

Question 7 Solution:-For figure A

$$\text{Area} = (3.6 \times 4.5) \text{ sq cm}$$

$$= 16.2 \text{ sq cm}$$

$$\text{Perimeter} = 2 \times (3.6 + 4.5) \text{ cm}$$

$$= 2 \times (8.1) \text{ cm}$$

$$= 16.2 \text{ cm}$$

For figure B

$$\text{Area} = \frac{1}{2} \times \text{Base} \times \text{Height}$$

$$= \left(\frac{1}{2} \times 6 \times 4 \right) \text{ sq cm}$$

$$= (3 \times 4) \text{ sq cm}$$

$$= 12 \text{ sq cm}$$

Perimeter =

Each equal side of the given triangle

$$= \sqrt{4^2 + 3^2} \text{ cm}$$

$$= \sqrt{16 + 9} \text{ cm}$$

$$= \sqrt{25} \text{ cm}$$

$$= 5 \text{ cm}$$

$$\therefore \text{Perimeter of given triangle} = (5 + 5 + 6) \text{ cm}$$

$$= 16 \text{ cm}$$

We see, in figure A only perimeter and area have same numerical value. Option (a) is correct.

Question 2 It has same numerical perimeter and area.

$$\text{Perimeter value} = \text{Area value}$$

$$\Rightarrow 2x(l+b) = l \times b$$

$$\Rightarrow 2x(y+10) = y \times 10$$

$$\Rightarrow (y+10) = \frac{y \times 10}{2}$$

$$\Rightarrow y + 10 = 5y$$

$$\Rightarrow y - 5y = -10$$

$$\Rightarrow -4y = -10$$

$$\Rightarrow y = \frac{-10}{-4} = 2.5$$

$\therefore y$ is 2.5 cm. Option (c) is correct

Question 3

Correct equation:-

$$\text{courier charge} = \text{fixed pickup charge} + 3.25w$$

$$C = 5 + (3.25 \times w)$$

(b) is correct

Question 4 given $C = 57$ zeds

$$C = 5 + (3.25 \times w)$$

$$\Rightarrow 57 = 5 + (3.25 \times w)$$

$$\Rightarrow 52 = 3.25 \times w$$

$$\Rightarrow \frac{52}{3.25} = w$$

$$\Rightarrow \boxed{16 = w}$$

(c) is correct

Question 5 let the weight of photo frame
and the weight of chess set = x kg
= y kg

Given that $x = 4 + y$
 $\Rightarrow x - y = 4$ — (1)

Iqbal paid (C_1) = $5 + (3.25)(x)$

Cherian paid (C_2) = $5 + (3.25)(y)$

Now, money paid more by Iqbal for
couriering his parcel than
Cherian = $C_1 - C_2$

$$= (5 + 3.25x) - (5 + 3.25y)$$

$$= \cancel{\$} + 3.25x - \cancel{\$} - 3.25y$$

$$= 3.25x - 3.25y$$

$$= 3.25(x - y)$$

$$= 3.25(4) \text{ [from (1)]}$$

$$= 13$$

\therefore (d) is the correct option

Question 6

Malavika have - 1 Gold & 1 Silver
Card

At 1st shop
she used Both cards & won

Using 1 Gold - she win - Now have 1 Gold +
1 Silver

Using 1 silver card - she win - now have
in place of ~~1 Gold~~ it
she now have
1 Gold

Total = 2 Gold + 1 silver

At 2nd shop she wins all

from 2 Gold = she now have 2 Gold + 2 silver

from 1 silver = she now have 1 Gold instead of it

Total = she have 3 Gold + 2 silver

At 3rd shop Again she wins all

from 3 Gold = she now have 3 Gold + 3 silver

from 2 silver = she now have 2 Gold instead of them

Total = she have 5 Gold + 3 silver

Q6 - (a) is correct

Q7

At 4th shop she wins all

from 5 Gold = she have 5 Gold + 5 silver

from 3 silver = she have 3 Gold instead of them

Total = she have 8 Gold + 5 silver cards

Refund she will get

$$= (8 \times 18) + (5 \times 8) \text{ zeds}$$

$$= 144 + 40 \text{ zeds}$$

$$= 184 \text{ zeds}$$

option (c) is correct

Question 8

Shirts
|

Pants
|

↓
Formal (F)

• Type 1 (1)

• Type 2 (2)

• Type 3 (3)

Denim (D)

• Type 1 (1)

• Type 2 (2)

• Type 3 (3)

• Type 4 (4)

↓
Jeans (J)

Type 1 (1)

Type 2 (2)

↓
formal (f)

Type 1 (1)

Type 2 (2)

∴ No. of ways Leela can select any shirt with any pair of pants

$$= (3 \times 2) + (3 \times 2) + (4 \times 2) + (4 \times 2)$$

$$= 6 + 6 + 8 + 8$$

$$= 28$$

(d) option is correct

Note

$$3 \times 2 = \begin{cases} F_1 J_1 + F_1 J_2 \\ F_2 J_1 + F_2 J_2 \\ F_3 J_1 + F_3 J_2 \end{cases}$$

$$= 6$$

$$3 \times 2 = \begin{cases} f_1 f_1 + f_1 f_2 \\ f_2 f_1 + f_2 f_2 \\ f_3 f_1 + f_3 f_2 \end{cases}$$

$$= 6$$

Similarly

$$4 \times 2 = \dots$$

Question 9

No. of ways she can select formal shirt with a pair of formal pants or a denim shirt with a pair of jeans

$$= (3 \times 2) + (4 \times 2)$$

$$= 6 + 8$$

$$= 14$$

(b) option is correct.