



## RRB JE 30th May 2019 Shift-1

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## RRB JE 30th May 2019 Shift-1

### Instructions

For the following questions answer them individually

### Question 1

Which of these is NOT a whole number ?

- A  $6 \div 5$
- B  $(-6) \div (-2)$
- C  $8 \div 2$
- D  $18 - (2 \times 9)$

Answer: A

## RRB NTPC Free Mock Tests

### Question 2

Which of the following cities was the capital of Guptas?

- A Kasi
- B Pataliputra
- C Kosala
- D Ujjain

Answer: B

### Question 3

Find the ODD oneout from the given options.

- A BBG
- B AIF
- C AFI
- D ABA

Answer: A

#### Question 4

Read the following information carefully and answer the question given below.

During an event, a game is being played. For the game, 9 people from T to Z (mix of boys and girls) have to stand in a vertical row. Boys are wearing black t-shirts and girls are wearing white t-shirts. The row starts at top and with a white t-shirt. Boys and girls stand alternately in the row. Each position in the row can be occupied by one person only.

- i) R stands seven places before S.
- ii) Second boy after T is U.
- iii) Fourth place in the row is occupied by V.
- iv) W stands ahead of R.
- v) X stands between T and R.
- vi) Z is a girl.

Who among the following stands between T and Z?

- A V
- B Y
- C U
- D S

Answer: B

## RRB JE Previous Papers ( Download Pdf)

#### Question 5

Who appoints the Chief Election Commissioner of India?

- A Leader of Lok Sabha
- B Chief Justice of India
- C President
- D Vice-President

Answer: C

#### Question 6

Which of the following processes is involved in chemical reactions?

- A Storing of oxygen gas under pressure in a gas cylinder
- B Liquefaction of air in a gas cylinder
- C Heating copper wire in the presence of air at high temperature
- D Melting of ice to give water at room temperature

Answer: C

#### Question 7

Simplify:  $\frac{(375 \times 375) + (125 \times 125) - (375 \times 125)}{(375 \times 375 \times 375) + (125 \times 125 \times 125)}$

- A 1/1000

- B  $1/3$
- C 500
- D  $1/500$



Answer: D

## RRB JE Free Mock Test

### Question 8

Arrange the following decimals in descending order.  
0.21, 0.021, 0.201, 0.102

- A 0.21, 0.201, 0.102, 0.021
- B 0.21, 0.201, 0.021, 0.102
- C 0.021, 0.21, 0.201, 0.102
- D 0.21, 0.021, 0.201, 0.102

Answer: A

### Question 9

Which organ of the human body is affected by glaucoma ?

- A Liver
- B Kidneys
- C Eyes
- D Ears

Answer: C

### Question 10

Where in the body are blood cells produced?

- A Appendix
- B Spleen
- C Bone marrow
- D Heart

Answer: C

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### Question 11

Who is the first Indian weight lifter to win the World Title twice?

- A Karnam Malleswari



- B Sumita Laha
- C Sanamacha Chanu
- D Kunjarani Devi

Answer: A

**Question 12**

A boy has a total of Rs.60 which is a sum of one rupee, 50 paise and 25 paise coins in the ratio of 5: 6: 8. Find the number of 25 paise coins.

- A 42
- B 30
- C 32
- D 48

Answer: D

**Explanation:**

Let say, total number of 1 rupee , 50 paise and 25 paise coins are  $5k, 6k$  and  $8k$  respectively.

So, total amount is  $= 5k \times 1 + 6k \times 0.5 + 8k \times 0.25$

$= 5k + 3k + 2k = 10k$ .

So,  $10k = 60$ .

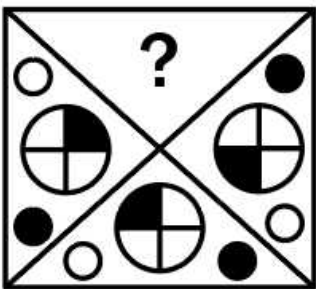
or,  $k = 6$ .

So, Total number of 25 paise coins are  $= 6 \times 8 = 48$ .

D is correct choice.

**Question 13**

Choose from the alternatives the figure that best completes the pattern given below.

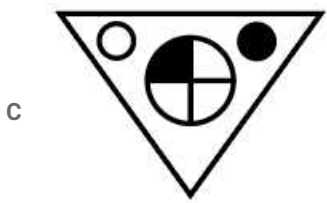


A



B





Answer: B

**Explanation:**

Black dots & white dots, are opposite in the right hand & left hand side of the image .

Also, if we observe the given image properly, we can see that black spot inside the crossed circle are opposite to each other in the image.

So, missing part of the image shall contain the opposite dots and black spot inside the circle.

So, we can say that image in Option B is correct choice.

## RRB Group-D Previous Papers

### Question 14

If 'R' is coded as 5, 'L' is coded as 1, 'N' is coded as 6, 'T' is coded as 2, 'U' is coded as 8, 'F' is coded as 3, 'S' is coded as 4, 'I' is coded as 9 and 'G' is coded as 7, what is the decoded form of 425967 ?

- A TRINGS
- B SRTNIG
- C STRING
- D SITRNG

Answer: C

**Explanation:**

So, 425967= STRING.

C is correct choice.

### Question 15

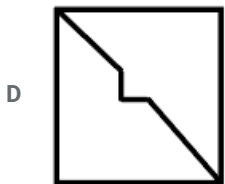
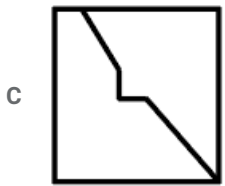
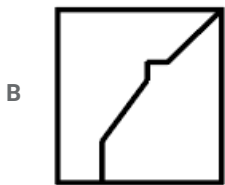
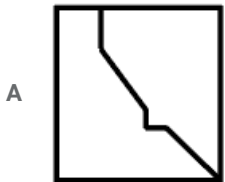
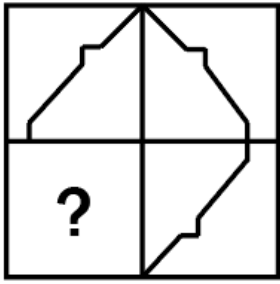
How will the emergent ray be after refraction of light through a glass slab?

- A The incident ray goes without deflection and emergent ray is same as incident ray
- B The emergent ray is parallel to the incident ray
- C The emergent ray and the incident rays are random
- D The emergent ray is at 90 degrees to the incident ray

Answer: B

Question 16

Choose from the alternatives the figure that best completes the pattern given below.



Answer: A

Explanation:

We need a left hand bended curve to complete the image.

Image in Option A completes the picture properly.

A is correct choice.

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Question 17

A rectangle has a width 'a' and length 'b'. If the width is decreased by 20% and the length is increased by 10%, then what is the area of the new rectangle in percentage compared to 'ab'?

A 120%

B 110%

C 80%

D 88%

**Answer:** D

**Explanation:**

Old rectangle area= $ab$ .

new width = $0.80a$

and, new length= $1.1b$ .

So, new rectangle area= $0.8a \times 1.1b = 0.88ab$ .

So, new area is 88% of old area of the rectangle.

D is correct choice.

**Question 18**

**Earth Hour is organized by-**

A Earth Hour Foundation

B UNESCO

C United Nations Environment Programme

D World Wildlife Fund

**Answer:** D

**Question 19**

**Find the least number when divided by 8, 12, 18 leaving remainders 6, 10, 16 respectively.**

A 144

B 70

C 74

D 146

**Answer:** B

**Explanation:**

By trial and error method, we got :

$70/8 = \text{remainder } (6)$

$70/12 = \text{remainder } (10)$

$70/18 = \text{remainder } (16)$

So, B is correct choice.

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**Question 20**

**How many times do the tidal waves build up and recede (rise and fall) in a day?**

A Thrice

B Twice

C Once



D Four times

Answer: B

**Question 21**

Who is considered as "The father of Biology" ?

A Aristotle

B Carolus Linnaeus

C Leeuwenhoek

D Lankester

Answer: A

**Question 22**

Deficiency of vitamin D causes-

A Beriberi

B Rickets

C Kwashiorkor

D Scurvy

Answer: B

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**Question 23**

Read the following information carefully and answer the question given below.

P, Q, R, S and T are friends, and they use different cars— Maruti, Volkswagen, Jaguar, Porsche and Renault. Colours of these cars are —blue, white, black, red and green, but not necessarily in the same order.

- i) P has an Renault, but it is not green.
- ii) Q has a red colour Porsche.
- iii) R has a blue car, but not Maruti.
- iv) T has a black car, which is neither Volkswagen nor Jaguar.
- v) Those who have green car use Volkswagen.

What is the colour of Renault?

A Green

B White

C Blue

D Black

Answer: B

Explanation:

Person Name	Car Name	Car color
P		
Q		
R		
S		
T		

Person Name	Car Name	Car color
P	Renault	(Xgreen)
Q	Porsche	Red
R		
S		
T		

- j) P has an Renault, but it is not green.  
 ii) Q has a red colour Porsche.

Person Name	Car Name	Car color
P	Renault	White
Q	Porsche	Red
R	(X Maruti)	Blue
S		Green
T		Black



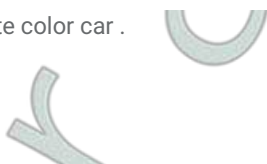
- iii) R has a blue car, but not Maruti.  
 iv) T has a black car, which is neither Volkswagen nor Jaguar. Then, definitely S has Green color car and P has white color car.

Person Name	Car Name	Car color
P	Renault	White
Q	Porsche	Red
R	Jaguar	Blue
S	Volkswagen	Green
T	<u>Maruti</u>	Black

- v) Those who have green car use Volkswagen.  
 Then, T uses Maruti as R does not use Maruti.

So, Renault is a white color car .

B is correct choice.



**Question 24**

Which number will best complete the relationship given below?

Handball : 7 :: Field Hockey : ?

- A 7
- B 11
- C 14
- D 13

**Answer: B**

**Explanation:**

Total number of letters including space :

HANDBALL=8

So, HANDBALL coded by  $(8-1)=7$ .

Similarly,

Field Hockey=12.

it will be coded by  $(12-1)=11$ .

B is correct choice.

**Question 25**

If  $x^3 + y^3 = 9$  and  $x + y = 3$ , then find the value of 'xy'.

- A 1
- B 3
- C 2
- D 6

**Answer: C**

**Explanation:**

$$x^3 + y^3 = 9$$

$$\text{or, } (x + y)^3 - 3xy(x + y) = 9.$$

$$\text{or, } 3^3 - 3xy \times 3 = 9.$$

$$\text{or, } 9xy = 27 - 9 = 18.$$

$$\text{or, } xy = 2.$$

C is correct choice.

**RRB General Science Notes (Download Pdf)**

**Question 26**

The foul smell of rancid butter is due to

- A Caproic acid
- B Butyric acid
- C Stearic acid

D Palmitic acid

Answer: B

**Question 27**

Find the wrong number in the following series.

2, 20, 54, 110, 182

A 54

B 110

C 20

D 182

Answer: A

**Explanation:**

2, 20, 110 & 182 are divisible by 2 but 54 is divisible by 2 as well as 3.

A is correct choice.

**Question 28**

Find the smallest number that leaves the remainder 13, 41 and 29 on being divided by 20, 48 and 36 respectively.

A 727

B 720

C 713

D 187

Answer: C

**Explanation:**

When divided by 20 remainder is 13. So, if we add 7 and then divide by 13 remainder, remainder will be 0 (as  $13+7$  becomes 20).

Similarly after adding 7, remainder when divided by 48 becomes 0. Similarly, for 36 it becomes 0.

20 is  $4 \times 5$

48 is  $16 \times 3$

36 is  $4 \times 9$ .

The factors are not taken randomly. They are powers of primes.

Common multiple has to be multiple of 16 (highest power of 2); otherwise it will not be multiple of 48.

Similarly, it should be multiple of 9 and 5.

Hence, it should be multiple of 720. Smallest such positive number is 720.

This is divisible of 20, 48 and 36

But this number is after adding 7; so required number is 713.

C is correct choice.

## RRB GK Material (Download Pdf)

**Question 29**

If selling price is Rs.500 more than the cost price and the profit earned is 40%, then what is the cost price?

- A Rs.1750
- B Rs.1800
- C Rs.1250
- D Rs.1500

**Answer: C**

**Explanation:**

$$S-C=0.40C=500.$$

$$\text{So, } C=(500/0.40)=1250.$$

C is correct choice.

**Question 30**

**Which is the phase of the moon which is a full bright view of the moon, where the moon is almost perfect round in shape?**

- A Crescent moon
- B Full moon
- C Gibbous moon
- D New moon

**Answer: B**

**Question 31**

**Which of the following is the sound of single frequency ?**

- A Note
- B Timber or quality of sound
- C Tone
- D Noise

**Answer: C**

## RRB NTPC Previous Papers (Download PDF)

**Question 32**

**What is the name of the longest bone found in the thigh of a human body?**

- A Vistula
- B Femur
- C Fibula
- D Humerous

**Answer: B**

**Question 33**

What was the duration of the second five year plan?

- A 1956-61
- B 1952-57
- C 1950-55
- D 1951-56

Answer: A

**Question 34**

Complete the series.

39, 32, 25, 18, 11, (...)

- A 4
- B 9
- C 1
- D 7

Answer: A

**Explanation:**

$39-7=32$ ,  $32-7=25$ ,  $25-7=18$ ,  $18-7=11$ ,

$11-7=4$ .

A is correct choice.

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**Question 35**

Which of the following is a carnivorous plant?

- A Sundew
- B Venus fly-trap
- C Pitcher plant
- D All of the options

Answer: D

**Question 36**

Simplify :  $\sqrt{\frac{(2.3)^2 + (23.3)^2 + (233.3)^2}{(0.23)^2 + (2.33)^2 + (23.33)^2}}$

- A 1/100
- B 0.1
- C 100
- D 10

Answer: D

Explanation:

$$\begin{aligned} & \sqrt{\frac{(2.3)^2 + (23.3)^2 + (233.3)^2}{(0.23)^2 + (2.33)^2 + (23.33)^2}} \\ &= \sqrt{\frac{100((2.3)^2 + (23.3)^2 + (233.3)^2)}{100((0.23)^2 + (2.33)^2 + (23.33)^2)}} \\ &= \sqrt{\frac{100((2.3)^2 + (23.3)^2 + (233.3)^2)}{(2.3)^2 + (23.3)^2 + (233.3)^2}} \\ &= \sqrt{100} \\ &= 10. \end{aligned}$$

D is correct choice.

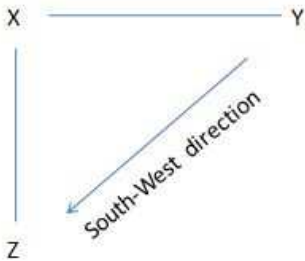
Question 37

Y is placed to the east of X, and Z is placed to the south of X. What is the direction of Z with respect to Y?

- A South east
- B North west
- C South west
- D North east

Answer: C

Explanation:



C is correct choice.

## RRB NTPC Free Mock Tests

Question 38

A spherical mirror and a thin spherical lens both have a focal length of -10 cm. The mirror and the lens are likely to be-

- A Both convex
- B The mirror is concave and the lens is convex
- C Both concave
- D The mirror is convex and the lens is concave

Answer: C

Explanation:

The mirror and the lens are likely to be- concave.

C is correct choice.

### Question 39

Two men—Pand start from two points—X and Y on opposite banks of still river towards Y and X respectively. They meet at 340 m from one bank 'X' and proceed on their respective onward journey. After that they meet at 170 m from the other bank 'Y' on their return journey. What is the width of the river?

- A 1 km
- B 400 km
- C 850 km
- D 1.5 km

**Answer:** C

#### Explanation:

Let the two opposite ends of the river be X and Y and the distance between them be D meters.(i.e., width = D meters)

Let P and Q be the two men starting from the opposite banks(i.e., from X and Y respectively).

Let the speed of P and Q be A and B m/hr .

I meet :

During I meet, P travels 340m from X while Q travels (D - 340)m from Y.

Therefore, Time taken for P to travel 340m = Time taken for Q to travel (D - 340)

$$\text{Or } 340 / A = (D - 340) / B$$

$$\text{Or } 340 / (D - 340) = A / B \dots(1)$$

II meet :

After crossing spot I, both of them proceed in their respective directions, reach banks and return back to cross each other at Spot II which is 170m from Y.

From Spot I to Spot II, P would had travelled a distance of (D - 340) + 170 m

From Spot I to Spot II, Q would had travelled a distance of 340 + (D - 170) m

Time taken by P to travel from Spot I to Spot II will be the same as that of Q from Spot I to Spot II

$$\text{Therefore, } A / (D - 340) + 170 = B / 340 + (D - 170)$$

$$\text{Or } (D - 340) + 170 / 340 + (D - 170) = A / B \dots(2)$$

From equations I and II, we get,

$$340 / (D - 340) = ((D - 340) + 170) / (340 + (D - 170))$$

$$340 / (D - 340) = (D - 170) / (D + 170)$$

By Cross- Multiplying,

$$340(D + 170) = (D - 170)(D - 340)$$

$$340D + 57800 = D^2 - 170D - 340D + 57800$$

$$D^2 - 850D = 0$$

By Factorizing,

$$D(D - 850) = 0$$

$$D = 850$$

Hence the width of the river = 850 m.

C is correct choice.

### Question 40

Which of the following countries is to host the G20 summit in 2020?



- A India
- B Japan
- C Saudi Arabia
- D USA

Answer: C

## RRB JE Previous Papers ( Download Pdf)

### Question 41

Mule is a hybrid derived by crossing-

- A Donkey and zebra
- B Female donkey and a male horse
- C Male donkey and a female horse
- D Horse and zebra

Answer: C

### Question 42

Choose the alternative that best replaces the question mark(?) in the given figure.

4	6	8
3	5	5
7	11	?

- A 15
- B 37
- C 39
- D 12

Answer: C

**Explanation:**

$$(4+3)(4-3)=7.$$

$$(6+5)(6-5)=11.$$

$$(8+5)(8-5)=39.$$

C is correct choice.

### Question 43

In the second quadrant,  $\sin \theta$  varies from:

- A 1 to -1

B 1 to 0

C 0 to -1

D -1 to 1

Answer: B

**Explanation:**

In the second quadrant,  $\sin \theta$  varies from 1 to 0.

B is correct choice.

## RRB JE Free Mock Test

**Question 44**

Bases are ..... in taste.

A Sour

B Salty

C Bitter

D Sweet

Answer: C

**Question 45**

Two trains 100 m and 120 m in length are moving in opposite direction, with speeds 18 m/s and 15 m/s respectively. In what time will they cross each other?

A 10 seconds

B 8 seconds

C 7.2 seconds

D 6.7 seconds

Answer: D

**Explanation:**

Their relative velocity =  $(18+15) = 33$  m/s.

So, time taken by them to cross each other is  $= (100+120)/33 = 6.67$  sec.

D is correct choice.

**Question 46**

Find the ODD oneout from the given options.

A SUV

B MOP

C GIJ

D KML

Answer: D

**Explanation:**

KML is odd .

As in SUV :S and U have 1 gap but U and V has no gap.

Similar for MOP and GIJ.

D is correct choice.

## Daily Free RRB Online Test

**Question 47**

A certain principal amounts to Rs.15000 in 2.5 years and to Rs.16500 in 4 years at the same rate of interest. Find the rate of interest.

A 6%

B 7%

C 9%

D 8%

**Answer: D**

**Explanation:**

Amount becomes:

15000 in 2.5 years

16500 in 4 years

Simple interest for (4-2.5) years:

$16500 - 15000$

Therefore:

SI for 1.5 years = Rs. 1500

SI for 2.5 years:

$1500 / 1.5 * 2.5$

2500

Principal amount:

$15000 - 2500$

Rs. 12500

Rate of Interest:

$2500 * 100 / 12500 * 2.5$

$250000 / 31250$

R = 8%

D is correct choice.

**Question 48**

The list price of an article at a show room is Rs.2000, and it is being sold at successive discounts of 20% and 10%. Find its net selling price.

A Rs.1520

B Rs.1400

C Rs.1700

D Rs.1440

Answer: D

**Explanation:**

Net selling price =  $2000 \times 0.8 \times 0.9 = 1440$  Rs.

D is correct choice.

**Question 49**

**Glacial acetic acid is-**

- A Frozen acetic acid
- B 100% acetic acid free of water
- C Solidified acetic acid
- D Gaseous acetic acid

Answer: B

## RRB Group-D Previous Papers

**Question 50**

**Complete the series.**

8, 24, 12, 36, 18, 54, (...)

- A 27
- B 68
- C 72
- D 108

Answer: A

**Explanation:**

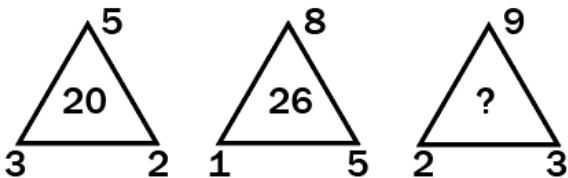
$8 \times 3 = 24$ ,  $24 / 2 = 12$ ,  $12 \times 3 = 36$ ,  $36 / 2 = 18$ ,

$18 \times 3 = 54$  &  $54 / 2 = 27$ .

A is correct choice.

**Question 51**

**Choose the alternative that best replaces the question mark(?) in the given figure.**



- A 40
- B 32
- C 38
- D 35

**Answer: A**

**Explanation:**

First image:

$$5 \times 3 \times 2 - (5 + 3 + 2) = 20.$$

Second image:

$$8 \times 5 \times 1 - (8 + 5 + 1) = 26.$$

Last image:

$$9 \times 3 \times 2 - (9 + 3 + 2) = 40.$$

A is correct choice.

**Question 52**

**A solid cube of side 12 cm is cut into eight smaller cubes of equal volume. The side of the small cube will be:**

**A** 4 cm

**B** 3 cm

**C** 1.5 cm

**D** 6 cm

**Answer: D**

**Explanation:**

Volume of old cube =  $a^3$

$$\Rightarrow (12)^3 = 1728 \text{ cm}^3$$

No. of cubes = 8

Volume of old cube = 8 \* volume of 1 new cube

$$1728 = 8 * a^3$$

$$1728 / 8 = a^3$$

$$12 / 2 = a$$

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

D is correct choice.

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**Question 53**

**LCM of a set of fractions is:**

**A** HCF of numerators / HCF of denominators

**B** LCM of numerators / HCF of denominators

**C** LCM of numerators / LCM of denominators

**D** HCF of numerators / LCM of denominators

**Answer: B**

**Explanation:**

LCM of a set of fractions is = LCM of numerators / HCF of denominators.

B is correct choice.

**Question 54**

**Double helical model of DNA molecule was proposed by-**

- A Morgan
- B Khorana
- C Watson and Crick
- D Nirenberg

Answer: C

**Question 55**

Six years ago the ratio of ages of P and Q was 6 : 5. Four years hence, it will be 11 : 10. What is the age of P now ?

- A 15 years
- B 25 years
- C 18 years
- D 20 years

Answer: C

**Explanation:**

Let say, P and Q's present age is p and q.

$$\text{So, } \frac{p-6}{q-6} = \frac{6}{5}.$$

$$\text{or, } 5p - 30 = 6q - 36.$$

$$\text{or, } 6q - 5p = 6 \dots \dots \dots (1)$$

And,

$$\frac{p+4}{q+4} = \frac{11}{10}.$$

$$\text{or, } 10p + 40 = 11q + 44.$$

$$\text{or, } 10p - 11q = 4 \dots \dots \dots (2)$$

Now multiply (1) by 2 and add it to (2):

$$12q - 10p + 10p - 11q = 12 + 4.$$

$$\text{or, } q = 16.$$

$$\text{So, } p = \frac{6 \times 16 - 6}{5} = \frac{90}{5} = 18. (\text{from eq (1)})$$

C is correct choice.

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**Question 56**

Which of the following is an ore of zinc?

- A Hematite
- B Cryolite
- C Dolomite
- D Calamine

Answer: D

**Question 57**

In a certain code, 'MASTER' is coded as 'VIYZOX'. How is 'STREAM' coded?

- A YZXIOV
- B YZXOIV
- C ZYXOIV
- D YZOXIV

**Answer:** B

**Explanation:**

'MASTER' is coded as 'VIYZOX'.

So,  $M = V$ ,  $A = I$ ,  $S = Y$ ,  $T = Z$ ,  $E = O$ ,  $R = X$ .

So, STREAM = YZXOIV.

B is correct choice.

**Question 58**

What is the full form of FDI?

- A Foreign Domestic Index
- B Foreign Direct Investment
- C Federal Deposit Investment
- D Federal Domestic Index

**Answer:** B

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**Question 59**

Two taps P and Q take 60 minutes and 40 minutes to fill a cistern separately. If tap Q is open for the first half time and alone is open for the remaining time, how long will it take to fill the cistern?

- A 45 minutes
- B 32 minutes
- C 36 minutes
- D 48 minutes

**Answer:** D

**Explanation:**

Let say, total time taken by them to fill the tank is  $x$  min.

Q :

Q fills in  $\frac{x}{2}$  min =  $\frac{x}{2} \times \frac{1}{40} = \frac{x}{80}$ .

P:

P fills in  $\frac{x}{2}$  min =  $\frac{x}{2} \times \frac{1}{60} = \frac{x}{120}$ .

So,

$$\frac{x}{80} + \frac{x}{120} = 1$$

$$\text{or, } \frac{(2+3)x}{240} = 1.$$

$$\text{or, } x = \frac{240}{5} = 48.$$

D is correct choice.

#### Question 60

With which of the following fields is Munshi Premchand associated?

- A Dance
- B Music
- C Literature
- D Painting

Answer: C

#### Question 61

P, Q and R can do a project in 8, 6 and 12 days respectively. The project is started with P and Q working on day 1, Q and R on day 2, R and P on day 3 and so on. In how many days will the project be completed?

- A 29/7 days
- B 22/7 days
- C 34/7 days
- D 27/7 days

Answer: D

#### Explanation:

P, Q and R can do the project in 8, 6 and 12 days respectively.

$$\text{So, P and Q can do in 1 day} = \frac{1}{8} + \frac{1}{6} = \frac{3+4}{24} = \frac{7}{24}.$$

$$\text{P and R can do in 1 day} = \frac{1}{8} + \frac{1}{12} = \frac{3+2}{24} = \frac{5}{24}.$$

$$\text{Q and R can do in 1 day} = \frac{1}{6} + \frac{1}{12} = \frac{2+1}{12} = \frac{3}{12} = \frac{6}{24}.$$

$$\text{After day 3, work left} = \left(1 - \frac{7}{24} - \frac{5}{24} - \frac{6}{24}\right) = \frac{24-7-5-6}{24} = \frac{6}{24} = \frac{1}{4}.$$

$$\text{So, P and Q can do} \Rightarrow \frac{7}{24} \text{ part in 1 day.}$$

$$\text{or, } \frac{1}{4} \text{ part will do in} = \frac{24}{7} \times \frac{1}{4} = \frac{6}{7} \text{ days.}$$

$$\text{So, Total time taken} = \left(3 + \frac{6}{7}\right) = \frac{27}{7} \text{ days.}$$

D is correct choice.

## RRB General Science Notes (Download Pdf)

#### Question 62

Blue green algae contains -

- A Thylakoid membranes
- B Lysosomes



C Mitochondria

D Golgibodies

Answer: A

Question 63

Which of these properties does NOT hold good in a triangle?

A Difference of any two sides is less than the third side

B Sum of any two sides is greater than the third side

C Sum of any two sides is equal to the third side

D Sum of the angles is  $180^\circ$  always

Answer: C

Question 64

The consistency of a given data can be determined from the value of .....

A The range

B The mode

C Difference between mean and median

D The standard deviation

Answer: D

## RRB GK Material (Download Pdf)

Question 65

Which of the following properties changes with valency?

A Equivalent weight

B Pressure

C Density

D Volume

Answer: A

Question 66

Prakash runs from his home towards east direction for 50 m and then turns left and runs for 20 m. Again he turns left and runs for 30 m; and again turns left and runs for 20 m to reach point 'A'. What is the distance from the point A to his home straight?

A 30 m

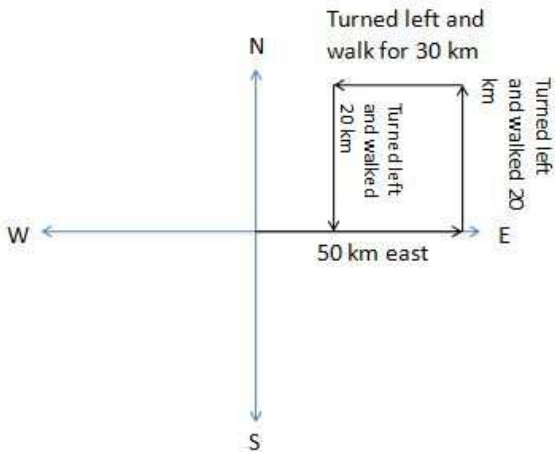
B 40 m

C 10 m

D 20 m

Answer: D

Explanation:



So, He is  $(50-30)=20$  km apart from his home to point A.

D is correct choice.

Question 67

Who among the following was awarded with the Bharat Ratna in 2019 ?

- A Narendra Modi
- B Manmohan Singh
- C Pranab Mukherjee
- D L.K. Advani

Answer: C

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Question 68

Simplify :  $7\frac{1}{5} \div 1\frac{1}{35} \times \frac{3}{35}$

- A  $5/7$
- B  $7/5$
- C  $3/5$
- D  $3/7$

Answer: C

Explanation:

$$7\frac{1}{5} \div 1\frac{1}{35} \times \frac{3}{35}$$

$$=(36/5) \div (36/35) \times (3/35)$$

$$=(36/5) \times (35/36) \times (3/35)$$

$$=(3/5)$$

C is correct choice.

Question 69

Where was the Commonwealth Games 2018 held?

- A Australia
- B India
- C England
- D Canada

Answer: A

Question 70

What is the expansion of BHIM?

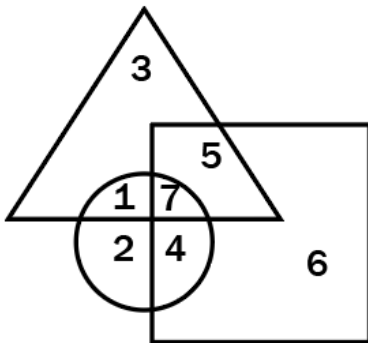
- A Bharat Initiative for Money
- B Bharat Immediate for Money
- C Bharat Interface for Money
- D Bharat Intermediate for Money

Answer: D

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Question 71

In the given figure, the circle represents people who visited Bhopal, triangle represents people who visited Kochi, and square represents people who visited Patna. Which region represents people who visited both Bhopal and Kochi ?



- A 4
- B 1
- C 5
- D 2

Answer: B

Explanation:

Common region of triangle and circle is 1, which represents the Bhopal and Kochi only.

So, B is correct choice.

**Question 72**

On what factors does the resistance of a conductor depend?

- A Thickness of conductor
- B All the options
- C Nature of material of conductor
- D Length of conductor

**Answer: B**

**Question 73**

In this question, two statements are given followed by two conclusions. Choose the conclusion(s) which best fit(s) logically.

**Statements:**

1) Some rats are tigers.

2) Some cats are tigers.

**Conclusions:**

I. Some tigers are cats.

II. Some tigers are rats.

- A Only conclusion II follows
- B Neither conclusion I nor II follows
- C Only conclusion I follows
- D Both conclusions I and II follow

**Answer: D**

**Explanation:**

both the conclusions are follows:

Some tigers are cats.

Some tigers are rats.

As both the particulars starts with some , conclusions must start with Some clause .

So, D is correct choice.

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**Question 74**

Which of the following is an example of a triatomic molecule?

- A Oxygen
- B Ozone
- C Nitrogen
- D Hydrogen

**Answer: B**

**Question 75**

Two pipes can fill a tank in 45 and 30 minutes respectively. After some time the slower pipe was closed. Then the tank was filled by the other pipe in 13 minutes 20 seconds. When was the slower pipe closed after start?

- A 12.6 minutes
- B 8.5 minutes
- C 15 minutes
- D 10 minutes

**Answer: A**

**Explanation:**

Let say, slower pipe was closed after x min.

So, in x min they together filled

$$x(1/45+1/30)=x(2+3)/90=(x/18).$$

So, faster pipe will fill rest of it  $(1-x/18)$  or  $(18-x)/18$  in  $(13+1/3)$  min.

In  $(13+1/3)$  min ,it fills= $40/(45 \times 3)=8/27$ .

$$\text{So, } (18-x)/18=8/27.$$

$$\text{or, } 18 \times 27 - 27x = 144.$$

$$\text{or, } x = 12.67$$

So, A is correct choice.

**Question 76**

Using brake pads in the brake system of bicycles and automobiles is for what purpose ?

- A To decrease friction
- B To make the vehicle not able to stop its movement
- C To increase friction
- D To keep the vehicle moving with uniform speed

**Answer: C**

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**Question 77**

Which of these states is bordered by Bhutan, China and Myanmar?

- A Manipur
- B Assam
- C Tripura
- D Arunachal Pradesh

**Answer: D**

**Question 78**

Why does a cork float in water while an iron nail sinks?

- A Due to the cork's floating capacity
- B Due to the difference in their densities
- C Due to the difference in their forms
- D Due to the same force acting on both

Answer: B

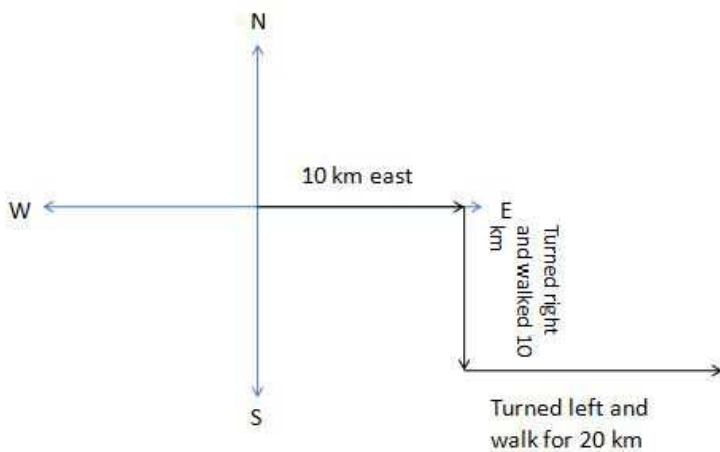
**Question 79**

Siva left school and cycled 10 km towards east. He then turned right and cycled 10 km and turned left and cycled 20 km and reached point 'A'. How many kilometers should he cycle from the school to point 'A'?

- A 20 km
- B 40 km
- C 30 km
- D 10 km

Answer: B

Explanation:



So, in total he has to walk for =  $10 + 10 + 20 = 40 \text{ km}$ .

B is correct choice.

## RRB JE Free Mock Test

**Question 80**

In 2019, which of the following schemes was launched by HRD Ministry to fund science projects?

- A NPTEL
- B NRP
- C RUSA
- D STARS

Answer: D

**Question 81**

In this question, a statement is given followed by three conclusions. Choose the conclusion(s) which best fit(s) logically.

**Statement:**

$$L \leq R < M < N < K$$

**Conclusions:**

- I.  $L < N$
- II.  $K > M$
- III.  $R < N$

- A Only conclusion II is true
- B Only conclusion III is true
- C Only conclusion I is true
- D All conclusions are true

**Answer: D**

**Explanation:**

**Conclusions:**

- I.  $L < N$
- II.  $K > M$
- III.  $R < N$

All the conclusions can be derived from the above statement.

D is correct choice.

**Question 82**

In this question, two statements are given followed by two conclusions. Choose the conclusion(s) which best fit(s) logically.

**Statements:**

- 1) Some boys are girls.
- 2) Some students are boys.

**Conclusions:**

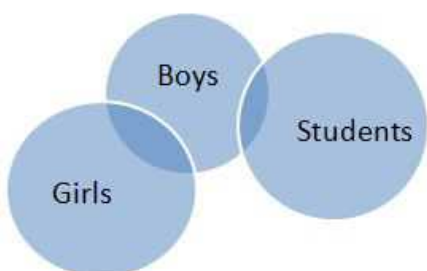
- I. All girls are students.
- II. Some students are girls.

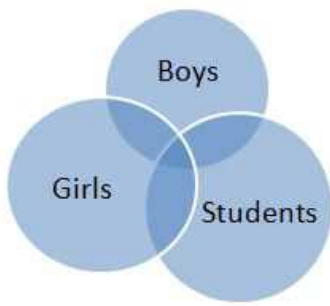
- A Both conclusions I and II follow
- B Neither conclusion I nor II follows
- C Only conclusion II follows
- D Only conclusion I follows

**Answer: B**

**Explanation:**

From the given statements following two diagram possible :





So, none of the conclusion is right.

B is correct choice.

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### Question 83

A solid is in the shape of a cone fitted on a hemisphere both with radii 2 cm and height of cone being equal to its radius. What is the volume of this solid?

- A  $2\pi cm^3$
- B  $4\pi cm^3$
- C  $6\pi cm^3$
- D  $8\pi cm^3$

Answer: D

#### Explanation:

$$\text{Total volume} = \left(\frac{1}{3}\right)\pi r^2 h + \left(\frac{2}{3}\right)\pi r^2 h$$

here,  $r=2=h$ .

$$\text{So, Volume} = \left(\frac{1}{3} + \frac{2}{3}\right)(\pi \times 2 \times 2 \times 2) = 8\pi.$$

D is correct choice.

### Question 84

Who among the following is NOT a cricketer?

- A Sardara Singh
- B Dilip Doshi
- C R.P. Singh
- D Syed Abid Ali

Answer: A

### Question 85

What comes in the place of \*?

$$(7 \times 7)^3 \div (49 \times 7)^3 \times (2401)^2 = 7^*$$

- A 5
- B 7



C 8

D 3

Answer: A

Explanation:

$$(7 \times 7)^3 \div (49 \times 7)^3 \times (2401)^2$$

$$= 7^6 \div 7^9 \times 7^8.$$

$$= 7^6 \times \frac{1}{7^9} \times 7^8.$$

$$= 7^{14} \times \frac{1}{7^9}.$$

$$= 7^{14-9}.$$

$$= 7^5.$$

So, A is correct choice.

## RRB Group-D Previous Papers

Question 86

Which of the following rivers is also known as the 'River of Sorrow'?

A Damodar

B Auranga

C North Koel

D Amanat

Answer: A

Question 87

In a certain code, if 'TREE' is coded as 7100, 'FROG' as 2159, how is 'FREE' coded in that code ?

A 1002

B 2100

C 3100

D 1003

Answer: B

Explanation:

From the given question we can say that :

F=2, R=1, & E=0.

So, FREE=2100.

B is correct choice.

Question 88

What is the ratio of sine of angle of incidence to the sine of the angle of refraction called?

A Opacity

- B Translucent index
- C Refractive index
- D Transparency

Answer: C

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**Question 89**

'Astigmatism' is a disease which affects -

- A Ears
- B Heart
- C Legs
- D Eyes

Answer: D

**Question 90**

What is the SI unit of time period?

- A Metre (m)
- B Second (s)
- C Hertz (Hz)
- D Kilogram (Kg)

Answer: B

**Question 91**

If 'L' stands for '+', 'M' stands for '-', 'N' stands for '×', 'P' stands for '÷', then  $14 N 10 L 42 P 2 M 10 = ?$

- A 216
- B 329
- C 243
- D 151

Answer: D

**Explanation:**

Equation is :

$$14 \times 10 + 42 \div 2 - 10$$

$$= 14 \times 10 + 21 - 10$$

$$= 140 + 21 - 10$$

$$= 161 - 10$$

$$= 151.$$

D is correct choice.

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### Question 92

The atomic number of sulphur is-

- A 18
- B 14
- C 16
- D 12

Answer: C

### Question 93

Which of the following separation techniques can be used to separate iron pins from sand?

- A Filtration
- B Fractional distillation
- C Evaporation
- D Magnetic separation

Answer: D

### Question 94

A sum lent at 7% per annum will produce as much Simple Interest in 2 years as Rs.1750, lent at 5% will produce in 4 years. Find the sum.

- A Rs.1600
- B Rs.2500
- C Rs.2400
- D Rs.1800

Answer: B

#### Explanation:

Let say, the sum is P.

So,

$$P \times 0.07 \times 2 = 1750 \times 0.05 \times 4$$

$$\text{or, } P = (1750 \times 10)/7$$

$$\text{or, } P=2500.$$

B is correct choice.

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**Question 95**

Arun's income is 150% of Bala's income. Income of Chandru is 120% of the income of Arun. If the total income of Arun, Bala and Chandru is Rs.86000, then what is the income of Chandru?

- A Rs.30000
- B Rs.32000
- C Rs.34000
- D Rs.36000

**Answer:** D

**Explanation:**

Let say, Bala's income= $b$ .

So, Arun's income= $1.5b$

And Chandra's income= $1.2 \times 1.5b = 1.8b$ .

So,  $(1.5b + b + 1.8b) = 86000$ .

or,  $4.3b = 86000$ .

or,  $b = 20,000$ .

Chandru's income =  $1.8 \times 20,000 = 36000$ .

D is correct choice.

**Question 96**

The group number and period number respectively of an element with atomic number 8 are

- A 16, 2
- B 6, 2
- C 4, 2
- D 16, 3

**Answer:** A

**Question 97**

Find the ODD one out from the given options.

- A 6, 72
- B 2, 8
- C 8, 130
- D 4, 32

**Answer:** C

**Explanation:**

In each pair of numbers bigger number is divisible by the smaller one, but 130 is not divisible by 8 .

So, C is correct choice.

Question 98

Calculate the median for this data.

Daily income in Rs.	10-14	15-19	20-24	25-29	30-34	35-39
No. of workers	5	10	15	20	10	5

A 25.12

B 26.4

C 20

D 12.33

Answer: A

Explanation:

Group	Frequency
35-39	5
30-34	10
25-29	20
20-24	15
15-19	10
10-14	5

Group	Frequency	<cf(cummilative freq)
35-39	5	65
30-34	10	60
25-29	20	50
20-24	15	30
15-19	10	15
10-14	5	5

We know ,

$$\text{MEDIAN} = lb_{mc} + \left\{ \frac{\frac{\Sigma f}{2} - cf}{f_{mc}} \right\} i$$

here,  $i=5$ ,  $\Sigma f = 5 + 10 + 15 + 20 + 10 + 5 = 65$ .

$$\text{So, } \frac{\Sigma f}{2} = \frac{65}{2} = 32.5.$$

So, Middle class should lie under the group (25-29).

So,  $<cf$  is = 30 and  $f_{mc} = 20$ .

And,  $lb_{mc} = 25 - 0.50 = 24.50$ .

$$\text{So, MEDIAN} = 24.50 + \left\{ \frac{32.50 - 30}{20} \right\} .5$$

$$\text{or, MEDIAN} = 24.50 + 0.625 = 25.125.$$

So, A is correct choice.

Question 99

A mother and daughter differ in age by 20 years. Five years hence daughter's age will be half her mother's present age. How old is the daughter?

- A 8 years
- B 15 years
- C 10 years
- D 12 years

Answer: C

**Question 100**

If 'NOR' is coded as 2-3-6, then how should 'REST' be coded?

- A 5-19-5-8
- B 6-18-5-8
- C 6-19-7-8
- D 6-19-6-7

Answer: C

**Explanation:**

Here the value of R is 6 so according to given condition, value of S should be 7. Therefore, answer should be 6-19-7-8.

C is correct choice.

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