \frac{55}{x+y} = 13$

v. $\frac{7}{x} + \frac{8}{y} = 2$, $\frac{2}{x} + \frac{13}{y} = 22$

2) Attempt any FOUR questions:

i. The sum of the digits of a two-digit number is 7. If the digits are reversed, the new number increased by 3, equals 4 times the original number. Find the original number. (2)

ii. The present ages of A and B are in the ratio 9 : 4. Seven years hence, the ratio of their ages will be 5 : 3. Find their present ages. (2)

i. A and B together can do a piece of work in 15 days. If one day's work of A be $1\frac{1}{2}$ times one day's work of B, find how many days will each take to finish the work alone? (3)

ii. If the numerator of a fraction is decreased by 1 its value becomes $\frac{2}{3}$, but if the denominator is increased by 5 its value becomes $\frac{1}{2}$. What is the fraction? (2)

iii. The ratio between a two digit number and the number obtained on reversing its digits is 4 : 7. If the difference between the digits of the number is 3, find the number. (2)

iv. 1250 persons went to see a circus-show. Each adult paid Rs.75 and each child paid Rs.25 for the admission ticket. Find the number of adults and the number of children, if the total collection from them amounts to Rs.61,250. (3)
