

# SSC MTS 8th August 2019 Shift-1

## English

### Instructions

For the following questions answer them individually

### Question 1

Choose the most appropriate word that can substitute the given group of words.

Something which lasts forever

- A Eternal
- B Temporal
- C Annual
- D Peripheral

**Answer:** A

### Question 2

Select the most appropriate antonym of the given word.

Progress

- A Advancement
- B Growth
- C Betterment
- D Decline

**Answer:** D

### Question 3

Select the most appropriate option to fill in the blank.

The accident occurred in the \_\_\_\_\_ of the road.

- A way
- B middle
- C side
- D path

**Answer:** B

### Question 4

Find the part of the given sentence that has an error in it. If there is no error, choose 'No error'.

She ran so fastly that I could not overtake her. /No error

- A She ran so fastly
- B not overtake her
- C No error

D that I could

**Answer:** A

### Question 5

**Choose the correctly spelt word.**

A Obbstacle

B Obctacle

C Obstacal

D Obstacle

**Answer:** D

### Question 6

**Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No Improvement.**

The city have not receive much rains for a week now.

A have not received

B has not received

C No Improvement

D has not receive

**Answer:** B

### Question 7

**Choose the most appropriate word that can substitute the given group of words.**

Medicine given to counteract a poison.

A Antibiotic

B Antiseptic

C Antigen

D Antidote

**Answer:** D

### Instructions

In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.

#### Comprehension:

The Ashoka pillars are a series of columns (1)\_\_\_\_\_ in northern India by King Ashoka (2)\_\_\_\_\_ his reign in the 3rd century BCE. (3)\_\_\_\_\_ pillars are inscribed with edicts by the Mauryan king. At an average (4)\_\_\_\_\_ 50 feet in height and weighing up to 50 tons each, (5)\_\_\_\_\_19 pillars survive today.

**Question 8**

Select the most appropriate option for blank No. 1.

- A erected
- B located
- C developed
- D created

**Answer:** A

**Question 9**

Select the most appropriate option for blank No. 2.

- A across
- B through
- C along
- D during

**Answer:** D

**Question 10**

Select the most appropriate option for blank No. 3.

- A These
- B That
- C This
- D Those

**Answer:** A

**Question 11**

Select the most appropriate option for blank No. 4.

- A by
- B at
- C of
- D on

**Answer:** C

**Question 12**

Select the most appropriate option for blank No. 5.

- A** only
- B** any
- C** also
- D** even

**Answer:** A

### **Instructions**

For the following questions answer them individually

### **Question 13**

**Select the most appropriate synonym of the given word.**

**Exceptional**

- A** Extraordinary
- B** Usual
- C** Mundane
- D** Common

**Answer:** A

### **Question 14**

**Choose the correctly spelt word.**

- A** Philosophy
- B** Phelosophy
- C** Philosophie
- D** Filosophy

**Answer:** A

### **Question 15**

**Select the most appropriate option to fill in the blank.**

**This is one of the \_\_\_\_ remarkable cases I have handled.**

- A** more
- B** most
- C** much more
- D** much

**Answer:** B

**Question 16**

**Select the most appropriate synonym of the given word.**

**Brisk**

- A Frugal
- B Languid
- C Quick
- D Sluggish

**Answer: C**

**Question 17**

**Select the most appropriate meaning of the given idiom.**

**Cup of tea**

- A Something that pleases one
- B A feeling of elation
- C A useless search
- D Something refreshing

**Answer: A**

**Question 18**

**Find the part of the given sentence that has an error in it. If there is no error, choose 'No error'.**

**The more he earned the more he want to earn. /No error**

- A the more he
- B No error
- C want to earn
- D The more he earned

**Answer: C**

**Question 19**

**Select the most appropriate antonym of the given word.**

**Crooked**

- A Curved
- B Straight
- C Spiral
- D Bent

**Answer: B**

### Instructions

Select the most appropriate option to fill in the blank.

#### Question 20

\_\_\_\_\_ rivers have water throughout the year.

- A Ephemeral
- B Perennial
- C Seasonal
- D Chronic

**Answer:** B

#### Question 21

Our salaries \_\_\_\_\_ increased over the years.

- A have
- B are
- C has
- D is

**Answer:** A

### Instructions

For the following questions answer them individually

#### Question 22

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No Improvement.

Eight people were injured after a tempo rammed into a car on the highway.

- A rammed with
- B rammed by
- C rams in
- D No Improvement

**Answer:** C

#### Question 23

Select the most appropriate meaning of the given idiom.

On the tip of my tongue

- A Feeling extremely joyful

- B Readily available in my memory
- C Excessively costly
- D At full speed

**Answer:** B

#### Question 24

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No Improvement.

Until you remains calm, you cannot concentrate.

- A Unless you remains
- B Unless you remain
- C No Improvement
- D If you remain

**Answer:** B

#### Question 25

Find the part of the given sentence that has an error in it. If there is no error, choose 'No error'.  
I know that he wanted to go home earliest. /No error

- A go home earliest
- B I know that
- C No error
- D he wanted to

**Answer:** A

## Reasoning

#### Instructions

For the following questions answer them individually

#### Question 26

Five subjects S1, S2, S3, S4 and S5 (not necessarily in the same order) are to be taught from Monday to Friday. One subject will be taught on one day. Only S5 is taught before S1. S2 is taught before S4. S2 will not be taught on Wednesday. Which of the following pair of subjects is taught after S3?

- A S4, S1
- B S2, S5
- C S1, S2
- D S2, S4

**Answer:** D

**Explanation:**

From the given statement only S5 will be taught before S1, hence only one possibility is there to put S5 on Monday and S1 on Tuesday and S2 will not be taught on Wednesday but before S4 so only one possibility is there to put S4 on Friday and S2 on Thursday. Hence the remaining place is occupied by S3 on Wednesday. So, the sequence will follow like this;

MONDAY	S5
TUESDAY	S1
WEDNESDAY	S3
THURSDAY	S2
FRIDAY	S4

Hence, S2 and S4 is taught after S3, so the correct option is (d)

**Question 27**

**By interchanging which two signs the equation will be correct?**

$$11 + 16 \times 12 \div 4 - 2 = 21$$

**A**  $\times$  and  $-$

**B**  $-$  and  $+$

**C**  $\div$  and  $+$

**D**  $\div$  and  $\times$

**Answer: A**

**Explanation:**

$$\text{Given, } 11 + 16 \times 12 \div 4 - 2 = 21$$

These type of questions can be quickly solved by checking options.

So, from the options we get option A would be correct.

$$\text{On solving, } 11 + 16 - 12 \div 4 \times 2$$

$$\Rightarrow 27 - 6 = 21.$$

**Question 28**

**In a certain code language, 'PRISON' is written as '659210', 'SCAMP' is written as '23476'. What is the code for 'CROPS' in that code language?**

**A** 35762

**B** 35462

**C** 35160

**D** 35162

**Answer: D**

**Explanation:**

From the given question we get the code of different alphabets, i.e. for PRISON; P=6, R=5, I=9, S=2, O=1, N=0





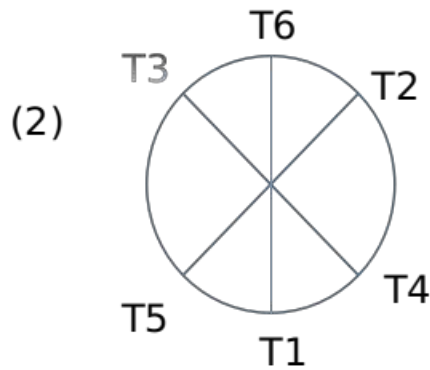
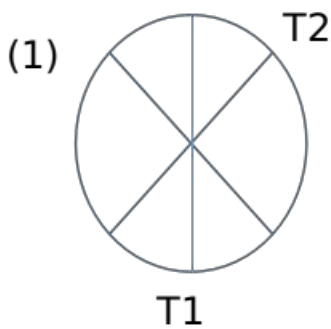
- A T2, T3
- B T4, T6
- C T1, T3
- D T6, T5

**Answer: C**

**Explanation:**

From the given statements, T2 is second to the right of T1, so we can place T1 and T2 accordingly anywhere in the arrangement. Fig.1 depicts the arrangement.

Now, T3 and T4 are facing each other so only two places are vacant which are opposite to each other and also T5 is to immediate right of T3 so, we can not place T3 in between T2 and T1 as T2 has already occupied the space. Hence, the figure 2 depicts the final arrangement.



From the given options we conclude that T1 and T3 does not meet the logic as T3 is second to the right of T1 not second to the left as in the other options.

Hence, option C is correct.

**Question 31**

In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives.

9 11 7 24  
 17 6 4 24  
 12 12 9 ?

- A 23
- B 24
- C 27
- D 31

**Answer: D**

**Question 32**

Select the option that is related to the third term in the same way as the second term is related to the first term.

Litre : Volume :: Hectare : ?

- A Area
- B Time

C Mass

D Force

**Answer:** A

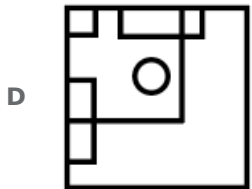
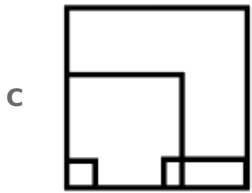
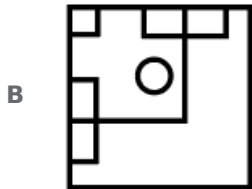
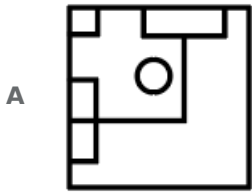
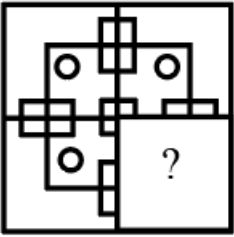
**Explanation:**

The given analogy refers to the measurement of units. i.e. Litre is a measurement of Volume of any liquid, hence here Hectare is the unit of measurement of Area.

So, option (a) is correct here.

**Question 33**

Which answer figure will complete the pattern in the question figure?



**Answer:** B

**Question 34**

Select the option that is related to the third Letter Cluster in the same way as the second Letter Cluster is related to the first Letter Cluster.

TOL : WRO :: GRA : ?

- A JUC
- B JVF
- C JUD
- D JVE

**Answer: C**

**Explanation:**

In the given series analogy it follows the next to next term of alphabets. i.e. T - W

Hence the correct option is JUD here.

**Question 35**

**In a certain code language, 'STABLE' is written as 'TVDFQK'. What is the code for 'COWARD' in that code language?**

- A DQZEWJ
- B DRZEWJ
- C ERAFXU
- D ERBFXV

**Answer: A**

**Explanation:**

The given word is replaced by addition of a consecutive terms i.e. S is replaced by T then T is replaced by V (addition of 2) and so on.

Hence, COWARD will be replaced by DOZEWJ

**Question 36**

**By interchanging which two signs the equation will be correct?**

$$13 - 9 \times 2 \div 3 + 16 = 3$$

- A  $-$  and  $\times$
- B  $-$  and  $+$
- C  $\times$  and  $-$
- D  $-$  and  $\div$

**Answer: B**

**Explanation:**

For solving these type of questions we can go through the options.

From option B we can see that by interchanging  $-$ ,  $+$  sign we can get the answer as follows:

$$13 + 9 \times 2 \div 3 - 16 = 13 + 18 \div 3 - 16$$

$$\Rightarrow 19 - 16 = 3.$$

**Question 37**

In the following question, select the missing number from the given series.

31, 17, 48, 65, 113, ?

A 174

B 162

C 168

D 178

**Answer:** D

**Explanation:**

From the given series we get the next term by adding the consecutive terms of the series.

$$31 + 17 = 48$$

$$48 + 17 = 65$$

$$65 + 48 = 113$$

$$113 + 65 = 178.$$

option (d) is correct.

**Question 38**

Select the number-pair in which the two numbers are related in the same way as the two numbers in the following number-pair.

18 : 57 :: ?

A 26 : 75

B 24 : 70

C 14 : 43

D 28 : 87

**Answer:** D

**Explanation:**

The given analogy follows  $18 \times 3 + 3 = 57$

Hence, from the given options we get  $28 \times 3 + 3 = 87$ .

option (d) is correct.

**Question 39**

A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

AMD, CLF, EKH, ?, IIL

A GJL

B HJJ

C HJK

D GJJ

**Answer:** D

**Explanation:**

In the given series the first term of all words are following its next to next term. i.e. A ,C,E,G,I

The second term of all words are preceding its previous terms i.e. M,L,K,J,I

The third term of all the words are changed to its next to next term i.e. D,F,H,J,L

Hence, the next word will be GJJ.

**Question 40**

**Select the option that is related to the third term in the same way as the second term is related to the first term.**

**Crockery : Cup :: Garment : ?**

- A Rat
- B Shopkeeper
- C Shop
- D Trouser

**Answer:** D

**Explanation:**

From the given analogy we know that Cup is included in Crockery. Trouser is also included in Garment.

Hence option (d) is correct.

**Question 41**

**In the following question, select the figure which can be placed at the sign of question mark (?) from the given alternatives.**

K R	Я L	L T	?	K R
T L	K J	R K		T L

A

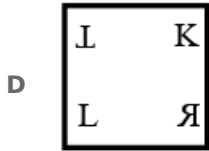
T K
L Я

B

L K
L Я

C

T K
J R



Answer: D

#### Question 42

Select the number that can replace the question mark (?) in the following series.  
14, 17, 22, 29, 40, ?

- A 59
- B 53
- C 63
- D 57

Answer: B

#### Explanation:

The given series is following addition of the prime numbers. i.e.

$$14+3=17$$

$$17+5=22$$

$$22+7=29$$

$$29+11=40$$

$$40+13=53.$$

Hence 53 will be the next term.

#### Question 43

In the following question below are given some statements followed by some conclusions based on those statements. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.

Statements:

I. Some J are T.

II. No T is V.

Conclusions:

I. Some V are J.

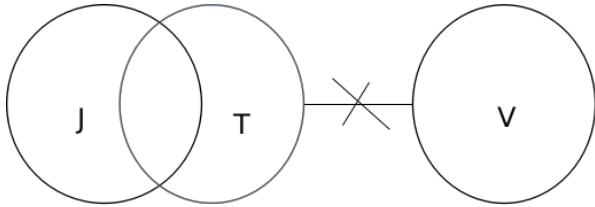
II. All J are T.

- A Neither conclusion follow
- B Both conclusion I and II follows
- C Only conclusion II follows
- D Only conclusion I follows

Answer: A

#### Explanation:

The venn diagram is as follows:

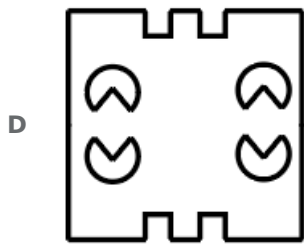
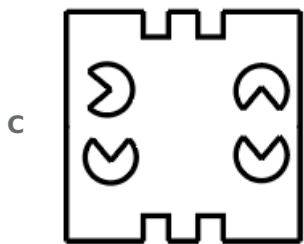
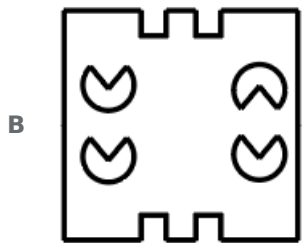
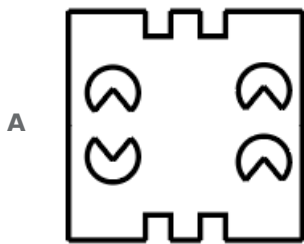
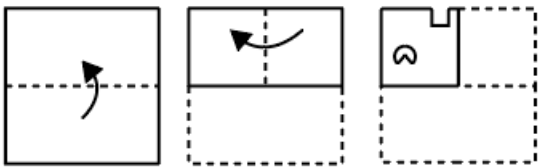


From the above venn diagram we can not say either some V are J or not. So, the first conclusion will not be follow. In the given statement it is given that some J are T so it will contradict the second conclusion. Hence, it is also not correct.

So, both conclusion are wrong.

**Question 44**

**A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened ?**



**Answer: D**



**Question 45**

In the following question below are given some statements followed by some conclusions based on those statements. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.

**Statements:**

**I. All K are B.**

**II. No T is K.**

**Conclusions:**

**I. No K is T.**

**II. Some B are K.**

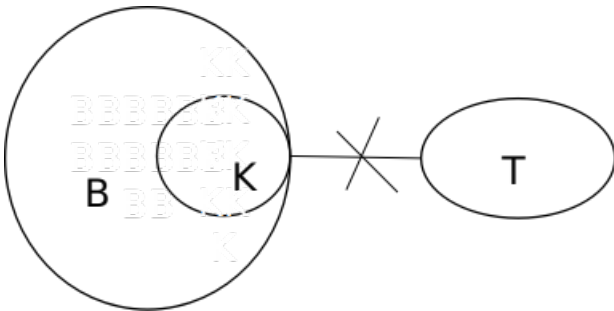
**III. Some T are B.**

- A** Both conclusion I and II follows
- B** Only conclusion III follows
- C** Neither conclusion follow
- D** Both conclusion II and III follows

**Answer: A**

**Explanation:**

The venn digram is as follows:



From the venn diagram we get,

No K is T is correct and some B are K is correct but we can not find whether some T are B or not.

So,only conclusions i and ii will follow.

**Question 46**

In a certain code language, 'RODENT' is written as 'PJAZKN'. What is the code for 'CURTAN' in that code language?

- A** KXPNQY
- B** JVPNQY
- C** KWPNQY
- D** JWPNQY

**Answer: D**

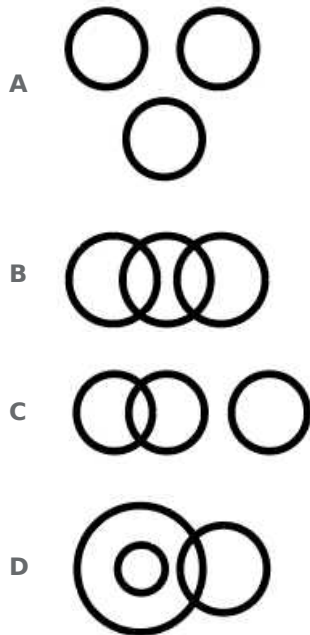
**Explanation:**

The given code follows the replacement of its previous digits at a gap of three alphabets from right to left. i.e. R is replaced by N ; O is replaced by K. and so on.

Hence, code for CURTAIN is JWPNQY

**Question 47**

**Identify the Venn diagram that best represents the relationship between the given classes.  
Sister, Aunt, Uncle**



**Answer: C**

**Question 48**

**In a certain code language, 'COW' is written as '41', 'PIG' is written as '32'. What is the code for 'CUP' in that code language?**

- A 44
- B 38
- C 40
- D 30

**Answer: C**

**Explanation:**

The given code follows the addition of corresponding numbers of the alphabets. i.e.

In COW ; C =3; O = 15;W= 23.

so,  $3 + 15 + 23 = 41$

Similarly, PIG ; P= 16;l=9;G=7

so,  $16 + 9 + 7 = 32$

Similarly, CUP will be coded as C=3; U=21;P=16;

CUP = 40.

**Question 49**

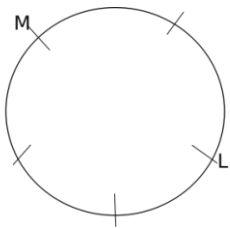
Five advocate G, N, M, L and A are sitting around a circular table facing towards the centre (not necessarily in the same order). A is sitting between G and L. M is second to the right of L. G is towards the immediate left of A. Who is sitting second to the left of A?

- A M
- B G
- C L
- D N

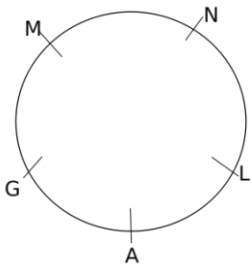
**Answer:** A

**Explanation:**

From the given statement M sits second to the right of L. So, we can place M and L anywhere accordingly in this arrangement.



Now, A sits between G and L and also G is immediate left of A, so, the following arrangement will be done finally.



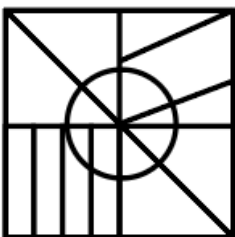
Hence, M is sitting second left of A.

**Question 50**

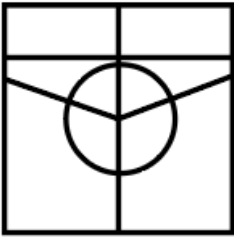
From the given answer figures, select the one in which the question figure is hidden/embedded. (Rotation not allowed)



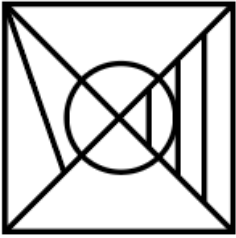
A



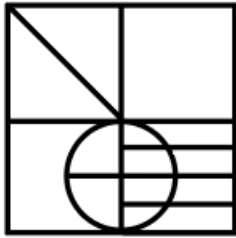
B



C



D



Answer: B

## Quant

### Instructions

For the following questions answer them individually

### Question 51

The difference in selling prices of an article when sold at 15% profit and 17% loss is ₹96. If it is sold at 10% profit, then what is the selling price?

A ₹345

B ₹360

C ₹315

D ₹330

Answer: D

### Explanation:

$$\text{Profit \%} = \frac{SP - CP}{CP} \times 100$$

Here, For the profit of 15% ,SP = 115% of CP

Similarly, for loss of 17% ,SP = 83% of CP

Hence, Difference in both SP is given as 96 i.e. 115% CP - 83% CP = 96

$$= 32\% \text{ CP} = 96$$

$$\text{CP} = 300.$$

For 10% profit = 10% of 300 = 30.

$$\text{SP} = 300 + 30 = 330$$

**Question 52**

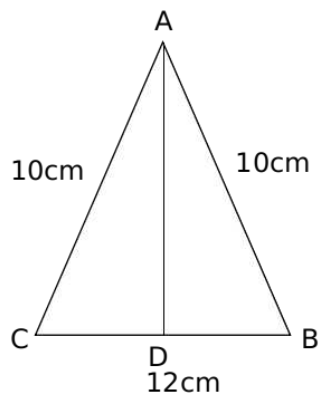
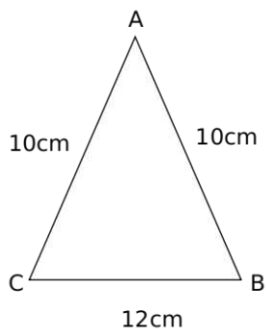
The sides of an isosceles triangles are 10 cm, 10 cm and 12 cm. What is the area of the triangle?

- A  $60 \text{ cm}^2$
- B  $48 \text{ cm}^2$
- C  $40 \text{ cm}^2$
- D  $44 \text{ cm}^2$

**Answer:** B

**Explanation:**

To find the area of the isosceles triangle ABC draw a perpendicular line from A to the base of the triangle BC and name that point as D such that it will become a right angled triangle.



Now,  $BD = CD = 6\text{cm}$ . The area of the right angled triangle is given as  $= \frac{1}{2} \times b \times h$ , where b and h are base and height.

Height we can calculate from pythagoras theorem

$$AD^2 = (AB^2 - BD^2)$$

$$\Rightarrow AD^2 = (10^2 - 6^2)$$

$$\Rightarrow AD = 8\text{cm}.$$

The area of right angled now will be  $= \frac{1}{2} \times 6 \times 8 = 24\text{cm}^2$

The area of triangle ABC will be two times the area of triangle ADB  $= 24+24=48 \text{ cm}^2$ .

Hence option B is correct.

**Question 53**

A sum of ₹2000 is invested on simple interest for three years at the rate of 10% per annum, then the amount will be:

- A ₹2900

- B** ₹2600
- C** ₹2300
- D** ₹2500

**Answer:** B

**Explanation:**

Simple Interest (SI) is given as  $= \frac{PRT}{100}$ , where P is Principle amount, R is Rate of Interest, T is Time period

Here, P = 2000, R = 10 % So, SI =  $\frac{(2000)(10)(3)}{100} = 600$

Hence the total amount will be SI + P = 2000 + 600 = 2600.

**Question 54**

**The proportion of the number of students in three classes is 1 : 2 : 3. If 20 students are included in each class, then the proportion becomes 3 : 5 : 7. What was initially the total number of students in the three classes?**

- A** 200
- B** 280
- C** 220
- D** 240

**Answer:** D

**Question 55**

**Marked price of an article is ₹2600, which is 30% more than the cost price. If the profit is 45%, then what will be the selling price of the article?**

- A** ₹3100
- B** ₹3900
- C** ₹2700
- D** ₹2900

**Answer:** D

**Explanation:**

Given the MP of the article is 2600 and according to the question MP = 130 % CP

Hence, CP =  $\frac{2600}{1.3} = 2000$ .

Profit % =  $\frac{SP-CP}{CP}$

45 % =  $\frac{SP-2000}{2000}$

SP = 2900.

**Question 56**

**A train with 72 km/h speed crosses a stationary pole in 35 seconds. How much time (in minutes) does it take to cross a 1.1 km long bridge?**

- A 2.5
- B 3
- C 2
- D 1.5

**Answer:** D

**Explanation:**

Given train speed =  $72 \frac{km}{hr}$

The length of the train will be calculated from the formula  $Speed = \frac{Distance}{Time}$  i.e.  $72 \times \frac{5}{18} \times 35 = 700$  m or 0.7 km

Hence, for crossing a bridge of 1.1 km , it will cover a total distance of  $1.1 \text{ km} + 0.7 \text{ km} = 1.8 \text{ km}$

So, from formula we get Time taken by train (in minutes) to cross a bridge =  $\frac{1.8}{72} \times 60$   
 = 1.5 minutes.

**Question 57**

**The average weight of 18 boys in a group is 35 kg.If four new boys of weights 20 kg, 22 kg 26 kg and 28 kg are added to the group, then what is the average weight of the newly formed group?**

- A 34 years
- B 32 years
- C 35 years
- D 33 years

**Answer:** D

**Explanation:**

Average formula =  $\frac{\text{sum of ages of all boys}}{\text{total number of boys}}$

So,the average age of 18 boys is 35 here,

from the above formula we get the total age =  $35 \times 18 = 630$ .

When four new boys joined the group of ages 20,22,26,28, now total age will become =  $630 + 20 + 22 + 26 + 28 = 726$ .

Now total number of boys increased to 22, hence average age of new group =  $\frac{726}{22} = 33$ .

**Question 58**

**The cost price and the selling price of a shirt are ₹960 and ₹1392 respectively. If by way of bargaining a customer can bring the selling price down by 10% of the cost price, then what is the profit percentage?**

- A 55%
- B 35%
- C 30%
- D 45%

**Answer: B**

**Explanation:**

Given the CP of the shirt = 960 and SP of the shirt = 1392

The profit when after bargaining the SP comes down to 10% of CP i.e. 96

So new SP will be =  $1392 - 96 = 1296$ .

Hence, Profit % =  $\frac{SP - CP}{CP} \times \{100\}$

$$= \frac{1296 - 960}{960} \times \{100\}$$

$$= 35\%$$

**Question 59**

The speed of a boat in still water is 6 km/h. Time taken by the boat to cover a certain distance upstream is 3 hours more than the time taken to cover the same distance downstream. If the speed of the stream is 2 km/h, then what is the total distance, upstream and downstream, covered by the boat?

A 72 km

B 24 km

C 48 km

D 36 km

**Answer: C**

**Explanation:**

Let the speed of the boat be  $x \frac{km}{hr}$  and speed of stream be  $y \frac{km}{hr}$ .

Let the distance covered in one way be D km.

From the question we have,  $\frac{D}{x+y} + 3 = \frac{D}{x-y}$ ,

Given,  $x = 6 \frac{km}{hr}$  and  $y = 2 \frac{km}{hr}$

$$\text{we get, } 4 - \frac{D}{8} = 3$$

$$\text{i.e. } D = 24 \frac{km}{hr}$$

So, the total distance in upstream and downstream is  $24 + 24 = 48 \frac{km}{hr}$

**Question 60**

What is the value of  $2 \text{ of } 16 \div 48 \times 12 + 4 \div 8 \times 16 + (7 - 2) \times 25 \div 15$ ?

A  $\frac{73}{3}$

B  $\frac{59}{3}$

C  $\frac{49}{3}$

D  $\frac{56}{3}$

**Answer: A**

**Question 61**

What is the average of first 15 whole numbers?



- A 8
- B 7
- C 9
- D 10

**Answer:** B

**Explanation:**

The first 15 whole numbers are 0,1,2,3,.....14.

Average formula =  $\frac{\text{sum of all terms in the given series}}{\text{number of terms present in the series}}$

So, for finding average of these above numbers we should add all the numbers and divide it by 15.

As, we can see here that this series of whole numbers is in AP. So, here we can use directly the AP series formula which is as follow for n terms,

$$S_n = \frac{n}{2} \times (\{2\} \{a\} + (n-1) \times \{d\})$$

So for 15 terms ,here, n=15, a=0, d=1, where 'a' and 'd' are first term and common difference in AP series respectively.

After putting in the above formula we get;

$$S_{15} = \frac{15}{2} \times (\{2\} \{0\} + (15-1) \times \{1\})$$

$$S_{15} = \frac{15}{2} \times \{14\}$$

$$= \{15\} \times \{7\}$$

So, the average of first 15 whole numbers is 7.

**Question 62**

**What is the value of**

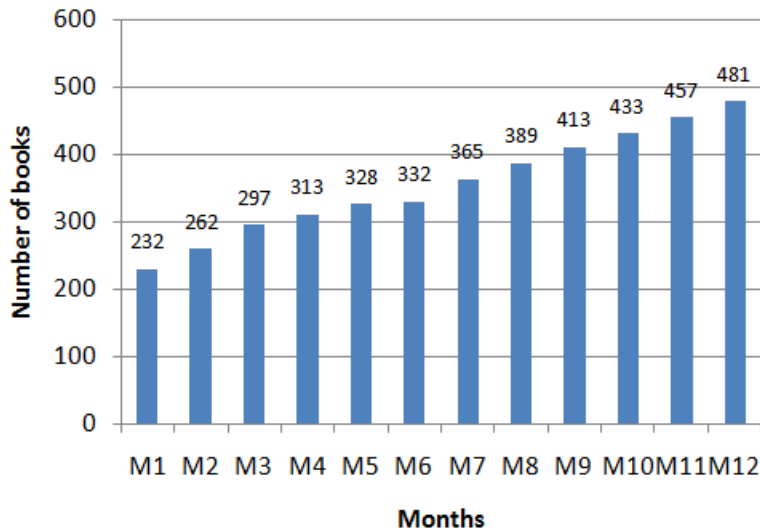
$$\left( \frac{1}{2} \div \frac{1}{2} \times \frac{1}{2} + \frac{1}{2} - \frac{1}{2} + \frac{1}{2} \times \frac{1}{2} \div \frac{1}{2} \right) \text{ of } \left( \frac{1}{2} + \frac{1}{2} \right)?$$

- A  $\frac{3}{2}$
- B  $\frac{1}{2}$
- C 1
- D  $\frac{5}{2}$

**Answer:** C

### Question 63

The Bar graph given below presents the number of books sold by a book seller during different months of a year.



The number of books sold in month M3 is what percent of books sold in month M6?

- A 89.45%
- B 92.45%
- C 95.45%
- D 98.45%

**Answer:** A

### Question 64

What is the difference of mean and median of the given data : 4, 13, 8, 15, 9, 21, 18, 23, 35, 1?

- A 0.7
- B 1.7
- C 1.2
- D 2.1

**Answer:** A

#### **Explanation:**

Mean:

No. of samples (n) = 10

$$\text{Mean} = \frac{\sum x}{n} = \frac{4+13+8+15+9+21+18+23+35+1}{10} = \frac{147}{10} = 14.7$$

Median:

Arranging the data in ascending order, we get:

1, 4, 8, 9, 13, 15, 18, 21, 23, 35

n = 10 (even)

Therefore, median is the average of 5th and 6th term.

$$\text{Median} = \frac{13+15}{2} = 14$$

$$\text{Mean} - \text{Median} = 14.7 - 14 = 0.7$$

Therefore, Option A is correct.

#### Question 65

The area of a square is  $144 \text{ cm}^2$ . What is the perimeter of the square formed with the diagonal of the original square as its side?

A  $48\sqrt{2}$  cm

B 48 cm

C  $24\sqrt{2}$  cm

D 24 cm

Answer: A

#### Question 66

60% of a number is 168, then what is the number?

A 280

B 320

C 240

D 200

Answer: A

#### Question 67

Ravi's age is  $\frac{3}{5}$  of Shyam's age. After  $x$  years the ratio of the ages of Ravi and Shyam becomes 5 : 7. If initially the sum of their ages is 32, then what is the value of  $x$  ?

A 2

B 4

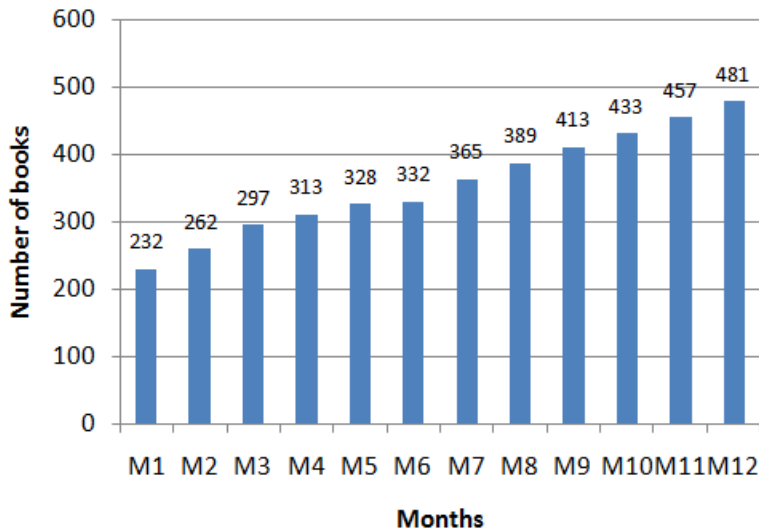
C 8

D 7

Answer: C

**Question 68**

The Bar graph given below presents the number of books sold by a bookseller during different months of a year.



What is the total number of books sold by the book seller in the year?

- A 4132
- B 4032
- C 4302
- D 4202

**Answer:** C

**Question 69**

The radius of a hemisphere is 14 cm. What is the cost of painting the outer curved surface of the hemisphere at the rate of ₹45 per  $\text{cm}^2$  ?(Take  $\pi = \frac{22}{7}$  )

- A ₹53160
- B ₹55440
- C ₹56820
- D ₹58280

**Answer:** B

**Question 70**

What is the largest two digit number which when divided by 6 and 7 gives remainder 3 and 4 respectively?

- A 81
- B 94
- C 83

**D** 84

**Answer:** A

**Question 71**

**A sum of ₹1000 is invested on compound interest (compounding annually) for three years. If the rate of interest is 10% per annum for the first two years and 50% per annum for the third year, then what will be the interest?**

**A** ₹612

**B** ₹655

**C** ₹815

**D** ₹756

**Answer:** C

**Question 72**

**E, F and G together can complete a work in 12 days. If E and F together can complete the same work in 30 days, then in how many days can G alone complete the same work?**

**A** 18 days

**B** 20 days

**C** 12 days

**D** 24 days

**Answer:** B

**Question 73**

**What is the ratio of the mean proportional between 24 and 150 and the third proportional between 12 and  $6\sqrt{5}$  ?**

**A** 2 : 1

**B** 1 : 2

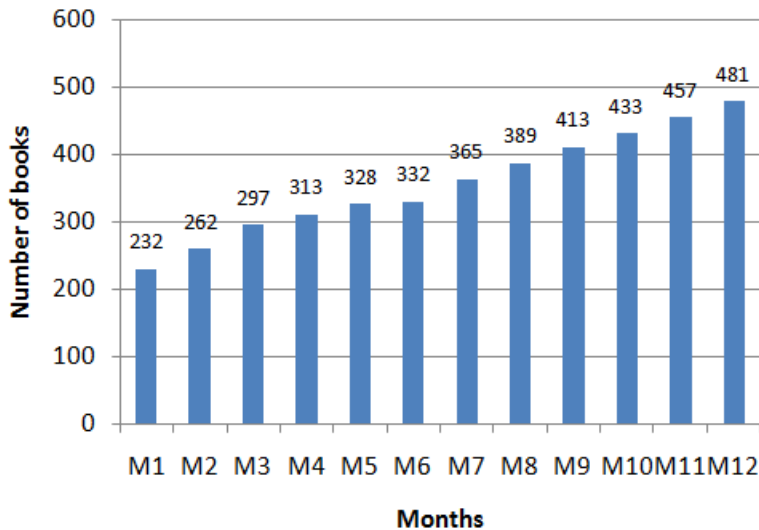
**C** 1 : 4

**D** 4 : 1

**Answer:** D

### Question 74

The Bar graph given below presents the number of books sold by a bookseller during different months of a year.



The number of books sold in month M8 is how much more than the average number of books sold per month?

- A 30.5
- B 26.5
- C 22.5
- D 34.5

Answer: A

### Question 75

Vishal alone can complete  $\frac{1}{3}$  part of a work in 60 days and Ashok alone can complete  $\frac{1}{4}$  part of the same work 30 days. In how many days Vishal and Ashok together can complete the same work?

- A 64
- B 20
- C 72
- D 56

Answer: C

## General knowledge

### Instructions

For the following questions answer them individually

### Question 76

Vaibhav Yadav is associated with which of the following sport?

- A Boxing

- B** Badminton
- C** Tennis
- D** Weightlifting

**Answer:** A

**Question 77**

**Which of is the regional music of Goa?**

- A** Sohar
- B** Pandavani
- C** Mando
- D** Lotia

**Answer:** C

**Question 78**

**Which part of brain maintains posture and balance of human body?**

- A** Cerebrum
- B** Pons
- C** Cerebellum
- D** Medulla

**Answer:** C

**Question 79**

**At what pH value tooth starts to decay?**

- A** 11.2
- B** 6.5
- C** 5.5
- D** 7.5

**Answer:** C

**Question 80**

**Based on economic activities, how many sectors are there in Indian economy?**

- A** 4
- B** 3

**C** 2

**D** 5

**Answer:** B

**Question 81**

**Which of the following is a sweet smelling substance?**

**A** Ammonia

**B** Methanol

**C** Esters

**D** Ethanol

**Answer:** C

**Question 82**

**Which of the following books is written by Varaha Mihira?**

**A** Kumarasambhava

**B** Shakuntala

**C** Brihat Samhita

**D** Ritusamhara

**Answer:** C

**Question 83**

**The first modern Olympic Games were held in which of the following city?**

**A** Athens

**B** Stockholm

**C** Paris

**D** London

**Answer:** A

**Question 84**

**Which of the following became a union territory of India in 1954 after about 280 years of French rule?**

**A** Dadra and Nagar Haveli

**B** Daman and Diu

**C** Puducherry

**D** Lakshadweep



**Answer: C**

**Question 85**

**As per Article 274 of constitution, whose prior recommendation is required to the Bills affecting taxation?**

- A** Chairman of Rajya Sabha
- B** Union Finance Minister
- C** President
- D** Prime Minister

**Answer: C**

**Question 86**

**Amit Shah contested the Lok Sabha elections 2019 from \_\_\_\_ constituency.**

- A** Varanasi
- B** Lucknow
- C** Gandhinagar
- D** Amethi

**Answer: C**

**Question 87**

**Which finger shows the direction of current in Fleming's left hand rule?**

- A** Index finger
- B** Middle finger
- C** Thumb finger
- D** Ring finger

**Answer: B**

**Question 88**

**As of June 2019 who is the chairman of ISRO?**

- A** A. S. Kiran Kumar
- B** Shailesh Nayak
- C** K. Radhakrishnan
- D** K. Sivan

**Answer: D**

**Question 89**

**Who built the Hawa Mahal situated in Jaipur?**

- A** Rawal Jaisal
- B** Sawai Pratap Singh
- C** Chitrangad Mori
- D** Rawal Ratan Singh

**Answer: B**

**Question 90**

**Which Schedule of Indian Constitution contains the provisions on Panchayat Raj Institutions?**

- A** Tenth Schedule
- B** Eleventh Schedule
- C** Ninth Schedule
- D** Twelfth Schedule

**Answer: B**

**Question 91**

**The Vikramshila Gangetic Dolphin Sanctuary is located in:**

- A** Haridwar
- B** Allahabad
- C** Bhagalpur
- D** Visakhapatnam

**Answer: C**

**Question 92**

**Which of the following rivers originates in Amarkantak Hill in Madhya Pradesh?**

- A** Periyar
- B** Ravi
- C** Narmada
- D** Gomti

**Answer: C**

**Question 93**

**The famous dancer Chemancheri Kunhiraman Nair is associated with which of the following dance forms?**

- A** Kathakali
- B** Manipuri
- C** Odissi
- D** Sattriya

**Answer:** A

**Question 94**

**Which of the following is the largest peninsular river in India?**

- A** Godavari
- B** Narmada
- C** Krishna
- D** Mahanadi

**Answer:** A

**Question 95**

**How many languages are there on language panel of Indian currency note?**

- A** 12
- B** 17
- C** 15
- D** 10

**Answer:** C

**Question 96**

**As of June 2019, who is the CEO of Union Bank of India?**

- A** Rajkiran Rai G.
- B** Sunil Mehta
- C** Ashok Kumar Pradhan
- D** Ravneet Singh Gill

**Answer:** A

**Question 97**

**Which type of reproduction occurs in hydra?**

- A** Fragmentation
- B** Budding
- C** Binary Fission
- D** Spore Formation

**Answer:** B

**Question 98**

**Which of the following is highest civilian award of India?**

- A** Padma Bhushan
- B** Bharat Ratna
- C** Padma Shri
- D** Jnanpith Award

**Answer:** B

**Question 99**

**Who is the writer of novel 'The White Tiger'?**

- A** R.K. Narayan
- B** Aravind Adiga
- C** Vikram Seth
- D** Shashi Tharoor

**Answer:** B

**Question 100**

**Which of the following sites is associated to the birth of Gautama Buddha?**

- A** Sarnath
- B** Lumbini
- C** Kushinagar
- D** Bodh Gaya

**Answer:** B

# SSC MTS 8th August 2019 Shift-2

## English

### Instructions

For the following questions answer them individually

### Question 1

Select the most appropriate word to fill in the blank.

You have to do \_\_\_\_ intensive training to become a nurse.

- A the
- B a
- C an
- D one

**Answer:** C

### Question 2

Select the word which means the same as the group of words given.

A period of two weeks

- A Quarter
- B Decade
- C Fortnight
- D Weekend

**Answer:** C

### Question 3

Select the wrongly spelt word.

- A Rogue
- B Argue
- C Toungue
- D Vague

**Answer:** C

### Question 4

Select the meaning of the given idiom.

To run amok

- A To compete in a race
- B To participate in a marathon
- C To outrun someone

**D** To run about in a frenzy

**Answer:** D

### Question 5

**Identify the segment in the sentence which contains the grammatical error from the given options. The government's proposal has been set alarm bells ringing for people with low incomes.**

**A** with low incomes

**B** ringing for people

**C** The government's proposal

**D** has been set alarm bells

**Answer:** D

### Question 6

**Select the most appropriate word to fill in the blank. She is highly skilled \_\_\_\_ dealing with difficult customers.**

**A** of

**B** into

**C** at

**D** on

**Answer:** C

### Question 7

**Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.**

**This training has intended to give people the skills they need for a particular job.**

**A** have intended to

**B** is intend towards

**C** No substitution required

**D** is intended to

**Answer:** D

### Question 8

**Identify the segment in the sentence which contains the grammatical error from the given options. If children are treating with respect, they will behave accordingly.**

**A** behave accordingly

- B treating with respect
- C If children are
- D they will

**Answer:** B

### Question 9

**Select the antonym of the given word.**

**CREATE**

- A Develop
- B Deploy
- C Derive
- D Destroy

**Answer:** D

### Question 10

**Identify the segment in the sentence which contains the grammatical error from the given options.**

**We couldn't understand they because they were talking in Chinese.**

- A We couldn't understand
- B they were talking
- C they because
- D in Chinese

**Answer:** C

### Question 11

**Select the meaning of the given idiom.**

**To have a jaundiced eye**

- A To be very pleased
- B To have yellowish eyes
- C To be prejudiced
- D To have sore eyes

**Answer:** C

### Instructions

In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.

**Comprehension:**

Plants first appeared on earth 400 million years ago. Insects arrived 100 million years later. Ever (1)\_\_\_\_\_ a fierce war has raged between the two. At first it (2)\_\_\_\_\_ not seem likely that the plants would stand (3)\_\_\_\_\_ chance in the

battle. Plants, unlike insects, cannot move. Plants are (4)\_\_\_\_\_ outnumbered by insects; an average oak tree will have tens of thousands of insects (5)\_\_\_\_\_ on it.

**Question 12**

**Select the most appropriate option to fill in blank No.1.**

- A for
- B on
- C since
- D afterwards

**Answer: C**

**Question 13**

**Select the most appropriate option to fill in blank No.2.**

- A did
- B does
- C do
- D had

**Answer: A**

**Question 14**

**Select the most appropriate option to fill in blank No.3.**

- A none
- B any
- C some
- D not

**Answer: B**

**Question 15**

**Select the most appropriate option to fill in blank No.4.**

- A firmly
- B lightly
- C vastly
- D deeply

**Answer: C**



**Question 16**

Select the most appropriate option to fill in blank No.5.

- A feeling
- B eating
- C fighting
- D feeding

**Answer:** D

**Instructions**

For the following questions answer them individually

**Question 17**

Select the synonym of the given word.

**Enhance**

- A Reduce
- B Frighten
- C Shrink
- D Improve

**Answer:** D

**Question 18**

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

Vocational training should not be seen as less importantthan an academic education.

- A than a academic education
- B No substitution required
- C than an academic educate
- D then an academic education

**Answer:** B

**Question 19**

Select the most appropriate word to fill in the blank and make a meaningful sentence.

In some disputes face-to-face talk can \_\_\_\_\_ the issue.

- A restrict
- B refuse
- C resolve
- D reduce

**Answer: C**

**Question 20**

**Select the wrongly spelt word.**

- A** Quote
- B** Require
- C** Queue
- D** Acquire

**Answer: D**

**Question 21**

**Select the antonym of the given word.**

**MODEST**

- A** Vain
- B** Furious
- C** Dishonest
- D** Simple

**Answer: A**

**Question 22**

**Select the synonym of the given word.**

**Hate**

- A** Deny
- B** Defer
- C** Detest
- D** Defile

**Answer: C**

**Question 23**

**Select the word which means the same as the group of words given.**

**Persons living at the same time**

- A** Colleagues
- B** Contemporaries
- C** Comrades

D Companions

Answer: B

**Question 24**

Select the most appropriate word to fill in the blank and make a meaningful sentence. Twenty families were \_\_\_\_\_ from an old building before the monsoons.

A erased

B evacuated

C emptied

D expelled

Answer: B

**Question 25**

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

Passengers were asked to identify their suitcases before they were loaded on the plane.

A they loaded on

B it was loaded on

C they were loaded over

D No substitution required

Answer: D

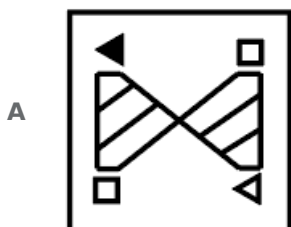
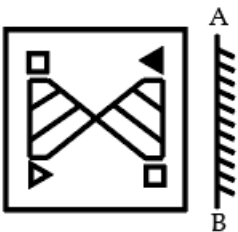
## Reasoning

**Instructions**

For the following questions answer them individually

**Question 26**

If a mirror is placed on the line AB, then which of the answer figures is the right image of the given figure?



B



C



D



Answer: B

#### Question 27

In a certain code language, 'RAM' is written as '31', 'FAN' is written as '20'. What is the code for 'COR' in that code language?

A 34

B 37

C 35

D 36

Answer: C

#### Explanation:

In the given code,  $A = 1, B = 2, \dots, Z = 26$ .

RAM is coded as  $R + A + M - 1$ . i.e.  $18 + 1 + 13 - 1 = 31$

FAN is coded as  $F + A + N - 1$ . i.e.  $6 + 1 + 14 - 1 = 20$

COR:  $C + O + R - 1 = 3 + 15 + 18 - 1 = 35$

Therefore, Option C is correct.

Question 28

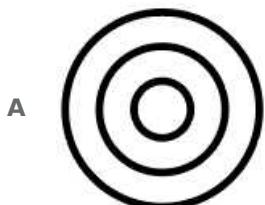
Which answer figure will complete the pattern in the question figure?

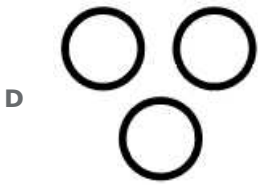


Answer: C

Question 29

Identify the Venn diagram that best represents the relationship between the given classes.  
Chair, Bench, Furniture





Answer: C

**Question 30**

In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives.

6	12	7
9	4	11
11	6	2
13	?	10

- A 11
- B 22
- C 10
- D 13

Answer: A

**Question 31**

Six scientists R, L, T, S, N and P are standing in a row facing towards north (Not necessarily in the same order). N is standing to the immediate right of R. S is standing second to the right of P. Two scientists are standing between T and N. S is towards the left of L. Which of the following is correct about the position of L?

- A Between R and N
- B Third to the right of R
- C L is at one of the end
- D Towards the immediate left of N

Answer: C

**Explanation:**

S is second to the right of P and is towards the left of L. So, we will have

**Case 1:**

P \_ S \_ \_ \_

**Case 2:**

\_ P \_ S \_ \_

**Case 3:**

\_ \_ P \_ S L

N is standing to the immediate right of R. Two scientists are standing between T and N.

**Case 1:**

P T S R N \_

So, the only person left is L.

P T S R N L

**Case 2:**

N is standing to the immediate right of R. Two scientists are standing between T and N.

\_ P T S R N

So, the only person left is L.

L P T S R N

But S is to the left of L. Hence this case gets rejected.

**Case 3:**

N is standing to the immediate right of R. Two scientists are standing between T and N.

R N P \_ S L

Here only person left is T. So, we will get

R N P T S L

But as per the given condition two scientists are standing between T and N. Hence this case gets rejected.

Therefore the final arrangement is of Case 1

**P T S R N L**

L is at the right end,

Therefore, Option C is correct.

**Question 32****Select the option that is related to the third number in the same way as the second number is related to the first number.****18 : 323 :: 24 : ?****A** 625**B** 575**C** 675**D** 535**Answer:** B**Explanation:**Let the fourth number be  $x$ .

$$323 = 18^2 - 1$$

Therefore,

$$x = 24^2 - 1 = 576 - 1 = 575$$

Option B is correct.

**Question 33**

In the following question below are given some statements followed by some conclusions based on those statements. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.

**Statements:**

**I. All A are K.**

**II. Some J are K.**

**Conclusions:**

**I. Some A are J.**

**II. No K is J.**

**III. All K are J.**

**A** Only conclusion I follows.

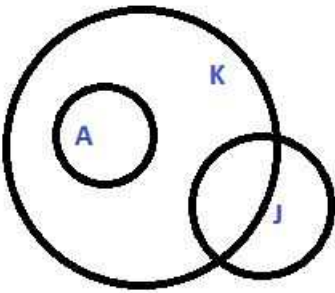
**B** Only conclusion III follows.

**C** Both conclusion II and III follows.

**D** Neither conclusion follow.

**Answer:** D

**Explanation:**



Conclusion 1: Some A are J - Not always true. Some A can be J but need not always be, as in above diagram.

Conclusion 2: No K is J - Since some J are K, converse is also true. i.e. some K are also J. Therefore the conclusion is false.

Conclusion 3: All K are J - As per the condition and as represented in the diagram, all K need not be J.

Thus, neither conclusion follows.

Option D is correct.

**Question 34**

Select the number that can replace the question mark (?) in the following series.

23, 29, 31, 37, 41, ?

**A** 53

**B** 44

**C** 59

**D** 43

**Answer:** D

**Explanation:**

The given numbers are part of series of consecutive prime numbers.



Therefore, the series will be 23, 29, 31, 37, 41, 43.

i.e. the next number in the series is 43.

Option D is correct.

### Question 35

**By interchanging which two signs the equation will be correct?**

$$9 \times 11 \div 31 + 62 - 13 = 18$$

**A**  $\times$  and  $\div$

**B**  $-$  and  $\times$

**C**  $\div$  and  $+$

**D**  $+$  and  $\times$

**Answer:** D

### Question 36

**After interchanging the given two numbers, what will be the value of  $3 + 2 \div 1 \times 4 - 7$ ?  
4 and 7**

**A** 10

**B** 12

**C** 13

**D** 11

**Answer:** C

### Explanation:

given  $3 + 2 \div 1 \times 4 - 7$

on interchanging 4 and 7

BODMAS rule { brackets > of > division > multiplication > addition > subtraction }

we get  $3 + 2 \div 1 \times 7 - 4$  ( using BODMAS rule)

$$3 + 1^2 \times 7 - 4 = 3 + 2 \times 7 - 4 = 3 + 14 - 4 = 13$$

### Question 37

**In a certain code language, 'SHOES' is written as '19815519', 'SEED' is written as '19554'. What is the code for 'CHAIR' in that code language?**

**A** 389111

**B** 371918

**C** 381918

**D** 381917

**Answer:** C

### Explanation:

number corresponding to the letter of the alphabet

[S] → (19)

[H] → (8)

[O] → (15)

[E] → (5)

[S] → (19)

"SHOES" → "19815519"

similarly

[S] → (19)

[E] → (5)

[E] → (5)

[D] → (4)

"SEED" → "19554"

similarly "CHAIR" → "381918"

### Question 38

In a certain code language, 'BRICK' is written as 'WMDXF'. What is the code for 'GOLDS' in that code language?

- A BJGYM
- B BJGYN
- C BKGYM
- D BKGYN

**Answer:** B

### Explanation:

[B] → [W] (difference - 5)

[R] → [M] (difference - 5)

[I] → [D] (difference - 5)

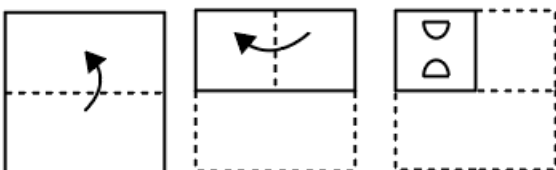
[C] → [X] (difference - 5)

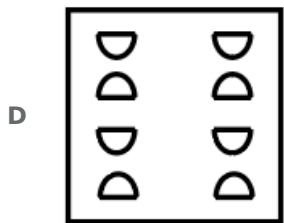
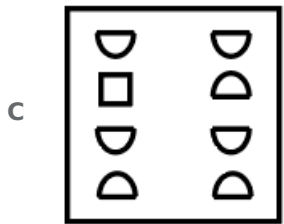
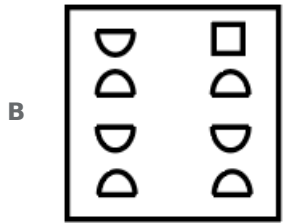
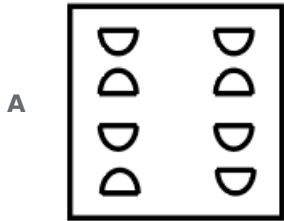
[K] → [F] (difference - 5)

similarly "GOLDS" → "BJGYN"

### Question 39

A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened?





Answer: D

**Question 40**

Select the option that is related to the third term in the same way as the second term is related to the first term.

Leather : Shoes :: Asphalt : ?

- A Car
- B Air
- C Water
- D Road

Answer: D

**Explanation:**

leather:shoes→ leather is used for making shoes in the same way Asphalt is a bituminous mixture used for making roads.

hence option d

**Question 41**

Select the number that can replace the question mark (?) in the following series.

37, 43, 51, 61, 73, ?

- A 85

**B** 89

**C** 87

**D** 83

**Answer:** C

**Explanation:**

Arithmetic progression with common difference 2

$$43 - 37 = 6$$

$$51 - 43 = 8$$

$$61 - 51 = 10$$

$$73 - 61 = 12$$

$$\text{hence } 73 + 14 = 87$$

**Question 42**

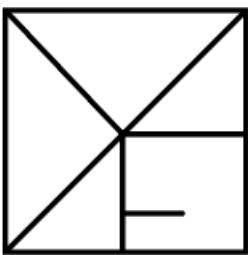
From the given answer figures, select the one in which the question figure is hidden/embedded.



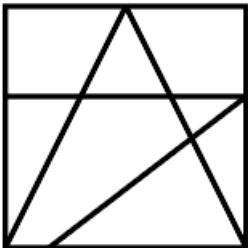
**A**



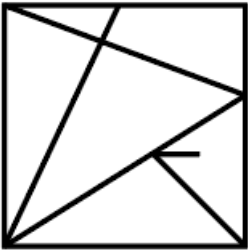
**B**



**C**



D



Answer: A

**Question 43**

There are five classes class 1, class 2, class 3, class 4 and class 5 in a school. They are one above the other. Class 1 is at the bottom, then class 2 above it and so on. Five videos M1, M2, M3, M4 and M5 are displayed in these given classes. Only one video is displayed in a particular class. Each video is displayed only one time. Video M5 is displayed at an even numbered class. Video M2 is displayed at class 1. Video M1 is displayed at the class just below M5. Video M4 is not displayed at an even numbered class. Which of the following statements is not correct?

- A Only one video is displayed after M3
- B Only two videos are displayed above M1
- C Only one video is displayed between M2 and M5
- D M1 is displayed between M3 and M5

Answer: C

**Explanation:**

	[case1]	[case2]
[class5]	[M4]	
[class4]	[M5]	
[class3]	[M1]	
[class2]	[M3]	[M5]
[class1]	[M2]	[M2]

since M1 is just below M5 therefor case 2 is ruled out  
 option A only one video is displayed after M3 is correct  
 option B only 2 videos are displayed above M1 is correct  
 option C only one video is displayed between M2 and M5 is incorrect  
 option D M1 is displayed between M3 and M5 is correct

**Question 44**

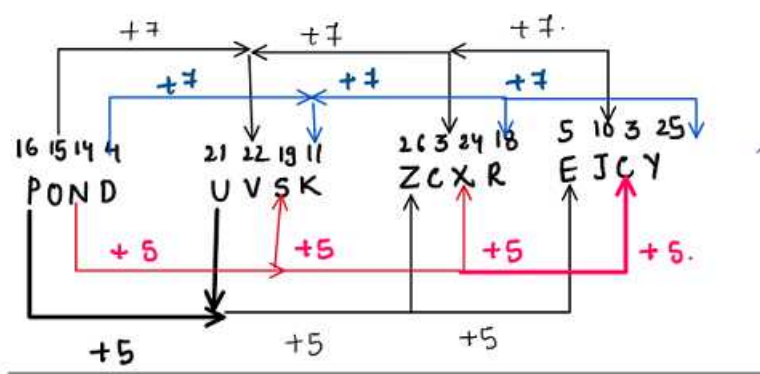
A series is given with one Letter Cluster missing. Select the correct alternative from the given ones that will complete the series.

POND, UVSK, ZCXR, EJCY, ?

- A JQHF
- B KQHF
- C JQHE
- D KQHE

Answer: A

**Explanation:**



adding +5 to "E" gives "J" , adding +7 to gives "Q" , adding +5 to "C" gives "H" and adding +7 to "Y" gives "F" hence "JQHF"

**Question 45**

In a certain code language, 'BLADE' is written as 'LBAED'. What is the code for 'TABLE' in that code language?

- A ATLBE
- B ATBEL
- C ATLEB
- D ATBLE

**Answer:** B

**Explanation:**

"BLADE" → "LBAED" the position of "A" remains the same where as "B" and "L" interchange their positions and "D" and "E" interchange their positions. Similarly "TABLE"→

keep "B" as it is, interchange "T" and "A" and "L" and "E" which would form "ATBEL". Hence OPTION B is the answer

**Question 46**

Select the word pair in which the two words are related in the same way as the two words in the following word-pair.

**Web : Spider :: ?**

- A Nest : Bird
- B Palace : Rat
- C Convict : Prison
- D Den : Eskimo

**Answer:** A

**Explanation:**

Web is build by spider. In the same way nest is build by bird and all other options are represented wrongly.

therefore the answer is Nest : Bird

**Question 47**

Five persons H1, H2, H3, H4 and H5 are sitting around a circular table facing towards the centre (Not necessarily in the same order). H4 is third to the left of H2. H3 and H1 are the immediate neighbours of H2. H5 is to the immediate left of H3. Who is sitting third to the right of H1?

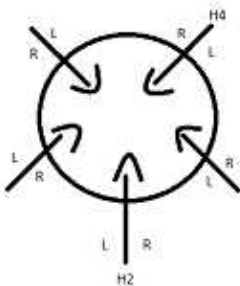
- A H2
- B H4
- C H5
- D H3

**Answer:** D

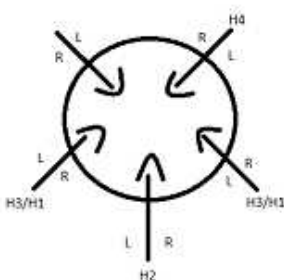
**Explanation:**

H3 and H1 are the immediate neighbours of H2. Given,

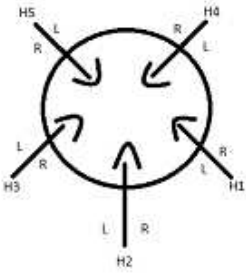
Five persons H1, H2, H3, H4 and H5 are sitting around a circular table facing towards the centre and H4 is third to the left of H2.



H3 and H1 are the immediate neighbours of H2.



H5 is to the immediate left of H3.



**Question 48**

In the following question, select the figure which can be placed at the sign of question mark (?) from the given alternatives.

A M R J K T	M Я A I U K	R T M K A J	I K Я M A U	?
-------------------	-------------------	-------------------	-------------------	---

**A**

I K J Я M A
-------------------

**B**

T K U R M A
-------------------

**C**

T K J R M A
-------------------

**D**

I K U Я M A
-------------------

**Answer:** C

**Explanation:**

Each letter in the square moves one position ahead in clockwise direction. So the next move should contain letters as



in option C.

T	K	
		J
R	M	A

**Question 49**

In the following question below are given some statements followed by some conclusions based on those statements. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.

**Statements:**

- I. Some red are phone.
- II. No phone is car.

**Conclusions:**

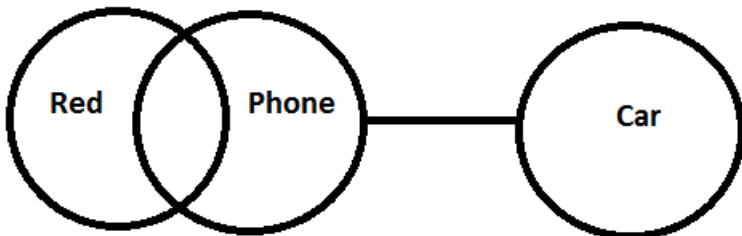
- I. Some car are red.
- II. Some phone are red.

- A Only conclusion II follows.
- B Only conclusion I follows.
- C Both conclusion I and II follows.
- D Neither conclusion follow.

**Answer:** A

**Explanation:**

Venn diagram for the given statement is as follows,



Conclusions:

- I. Some car are red ---> from the diagram, some car are not red, hence false.
- II. Some phone are red ---> Clearly, some phone are red, hence true.

**Question 50**

Select the option that is related to the third Letter Cluster in the same way as the second Letter Cluster is related to the first Letter Cluster.

**TOK : SNJ :: LAP : ?**

- A KAN
- B KAO
- C KZO
- D LAN

**Answer:** C

**Explanation:**

Each letter of the first word is preceded by each letter of the second word.

hence LAP should be written as KZO.

## Quant

**Instructions**

For the following questions answer them individually

**Question 51**

**Three successive discounts of 20%, 20% and 30% are offered on an article. If the marked price of the article is ₹750, then what will be selling price?**

- A ₹326
- B ₹375
- C ₹348
- D ₹336

**Answer:** D

**Explanation:**

Given,

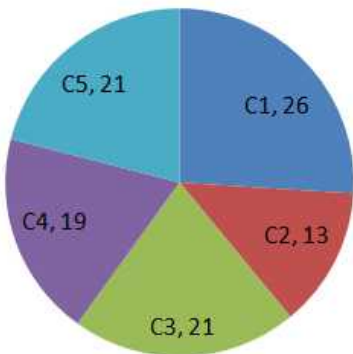
marked price = 750 and the discounts are 20%,20% and 30%

Take 20%,20% and 30% as  $\frac{80}{100}, \frac{80}{100}, \frac{70}{100}$

$$\begin{aligned} \text{therefore, selling price} &= 750 \times \frac{80}{100} \times \frac{80}{100} \times \frac{70}{100} \\ &= 336 \end{aligned}$$

**Question 52**

**The given Pie Chart (central angles are not as per any chosen scale) presents the percentage of the number of refrigerators of five different companies (with reference to the total number of refrigerators) in a hotel.**



**What is the difference in number of refrigerators supplied to the hotel by companies C1 and C5?**

- A 481

**B** 259

**C** 222

**D** 185

**Answer: D**

**Explanation:**

Given,

Total number of refrigerators in the hotel = 3700

Percentage of refrigerators from C1 = 26%

Percentage of refrigerators from C1 = 21%

Therefore the difference in number of refrigerators supplied to the hotel by companies C1 and C5 is

$$\left(\frac{26}{100} \times 3700\right) - \left(\frac{21}{100} \times 3700\right)$$

$$(26 \times 37) - (21 \times 37)$$

$$(962) - (777)$$

185

**Question 53**

**The sum of the present ages of a father and his son is 78 years. After five years, the ratio of their ages becomes 7 : 4. What is the present age (in years) of the father?**

**A** 45

**B** 51

**C** 56

**D** 50

**Answer: B**

**Explanation:**

Given,

Sum of present ages of father and son is 78 and their ratio after 5 years is 7:4

let the age of father and son after 5 years be 7x and 4x

sum of the present ages can be written as,

$$(7x-5) + (4x-5) = 78$$

$$7x + 4x - 10 = 78$$

$$11x - 10 = 78$$

$$11x = 88$$

$$x = 8$$

The age of father after 5 years is  $7 \times 8 = 56$

therefore the present age of father is  $56 - 5 = 51$

**Question 54**

**Three positive numbers are in the proportion 3 : 4 : 6. If the sum of their squares is 244, then what is the largest number?**

- A 16
- B 8
- C 12
- D 6

**Answer:** C

**Explanation:**

Given,

Ratio of three numbers is 3:4:6 and the sum of squares of three numbers is 244

let the three numbers be  $3x, 4x$  and  $6x$

therefore,  $(3x)^2 + (4x)^2 + (6x)^2 = 244$

$$9x^2 + 16x^2 + 36x^2 = 244$$

$$61x^2 = 244$$

$$x^2 = \frac{244}{61}$$

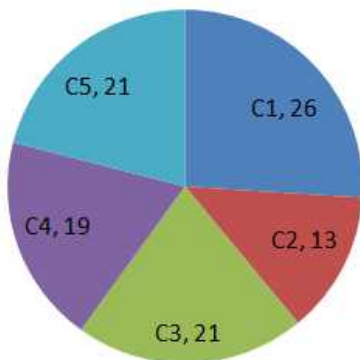
$$x^2 = 4$$

$$x = 2$$

hence the largest number is  $6 \times 2 = 12$

**Question 55**

The given Pie Chart (central angles are not as per any chosen scale) presents the percentage of the number of refrigerators of five different companies (with reference to the total number of refrigerators) in a hotel.



If the total number of refrigerators in the hotel is 3700, then what is the number of refrigerators of company C5?

- A 962
- B 777
- C 481
- D 703

**Answer:** B

**Explanation:**

Given,

The total number of refrigerators in the hotel is 3700.

Percentage of refrigerators of C5 = 21%

Therefore number of refrigerators of C5 is  $\frac{21}{100} \times 3700$

$21 \times 37$

777

#### Question 56

What is the value of:  $\frac{12 \text{ of } 3 \div 6 + 12 \times 2 - (2 \times 4 - 5)}{12 \div 3 \times 4 + (2 \times 4 - 5)}$  ?

A  $\frac{27}{22}$

B  $\frac{23}{17}$

C  $\frac{27}{19}$

D  $\frac{21}{9}$

Answer: C

#### Question 57

A man travels from P to Q at the speed of 60 km/h and travels from Q to P at the speed of 90 km/h. What is the average speed of the man for the whole journey?

A 75 km/h

B 78 km/h

C 70 km/h

D 72 km/h

Answer: D

#### Question 58

A bag contains one rupee, 50 paise and 25 paise coins in the proportion 5 : 7 : 9. If the total amount in the bag is ₹430, then how many 25 paise coins are there?

A 400

B 360

C 380

D 340

Answer: B

#### Question 59

train crosses two platforms of length 1000 m and 600 m in 80 seconds and 60 seconds respectively. What is the length of the train?

- A 720 m
- B 600 m
- C 540 m
- D 400 m

**Answer:** B

**Question 60**

The data given below presents number of households corresponding to the number of children residing there in.

Number of Children	Number of Household
0	8
1	7
2	3
3	8
4	4

What is the difference (correct up to two decimal places) between the mean and the median of the number of the children?

- A 0.26
- B 0.28
- C 0.27
- D 0.25

**Answer:** C

**Question 61**

Anil can make 20 bags in 4 days and Manoj can make 10 bags in 5 days. How many bags both Anil and Manoj together can make in one day?

- A 11 bags
- B 7 bags
- C 9 bags
- D 5 bags

**Answer:** B

**Question 62**

₹20000 is invested on compound interest (compounded half yearly) at the rate of 20% per annum, then what will be the interest after two years?

- A ₹8800
- B ₹8824

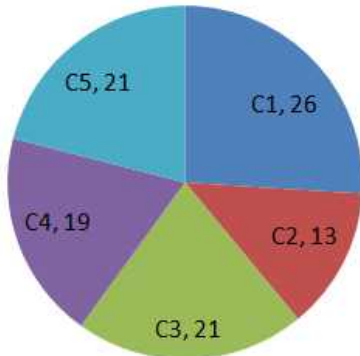
C ₹9282

D ₹9428

Answer: C

### Question 63

The given Pie Chart (central angles are not as per any chosen scale) presents the percentage of the number of refrigerators of five different companies (with reference to the total number of refrigerators) in a hotel.



What is the difference between the central angles (to the nearest 0.1 degree) subtended by the sectors for C2 and C4?

A 19.2

B 21.6

C 24.0

D 22.5

Answer: B

### Question 64

The length and the breadth of a rectangle are 15 cm and 12 cm respectively. If the rectangle is given one full rotation about its breadth as the axis, what is the volume(in  $\text{cm}^3$ ) through which the rectangle moves?

A  $2160\pi$

B  $1440\pi$

C  $1800\pi$

D  $2700\pi$

Answer: D

### Question 65

The cost price of an article is  $\frac{6}{7}$  of its selling price. What will be the profit or loss percentage?

A 16.67% loss

B 14.28% profit

C 16.67% profit

D 14.28% loss

**Answer: C**

**Question 66**

**What is the value of:  $5 \text{ of } 5 \text{ of } 5 \div 5 + 5 - 6 \div 3 \times 4 + 2 + (3 \div 6 \times 2)$ ?**

A 21

B 25

C 28

D 19

**Answer: B**

**Explanation:**

Latek

convert the numeric value of latek into base7

Therefore, Latek = 25

**Question 67**

**What is the Highest Common Factor of 42, 168 and 210?**

A 14

B 21

C 42

D 7

**Answer: C**

**Explanation:**

HCF OF 42 =  $3 \times 7 \times 2$

HCF OF 168 =  $2 \times 2 \times 2 \times 3 \times 7$

HCF OF 210 =  $2 \times 3 \times 5 \times 7$

HCF = 42

**Question 68**

**Pipe V1 can fill an empty tank in 8 hours. Pipe V2 can fill the same tank in 16 hours. Pipe V3 can empty the same, completely filled, tank in 12 hours. If three pipes are opened simultaneously, then in how much time will the tank get completely filled?**

A  $\frac{41}{3}$  hours

B  $\frac{42}{11}$  hours

C  $\frac{38}{5}$  hours



**D**  $\frac{48}{5}$  hours

**Answer:** D

**Explanation:**

Pipe V1 = 8 hours ( empty)

Pipe V2 = 16 hours ( fill)

Pipe V3 = 12 hours (empty)

Therefore, total time for the tank to get filled =  $(1/16) - ((1/8) + (1/12)) = 48/5 = 9.6$  hours

**Question 69**

**What is the average of the first 15 even numbers starting from 2?**

**A** 16

**B** 15

**C** 17

**D** 14

**Answer:** A

**Explanation:**

The first 15 even numbers be = 2,4,6,8,10,12,14,16,18,20,22,24,26,28,30

Average = (Sum of all values)/number of values

Average =  $(2+4+ 6+ 8 +10 +12 +14 +16+ 18+ 20+ 22+ 24 +26 +28 +30)/15 = 16$

OR

Sum of first n natural numbers =  $(n(n+1))/2$

=  $2[1+2+.....15]$

=  $[(15(15+1))/2]*2 = (15*16)$

Average = Sum of natural numbers /number of values =  $(15*16)/15 = 16$

**Question 70**

**30 kg of rice costing ₹50 per kg is mixed with 20 kg of rice costing ₹60 per kg. What is the average cost of the mixture per kg?**

**A** ₹54

**B** ₹56

**C** ₹52

**D** ₹55

**Answer:** A

**Explanation:**

Total cost of 30 kg rice =  $30 * 50 = 1500$

Total cost of 20 kg rice =  $20*60=1200$

Average cost of mixture =  $(\text{total cost of 30 kg of rice} + \text{total cost of 20 kg rice})/\text{total weight of rice} =$

$$(1500+1200)/(30+20) = 2700/50 = \text{Rs } 54/\text{kg}$$

### Question 71

The profit earned on an article is 25%. If profit is calculated on the selling price, then what will be the profit percentage?

- A 30
- B 10
- C 20
- D 50

**Answer:** C

### Explanation:

Let CP= 100 Rs

Then SP = 125 Rs

$$\% \text{Profit} = ((\text{SP}-\text{CP})/\text{SP}) * 100 = ((125-100)/125) * 100 = 20\%$$

### Question 72

Manish's salary is half of Ravi's salary. Ravi's salary is how much percentage more than Manish's Salary?

- A 100%
- B 25%
- C 50%
- D 75%

**Answer:** A

### Explanation:

Lets Ravi salary = x

And , Manish salary= x/2

Therefore,

$$((x-(x/2))/(x/2)) * 100 = ((x/2)/(x/2)) * 100 = 100\%$$

### Question 73

A sum of ₹800 invested on simple interest becomes ₹1200 in 8 years. What will be simple interest for 6 years on the sum at the same rate of interest?

- A ₹240
- B ₹210
- C ₹250
- D ₹300

**Answer:** D

### Explanation:

$$\text{SI} = (\text{P} * \text{R} * \text{T}) / 100$$

Given , P= 800 RS

T= 8 years

SI= Amount - P= 1200-800 = 400 Rs

SI =  $(400 \times R \times 8) / 100$

R =  $(25/4)$  or 6.25

Now, given , T= 6 Years, P = 800 Rs, R= 6.25%

SI =  $(800 \times 6 \times 6.25) / 100 = ₹300$

#### Question 74

The volume of a cube is  $216 \text{ cm}^3$  . What is the area of one face of the cube?

A  $36 \text{ cm}^2$

B  $12 \text{ cm}^2$

C  $24 \text{ cm}^2$

D  $30 \text{ cm}^2$

**Answer:** A

#### Explanation:

Volume of cube =  $a^3$

Therefore, volume of cube =  $216 \text{ cm}^3$

Therefore,  $a = 6 \text{ cm}$

Area of cube =  $a^2 = 6 \times 6 = 36 \text{ cm}^2$

#### Question 75

What is the area of the largest circle which can be inscribed in a square of side 28 cm?(Take  $\pi = \frac{22}{7}$  )

A  $308 \text{ cm}^2$

B  $616 \text{ cm}^2$

C  $476 \text{ cm}^2$

D  $512 \text{ cm}^2$

**Answer:** B

#### Explanation:

Side of the square = 28 cm

Therefore, circle inscribed in it will have a radius of 14 cm

Area of circle =  $\pi \times r \times r = (\frac{22}{7}) \times 14 \times 14 = 616 \text{ cm}^2$

## General knowledge

#### Instructions

For the following questions answer them individually

**Question 76**

**Red Panda is a state animal of which of the following state?**

- A** Mizoram
- B** Manipur
- C** Meghalaya
- D** Sikkim

**Answer:** D

**Question 77**

**Which of the following articles is related to Right to Freedom of Religion in the Indian Constitution?**

- A** Article 20
- B** Article 30
- C** Article 15
- D** Article 25

**Answer:** D

**Question 78**

**Which of the following game is originated in India?**

- A** Tennis
- B** Chess
- C** Skating
- D** Snooker

**Answer:** B

**Question 79**

**As of June 2019 who is the President of Maldives?**

- A** Ashraf Ghani
- B** Ibrahim Mohamed Solih
- C** Abdul Hamid
- D** Joko widodo

**Answer:** B

**Question 80**

**Who among the following calculated the value of 'pi'( $\pi$ ) first?**

- A** Budhayana
- B** Aryabhata
- C** Bhaskaracharya
- D** Sridharacharya

**Answer:** A

**Question 81**

**Where is the head office of Syndicate Bank situated?**

- A** Bangalore
- B** New Delhi
- C** Manipal
- D** Kolkata

**Answer:** C

**Question 82**

**Which of the following musical instrument is a reed instrument?**

- A** Shehnai
- B** Manjira
- C** Tabla
- D** Bansuri

**Answer:** A

**Question 83**

**In which part of the alimentary canal, the complete digestion of fat takes place?**

- A** Large intestine
- B** Small intestine
- C** Stomach
- D** Mouth

**Answer:** B

**Question 84**

**Which of the following equations represents Pressure in Physics?**

- A** Mass / Acceleration
- B** Force / Area
- C** Mass  $\times$  Acceleration
- D** Force  $\times$  Area

**Answer:** B

**Question 85**

**Which of the following quantities is NOT a vector quantity?**

- A** Work
- B** Velocity
- C** Acceleration
- D** Force

**Answer:** A

**Question 86**

**Divya Kakran is associated to which of the following sport?**

- A** Swimming
- B** Gymnastics
- C** Wrestling
- D** Weightlifting

**Answer:** C

**Question 87**

**Metals produce ringing sound when hit another metal because they are \_\_\_\_\_.**

- A** Malleable
- B** Ductile
- C** Sonorous
- D** Lustrous

**Answer:** C

**Question 88**

**Who is known as father of Surgery?**

- A** Charak
- B** Patanjali

**C** Hippocrates

**D** Sushruta

**Answer: D**

**Question 89**

**Which of the following puppet dance is performed in Orissa?**

**A** Pavakoothu

**B** Kandhei

**C** Kathputli

**D** Putul Nautch

**Answer: B**

**Question 90**

**Which of the following is a working capital?**

**A** Building

**B** Money

**C** Machine

**D** Tool

**Answer: B**

**Question 91**

**The "Gho" is the traditional and national dress for men in \_\_\_\_\_.**

**A** Thailand

**B** Cambodia

**C** Bhutan

**D** Vietnam

**Answer: C**

**Question 92**

**On which of the following Island India's only active volcano is situated?**

**A** Sound Island

**B** Barren Island

**C** Smith Island

**D** Belle Island

**Answer:** B

**Question 93**

\_\_\_\_\_ is the highest gallantry award for officers and other enlisted personnel of all military branches of India.

**A** Param Vir Chakra

**B** Shaurya Chakra

**C** Mahavir Chakra

**D** Kirti Chakra

**Answer:** A

**Question 94**

Which of the following rivers does NOT drain into a sea?

**A** Ganga

**B** Mahanadi

**C** Luni

**D** Godavari

**Answer:** C

**Question 95**

Which of the following religion is NOT originated in India?

**A** Zoroastrianism

**B** Buddhism

**C** Sikhism

**D** Jainism

**Answer:** A

**Question 96**

Which of the following novels is NOT written by Amish Tripathi?

**A** The Secret of the Nagas

**B** Sita-Warrior of Mithila

**C** The Immortals of Meluha

**D** One Indian Girl

**Answer:** D



**Question 97**

**In the Indian Constitution, the Principle of Liberty is borrowed from which of the following countries?**

- A** UK
- B** Japan
- C** France
- D** Germany

**Answer: C**

**Question 98**

**In which of the following type of organism autotrophic nutrition is found?**

- A** Fungi
- B** Virus
- C** Protozoa
- D** Bacteria

**Answer: D**

**Question 99**

**On which of the following notes the motif of Sanchi Stupa is present?**

- A** 2000 Rupee Note
- B** 100 Rupee Note
- C** 500 Rupee Note
- D** 200 Rupee Note

**Answer: D**

**Question 100**

**'Michael Madhusudan Dutt' was \_\_\_\_ by occupation.**

- A** Sportsperson
- B** Politician
- C** Writer
- D** Actor

**Answer: C**

# SSC MTS 8th August 2019 Shift-3

## English

### Instructions

For the following questions answer them individually

### Question 1

Select the synonym of the given word.

**Awkward**

- A Likable
- B Clumsy
- C Worthy
- D Scared

**Answer: B**

### Question 2

Select the correctly spelt word.

- A Independent
- B Independant
- C Indipendent
- D Inependent

**Answer: A**

### Question 3

Identify the segment in the sentence which contains the grammatical error from the given options.  
The city of Banaras is widely known from its ghats and temples.

- A ghats and temples
- B The city of Banaras
- C from its
- D is widely known

**Answer: C**

### Question 4

Select the most appropriate word to fill in the blank.

\_\_\_\_\_ they are twins, they are worlds apart in their attitude to life.

- A Although
- B Despite
- C Whereas

**D** However

**Answer:** A

### Question 5

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

They won't commit themselves until they see which way the wind is blowing.

**A** their till

**B** No substitution required

**C** themself until

**D** them until

**Answer:** B

### Question 6

Select the most appropriate word to fill in the blank and make a meaningful sentence.

He \_\_\_\_\_ me up on his way to work.

**A** picked

**B** raised

**C** lifted

**D** dropped

**Answer:** A

### Question 7

Select the most appropriate word to fill in the blank.

The company \_\_\_\_\_ its first all electric car in the Indian market soon.

**A** is launching

**B** launched

**C** launch

**D** has launched

**Answer:** A

### Question 8

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

The government is set strict limits on public spending this year.

**A** had been set

- B have set
- C No substitution required
- D has set

**Answer: D**

### Question 9

Select the most appropriate word to fill in the blank and make a meaningful sentence.

Conservative parents usually do not give their \_\_\_\_\_ for uncommon career choices of their children.

- A consent
- B agreement
- C allowance
- D dissent

**Answer: A**

### Question 10

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

The new product will be arrive on supermarket shelves early next year.

- A No substitution required
- B will arrive on
- C will arriving on
- D will arrived on

**Answer: B**

### Question 11

Select the antonym of the given word.

**Persuade**

- A Convince
- B Endorse
- C Dissuade
- D Fume

**Answer: C**

### Instructions

In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.

**Comprehension:**

Bengaluru is becoming an exciting destination for higher education for students (1)\_\_\_\_\_ all over the world.

International students (2)\_\_\_\_\_ close to 20% of the student population (3)\_\_\_\_\_ the city and this number is (4)\_\_\_\_\_ increasing. The city has almost 900 colleges - the maximum in any city (5)\_\_\_\_\_ the country.

**Question 12**

**Select the most appropriate option to fill in blank No.1.**

- A in
- B for
- C from
- D by

**Answer: C**

**Question 13**

**Select the most appropriate option to fill in blank No.2.**

- A constitute
- B consist
- C construct
- D collect

**Answer: A**

**Question 14**

**Select the most appropriate option to fill in blank No.3.**

- A at
- B in
- C to
- D on

**Answer: B**

**Question 15**

**Select the most appropriate option to fill in blank No.4.**

- A readily
- B barely
- C rarely
- D steadily

**Answer: D**

**Question 16**

Select the most appropriate option to fill in blank No.5.

- A about
- B along
- C across
- D through

**Answer:** C

**Instructions**

For the following questions answer them individually

**Question 17**

Select the word which means the same as the group of words given.  
A young child just beginning to walk

- A Toddler
- B Cub
- C Joey
- D Kid

**Answer:** A

**Question 18**

Select the meaning of the given idiom.  
Apples and oranges.

- A Same things
- B Different things
- C Fresh
- D Nutritious

**Answer:** B

**Question 19**

Select the antonym of the given word.  
Fragile

- A Novel
- B Tiny
- C Tough
- D Gross

**Answer:** C

**Question 20**

**Identify the segment in the sentence which contains the grammatical error from the given options.  
He started life as a teacher before turn to journalism.**

- A** He started life
- B** as a teacher
- C** to journalism.
- D** before turn

**Answer: D**

**Question 21**

**Select the meaning of the given idiom.  
At the drop of a hat.**

- A** Facing difficulties
- B** Completely
- C** Immediately
- D** Losing a hat

**Answer: C**

**Question 22**

**Select the word which means the same as the group of words given.  
Resistant to a particular infection**

- A** innocent
- B** Immune
- C** Immortal
- D** Innocuous

**Answer: B**

**Question 23**

**Select the correctly spelt word.**

- A** Definitly
- B** Definitely
- C** Definetely

**D** Definatly

**Answer:** B

**Question 24**

**Identify the segment in the sentence which contains the grammatical error from the given options. Jaipur, which is renown for its architecture, was founded about 300 years ago.**

**A** about 300 years ago

**B** was founded

**C** for its architecture

**D** Jaipur, which is renown

**Answer:** D

**Question 25**

**Select the synonym of the given word.**

**Dedicate**

**A** Decide

**B** Design

**C** Denounce

**D** Devote

**Answer:** D

## Reasoning

**Instructions**

For the following questions answer them individually

**Question 26**

**Select the option that is related to the third term in the same way as the second term is related to the first term.**

**Jute : Sack :: Wood : ?**

**A** Furniture

**B** Brown

**C** Plastic

**D** Hard

**Answer:** A



**Question 27**

Six buses B1, B2, B3, B4, B5 and B6 are parked around a circular path (not necessarily in the same order). B3 is third to the right of B6. B4 is to the immediate left of B1. B2 is second to the left of B6. How many buses are between B5 and B1?

- A 0
- B 1
- C 3
- D 2

Answer: D

**Question 28**

In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives.

5	9	6	39
3	11	7	26
8	5	4	?

- A 48
- B 44
- C 36
- D 34

Answer: C

**Question 29**

In a certain code language, 'WINDOW' is written as 'TLAKFT'. What is the code for 'BLADES' in that code language?

- A QCBYJZ
- B PBBXIY
- C PBAXIY
- D QBBYJZ

Answer: C

**Question 30**

In a certain code language, 'ROAM' is written as '44', 'HIMP' is written as '43'. What is the code for 'BONE' in that code language?

- A 33
- B 34

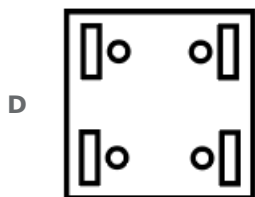
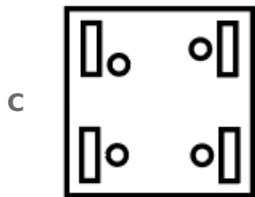
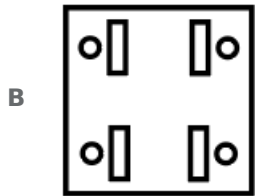
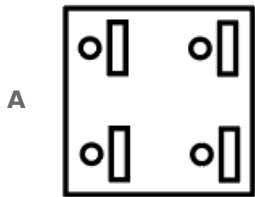
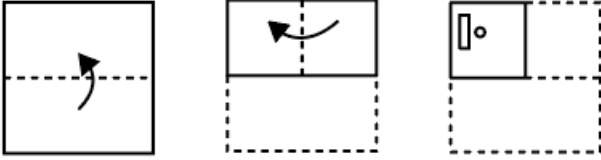
C 39

D 36

Answer: A

Question 31

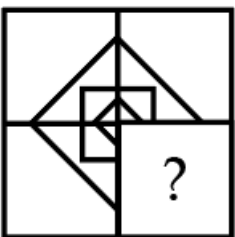
A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened?

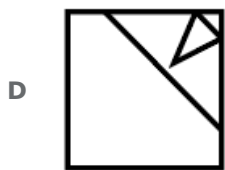
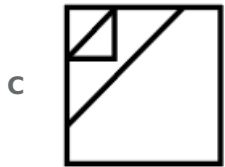
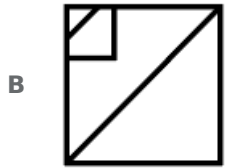
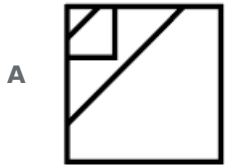


Answer: D

Question 32

Which answer figure will complete the pattern in the question figure?





Answer: A

**Question 33**

Select the option that is related to the third Letter Cluster in the same way as the second Letter Cluster is related to the first Letter Cluster.

ROAD : TREI :: MINT : ?

- A OMRY
- B PMSZ
- C PNSZ
- D OLRV

Answer: D

**Question 34**

Select the letter-pair that can replace the question mark (?) in the following series.

RD, XJ, DP, JV, ?

- A QC
- B PB
- C PC
- D QB

Answer: B

**Question 35**

After interchanging which two numbers, the value of given equation will be '4'?

$$6 + 3 \div 9 \times 7 - 5$$

- A 7 and 6
- B 3 and 5
- C 5 and 6
- D 9 and 5

**Answer:** A

**Question 36**

In a certain code language, 'PENCIL' is written as 'RIPGKP'. What is the code for 'FABRIC' in that code language?

- A HFDVKG
- B HEDVKG
- C IEFWLH
- D IFEWLH

**Answer:** B

**Question 37**

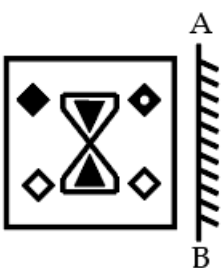
Select the number that can replace the question mark (?) in the following series.  
600, 120, 30, 10, 5, ?

- A 4
- B 5
- C 3
- D 2

**Answer:** B

**Question 38**

If a mirror is placed on the line AB, then which of the answer figures is the right image of the given figure?

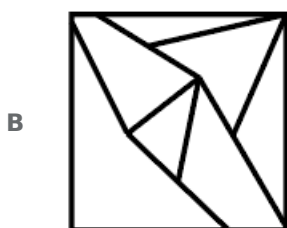
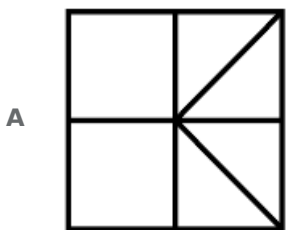
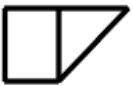


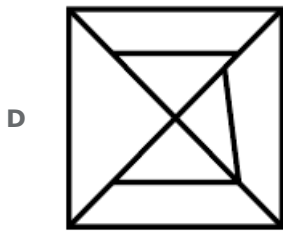
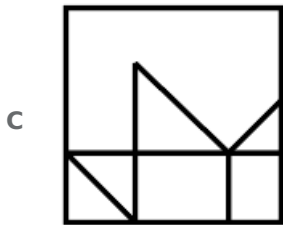


Answer: C

Question 39

From the given answer figures, select the one in which the question figure is hidden/embedded.

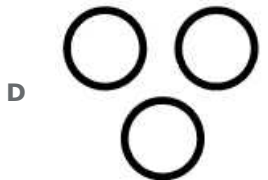
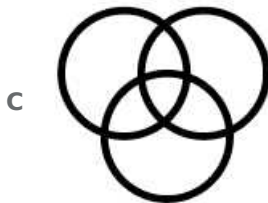
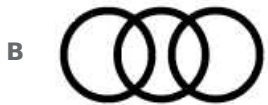
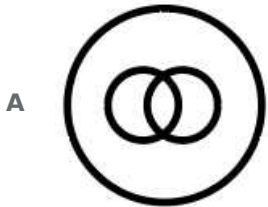




Answer: C

**Question 40**

Identify the Venn diagram that best represents the relationship between the given classes.  
 Producer, Director, Actor



Answer: C

**Question 41**

In a certain code language, 'PAL' is written as '29', 'CAR' is written as '22'. What is the code for 'ZON' in that code language?

A 43

B 45

C 55

D 51

Answer: C

**Question 42**

Select the option that is related to the third term in the same way as the second term is related to the first term.

Film : Producer :: Poem : ?

A Director

B Actor

C Poet

D Cobbler

Answer: C

**Question 43**

Select the option that is related to the third number in the same way as the second number is related to the first number.

596 : 965 :: 824 : ?

A 248

B 408

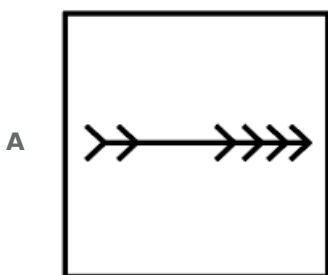
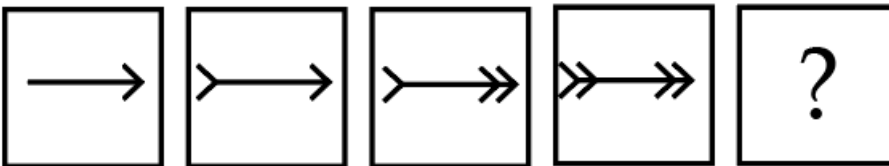
C 418

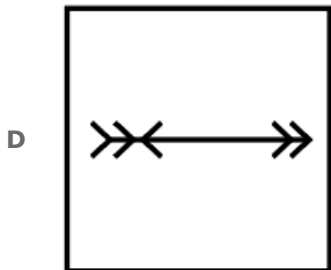
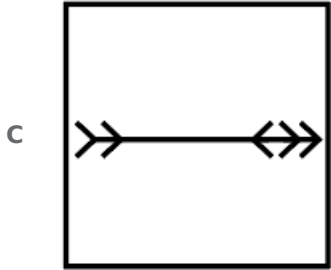
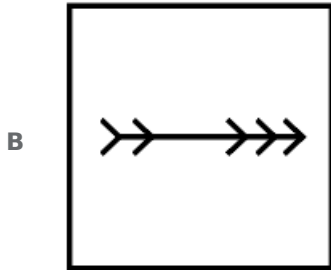
D 258

Answer: A

**Question 44**

In the following question, select the figure which can be placed at the sign of question mark (?) from the given alternatives.





Answer: B

**Question 45**

In the following question below are given some statements followed by some conclusions based on those statements. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.

**Statements:**

**I. Some pen are sharpener.**

**II. All pen are pencil.**

**Conclusions:**

**I. Some pencil are pen.**

**II. All sharpener are pen .**

**A** Both conclusion I and II follows.

**B** Only conclusion I follows.

**C** Neither conclusion follow.

**D** Only conclusion II follows.

Answer: B

**Question 46**

Five chairs J, H, P, S and M are placed in a row facing towards east (Not necessarily in the same order). P is second to the left of S. J is second to the right of H. M is to the immediate right of S. Which of the following is the correct position of J?



- A Third to the left of M
- B Second to the right of H
- C Exactly between S and H
- D To the immediate right of S

**Answer: B**

**Question 47**

Five toys A, B, C, D and E are kept one above the other (not necessarily in the same order). A is four places above C. D is between B and E. E is three places below A. Three of the given four options follows a same logic based on their arrangement. Which of the following does not follow that logic?

- A BD
- B DE
- C EC
- D AC

**Answer: D**

**Question 48**

In the following question below are given some statements followed by some conclusions based on those statements. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.

**Statements:**

- I. All L are B.
- II. No T is L.
- III. Some R are T.

**Conclusions:**

- I. Some T are R.
- II. No B is T.
- III. No L is T.

- A Only conclusion I follows.
- B Only conclusion II follows.
- C Both conclusion I and III follows.
- D Both conclusion II and III follows.

**Answer: C**

**Question 49**

By interchanging the given two signs which of the following equation will be incorrect?  
 $\div$  and  $+$ ?

- A  $12 \div 9 \times 31 + 3 = 105$
- B  $7 \times 16 + 11 \div 5 = 33$

**C**  $9 \div 11 + 11 \times 2 = 9$

**D**  $6 \times 11 + 2 \div 5 = 38$

**Answer: C**

**Question 50**

In the following question, select the missing number from the given series.  
17, 31, 47, 65, ?

**A** 87

**B** 89

**C** 85

**D** 83

**Answer: C**

## Quant

**Instructions**

For the following questions answer them individually

**Question 51**

What is the average of first 15 odd numbers among the natural numbers?

**A** 18

**B** 15

**C** 16

**D** 17

**Answer: B**

**Question 52**

What is the circumference of the largest circle which can be inscribed in a square of side 14 cm? (Take  $\pi = \frac{22}{7}$ )

**A** 66 m

**B** 88 cm

**C** 22 cm

**D** 44 cm

**Answer: D**

**Question 53**

The marked price of an article is ₹3040. If the discount offered on this article is 20%, then what will be the selling price?

- A ₹2412
- B ₹3262
- C ₹2432
- D ₹3132

**Answer:** C

**Question 54**

The present age of a Manoj is twice the sum of the ages of his two children. After 20 years, the age of Manoj will become equal to the sum of the ages of his two children. What is the present age of Manoj?

- A 40 years
- B 30 years
- C 36 years
- D 35 years

**Answer:** A

**Question 55**

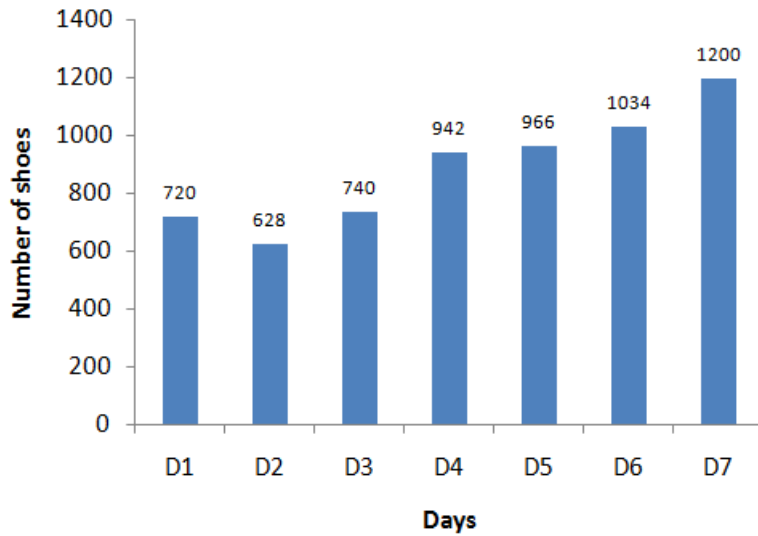
A train starts from A at 6 AM and reaches B at 11 AM on the same day. Another train starts from B at 8 AM and reaches A at 3 PM on the same day. At what time the two trains will have crossed each other?

- A 9:45 AM
- B 8:45 AM
- C 10:30 AM
- D 7:45 AM

**Answer:** A

### Question 56

The Bar graph given below presents the number of shoes manufactured by a company on the different days of a week.



What is the total number of shoes manufactured by the company on all seven days together?

- A 5930
- B 6030
- C 6130
- D 6230

Answer: D

### Question 57

A sum of ₹10000 is invested in three schemes of simple interest. The annual interest rates are respectively, 4%, 6% and 10%. ₹4000 were invested in the first scheme. If the total interest earned after five years is ₹2800, then how much money was invested in the third scheme?

- A ₹1500
- B ₹5000
- C ₹1000
- D ₹3000

Answer: C

### Question 58

N and K together can complete a work in 240 days, K and G together can complete the same work in 72 days and N and G together can complete the same work in 80 days. In how many days K alone can complete the same work?

- A 280 days

- B 240 days
- C 360 days
- D 180 days

Answer: C

**Question 59**

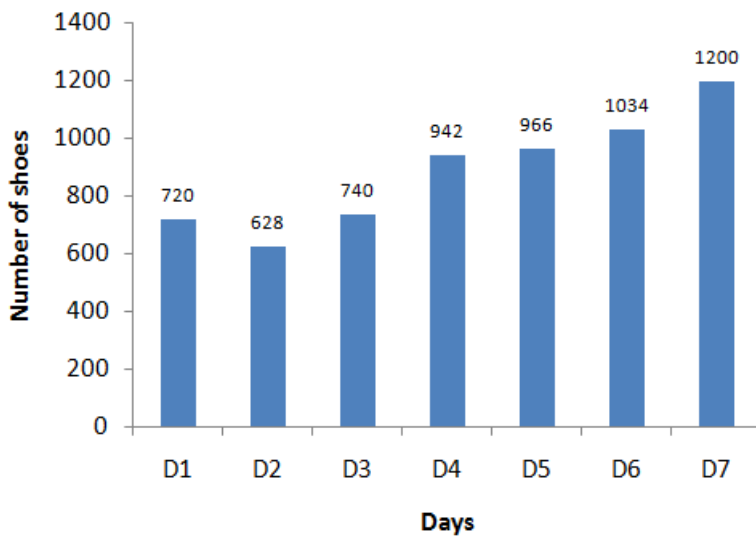
A sum of ₹1200 is invested at compound interest (compounded half yearly). If the rate of interest is 10% per annum, then what will be the amount after 18 months?

- A ₹1389.15
- B ₹1185.45
- C ₹1563.25
- D ₹1295.35

Answer: A

**Question 60**

The Bar graph given below presents the number of shoes manufactured by a company on the different days of a week.



The number of shoes manufactured on D5 is how much more than the average number of shoes manufactured per day?

- A 72
- B 64
- C 76
- D 68

Answer: C

**Question 61**

The edge of a cube is 8 cm. What is the total surface area of the cube?

- A  $128 \text{ cm}^2$
- B  $256 \text{ cm}^2$
- C  $384 \text{ cm}^2$
- D  $484 \text{ cm}^2$

**Answer:** C

**Question 62**

What is the median of the given data?

41, 43, 46, 50, 85, 61, 76, 55, 68, 95

- A 61
- B 58
- C 57
- D 55

**Answer:** B

**Question 63**

If A is the smallest three digit number divisible by both 6 and 7 and is the largest four digit number divisible by both 6 and 7, then what is the value of B - A?

- A 9912
- B 9870
- C 9996
- D 9954

**Answer:** B

**Question 64**

Raman and Sanjay started a business by investing ₹63000 and ₹42000 respectively. If the total profit at the end of year is ₹9000, then what is the share of Raman?

- A ₹5400
- B ₹4500
- C ₹4200
- D ₹3600

**Answer:** A

**Question 65**

The ratio of the selling price to the cost price in a transaction is 4 : 5. If the selling price is 280, then how much is the loss?

- A ₹16
- B ₹15
- C ₹20
- D ₹30

**Answer:** C

**Question 66**

What is the value of  $(9 \div 30)^2 \times 2.4 + 0.3 \text{ of } 12 \times (1 - 0.3)^2 + 9 \times (0.3)^2$ ?

- A 3.43
- B 3.69
- C 2.79
- D 2.17

**Answer:** C

**Question 67**

Vijay alone can complete a work in 50 days. How much part of the work will be completed in ten days?

- A  $\frac{1}{5}$
- B  $\frac{1}{3}$
- C  $\frac{1}{10}$
- D  $\frac{1}{4}$

**Answer:** A

**Question 68**

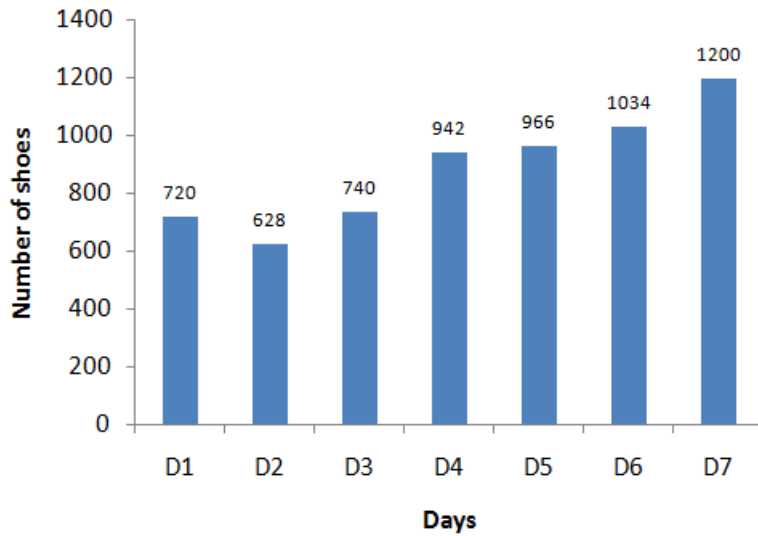
The profit earned on selling an article at ₹720 is half of the loss incurred on selling the same article at ₹360. What is the cost price of the article?

- A ₹540
- B ₹600
- C ₹480
- D ₹420

**Answer:** B

**Question 69**

The Bar graph given below presents the number of shoes manufactured by a company on the different days of a week.



The number of shoes manufactured on D1 is what percentage of shoes manufactured on D7?

- A 80.45
- B 60
- C 80
- D 70.25

**Answer: B**

**Question 70**

The ratio of the age of a father and his son is 3 : 1. If the product of their ages is 432, then what is the sum of their ages?

- A 36 years
- B 48 years
- C 60 years
- D 54 years

**Answer: B**

**Question 71**

What is the value of:  $2 \text{ of } 3 \div 3 \times 2 + \{4 \times -(5 \times 2 + 3)\}$ ?

- A 3
- B -24
- C 6



D -21

Answer: A

#### Question 72

Rahul's salary is 40% less than Rakesh's salary. Deepak's salary is 80% more than Rahul's salary. If Deepak's salary is ₹ 34560, then what is the salary of Rakesh?

A ₹32000

B ₹24000

C ₹28000

D ₹26000

Answer: A

#### Question 73

A man goes from C to D at 40 km/h and hereturns from D to C at x km/h.If the average speed of the man for the whole journey is 60 km/h, then whatis the value of x?

A 100

B 120

C 110

D 80

Answer: B

#### Question 74

The average of four numbers is 20. If the average ofthe first two numbers is 15, then what is the average of the last two numbers?

A 22

B 18

C 25

D 20

Answer: C

#### Question 75

The length of one of the diagonals of a rhombus is 48 cm.If the side of the rhombus is 26 cm, then what is the area of the rhombus?

A  $540 \text{ cm}^2$

B  $420 \text{ cm}^2$

C  $360 \text{ cm}^2$

D 480  $cm^2$

**Answer:** D

## General knowledge

### Instructions

For the following questions answer them individually

### Question 76

**Asian Infrastructure Investment Bank headquarter is located in which city?**

A Philippines

B Gurugram

C Shanghai

D Beijing

**Answer:** D

### Question 77

**What is Cryptogamae?**

A Plants having covered seeds

B Flowering plants

C Non-flowering plants

D Plants having uncovered seeds

**Answer:** C

### Question 78

**The ratio of the length to the height (width) of the national Flag shall be?**

A 3:1

B 4:1

C 4:2

D 3:2

**Answer:** D

### Question 79

**Who was the first women Chief Minister of an Indian state?**

A Indira Gandhi

- B** Sucheta Kriplani
- C** Sarojini Naidu
- D** Mamta Banerjee

**Answer:** B

**Question 80**

**According to Census 2011, which of the following states has the highest density of population in India?**

- A** Uttar Pradesh
- B** West Bengal
- C** Bihar
- D** Maharashtra

**Answer:** C

**Question 81**

**India's foreign reserves does NOT consist of which of the following?**

- A** Gold
- B** Carbon Bonds
- C** Reserve Tranche Position (RTP)
- D** Special Drawing Rights (SDR)

**Answer:** B

**Question 82**

**National waterway No.2 is located on which river?**

- A** Brahmaputra
- B** Ganga
- C** Cauvery
- D** Mahanadi

**Answer:** A

**Question 83**

**Which of the following Jyotirlingas is in Maharashtra?**

- A** Mahakaleshwar
- B** Baidyanath

**C** Grishneshwar

**D** Malikarjuna

**Answer: C**

**Question 84**

**Which of the following sports persons has received the 'Rajiv Gandhi Khel Ratna' Award?**

**A** Gita Phogat

**B** Saina Nehwal

**C** Deepika Kumari

**D** Kapil Dev

**Answer: B**

**Question 85**

**Who was the organizer of revolt of 1857 in Bihar?**

**A** Bahadur Shah

**B** Nana Sahib

**C** Maulvi Ahmadullah

**D** Kunwar Singh

**Answer: D**

**Question 86**

**Deepika Kumari is associated with which Sport?**

**A** Archery

**B** Squash

**C** Swimming

**D** Badminton

**Answer: A**

**Question 87**

**"Healthy States, Progressive India" Report has been published by which of the following institution?**

**A** Ministry of Health and Family Welfare

**B** World Health Organization (WHO)

**C** United Nations

**D** Niti Aayog

**Answer: D**

**Question 88**

**The Sixth Schedule of the Indian Constitution does NOT exercise its control to the tribal areas of which of the following state?**

- A** Manipur
- B** Tripura
- C** Assam
- D** Meghalaya

**Answer: A**

**Question 89**

**Botanical Survey of India (BSI) Headquarter is located in which city?**

- A** Assam
- B** New Delhi
- C** Kolkata
- D** Bhopal

**Answer: C**

**Question 90**

**1 pound = \_\_\_\_ ounces**

- A** 16
- B** 18
- C** 12
- D** 20

**Answer: A**

**Question 91**

**Which of the following is NOT a feature of Eukaryotic cell?**

- A** Nucleus well organized
- B** Mitochondria present
- C** Chloroplast absent in plant cells
- D** Nuclear membrane present

**Answer: C**

**Question 92**

**The World famous Borobudur Temple is situated in:**

- A** Vietnam
- B** Indonesia
- C** Cambodia
- D** Japan

**Answer: B**

**Question 93**

**GST is NOT applicable on which of the following goods or services?**

- A** Automobiles
- B** Salon services
- C** Restaurant services
- D** Alcohol

**Answer: D**

**Question 94**

**Which of the following Indian rulers was defeated by Mahmud Ghazni in his first attack in the year 1000 AD?**

- A** Chandra Pala
- B** Anand Pala
- C** Jaya Pala
- D** Sukh Pala

**Answer: C**

**Question 95**

**"Neel Darpan" was written by Dinbandhu Mitra to portray the oppression faced by peasants to grow indigo in:**

- A** Madras
- B** Assam
- C** Gujarat
- D** Bengal

**Answer: D**

**Question 96**

**Minamata Convention is signed to tackle the issue of:**

- A** Nuclear radiations
- B** Ozone gas
- C** CFC and HFC
- D** Mercury

**Answer:** D

**Question 97**

**Inter-State Council was set up by the recommendation of which committee?**

- A** Sarkaria committee
- B** Y V Reddy Committee
- C** TSR Subramanyam committee
- D** Chandrababu Naidu committee

**Answer:** A

**Question 98**

**Mawsynram is located on which hills of Meghalaya?**

- A** Garo
- B** Jaintia
- C** Diphu
- D** Khasi

**Answer:** D

**Question 99**

**Who among the following takes part in election of the President of India?**

- A** Elected Members of both the houses of Parliament and Legislative Assemblies of the states.
- B** Elected and nominated members of both the houses of Parliament.
- C** Elected members of both the houses of Parliament only.
- D** Elected and nominated members of both the houses of Parliament and Legislative Assemblies of the states.

**Answer:** A

**Question 100**

**National Youth Festival is celebrated on the birth anniversary of which of the following personalities?**

- A** Milkha Singh
- B** Chandrashekhar Azad
- C** Bhagat Singh
- D** Swami Vivekanand

**Answer:** D