

Section - II

Q.7: (a)

Solution:

Rate of rise in price = 20%

Amount of rise in price = Rs. 80

Total original price = ?

Let the price of shirt be = x

Then we can write:

$$20\% (x) = 80$$

As $20\% = 80$

By converting percentage

$$\frac{20}{100} \times x = 80$$

$$\frac{1}{5} \times x = 80$$

$$x = 80 \times 5$$

$$x = \text{Rs. } 400$$

Original price of shirt was = Rs. 400

Q.7: (b)

Solution:

Certain code BROTHER = CODG S N Q A

SISTER = ?

Ans: In word BROTHER is written as CODG S N Q A by writing

one letter backward from
diverse side as:

BROTHER ODC,SNCOA

By solving:

$\left(\begin{array}{c} \text{B R O T H E R} \\ \text{A O N S G D O} \end{array} \right)$ By writing the
 given code in diverse
 (A B, O R, N O, S T, G H, D E, O R)

Therefore we can write:

SISTER as RHRSDO

As:

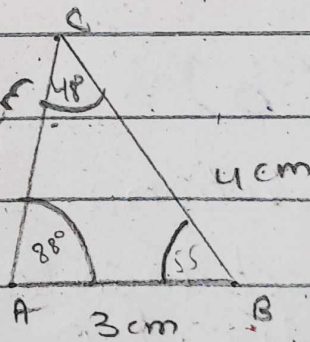
$\left(\begin{array}{c} \text{S I S T E R} \\ \text{R H R S D O} \end{array} \right) \left[\begin{array}{l} \text{RS, HT, RS, ST,} \\ \text{DE, OR} \end{array} \right]$

Q7: C

1. Scalene Triangle

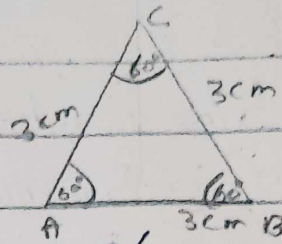
A Triangle ~~has~~ having
all the sides and angles

unequal is called
Scalene Triangle.



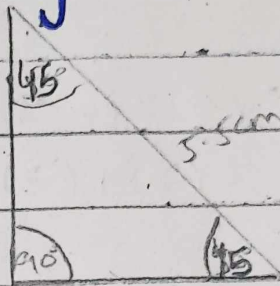
Equilateral Triangle:

A Triangle having all the sides and angles equal is called Equilateral triangle.



Isosceles Right Triangle

A triangle having two sides and two angles equal and whose one angle should be 90° is called Isosceles Right Triangle.



Q7: D

Solution:

Probability (E) = $\frac{\text{Number of ways of occurrence of an event}}{\text{Total possible outcomes}}$

Total possible outcomes = 8

No. of ways of occurrence of an event = 3

Probability = ?

By putting values in the formula

$$\text{Probability (slice with raisin)} = \frac{3}{8}$$

$$= 0.375$$

The probability she will pick a slice with raisin = 0.375

$$\begin{array}{r} 0.375 \\ 8 \overline{) 30} \\ \underline{24} \\ 60 \\ \underline{56} \\ 40 \end{array}$$

which afterwards change

Q-8: b:

Solution:

First Prime numbers = 2, 3, 5, 7, 11

Cubes of Prime numbers = $(2^3), (3^3), (5^3), (7^3), (11^3)$

Arithmetic mean = ?

Arithmetic mean = $\frac{\text{Sum of observation}}{\text{Total No. of observation}}$

By Putting values in formula:

$$\text{mean} = \frac{(2^3) + (3^3) + (5^3) + (7^3) + (11^3)}{5}$$

$$= \frac{8 + 27 + 125 + 343 + 1331}{5}$$

$$= \frac{1834}{5} = 366.8$$

$$\begin{array}{r}
 0/5 \\
 1331 \\
 343 \\
 125 \\
 27 \\
 8 \\
 \hline
 1834
 \end{array}$$

$$\begin{array}{r}
 366.8 \\
 5 \overline{) 1834} \\
 \underline{-15} \\
 30 \\
 \underline{-30} \\
 40 \\
 \underline{-40} \\
 0 \\
 \hline
 \times
 \end{array}$$

Arithmetic mean of cubes of 1st five prime number is = 366.8

Q-8: c:

Solution:

50 men construct 20km road in 40 days

70 men construct 20km road in = ?

By arrow method:

Distance (km)	men	Days
20 km	50	40
20 km	70	?(x)

By comparing these two

According to above table.

$$\frac{x}{40} = \frac{565 \times 20}{707 \times 20}$$

$$\frac{x}{40} = \frac{5}{7}$$

By cross method's

$$\frac{x}{40} = \frac{5}{7} \Rightarrow 7x = 5 \times 40$$

$$\Rightarrow x = \frac{200}{7}$$

$$= 28.57$$

By rounding off = 29 days.

70 men construct 80 km road in

\Rightarrow 28.57 days.

Q.No: d:

Solution:

Property worth left by Zahid = $\text{Rs. } 1750000 - 1500000 = \text{Rs. } 1600000$

Debt paid = $\text{Rs. } 1750000 - 1500000$

Remaining money = $\text{Rs. } 1600000$

~~Daughter's share~~

Money distributed in ratio

Son : daughter

2 : 1

$$\begin{array}{r} 28.57 \\ \hline 7 \overline{) 200} \\ \underline{14} \\ 60 \\ \underline{56} \\ 40 \\ \underline{35} \\ 50 \\ \underline{49} \\ 1 \end{array}$$

Sum of ratios = 2+1
= 3

$$\text{Daughter's share} = \frac{1}{3} \times \text{Rs. } 16,000,000$$

∴ 16,000,000 is the amount to be distributed

$$= \frac{1}{3} \times \text{Rs. } 16,000,000$$

$$\text{Daughter's share} = \text{Rs. } 5,333,333.33$$

Son's share twice of daughter's share

So, we can write son's share as

$$\text{Son's share} = 2 (\text{daughter's share})$$

$$= 2 (5,333,333.33)$$

$$= \text{Rs. } 10,666,666.66$$

OR

$$\text{Son's share} = \frac{2}{3} \times \text{Rs. } 16,000,000$$

$$= 2 \times 5,333,333.33$$

$$= \text{Rs. } 10,666,666.66$$

04

Section - 1

~~04~~ : a

Land Pollution:

Land pollution is the degradation of land like earth surface and soil. This pollution mainly causes by human activities.

Causes:

1) Bulk amount of solid waste:

With increase in population the amount of solid waste is also increasing. People produce solid waste in different places like industry, schools, and at homes. These wastes are sent to landfill site. This solid waste method causes land pollution.

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2) Use of Pesticides and fertilizers:

To meet the required amount of food farmers use pesticides and fertilizers and many other chemicals to produce large

amount of crops and to protect crops from insects and other harmful organisms.

3, Deforestation causes land pollution

Deforestation is converting forest into dry land.

which afterwards change into barren land. Therefore that land can't be reusable for growing plants. Lack of plants or trees leads towards increase in pollutants.

4, Mining of natural resources:

To take out the underground minerals the process of mining is used which removes the top soil. Except that other chemicals are used for taking out mineral which causes land pollution.

5, Acid Rain: Acid rain causes due to chemical activities is one of the cause of land

pollution as if the rain water reaches to land it pollutes it.

Q.3: (1)

Dengue fever:

Dengue fever is a type of fever caused by the a specific kind of female mosquito.

Causes:

The primary cause of Dengue fever is a female mosquito which carries a virus and when it bites someone that person becomes dengue affected. These kind of mosquito produce due to rainfall and wherever the water is static. As static water for long in a places causes becomes polluted. The other cause is the infected person when he interacts with other, spreads Dengue or transfer to that person.

Preventive Measures:

- 1) The most important preventive measure that can be taken is preventing the reproduction of mosquitos. by spraying, pesticides etc.
- 2) Do not let the wastes be abundant in one place for long especially near residential areas such kind of place is mosquito's habitat.
- 3) Keep your water covered and keep changing waterⁱⁿ container time to time.
- 4) Preserve the edible things like food etc in refrigerator and in clean boxes. As mosquitos feed in the food containers.
- 5) Keep your windows closed in the evening as it is the time of the mosquito to enter at home and use coil etc to keep yourself safe.