



## RRB JE 25th May 2019 Shift-3

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## RRB JE 25th May 2019 Shift-3

### Instructions

For the following questions answer them individually

### Question 1

According to World Health Organization, the soft water has 0 to \_\_\_\_ milligram per litre as  $CaCO_3$ .

- A 120
- B 60
- C 30
- D 90

Answer: B

## RRB NTPC Free Mock Tests

### Question 2

Find the ODD one out from the given options.

- A Bus
- B Auto
- C Van
- D Car

Answer: B

### Explanation:

Bus, Van, Car are 4 wheeler

whereas, Auto is 3 Wheeler

### Question 3

Ten years ago, the ages of father and son were in the ratio 3 : 1. Ten years hence this ratio will be 2 : 1. What is the age of the father now ?

- A 70
- B 75
- C 65
- D 55

Answer: A

### Question 4

If 'PEOPLE' is coded as 'PLPOEE', how is 'TREND' coded?

- A TNERD
- B TREDN

C DNERT

D NDETR

**Answer: A**

**Explanation:**

PEOPLE' is coded as 'PLPOEE

here first and last letter is same P,E

middle letters interchange in themselves OP PO

second last and second first E L =L E

similarly With TREND

here first and last letter is same T,D

middle letters interchange in themselves E E

second last and second first R N = N R

TNERD

## RRB JE Previous Papers ( Download Pdf)

**Question 5**

**When a decomposition reaction is carried out by heating, it is called?**

A Thermal decomposition

B Electrolytic decomposition

C Photo decomposition reaction

D Non electrolytic decomposition reaction

**Answer: A**

**Question 6**

**If the selling price is doubled, then profit triples. What is the profit per cent?**

A 100%

B 120%

C 80%

D 60%

**Answer: A**

**Explanation:**

let the selling price be SP

Cost price be CP

profit be P

As we know that

$P = SP - CP$

ATQ

$3P = 2SP - CP$

$$3(SP-CP)=2SP-CP$$

$$SP=2CP$$

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

$$=100\%$$

#### Question 7

Sneha wants to go to the market. She starts from her home which is in the north and comes to the crossing. The road to her left ends in a park and straight ahead is the office complex, and market is located direct opposite to the park. In which direction is the market to the crossing?

- A South
- B North
- C East
- D West

Answer: D

### RRB JE Free Mock Test

#### Question 8

Which of these places was founded in 1577 by Guru Ram Das?

- A Ludhiana
- B Amritsar
- C Chandigarh
- D Jalandhar

Answer: B

#### Question 9

Who is the present captain of India's men National field hockey team?

- A Akashdeep Singh
- B Harmanpreet Singh
- C Rupinder Pal Singh
- D Manpreet Singh

Answer: D

#### Question 10

Six boys - A, B, C, D, E, F are standing in one row, and six girls—G, H, I, J, K, L are standing in another row in such a way that each girl faces one boy, not necessarily in the same order. G is to the immediate right of the girl who is facing E, the boy at the extreme right. Only B is between D and E. F is to the immediate left of A and to the immediate right of C. I is facing A and is to the immediate left of H. L is third to the left of J.

Which of the following boys is to the immediate left of D?

- A F
- B B
- C A
- D E

Answer: C

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### Question 11

If the frequency of a sound wave is 100 Hz, then what is its time period?

- A 0.1 second
- B 0.01 second
- C 10 seconds
- D 1 second

Answer: B

### Question 12

The cooking gas (LPG) mainly consists of ?

- A Ethene
- B Propene
- C Propane and Butane
- D Ethyne

Answer: C

### Question 13

Complete the series.

4, 4, 8, 24, 96, (...)

- A 461
- B 448
- C 493
- D 480

Answer: D

**Explanation:**

4, 4, 8, 24, 96, (...)

$$4 \times 1 = 4$$

$$4 \times 2 = 8$$

$$8 \times 3 = 24$$

$$24 \times 4 = 96$$

so

$$96 \times 5 = 480$$

## RRB Group-D Previous Papers

### Question 14

A right circular cylinder just encloses a sphere of radius 6 cm. If A and B are their curved surface areas, then:

- A Cannot be determined
- B  $A = B$
- C  $A < B$
- D  $A > B$

Answer: B

### Question 15

Complete the series.

38, 35, 34, 31, 30, (...)

- A 28
- B 27
- C 25
- D 24

Answer: B

### Question 16

Which of these diseases is communicable?

- A Plague
- B Cancer
- C Diabetes
- D Hypertension

Answer: A

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### Question 17

Complete the series.

B, C, F, G, J, K, (...)

- A 0

B M

C N

D P

Answer: C

Question 18

The liquid portion of blood is called

A Serum

B Lymph

C Water

D Plasma

Answer: D

Question 19

What day of the week will 1 January 2022 be?

A Saturday

B Monday

C Thursday

D Sunday

Answer: A

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Question 20

Which of these is a hill station in Rajasthan?

A Panchgani

B Nainital

C Mount Abu

D Kasauli

Answer: C

Question 21

If a convex lens forms a real inverted same size image at 30 cm, then the object is placed \_\_\_\_ in front of the lens.

A 30 cm

B 40 cm

C 10 cm

D 20 cm

Answer: A

**Question 22**

Find the HCF of 513, 1134 and 1215.

A 36

B 27

C 18

D 33

Answer: B

**Explanation:**

take the hcf of 513,1134,1215 by taking factorization

$$513 = 3 \times 3 \times 3 \times 19$$

$$1134 = 3 \times 2 \times 3 \times 3 \times 3 \times 7$$

$$1215 = 3 \times 3 \times 3 \times 3 \times 3 \times 5$$

by taking common

$$hcf = 3 \times 3 \times 3 = 27$$

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**Question 23**

A sum of Rs.25000 amounts to Rs.32000 in 4 years. What is the rate of interest?

A 8%

B 6%

C 6.5%

D 7%

Answer: D

**Explanation:**

$$S.I = \frac{P \times R \times T}{100}$$

$$7000 = \frac{25000 \times R \times 4}{100}$$

T = 7 years

**Question 24**

Find the least number that is divisible by 12, 18, 21, and 30

A 1020

B 1260

C 1620

D 1060



**Answer: B**

**Explanation:**

$$12 = 2 \times 2 \times 3$$

$$18 = 2 \times 3 \times 3$$

$$21 = 3 \times 7$$

$$30 = 2 \times 3 \times 5$$

Select the common terms

$$\text{LCM} = 2 \times 2 \times 3 \times 3 \times 5 \times 7$$

$$= 1260$$

**Question 25**

**How is the ammeter connected in all circuits to measure current flowing in it?**

**A** In parallel

**B** Across

**C** In series

**D** In line

**Answer: C**

## RRB General Science Notes (Download Pdf)

**Question 26**

**In a certain code, 'HUNTER' is coded as 'UHNTRE'. How is 'MANAGE' coded in that code?**

**A** MNAAEG

**B** MAANGE

**C** AMNAEG

**D** EGNAAM

**Answer: C**

**Explanation:**

'HUNTER' is coded as 'UHNTRE'

here last two letter interchange in themselves ER RE

middle letters are same NT

first two letter interchange in themselves HU UH

similarly

MANAGE

here last two letter interchange in themselves GE EG

middle letters are same NA

first two letter interchange in themselves MA AM

AMNAEG

**Question 27**

**Simplify:**  $\frac{\sin 3A}{\sin A} + \frac{\cos 3A}{\cos A}$

- A  $2 \sin A$
- B  $2 \cos A$
- C  $4 \cos 2A$
- D  $-2$

**Answer:** C

**Question 28**

In which part of the human ear is amplification of sound done by 3 bones?

- A Middle ear
- B Auditory nerve
- C Inner ear
- D Outer ear

**Answer:** A

## RRB GK Material (Download Pdf)

**Question 29**

Pure ghee costing Rs.100 per kilogram and vegetable oil costing Rs.50 per kilogram are mixed in some ratio and sold at Rs.96 per kilogram so as to gain 20%. In what ratio is ghee and oil mixed?

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

**Answer:** B

**Explanation:**

Cost of pure ghee= Rs.100 per kg

After adulteration cost of ghee = Rs.50 per kg

Selling price of mixture = Rs.96 per kg

Profit=20%

To find the ratio of the mixture

$$\text{profit} = 96 \times \frac{20}{100}$$

=approx. RS 19

cost price=selling price - profit

=96-19

= RS 77

Rounding off to nearest 10 that is  $77=80$

Now by using the allegation rule we have

Cost of 1 kg ghee = 100, cost of 1 kg vegetable oil=50

Cost price =80

Hence  $80-50=30$

So  $100-80=20$

=30:20

=3:2

**Question 30**

**Which of the following is a use of ethanol?**

- A All of the options
- B Manufacturing paints
- C In alcoholic drinks
- D In cough syrups

**Answer: A**

**Question 31**

**What is the length of the greatest rod that can be placed in a hall 12 m long, 4 m broad and 3 m high?**

- A 9 m
- B 18 m
- C 13 m
- D 15 m

**Answer: C**

**RRB NTPC Previous Papers (Download PDF)**

**Question 32**

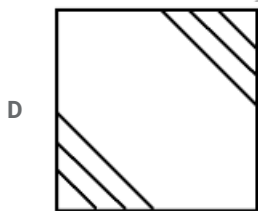
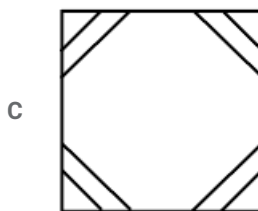
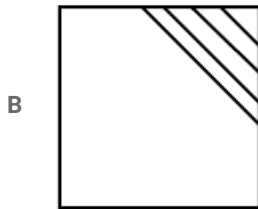
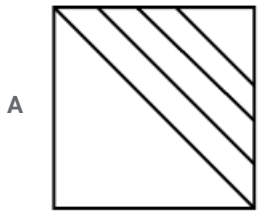
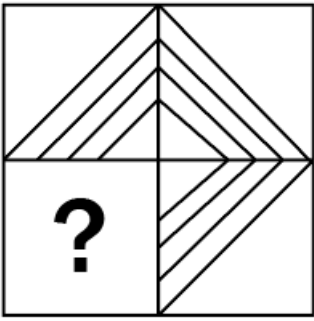
**A group of more than three atoms carrying a charge is known as \_\_\_\_\_ ion.**

- A Di atomic
- B Mono atomic
- C Tri atomic
- D Polyatomic

**Answer: D**

Question 33

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



Answer: A

Question 34

Which of these plants is mainly found in deserts?

A Teak

B Cactus

C Oak

D Eucalyptus

Answer: B

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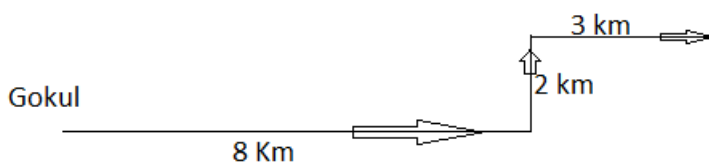
### Question 35

Gokul walks 8 km from his home towards east. He turns left to cover 2 km, and he turns right and walks 3 km. Find the distance he travelled towards east?

- A 5 km
- B 8 km
- C 14 km
- D 11 km

Answer: D

Explanation:



total distance = 8 km + 3 km = 11km east

### Question 36

Which of the following is NOT a celestial object?

- A Stars
- B Sun
- C Ocean
- D Planets

Answer: C

### Question 37

Which of the following diseases is a disease of the lung?

- A Tuberculosis
- B Cancer
- C Tetanus
- D Allergy

Answer: A

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### Question 38

What is the shape of the Cocci bacteria?

- A Spherical
- B Rod shaped
- C Comma-shaped
- D Spiral

Answer: A

### Question 39

Which organ in the human body regulates the sugar content in the blood?

- A Pancreas
- B Liver
- C Stomach
- D Gall bladder

Answer: A

### Question 40

Simplify :  $5 + 4 \times 5^2 + 4 \times 5^3 + 4 \times 5^4 + 4 \times 5^5$

- A  $5^8$
- B  $5^4$
- C  $5^6$
- D  $5^2$

Answer: C

## RRB JE Previous Papers ( Download Pdf)

### Question 41

In what time will a train 100 m long cross an electric pole, if its speed is 144 km/h?

- A 2.5 seconds
- B 12.5 seconds
- C 4.25 seconds
- D 5 seconds

**Answer: A**

**Question 42**

**Where did Google launch its first drone delivery service in 2019?**

- A India
- B United States
- C Australia
- D England

**Answer: C**

**Question 43**

**What is the minimum temperature to which a fuel must be heated so that it may catch fire and start burning?**

- A Normal temperature
- B Neutral temperature
- C Boiling temperature
- D Ignition temperature

**Answer: D**

**RRB JE Free Mock Test**

**Question 44**

**The acceleration experienced by an object during a free fall is independent of its-**

- A Velocity
- B Pressure
- C Mass
- D Energy

**Answer: C**

**Question 45**

**What is the aim of the 'Young Scientist Programme' for students, which was recently launched by ISRO?**

- A To impart basic knowledge of research
- B To impart basic knowledge of space technology

- C To impart basic knowledge of biology
- D To impart basic knowledge of computers

Answer: B

**Question 46**

P and Q can do a work individually in 15 days and 20 days respectively. Find the respective ratio of their efficiencies.

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

Answer: C

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**Question 47**

In universal indicators, red colour shows a pH of

- A 0 to 3
- B 4 to 7
- C 12 to 14
- D 8 to 11

Answer: A

**Question 48**

Two stations A and B are 110 km apart on a straight line. One train starts from A at 7 a.m. and travels towards B at 20 km/h. Another train starts from B at 8 a.m. and travels towards A at a speed of 25 km/h. At what time will they meet?

- A 11 a.m.
- B 10 a.m.
- C 9 a.m.
- D 10.30 a.m.

Answer: D

**Question 49**

What digit will come in the place of 'a' in the number 1a5a01, if it is divisible by 11?

- A 5
- B 6
- C 4
- D 8



**Answer:** D

**Explanation:**

According to the **divisibility rule** of **11**, we must subtract and then add the digits in an alternating pattern from left to right. If the answer is 0 or **11**, then the result is **divisible by 11**.

here in this no.

1a5a01

we apply the rule

$$1 - a + 5 - a + 0 - 1 = 5 - 2a$$

5 - 2a must be divisible by 2

so we have to check the option

$$5 = a$$

$$5 - 2a = -5$$

$$6$$

$$5 - 2a = -7$$

$$4$$

$$5 - 2a = -3$$

$$8$$

$$5 - 2a = -11 \text{ which is divisible by 11}$$

## RRB Group-D Previous Papers

### Question 50

Which disease is prevented with the help of Salk's vaccine?

- A Measles
- B Polio
- C Chicken pox
- D Small pox

**Answer:** B

### Question 51

Find the wrong number in the given series.

6, 12, 21, 36, 56, 81

- A 21
- B 12
- C 36
- D 56

**Answer:** B

**Explanation:**

6, 12, 21, 36, 56, 81

$$12 - 6 = 6$$

$$21 - 12 = 9$$

$$36 - 21 = 15$$

$$56 - 36 = 20$$

$$81 - 56 = 25$$

so wrong term is first two it should be

$$11 - 6 = 5$$

$$21 - 11 = 10$$

so wrong term is 12

**Question 52**

To which of the following family of elements does potassium belong?

- A Halogens
- B Alkaline earth metals
- C Noble gases
- D Alkali metals

**Answer:** D

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**Question 53**

P takes 10 days and Q takes 24 days to complete a work. With the help of R, they all work together and finish it in 6 days. Find the payment they receive out of a total remuneration of Rs.1000.

- A P-Rs.500; Q-Rs.400; R-Rs.100
- B P-Rs.400; Q-Rs.350; R-Rs.250
- C P-Rs.600; Q-Rs.250; R-Rs.150
- D P-Rs.500; Q-Rs.350; R-Rs.150

**Answer:** C

**Explanation:**

P = 10 days

Q = 24 days

P+Q+R = 6 days

Total work = lcm (10,24,6) = 120 days

P's efficiency =  $120 \div 10 = 12$

Q's efficiency =  $120 \div 24 = 5$

(P+Q+R)'s efficiency =  $120 \div 6 = 20$

to find out R's effi = (P+Q+R)'s efficiency - P's efficiency - Q's efficiency =  $20 - 12 - 5 = 3$

P's wage =  $\frac{\text{total wage}}{\text{P's efficiency}} = \frac{1000}{12} = 600Rs$

$$\frac{1000}{20} \times 12 = 600Rs$$

$$Q'wage = \frac{1000}{20} \times 5 = 250Rs$$

$$R'wage = \frac{1000}{20} \times 3 = 150Rs$$

**Question 54**

Which of the following will best complete the relationship given below?

BAT : YZG :: EMU : ?

- A VFN
- B FNV
- C FVN
- D VNF

**Answer: D**

**Explanation:**

BAT : YZG :: EMU : ?

A B C D E F G H  
1 2 3 4 5 6 7 8  
I J K L M N O P  
9 10 11 12 13 14 15 16  
Q R S T U V W X  
17 18 19 20 21 22 23 24  
Y Z

here B is opposite to Y  
A is opposite to Z

T is opposite to G  
similarly

E is opposite to V  
M is opposite to N

U is opposite to F

**Question 55**

If '+' means '-', '-' means '+', '÷' means '×' and '×' means '÷', then

$$18 \times 3 \div 4 - 5 + 3 = ?$$

- A 21
- B 29
- C 26
- D 31

**Answer: C**

**Explanation:**

'+' means '-', '-' means '+', '÷' means '×' and '×' means '÷'

$$18 \times 3 \div 4 - 5 + 3 = ?$$

so

$$18 \div 3 \times 4 + 5 - 3 = ?$$

apply BODMAS rule

$$6 \times 4 + 5 - 3 = ?$$

$$24 + 5 - 3 = ?$$

$$= 26$$

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### Question 56

In some machines, why is using oil as a lubricant not advisable?

- A Oil makes the movement of the parts tough
- B Sometimes oil leaks into the parts of the machine causing undesirable obstruction of working
- C Oil sometimes increases friction
- D Oil makes the machine parts and the whole place dirty

Answer: B

### Question 57

Vedha walked 15 m from point A in the east direction and turned south and walked 8 m to reach point B. What is the distance between point A and point B?

- A 12 m
- B 18 m
- C 15 m
- D 17 m

Answer: D

### Question 58

Which satellite is dedicated as India's first multi wavelength space observatory?

- A Astrosat
- B SARAL
- C SRMSAT
- D Jugnu

Answer: A

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### Question 59

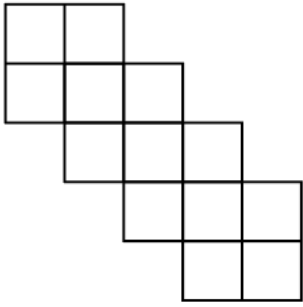
Which organ in the human body helps to maintain balance?

- A Heart
- B Liver
- C Ear
- D Brain

Answer: D

**Question 60**

How many squares are there in the given figure?



- A 15
- B 21
- C 19
- D 17

Answer: D

**Question 61**

What is the name of the border line between India and China?

- A Radcliffe Line
- B Line of Control
- C Jaigaon
- D McMahon Line

Answer: D

**Explanation:**

The McMahon **Line** is the demarcation **line between** the Tibetan region of **China** and the North-east region of **India** proposed by British colonial administrator Henry McMahon at the 1914 Simla Convention signed **between** British and Tibetan representatives

## RRB General Science Notes (Download Pdf)

**Question 62**

A certain sum of money invested at Compound Interest, compounded annually, amounts to Rs.338 at the rate of 4% per annum for 2 years. Find the sum.

- A Rs.320

B Rs.318.52

C Rs.315

D Rs.312.50

Answer: D

**Question 63**

Two trains 100 m and 80 m in length are moving in the same direction, with speeds 51 m/s and 42 m/s respectively. In what time will they cross each other?

A 18 seconds

B 30 seconds

C 25 seconds

D 20 seconds

Answer: D

**Explanation:**

$$\text{speed} = 51\text{m/s} - 42\text{m/s} = 9\text{m/s}$$

$$\text{speed} = \frac{\text{lengthoftrain1} + \text{lengthoftrain2}}{\text{time}}$$

$$9 = \frac{100+80}{\text{time}}$$

$$\text{time} = \frac{120}{9}$$

20 seconds

**Question 64**

If  $3\left(\frac{2}{5}\right) + 1\left(\frac{2}{9}\right) = 4\left(\frac{4}{5}\right) - a$ , find the value of 'a'.

A  $\frac{6}{25}$

B  $\frac{16}{9}$

C  $\frac{4}{45}$

D  $\frac{11}{45}$

Answer: B

**Explanation:**

$$3\left(\frac{2}{5}\right) + 1\left(\frac{2}{9}\right) = 4\left(\frac{4}{5}\right) - a$$

break the right hand part

$$3\left(\frac{2}{5}\right) + 1\left(\frac{2}{9}\right) = 4 \times 2\left(\frac{2}{5}\right) - a$$

$$3\left(\frac{2}{5}\right) + 1\left(\frac{2}{9}\right) = 8\left(\frac{2}{5}\right) - a$$

$$1\left(\frac{2}{9}\right) + a = 8\left(\frac{2}{5}\right) - 3\left(\frac{2}{5}\right)$$

$$1\left(\frac{2}{9}\right) + a = 5\left(\frac{2}{5}\right)$$

$$1\left(\frac{2}{9}\right) + a = 2$$

$$a = 2 - 1\left(\frac{2}{9}\right)$$

## RRB GK Material (Download Pdf)

### Question 65

A sum of Rs.1100 was taken as a loan. This is to be paid in two equal instalments. If the rate of interest is 20% per annum, compounded annually, find the amount payable in each instalment.

- A Rs.720
- B Rs.620
- C Rs.670
- D Rs.600

Answer: A

### Question 66

Find the ODD one out from the given options.

- A Leopard
- B Cougar
- C Elephant
- D Cheetah

Answer: C

### Question 67

Find the missing number in the following series.

8 , 6 , 8 , 14 , 30 , (...), 233

- A 77
- B 55
- C 72
- D 60

Answer: A

## RRB NTPC Previous Papers (Download PDF)

### Question 68

Archery is the national game of?

- A Bhutan
- B Denmark
- C Sri Lanka

D Switzerland

Answer: A

Question 69

Which Indian city is famous for the embroidery work called 'Chikankari'?

A Hyderabad

B Puri

C Ahmedabad

D Lucknow

Answer: D

Question 70

If  $9 \# 3 @ 4 = 31$  and  $8 \# 7 @ 2 = 58$ , then what will be  $5 \# 6 @ 7$ ?

A 40

B 47

C 37

D 52

Answer: C

Explanation:

$9 \# 3 @ 4 = 31$  and  $8 \# 7 @ 2 = 58$

the no. we are getting is big so, mul and add plus should be there

consider  $\# =$  multily

$@ =$  plus

$9 \# 3 @ 4 = 31$

$9 \times 3 + 4$

apply bodmas rule

$27 + 4 = 31$

similary

$8 \times 7 + 2$

apply bodmas rule

$56 + 2 = 58$

so

$5 \times 6 + 7$

apply bodmas rule

$30 + 7 = 37$

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Question 71

If  $\frac{a}{b}$  is a fraction, where  $a = b - 3$  and  $\frac{a+10}{b} - \frac{a}{b} = \frac{10}{7}$ , then find  $\frac{a}{b}$ .

- A  $\frac{4}{7}$
- B  $\frac{5}{8}$
- C  $\frac{8}{11}$
- D  $\frac{2}{5}$

Answer: A

Question 72

K-shell is the \_\_\_\_\_ energy level.

- A Third
- B Fourth
- C First
- D Second

Answer: C

Question 73

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

A, B, C, D, E, F, G and H are sitting around a circle facing the center. B is third to the right of F and third to the left of H. C is fourth to the left of A. A is not an immediate neighbor of F and B. E is not an immediate neighbor of B. G is second to the right of D.

- A E and D
- B H and D
- C C and E
- D C and H

Answer: C

## RRB NTPC Free Mock Tests

Question 74

Which of the following districts won the platinum of Web Ratna Award in Digital India Awards 2018?

- A Chennai
- B Kurukshetra
- C Aurangabad
- D Koraput

Answer: B

**Question 75**

Which of the following former Indian Presidents served for the shortest duration?

- A Dr. Zakir Husain
- B Dr. Rajendra Prasad
- C R. Venkataraman
- D Neelam S. Reddy

**Answer: A**

**Question 76**

Which are the BRIC countries?

- A Brazil, Russia, India and Canada
- B Britain, Russia, India and China
- C Brazil, Russia, India and China
- D Britain, Russia, India and Canada

**Answer: C**

**RRB JE Previous Papers ( Download Pdf)**

**Question 77**

The process of movement of molecules from a higher concentration place to a lower concentration places is

- A Condensation
- B Evaporation
- C Diffusion
- D Sublimation

**Answer: C**

**Question 78**

If  $a(a + b + c) = 45$ ;  $b(a + b + c) = 75$  and  $c(a + b + c) = 105$ , then find the value of  $a^2 + b^2 + c^2$ .

- A 83
- B 625
- C 225
- D 90

**Answer: A**

**Explanation:**

ATQ

$$a \times (a + b + c) = 45 \text{ (i)}$$

$$b \times (a + b + c) = 75 \text{ (ii)}$$

$$c \times (a + b + c) = 105 \text{ (iii)}$$

Adding (i), (ii) and (iii), we get:

$$(a + b + c)(a + b + c) = 45 + 75 + 105$$

$$(a + b + c)(a + b + c) = 225$$

Taking square root on both sides of above eqn we get:

$$(a + b + c) = 15$$

Put the value of  $(a + b + c)$  in eqn.s (i), (ii) and (iii), we get:

$$a \times 15 = 45$$

$$b \times 15 = 75$$

$$c \times 15 = 105$$

so,

$$a = 3, b = 5, c = 7$$

So, we have

$$(a^2 + b^2 + c^2) = 3^2 + 5^2 + 7^2$$

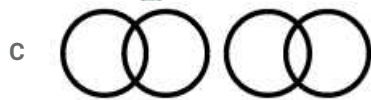
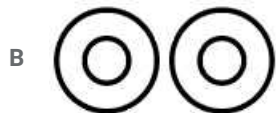
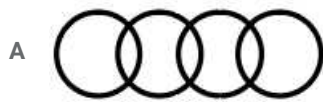
$$= 9 + 25 + 49$$

$$= 83.$$

#### Question 79

Choose the figure that best represents the relationship among the classes given below?

Teachers, Language, Hindi, Educated



Answer: B

#### Explanation:

teacher should be educated

whereas hindi is language

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#### Question 80

The price of a book was first increased by 25% and then reduced by 20%. What is the change in its original price?

- A 10% increase
- B No change
- C 5% decrease
- D 10% decrease

**Answer: B**

**Explanation:**

let the price of the book be Rs100

$$\text{Increase } 25\% = \frac{125}{100} \times 100$$

$$= 125\text{Rs}$$

$$\text{decrease } 20\% = \frac{80}{100} \times 125$$

$$= 100\text{Rs}$$

Net change in the price

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

= no change

**Question 81**

What should be the smallest integer in place of \* if the number 502\*693 is exactly divisible by 9?

- A 3
- B 2
- C 4
- D 0

**Answer: B**

**Explanation:**

number 502\*693

if the sum of the digits are evenly **divisible** by 9

$$5 + 0 + 2 + * + 6 + 9 + 3 = 25$$

which is not divisible 9 so, by adding 2 which is smallest no. we get 27

**Question 82**

**Sodium metal is stored in?**

- A Kerosene
- B Ether
- C Water
- D Acetone

**Answer: A**

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### Question 83

Which nutrient provides the maximum energy on breakdown?

- A Fibres
- B Proteins
- C Fats
- D Carbohydrates

Answer: C

### Question 84

If  $a$  and  $b$  are supplementary angles find the value of

$$\frac{\tan A + \tan B}{1 - \tan A \tan B}$$

- A 0
- B 1
- C -1
- D  $\frac{1}{2}$

Answer: A

### Question 85

Find the ODD one out from the given options.

- A 162, 18
- B 117, 13
- C 171, 19
- D 304, 16

Answer: D

## RRB Group-D Previous Papers

### Question 86

The radius of a sphere is 3 times the radius of a cylinder. If their volumes are equal, find the height of the cylinder.

- A 3 times its radius
- B 27 times its radius
- C 36 times its radius
- D Equal to its radius

Answer: C

**Explanation:**

radius of sphere = 3 radius of cylinder

let R be the radius of sphere

and r be the the radius of cylinder

$$R = 3r$$

vol of sphere = vol of cylinder

$$\frac{4}{3}\pi \times R^3 = \pi \times r^2 \times h$$

$$\frac{4}{3}\pi \times (3r)^3 = \pi \times r^2 \times h$$

$$h = 36r$$

h = 36 times its radius

6

**Question 87**

Limestone, chalk and marble are different forms of?

- A Sodium hydroxide
- B Ammonium hydroxide
- C Calcium hydroxide
- D Calcium carbonate

**Answer: C**

**Question 88**

**Simplify:**  $(5 + 0.5 + 0.005 + 0.0005 + 0.05) \times 2$

- A 11.011
- B 10.111
- C 11.111
- D 11.001

**Answer: C**

**Explanation:**

$$(5 + 0.5 + 0.005 + 0.0005 + 0.05) \times 2$$

$$(5.0000 + 0.5000 + 0.0050 + 0.0005 + 0.0500) \times 2$$

now add the no.

$$5.5555 \times 2$$

$$11.111$$

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**Question 89**

Find the value of  $\sin 60^\circ \cos 30^\circ + \cos 60^\circ \sin 30^\circ$ .

- A  $\frac{1}{2}$
- B  $\frac{3}{4}$
- C 1
- D  $\frac{1}{4}$

Answer: C

Explanation:

$$\sin 60^\circ \cos 30^\circ + \cos 60^\circ \sin 30^\circ$$

$$\sin 60^\circ = \frac{\sqrt{3}}{2}$$

$$\cos 30^\circ = \frac{\sqrt{3}}{2}$$

$$\cos 60^\circ = \frac{1}{2}$$

$$\sin 30^\circ = \frac{1}{2}$$

$$\sin 60^\circ \cos 30^\circ + \cos 60^\circ \sin 30^\circ$$

$$\frac{\sqrt{3}}{2} \times \frac{\sqrt{3}}{2} + \frac{1}{2} \times \frac{1}{2} = 1$$

Question 90

If in a certain code 'COLOURED' is written as 'XDPDNAQZ', then how will 'ORDER' be written in that code?

- A DAZQA
- B DAQZA
- C ADZQA
- D DAZAQ

Answer: A

Question 91

Which of the following is equal to Hertz?

- A  $s^{-1}$
- B  $m s^{-2}$
- C s
- D m/s

Answer: A

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Question 92

Which Article of Indian Constitution gives the procedure for impeachment of the President?

- A Article 42

B Article 59

C Article 48

D Article 61

Answer: D

Question 93

which number will best complete the relationship given below?

6 : 24 :: 120 : ?

A 212

B 215

C 229

D 210

Answer: D

Question 94

Complete the series.

ABZ, BCY, CDX, DEW, (...)

A FEV

B DEV

C DEF

D EFV

Answer: D

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Question 95

Choose the best alternative that best replaces the ? in the given figure?

16	36	64
4	6	?
15	13	11
11	7	3

A 8

B 3

C 6

D 5



Answer: A

**Question 96**

An ammeter has \_\_\_\_\_ resistance, so that it passes maximum current through it.

- A Infinite
- B Very less
- C Very high
- D High

Answer: B

**Question 97**

Which of the following teams won the final in Vijay-Hazare Trophy 2018?

- A Rajasthan
- B Mumbai
- C Delhi
- D Punjab

Answer: B

## RRB General Science Notes (Download Pdf)

**Question 98**

Which is the longest muscle in the body?

- A Gracilis
- B Soleus
- C Sartorius
- D Trapezius

Answer: C

**Question 99**

A vessel contains 20 litres containing milk and water in the ratio 3 : 2. Ten litres of this milk is removed and replaced with equal amount of pure milk. If this process is repeated once again, find the final ratio of milk and water.

- A 4 : 1
- B 5 : 3
- C 9 : 1
- D 1 : 4

Answer: C

Explanation:

vessel contains 20 l in the ratio milk and water of 3: 2

so

$$3x + 2x = 20l$$

$$x = 4 l$$

$$\text{so, milk} = 12l$$

$$\text{water} = 8 l$$

ATQ

Ten litres of this milk is removed and replaced with equal amount of pure milk

when we removed anything the ratio remains same

so milk and water ratio is 3: 2 only

now vessel contains 10 l in the ratio milk and water of 3: 2

$$3x + 2x = 10l$$

$$x = 2 l$$

$$\text{so, milk} = 6l$$

$$\text{water} = 4 l$$

and 10 l pure milk is added so milk = 16 l and water = 4 l

ratio = 4 : 1

this process is repeated once again that is ,Ten litres of this milk is removed and replaced with equal amount of pure milk

so milk and water ratio is 4 : 1 only

now vessel contains 10 l in the ratio milk and water of 4 : 1

$$4x + x = 10l$$

$$x = 2 l$$

$$\text{so, milk} = 8l$$

$$\text{water} = 2l$$

and 10 l pure milk is added so milk = 18 l and water = 2 l

ratio = 9 : 1

#### Question 100

Find the least perfect square that is divisible by 21, 36 and 66.

A 214344

B 213444

C 231444

D 214434

Answer: B

#### Explanation:

21, 36 and 66.

we have to first calculate lcm

$$21 = 3 \times 7$$

$$36 = 2 \times 2 \times 3 \times 3$$

$$66 = 2 \times 3 \times 11$$

$$\text{lcm} = 2 \times 2 \times 3 \times 3 \times 7 \times 11 = 2772$$

so the no =  $\frac{213444}{2772} = 77$

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