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Q no. 7

(a) Data given:

Average of 7 consecutive numbers  
is 20.

Solution:

There are 7 consecutive numbers  
having average of 20.

So, as ~~there~~ the total number of  
the numbers is 7 which is odd, therefore  
the middle number must be equal to  
their average.

Therefore, if their average is 20,  
it means the middle number must be 20  
also.

Then, the numbers must be as  
following: 17, 18, 19, 20, 21, 22, 23

Hence, the largest number is 23.

Ans.



Q no 7.

(b):

Data given:

C is A's father's

⇒ A told B that C is his father's nephew.

⇒ D is A's cousin but not the brother of C.

Solution:

As C is nephew of A's father, it means C is cousin of A, and

D is A's cousin but not the brother of C.

Therefore; As:

C is ~~cousin~~ of A's cousin and

D is also A's cousin but not the brother of C.

Then; as C and D both are A's cousins but D is not C's brother, the relationship between D and C can

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either be sister and brother" D sister of C and C brother of D", or they can be cousins also of each other.

Ans.

Q no. 7

C.

Data given.

7, 12, 19, 28, 39.

Solution:

Series continues with the addition of next coming odd number into the result of previous addition;

As;  $7 + 5$  becomes 12

then  $12 + 7$  becomes 19.

$19 + 9$  becomes 28

$28 + 11$  becomes 39

Therefore  $39 + 13$  will become 52.

Ans.

The next number in the sequence is

(52)



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Q no 7

(d),

Data given:

⇒ Ratio according to shares.

A : B : C : D

5 : 2 : 4 : 3

⇒  $C = D + 1000$

Solution

Let the sum of money be  $x$

$$C = D + 1000$$

Therefore, As we know

$$C - D = 1000$$

Then, by putting the share value of C and D, we will get the sum of money.

$$C - D = 1000$$

$$\frac{4}{14}x - \frac{3}{14}x = 1000$$

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$$\frac{4x}{14} - \frac{3x}{14} = 1000$$

$$\frac{x}{14} = 1000$$

$$x = 14000$$

14000 is the sum of money, now we have to find B's share, which is as following.

$$B = \frac{2}{14} \times 14000$$

$$B = 2000$$

B's share is 2000

Ans.

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1/1/20

Q no 6:

(a) Data given

Present value of machine  
Rs. 8748 which depreciated at  
the rate of 10-percent every year  
for three years.

Solution:

Let the original value of washing  
machine be  $x$ .

Value one year ago =  $x - \frac{10}{100}x$   
current value Rs. 8748

Therefore:

$$x - \frac{10}{100}x = 8748$$

~~$$x - \frac{10}{100}x = 8748$$~~

$$x - \frac{10x}{100} = 8748$$

$$\frac{100x - 10x}{100} = 8748$$

$$\frac{90x}{100} = 8748$$

$$x = \frac{8748 \times 100}{90} = 9720$$

Value of washing machine one year ago =  
9720



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Therefore:

$$x - \frac{10x}{100} = 9790$$

$$\frac{100x - 10x}{100} = 9790$$

$$\frac{90x}{100} = 9790$$

$$x = \frac{9790}{90} \times \frac{100}{100} = 10800$$

Two years ago = 10800

Then,

$$x - \frac{10x}{100} = 10800$$

$$\frac{100x - 10x}{100} = 10800$$

$$\frac{90x}{100} = 10800$$

$$x = \frac{10800}{90} \times \frac{100}{100} = 12000$$

$$x = 12000$$

The value of washing machine <sup>price</sup> two years ago was RS. 12000.

Ans.



Q no. 6

(b) Data given:

$\Rightarrow$  A Father is four times the age of his daughter.

$\Rightarrow$  After 5 years, he would be three times of daughter's age.

Solution:

At present father is four times the age of his daughter, and after 5 years, he would be three times of daughter's age. It means current ages of both are

Father	Daughter
40	10

And after which is four times of his daughter and after 5 years, their age will be

Father	Daughter
45	15





Q no 6

Q) Data given.

Each side of the given regular pentagon is 281m.

Solution:

There are 5 sides of the regular pentagon, and all the sides of a regular pentagon are always equal. And to find the perimeter of a regular pentagon, we simply multiply the length of the given side by 5.

Therefore,

In this case, each side of the pentagon is 281m, so the perimeter of the building in Washington D.C can be calculated as under:

Perimeter = total sides  $\times$  length of one side

$$P = 5 \times 281\text{m} = 1405\text{m}$$

Therefore, the perimeter of the regular pentagon building is 1405 meters. Ans

Q no 2:

a,

i. RAM and ROM.

RAM: RAM stands for Random Access Memory. It temporarily stores data, its contents lost when the computer is powered off.

ROM: ROM stands for Read-only Memory. This data is permanent, ROM is mainly used to boot up the computer.

ii. Network and Internet.

Network is to ~~called~~ be referred to the collection of inter-connected devices, like computers and printers etc.

Local Area Network - LAN and (wide Area Network WAN) come within it.

while Internet is a global network, it connects devices worldwide.



## iii. GPS and GIS.

GPS is a satellite-based navigation that provides us the location we want to go anywhere on earth.

on the other hand GIS does not provide the live location or location as GPS provides.

## iv. Byte and Nibble

Byte is a unit of digital information, it consists 8 bits.

while Nibble is equal to half a byte.

## v. Natural Satellite and Artificial Satellite:

Natural Satellite means the natural bodies like Moon etc.

On the other hand, artificial satellites are a human-made objects, which help us to in scientific research, monitoring weather, working of GPS etc.

The End.

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