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Rrb Alp CBT - 1 Previous Year Question Paper Overview

Here, you can solve all the questions asked in Rrb Alp CBT - 1 Previous Year Question Paper on 2023-10-27 in the Morning Shift exam. The detailed solutions are also provided for every previous year question and some of these questions can be asked again in your Rrb Alp CBT - 1 exam. There are 75 questions in the exam and 60 minutes are provided for the Rrb Alp CBT - 1 exam. The Cutoff of the exam was 40 marks hence you should try to score at least 50 marks.

Rrb Alp CBT - 1 Previous Year Question Paper : Questions and Solutions

Question 1 :
The average salary per year during period 2001-2006 is:

Difficulty : Moderate

Average Time : 41 Seconds

Options :

1. 3,600
2. 3,400
3. 3,800
4. 3,500

Solution :
The correct answer is **Option 1** i.e **3,600.**

Average = Sum of observations/Number of observations

Average = (1500 + 2600 + 3200 + 4100 + 5000 + 5200)/6

Average = 21600/6 = 3600

Question 2 :
If cosec (heta) + cot (heta) = 2, then cot (heta) = ?

Difficulty : Moderate

Average Time : 34 Seconds

Options :

Page No: 1

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   0

2. 0.5

3. 1

4. 0.75

Solution :

The correct answer is **Option 4** i.e **0.75.**

We know that,

cosec - cot = (cosec + cot)(cosec - cot) = 1

cosec + cot = 2.....(1)

cosec - cot = 1/2.....(2)

Solving equation 1 and 2

cosec = 5/4

cot = 3/4 = 0.75

Question 3 :

A lawn roller makes 20 revolutions in an hour. How many radians will it move during 25 minutes?

Difficulty : Moderate   Average Time : 44 Seconds

Options :

1. $\frac{50\pi}{3}$

2. $\frac{150\pi}{7}$

3. $\frac{250\pi}{3}$

4. $\frac{50\pi}{7}$

Solution :

The correct answer is **Option 1** i.e $\frac{50\pi}{3}$.

A Lawn roller makes 20 revolutions in one hour,

Revolution in 1 min = 20/60

Revolutions in 25 min = 25/3

Page No: 2

1 revolution = 2 radian

Radians it runs through in 25 minutes = 50/3

Question 4 :

A 150 m long train, traveling at 54 km/h, crosses a platform in 42 seconds. What is the length of the platform?

Difficulty : Moderate

Average Time : 51 Seconds

Options :

1. 540 m

2. 480 m

3. 780 m

4. 630 m

Solution :

The correct answer is **Option 2** i.e **480 m.**

Let the length of the platform be n meters.

54 km/h = 54 ✕ 5/18 = 15 m/sec

A 150 m long train, traveling at 54 km/h, crosses a platform in 42 seconds,

15 = (150 + n)/42

630 = 150 + n

n = 480 m

The length of the platform is 480 m

Question 5 :

If a person bought an item for Rs. 60 and sold it at a profit of 25%, the selling price of the item would be:

Difficulty : Moderate

Average Time : 49 Seconds

Options :

1. Rs. 75

2. Rs. 80

3. Rs. 72

Rs 84

Solution :

The correct answer is **Option 1** i.e **Rs. 75.**

C.P. = Rs.60

Profit = 25%

S.P. = 60 × 125% = 60 × 125/100 = Rs.75

Question 6 :

In a 900 metres race, Sathish beats Kiran by 270 metres and Rahul by 340 metres. By how many metres does Kiran beat Rahul in the same race?

Difficulty : Moderate   **Average Time : 39 Seconds**

Options :

1. 70

2. 20

3. 140

4. 100

Solution :

The correct answer is **Option 4** i.e **100**.

Sathish completes the race of 900 m.

Kiran covers = 900 - 270 = 630 m

Rahul covers 900 - 340 = 560 m

Ratio of their speed = 630/560

When Kiran covers 900 m then

Rahul would cover = 900 × 560/630 = 800 m

Kiran beats Rahul by = 900 - 800 = 100 m

Question 7 :

Deepti bought a set of cups for Rs. 175, but then then had to sell it later to clear old stocks for Rs. 161. What is the percentage of loss that she had to incure?

Difficulty : Moderate

Average Time : 48 Seconds

Options :

1. 7
2. 8
3. 14
4. 16

Solution :

The correct answer is **Option 2** i.e **8.**

C.P. = Rs.175

S.P. = Rs. 161

Loss = 175 - 161 = Rs.14

Loss percentage = 14/175 × 100 = 8%

Question 8 :
The sum of two fractions is ($\frac{5}{6}$), One of them is ($\frac{3}{4}$). What is the other fraction?

Difficulty : Moderate

Average Time : 37 Seconds

Options :

1. $\frac{2}{5}$
2. $\frac{2}{2}$
3. $\frac{1}{10}$
4. $\frac{1}{12}$

Solution :

The correct answer is **Option 4** i.e $\frac{1}{12}$.

Let, the another fraction be x

3/4 + x = 5/6

x = 5/6 - 3/4

x = (20 - 18)/24

x = 2/24

x = 1/12

Question 9 :

If 2sex2x - tan2x = 5 and 0 (leq xleq) 90°, then x = ?

Difficulty : Moderate   Average Time : 45 Seconds

Options :

1. 30°

2. 90°

3. 45°

4. 60°

Solution :

The correct answer is **Option 4** i.e **60°.**

$2sex^2x - tan^2x = 5$

$2tan^2x + 2 - tan^2x = 5$

$tan^2x = 3$

Given that,

0 \(\leq x\leq\) 90°

$tan60° = tanx$

x = 60°

Question 10 :

Find the fraction which is as much greater than 4/7 as it is less than 5/6.

Difficulty : Moderate   Average Time : 47 Seconds

Options :

1. 59/85

2. 58/84

3. 59/84

84/59

Solution :

The correct answer is **Option 3** i.e. **59/84.**

Let the fraction be A,

A/1 - 4/7 = 5/6 - A/1

LCM of the denominators of both sides.

(7A - 4)/7 = (5 - 6A)/6

42A - 24 = 35 - 42A

84A = 59

A = 59/84

Required fraction = 59/84

Question 11 :
The product of two numbers is 0.432. One of the numbers is 1.6. What is the other number?

Difficulty : Moderate   **Average Time : 44 Seconds**

Options :

1. 2.7

2. 0.27

3. 27

4. 0.027

Solution :

The correct answer is **Option 2** i.e. **0.27.**

Let, the other number be n

n × 1.6 = 0.432

n = 0.432/1.6

n = 0.27

Question 12 :

Select the option that can replace the "?" symbol in the following equation. 122 + 345 - 1 × 1011 + 337 = ?

Difficulty : Moderate

Average Time : 36 Seconds

Options :

1. 446
2. -207
3. 644
4. -460

Solution :

The correct answer is **Option 2** i.e. **-207.**

122 + 345 - 1 × 1011 + 337 = ?

Using BODMAS

467 - 1011 + 337 = ?

804 - 1011 = -207

Question 13 :

The selling price of an item inclusive of a 10% profit was 440. What would be the percentage loss if the item was sold for â,¹ 370?

Difficulty : Moderate

Average Time : 37 Seconds

Options :

1. 8
2. 7.5
3. 8.4
4. 6.25

Solution :

The correct answer is **Option 2** i.e. **7.5.**

Profit% = [(SP - CP)/CP] × 100

10 = [(440 - C.P)/C.P] × 100

C.P = 4400 - (10 × C.P)

C.P = 400

New, S.P = 370

Loss percentage = [(400 - 370)/400] × 100 = 7.5%

Question 14 :

A shuttle cock used for playing badminton has the shape of a frustum of a cone mounted on a hemisphere. The external diameters of the frustam are 5cm and 2cm, the height of the entire shuttlecock is 7cm. Find the external surface areas.

Difficulty : Moderate   **Average Time : 50 Seconds**

Options :

1. 74.30 cm²

2. 74.48 cm²

3. 80 cm²

4. 73.38 cm²

Solution :

The correct answer is **Option 2** i.e. **74.48 cm^2.**

r = 1 cm, R = 2.5 cm, h = 7 cm

height of frustum = 7 - 1 = 6 cm

$l = [h^2 + (R - r)]^2$

$l = [(6)^2 + (2.5 - 1)^2]$

l = (36 + 2.25)

Slant height, l = 6.2 cm

External Surface area = (curved surface area of frustum) + (curved surface area of hemisphere)

External Surface area = 22/7 × (r + R) × l + 2 × (22/7) × r^2

22/7 × [(1 + 2.5)6.2 + 2 × (1)^2]

22/7 × (3.5 × 6.2 + 2)

22/7 × (21.7 + 2) = 74.48 cm^2

Question 15 :

Consider the given questions and decide which of the following statements is sufficient to answer the question. Which of the natural numbers A. B. C. D and E are odd numbers? Statements: 1. A, B, C, D and E are odd numbers? 2. B is the prime number.

Difficulty : Moderate   **Average Time : 71 Seconds**

Options :

1. Neither 1 nor 2 is sufficient to answer the given question.

2. 1 alone is sufficient while 2 alone is not sufficient to answer the given question.

3. 2 alone is sufficient while 1 alone is not sufficient to answer the given question.

4. Both 1 and 2 are sufficient to answer the given question.

Solution :

The correct answer is **Option 1** i.e. **Neither 1 nor 2 is sufficient to answer the given question.**

Statement 1: A, B, C, D, and E are natural numbers.

This statement alone is insufficient to answer the question of which numbers A, B, C, D, and E are odd. Natural numbers include both odd and even numbers. Without specific information about each number, we cannot determine their parity.

Statement 2: B is a prime number.

This statement also does not provide enough information to determine the parity of A, C, D, and E. While it tells us something about B, it doesn't give any information about the other numbers.

Combining Statements:

Even when we combine both statements, we still don't have sufficient information. For example, consider the scenario where A, C, D, and E are all even numbers, and only B is a prime odd number. In this case, both statements' information is insufficient to determine the parity of A, C, D, and E.

Hence, Neither 1 nor 2 is sufficient to answer the given question

Question 16 :
What is the mean of the first five Triangular Numbers?

Difficulty : Moderate   **Average Time : 90 Seconds**

Options :

1. 7

2. 6

    8

4. 5

Solution :

The correct answer is **Option 1** i.e. 7.

Mean = Total number/5

The first five triangle numbers = 1, 3, 6, 10, 15

Then,

Mean = (1 + 3 + 6 + 10 + 15)/5 = 35/5 = 7

Question 17 :
The product of two decimals is 0.768. If one of the decimal number is 1.6, find the other.

Difficulty : Moderate   **Average Time : 35 Seconds**

Options :

1. 0.47

2. 0.48

3. 0.37

4. 0.42

Solution :

The correct answer is **Option 2** i.e**. 0.48.**

Let, the other decimal be n

n × 1.6 = 0.768

n = 0.768/1.6

n = 0.48

Question 18 :
Veer spends 15% of his monthly income on the house rent and 60% of the rest on household expenditure. If he saves 2210, what is his monthly income?

Difficulty : Moderate   **Average Time : 39 Seconds**

Options :

8,000

2. 7,500

3. 6,500

4. 7,000

Solution :

The correct answer is **Option 3** i.e**. 6,500.**

Let the monthly salary of Veer be x.

Veer spends 15% of his monthly income on the house rent,

Amount on house rent = 15x/100 = 3x/20

Rest = x - 3x/20 = 17x/20

60% of the rest on household expenditure,

 Amount on Household expenditure = 60/100 × 17x/20 = 51x/100

Remaining = 17x/20 - 51x/100 = 34x/100

he saves Rs. 2210,

34x/100 = 2210

x = 6500

Veer's monthly salary is Rs. 6500

Question 19 :
Which of the following numbers is a perfect square?

Difficulty : Moderate

Average Time : 50 Seconds

Options :
   1. 333

   2. 327

   3. 192

   4. 441

Solution :

The correct answer is **Option 4** i.e. **441.**

Option 1:

333 = 111 × 3

Option 2:

327 = 3 × 109

Option 3:

192 = 2 × 2 × 2 × 2 × 2 × 2 × 3 = 83

Option 4:

441 = 3 × 7 × 3 × 7 = 3 × 7 = 21

Hence, 441 is a perfect square of 21

Question 20 :
Solve the following: (-4)(19-(-2) x (-8)} =?

Difficulty : Moderate   **Average Time : 46 Seconds**

Options :

 1. 140

 2. -140

 3. -12

 4. 12

Solution :

The correct answer is **Option 3** i.e. **-12.**

 (- 4)(19 - (- 2) × (- 8)} = ?

 (- 4)(19 - 16) = ?

 - 4 × 3 = -12

Question 21 :
 Based on the given data, the percentage of literates in City C is _____ (round to one decimal).

Difficulty : Moderate   **Average Time : 37 Seconds**

Options :

1. 33.4

2. 32.3

3. 34.5

4. 33.3

Solution :

The correct answer is **Option 4** i.e **33.3.**

Required percentage = 50/150 × 100 = 33.33%

Question 22 :

Use each of the below figures only once and form three groups, The three groups so Formed are:

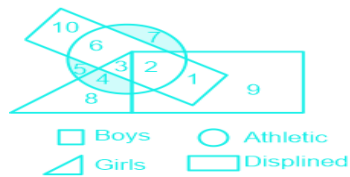**Difficulty : Moderate**   **Average Time : 33 Seconds**

Options :

1. (1, 3, 8), (2, 5, 6), (4, 7, 9)

2. (1, 5, 9), (2, 5, 6,), (4, 7, 8)

3. (1, 3, 9), (2, 5, 6), (4, 7, 8)

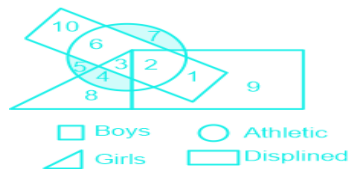4. (1, 2, 9), (3, 5, 6,), (4, 7, 8)

Solution :

The correct answer is **Option 3** i.e. **(1, 3, 9), (2, 5, 6), (4, 7, 8).**
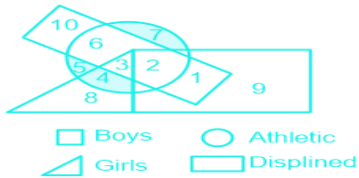
From the given information;

One shape is there inside every object, thus they form a group.

Two cross section lines are there inside every objects, thus they from a group

One Big and small shape of each types adjoin side by side, thus they from a group

So, **(1, 3, 9), (2, 5, 6), and (4, 7, 8)** form groups.

Hence, the correct answer is **(1, 3, 9), (2, 5, 6), (4, 7, 8).**

Question 23 :
Select the Answer Figure that first in the blank space in the given Problem Figure.
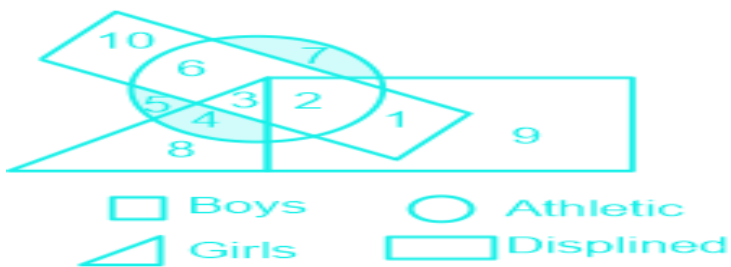
Difficulty : Moderate   **Average Time : 67 Seconds**

Options :
1. D
2. A
3. B
4. C

Solution :
The correct answer is **Option 3** i.e. **B.**

Hence, the correct answer is **B.**

Question 24 :
Select the odd character out of the following series.

Difficulty : Moderate

Average Time : 45 Seconds

Options :

1. \(\epsilon \)

2. A

3. $

4. ¥

Solution :

The correct answer is **Option 2** i.e. **A**

The logic used here is:

$, ¥, and € are currency symbols, wheres A is a letter in the English alphabetical series.

So, A is the odd one out.

Hence, the correct answer is **A.**

Question 25 :

Select the option that fits in the blank space in the given problem figure.
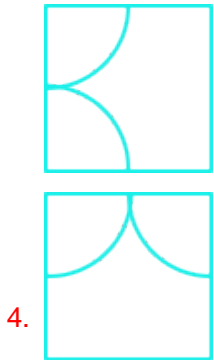
Difficulty : Moderate

Average Time : 45 Seconds
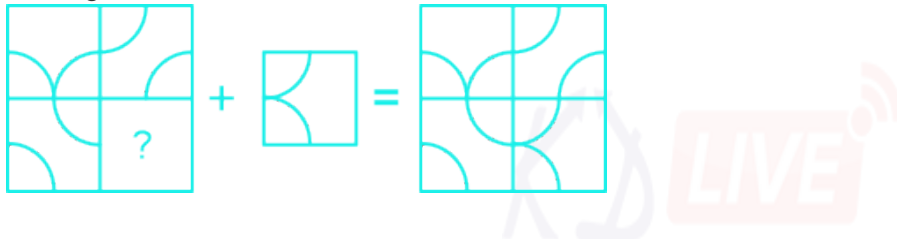
Options :

1.

2.

3.

4.

Solution :

The correct answer is **Option 3**

The logic used here is:

Hence, the correct answer is **option 3.**

Question 26 :

Samarth heading towards the north turns right after walking 10m, turns right again, walks for 4 meters, then turns left and walks 6m. In which direction he is walking?

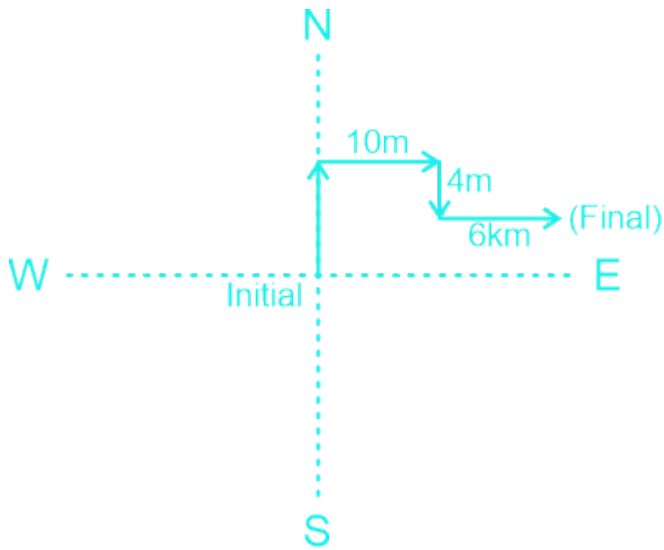**Difficulty : Moderate**   **Average Time : 60 Seconds**

Options :

1. West

2. North

3. East

4. South

Solution :

The correct answer is **Option 3** i.e. **East**

Using the above information we can draw the following diagram:

From the figure, Samarth is walking in the East direction.

Hence, the correct answer is **East.**

Question 27 :
Consider the given statement as true and decide which of the given conclusions can definitely be drawn from the given statements. Statements: Some actors are businessmen. All businessmen are intelligent. Conclusions: 1. All actors are intelligent. 2. All businessmen are actors.

Difficulty : Moderate   **Average Time : 53 Seconds**
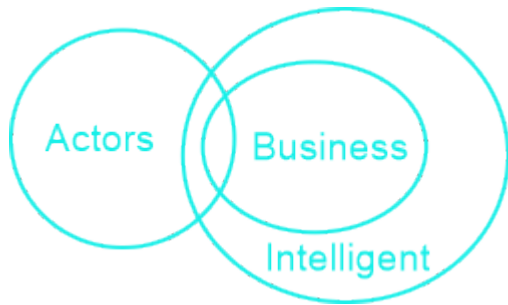
Options :

1. Both 1 and 2 follow

2. Only conclusion 1 follows

3. Neither 1 nor 2 follows

4. Only conclusion 2 follows

Solution :
The correct answer is **Option 3** i.e. **Neither 1 nor 2 follows.**

The least possible Venn Diagram for the given statements is drawn below:

Conclusions:

1. All actors are intelligent **True** (As some flats are houses, all houses are buildings, and all buildings are gardens, so, some flats are gardens is also true.)

2. All businessmen are actors **False** (It is possible, but no definite conclusion can be drawn.)

Hence, **Neither 1 nor 2 follows.**

Question 28 :
Which of the answer figures is the correct water image of the given problem figure?

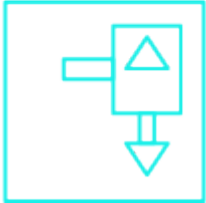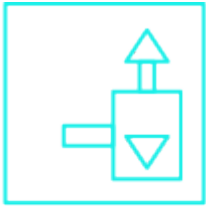Difficulty : Moderate   Average Time : 63 Seconds

Options :
1. C
2. A
3. B
4. D

Solution :
The correct answer is **Option 2** i.e. **A**

The mirror image of the question figure is shown below:

Since the water will be below the question figure, the bottom side of the original image will now be the top side of the water image.

Hence, the correct answer is **option 2.**

Question 29 :
Choose the correct figure to replace the question mark.

Difficulty : Moderate   **Average Time : 49 Seconds**

Options :

1. 4

2. 3

3. 2

4. 1

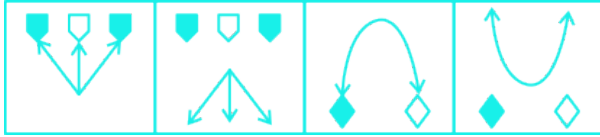**Solution :**
The correct answer is **Option 1** i.e. **2**

The logic used here is:

The symbol that is attached to the pentagons is rotated by 180 degrees and the position of the pentagons remains unchanged.

Similarly;

The symbol that is attached to the rhombus is rotated by 180 degrees and the position of the rhombus remains unchanged.

The image series is:

Hence, the correct answer is **2.**

Question 30 :
Select the missing word from the given related pair of words. Ancient : Old :: Bedspread : ?

Difficulty : Moderate   **Average Time : 54 Seconds**

Options :

1. Berth

2. Comforter

3. Pillow

4. Couch

Solution :

The correct answer is **Option 2** i.e. **Comforter**

The logic used here is:

Ancient : Old

Ancient and old are synonyms.

Similarly,

Bedspread : ?

Bedspread and comforter are synonyms.

Hence, the correct answer is **Comforter.**

Question 31 :
Decide which of the conclusions logically follows (s) from the information given in the statement. Statements: Poverty is increasing because politicians don't understand poverty nor do they know anything about the problems faced by the poor. Conclusions: 1. All politicians should be replaced. 2. All politicians should be asked to live in poor conditions.

Difficulty : Moderate   **Average Time : 53 Seconds**

Options :

1. Only conclusion 2 follows

2. Only conclusion 1 follows

3. Both 1 and 2 follow

4. Neither 1 nor 2 follows

Solution :

The correct answer is **Option 4** i.e. **Neither 1 nor 2 follows**

Statements:

Poverty is increasing because politicians don't understand poverty nor do they know anything about the problems faced by the poor.

Conclusions:

1. All politicians should be replaced.

The statement talks about the politicians being unaware of poverty and its impact. So, replacing the politicians won't solve the problem. Hence, conclusion I does not follow.

2. All politicians should be asked to live in poor conditions.

This cannot make them learn about the other problems the poor people face. Hence, conslusion II also does not follow.

Hence, the correct answer is **Neither 1 nor 2 follows.**

Question 32 :
A man walks 10 km towards the east, then takes a right turn and walks 8 km, and again takes a left turn and walks 6 km. In which direction is the man with respect to his starting position?

Difficulty : Moderate   **Average Time : 70 Seconds**
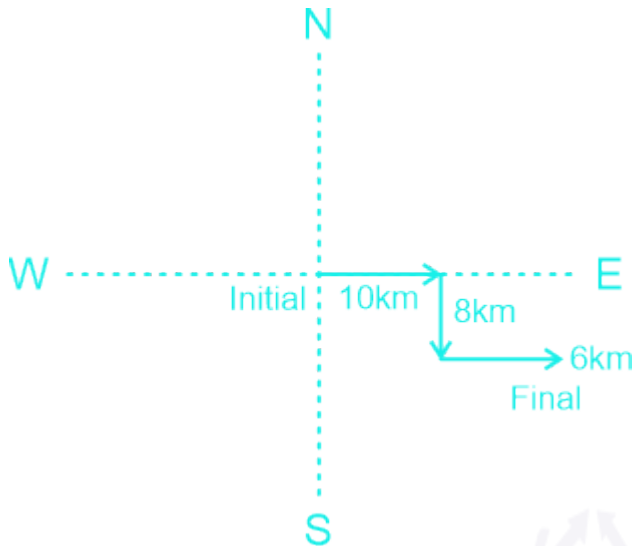
Options :

1. North East

2. South West

3. North West

4. South east

Solution :

The correct answer is **Option 4** i.e. **Southeast**

Using the above information we can draw the following diagram:

From the figure, the man is in the southeast direction with respect to his starting point.

Hence, the correct answer is **Southeast.**

Question 33 :

In the given series, how many 8s are there that are not divisible by the number to its left but completely divisible by the number to its right? 5 6 3 2 4 8 8 8 9 2 6 6 5 8 8 3 4 3

Difficulty : Moderate

Average Time : 53 Seconds

Options :

1. 3

2. 1

3. 2

4. 4

Solution :

The correct answer is **Option 2** i.e. **1**

Given series: 5 6 3 2 4 8 8 8 9 2 6 6 5 8 8 3 4 3

The number of 8s that are not divisible by the number to its left but completely divisible by the number to its right = 1

5 6 3 2 4 8 8 8 9 2 6 6**5 8 8** 3 4 3

Hence, the correct answer is **1.**

Question 34 :

Choose the correct analogous word pair from the given alternatives. People: Person

Difficulty : Moderate

Average Time : 42 Seconds

Options :

1. Fungus: Fungi

2. Cacti: Cactus

3. Radius: Radii

4. Nucleus: Nuclei

Solution :

The correct answer is **Option 1** i.e**. Fungus: Fungi**

The logic used here is:

People: Person

People is the plural form of a person.

Similarly,

Fungus: Fungi

Fungus is the plural form of fungi.

Hence, the correct answer is **Fungus: Fungi**.

Question 35 :

Consider the given statement and decide which of the given assumptions is (are) implicit. Statements: X advised Y that if he/she wants to study Management, he/she should join IIM. Assumptions: 1. IIM provides good Management education. 2. X listens to the advice given by Y.

Difficulty : Moderate

Average Time : 54 Seconds

Options :

1. Only assumption 2 is implicit.

2. Neither 1 nor 2 is implicit.

Only assumption 1 is implicit.

4. Both 1 and 2 are implicit.

Solution :

The correct answer is **Option 4** i.e. **Both 1 and 2 are implicit**

Statement:

Y advised X that if he/she wants to study Management, he/she should join IIM.

Assumptions:

1. IIM provides good Management education.

The statement gives a suggestion that Y gave to X regarding studying management in IIMs. So, we can assume that it is a good institute for management education. Hence, assumption I is implicit.

2. X listens to the advice given by Y.

The statement talks about the suggestions, so, we can assume that X took Y's suggestion. Hence, assumption II also implicit.

Hence, the correct answer is **Both 1 and 2 are implicit.**

Question 36 :
In the following series, one term is missing as shown by the question mark (?). Select the missing term from the given options. A, BC, DEF, GHIJ, ?

Difficulty : Moderate

Average Time : 69 Seconds

Options :

1. XYZA

2. TUVW

3. PQRS

4. KLMNO

Solution :

The correct answer is **Option 4** i.e**. KLMNO**

Given series: A, BC, DEF, GHIJ, ?

The series follows this pattern:

Starting from A, in the next term it has two letters, in the third term three letters, and so on.

So, the next term in the series is **KLMNO.**

Hence, the correct answer is **KLMNO.**

Question 37 :
Consider the given statement and decide which of the given assumption(s) is (are) implicit. Statement: The train fares have increased by 25% with immediate effect. Assumptions: 1. People still prefer to travel by train despite the increase. II. Other modes of commutation may also increase their fares.

Difficulty : Moderate   **Average Time : 56 Seconds**

Options :
1. Neither assumption I nor II is implicit.
2. Only assumption II is implicit.
3. Only assumption 1 only
4. Both assumptions I and II are implicit.

Solution :
The correct answer is **Option 3** i.e. **Only assumption 1 only**

Statement:

The train fares have increased by 25% with immediate effect.

Assumptions:

1. People still prefer to travel by train despite the increase.

The statement talks about the increase in fares on trains. Even though its price is increasing people will prefer to travel by train as it does not depend on traffic and is the least affected by bad weather. Hence, assumption I follows.

II. Other modes of commutation may also increase their fares.

If train fares are increased we cannot assume whether other fares will also increase or not. Hence, assumption II does not follow.

Hence, the correct answer is **Only assumption 1 only.**

Question 38 :
Select the related word from the given alternatives: Examination : Success :: Matches : _____

Difficulty : Moderate

Average Time : 69 Seconds

Options :

1. Attempt
2. Prepare
3. Victory
4. Cricket

Solution :

The correct answer is **Option 3** i.e.**Victory**

The logic used here is:

Examination : Success

After giving an examination one succeeds.

Similarly;

Matches : _____

After winning a match, we achieve victory.

Hence, the correct answer is **Victory**.

Question 39 :
In the abvoe Venn diagram, what is the sum of the numbers that represent all those athletes who are not disciplined?
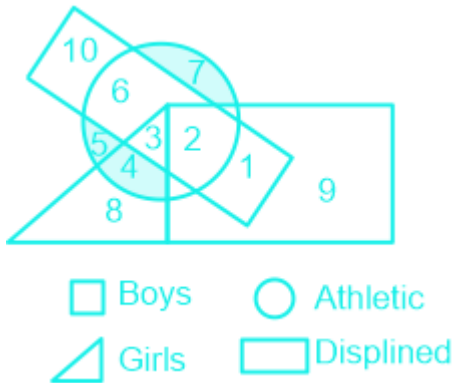
Difficulty : Moderate

Average Time : 45 Seconds

Options :

1. 27
2. 11
3. 16
4. 13

Solution :

The correct answer is **Option 3** i.e. **16.**

From the Venn diagram:

The sum of the numbers that represent all those athletes who are not disciplined = 7 + 5 + 4 = 16

Hence, the correct answer is **16.**

Question 40 :
The minimum number of straight lines required to construct the given figure is _____.
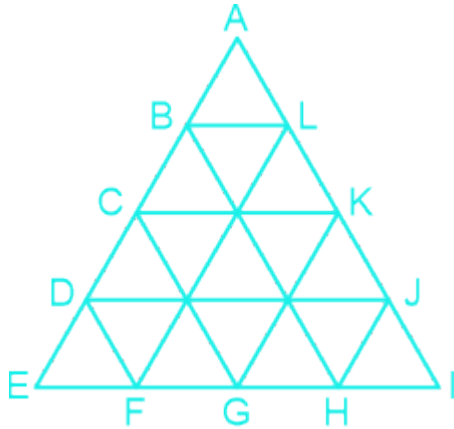
Difficulty : Moderate   **Average Time : 44 Seconds**

Options :

1. 9

2. 11

3. 10

4. 12

Solution :
The correct answer is **Option 2** i.e. **11**

11 lines: AE, AI, EI, AL, CK, AJ, FL, GK, BH, CG, DF.

Hence, the correct answer is **11**.

Question 41 :
Select the WRONG number from the given series. 6, 12, 20, 32, 42, 56, 72

Difficulty : Moderate   Average Time : 40 Seconds

Options :

1. 72

2. 56

3. 20

4. 32

Solution :

The correct answer is **Option 4** i.e. **32**

Given series: 6, 12, 20, 32, 42, 56, 72

The series follows this pattern:

6 + 6 = 12

12 + 8 = 20

20 + 10 = 30

30 + 12 = 42

42 + 14 = 56

56 + 16 = 72

So, the wrong term in the series is **32.**

Hence, the correct answer is **32.**

Question 42 :
Krish is 5 years younger than Parthiv. Eight years ago three times the age of Krish was 10 more than twice the age of Parthiv. Find Krish's present age.

Difficulty : Moderate

Average Time : 46 Seconds

Options :

1. 32 years

2. 33 years

3. 30 years

4. 28 years

Solution :
The correct answer is **Option 4** i.e. **28 years**

Let the age of Parthiv be x years.

According to the question;

Krish is 5 years younger than Parthiv.

So, age of Krish = (x - 5) years

Eight years ago,

Age of Krish = x - 5 - 8 = x -13

Age of Parthiv = x - 8

Eight years ago three times the age of Krish was 10 more than twice the age of Parthiv.

3(x - 13) = 10 + 2(x - 8)

3x - 39 = 10 + 2x - 16

3x - 2x = 10 - 16 + 39

x = 33

Present age of Krish = x - 5 = 33 - 5 = 28 years.

Hence, the correct answer is **28 years**.

Question 43 :
The present ages of Sai and Satheesh are in the ratio of 5:4 respectively. Three years hence, the ratio of their ages will become 11: 9 respectively. What is Satheesh's present age in years?

Difficulty : Moderate   Average Time : 67 Seconds

Options :
1. 22
2. 24
3. 21
4. 23

Solution :
The correct answer is **Option 2** i.e. **24**

Let the present ages of Sai and Satheesh be 5a and 4a respectively.

After three years,

Age of Sai = 5a + 3

Age of Satheesh = 4a + 3

According to the question;

(5a + 3) / (4a + 3) = 11 / 9

9 (5a + 3) = 11 (4a + 3)

45a + 27 = 44a + 33

45a - 44a = 33 - 27

a = 6

So, the present age of Satheesh = 4a = 4 × 6 = 24 years.

Hence, the correct answer is **24**.

Question 44 :
What will be the acute angle between the hour-hand and the minute-hand at 4:37 p.m.?

Difficulty : Moderate

Average Time : 52 Seconds

Options :

1. 18°

2. 83.5°

3. 6.5°

4. 18.5°

Solution :

The correct answer is **Option 2** i.e. **83.5°**

Formula to calculate angle (N) between Minute hand(M) and hour hand(H) is:

N= (11/2 × M) - 30 × H

N = (11/2 × 37) - (30 × 4)

N = 203.5 - 120

$N = 83.5^o$

Hence, the correct answer is **83.5°.**

Question 45 :

Consider the given question and decide which of the following statements is sufficient to answer the question. The trains are very punctual in Malaysia. For a maximum of how long should Mr. Z wait for the train? Statements: 1. Mr. Z had reached the railway station at 10 am. 2. There is a train at 11 a.m. and the next train is at 12 p.m.

Difficulty : Moderate

Average Time : 59 Seconds

Options :

1. Statement 1 alone is sufficient while statement 2 alone is insufficient.

2. Both statements 1 and 2 are sufficient.

3. Either statement 1 or 2 is sufficient.

4. Statement 2 alone is sufficient while 1 alone is insufficient.

Solution :

The correct answer is **Option 2** i.e. **Both statements 1 and 2 are sufficient.**

Both statements are indeed sufficient to answer the question.

From **statement 1**, we know that Mr. Z arrived at the railway station at 10 am.

From **statement 2**, we know that there is a train at 11 am and the next train is at 12 pm.

Therefore, Mr. Z should wait for a maximum of 1 hour (from 11 am to 12 pm) for the next train.

Hence, the correct answer is **Both statements 1 and 2 are sufficient.**

Question 46 :
Which of the following regions has the highest potential for wind energy?

Difficulty : Moderate

Average Time : 61 Seconds

Options :

1. The Deccan Plateau
2. Gangetic planes
3. The Himalayas
4. Western Ghats

Solution :
The correct answer is **Option 4** i.e Western Ghats

- The Western Ghats region indeed has significant potential for wind energy due to its geographical features.
- The Western Ghats, a mountain range running parallel to the western coast of India, experiences strong and consistent winds, especially during certain times of the year.

Question 47 :
_____, a Muslim saint, lived at the place where Fatehpur Sikri was built.

Difficulty : Moderate

Average Time : 49 Seconds

Options :

1. Nizamuddin Auliya
2. Nasiruddin Chiragh Dehlavi
3. Sheikh Salim Chisti
4. Baba Fakruddin

Solution :

The correct answer is **Option 3** i.e Sheikh Salim Chisti

- Shaikh Salim Chishti, a Muslim saint, lived at the place where Fatehpur Sikri was built.
- He was a revered Sufi saint during the Mughal era and had a significant influence on Emperor Akbar.

Question 48 :
Indian athlete Neeraj Chopra created history by becoming the first Indian to get gold in a world athletics championship. What was his sport?

Difficulty : Moderate   **Average Time : 49 Seconds**

Options :
1. Shot put
2. Javelin throw
3. Long Jump
4. Discus throw

Solution :
The correct answer is **Option 2** i.e. **Javelin throw**

- Neeraj Chopra made history by becoming the first Indian athlete to win a gold medal in the World Athletics Championships in the sport of **javelin throw**.
- His remarkable achievement came at the 2021 World Athletics Championships held in Eugene, Oregon, USA.

Question 49 :
Which famous film actress and celebrity won the PETA Person of the Year" award in 2017?

Difficulty : Moderate   **Average Time : 46 Seconds**

Options :
1. Priyanka Chopra
2. Anushka Sharma
3. Alia Bhatt
4. Deepika Padukone

Solution :
The correct answer is **Option 2** i.e. **Anushka Sharma**

- Anushka Sharma, the Bollywood actress and producer, was indeed awarded the "Person of the Year" by PETA

(People for the Ethical Treatment of Animals) India in 2017.

- She was recognized for her efforts in advocating for animal rights and promoting vegetarianism.

Question 50 :

Who was the flag bearer for India at the 2016 Rio Olympics?

Difficulty : Moderate

Average Time : 45 Seconds

Options :

1. Sakshi Malik

2. Abhinav Bindra

3. Saina Nehwal

4. P.V. Sindu

Solution :

The correct answer is **Option 2** i.e. **Abhinav Bindra**

- At the 2016 Rio Olympics, the flag bearer for India during the opening ceremony was Abhinav Bindra.
- Bindra is an Indian shooter and Olympic gold medalist, having won gold in the 10-meter air rifle event at the 2008 Beijing Olympics.

Question 51 :

Name the Indian entrepreneur, co-founder and owner of India's low cost airline Spicejet.

Difficulty : Moderate

Average Time : 45 Seconds

Options :

1. Ajay Singh

2. Vijay Mallya

3. Ratan Tata

4. Captain G.R. Gopinath

Solution :

The correct answer is **Option 1** i.e. **Ajay Singh**

- SpiceJet is a prominent airline in India known for its affordable fares and extensive domestic and international network.
- Ajay Singh played a significant role in reviving SpiceJet in 2015 after it faced financial difficulties, and he has been

actively involved in the company's management and operations.

Question 52 :
Which major bank has launched the "Unnati Credit Card' in 2017 to enhance credit inclusion in India?

Difficulty : Moderate | Average Time : 47 Seconds

Options :
1. Axis Bank
2. SBI
3. ICICI Bank
4. HDFC Bank

Solution :
The correct answer is **Option 2** i.e**. SBI**

- The "Unnati Credit Card" was launched by the State Bank of India (SBI) in 2017 with the aim of enhancing credit inclusion in India.
- This initiative was part of SBI's efforts to make credit more accessible to a wider segment of the population, including those who may not have a credit history or meet traditional credit card eligibility criteria.

Question 53 :
Which is the political party started by Telugu film actor Chiranjeevi, who later merged it with the Indian National Congress?

Difficulty : Moderate | Average Time : 51 Seconds

Options :
1. Nava Nirman Party
2. Andhra Pride Party
3. Telugu Desam Party
4. Praja Rajyam Party

Solution :
The correct answer is **Option 4** i.e. **Praja Rajyam Party**

- The political party founded by Telugu film actor Chiranjeevi is the Praja Rajyam Party (PRP). He founded it in 2008 with the aim of bringing about political change in the Indian state of Andhra Pradesh.
- However, in 2011, Chiranjeevi merged the Praja Rajyam Party with the Indian National Congress Party as he

needed a united front to tackle the political challenges in the state.

Question 54 :

Who took charge as the new Comptroller and Auditor General (CAG) of India in 2017?

Difficulty : Moderate   **Average Time : 52 Seconds**

Options :

1. Rajiv Mehrishi

2. Ranjit Kumar

3. Achal Kumar Jyothi

4. Vivek Goenka

Solution :

The correct answer is **Option 1** i.e. **Rajiv Mehrishi**

- In 2017, Rajiv Mehrishi took charge as the new Comptroller and Auditor General (CAG) of India. He succeeded Shashi Kant Sharma, who completed his tenure in the role.
- Rajiv Mehrishi, a retired Indian Administrative Service (IAS) officer of the 1978 batch, served as the 13th CAG of India from September 25, 2017.

Question 55 :

Freedom Trail' is a 2.5 mile long passage that offers a rich insight into the American Revolution. In which US city would you find this famous and historic trail?

Difficulty : Moderate   **Average Time : 51 Seconds**

Options :

1. Denver

2. Boston

3. Connecticut

4. Memphis

Solution :

The correct answer is **Option 2** i.e Boston

- The Freedom Trail is located in Boston, Massachusetts, USA.

It is a 2.5-mile-long path that passes by 16 historically significant sites related to the American Revolution, offering visitors a rich insight into the events and figures that shaped American history.

Question 56 :

Which one of the following derives nutrition from plants as a parasite?

Difficulty : Moderate

Average Time : 46 Seconds

Options :

1. Malaria Parasite

2. Cuscuta

3. Broyophyllum

4. Lice

Solution :

The correct answer is **Option 2** i.e Cuscuta

- Cuscuta, also known as dodder, is a parasitic plant that derives its nutrition from other plants.
- It lacks chlorophyll and cannot photosynthesize, so it attaches itself to a host plant and obtains water and nutrients from it.
- This makes Cuscuta a parasitic plant that relies on other plants for its nutrition.

Question 57 :

Atomic mass of Carbon is 12 and that of Helium is 4. State which of the following statements is true for 1 mole of each of the elements?

Difficulty : Moderate

Average Time : 53 Seconds

Options :

1. 1 mole of Helium will contain 3 times more atoms than 1 mole of Carbon

2. 1 mole of Carbon will contain the same number of atoms as present in 1 mole of Helium.

3. 1 mole of Carbon will contain one-third the number of atoms present in 1 mole of Helium.

4. 1 mole of Carbon will contain 3 times more atoms than 1 mole of Helium.

Solution :

The correct answer is **Option 1** i.e **1 mole of Helium will contain 3 times more atoms than 1 mole of Carbon**

Given the atomic masses:

Carbon (C) has an atomic mass of 12.
- Helium (He) has an atomic mass of 4.

We can compare the mass of 1 mole of each element:

- 1 mole of carbon (C) atoms has a mass of 12 grams.
- 1 mole of helium (He) atoms has a mass of 4 grams.

Thus, the statement that is true for 1 mole of each element is:

"1 mole of Helium will contain 3 times more atoms than 1 mole of Carbon"

Question 58 :
Which of the following is present in the centre of a flower?

Difficulty : Moderate   Average Time : 76 Seconds

Options :
1. Carpel

2. Stamen

3. Petals

4. Sepals

Solution :
The correct answer is **Option 1** i.e **Carpel**

- The carpel is indeed present in the center of a flower.
- It is the female reproductive organ of a flower and is also known as the pistil.
- The carpel typically consists of three main parts: Stigma, Style & Ovary.

Question 59 :
The molecular formula of Propane is:

Difficulty : Moderate   Average Time : 43 Seconds

Options :
1. C_3H_8

2. $Câ„H_6$

CH_4

4. C_4H_{10}

Solution :
The correct answer is **Option 1** i.e **C$_3$H$_8$**

- The molecular formula of propane is **C$_3$H$_8$‌**.
- This means that each molecule of propane is composed of three carbon atoms and eight hydrogen atoms.

Question 60 :
When a compressed slinky is released it converts potential energy into:

Difficulty : Moderate   Average Time : 49 Seconds

Options :

1. Mechanical energy

2. Heat energy

3. Chemical energy

4. Kinetic energy

Solution :
The correct answer is **Option 4** i.e **Kinetic energy**

- As the slinky is released, the stored potential energy from its compressed state is converted into kinetic energy as it begins to stretch and move.
- This kinetic energy causes the slinky to extend and oscillate back and forth until it reaches a state of equilibrium.

Question 61 :
In which of the flowering plants are buds produced in the notches along the leaf margin?

Difficulty : Moderate   Average Time : 47 Seconds

Options :

1. Banana

2. Bryophyta

3. Bryophyllum

Rose

Solution :

The correct answer is **Option 3** i.e. **Bryophyllum**

- The flowering plants in which buds are produced in the notches along the leaf margin are known as **Bryophyllum** or **Kalanchoe**.
- These plants belong to the Crassulaceae family and are commonly referred to as "Mother of Thousands" or "Mother of Millions" due to their ability to produce numerous tiny plantlets along the margins of their leaves.

Question 62 :

The metal that can be cut with a Knife is:

Difficulty : Moderate

Average Time : 49 Seconds

Options :

1. Sodium
2. Copper
3. Aluminium
4. Iron

Solution :

The correct answer is **Option 1** i.e. **Sodium**

- It's true that sodium is a relatively soft metal and can be cut with a knife.
- Sodium is a highly reactive alkali metal with a relatively low melting point and is quite malleable, making it easy to cut with a knife.

Question 63 :

The science fiction book "The Extra-Terrestrial Delivery" is penned by which Indian author?

Difficulty : Moderate

Average Time : 45 Seconds

Options :

1. Namitha Ghokhale
2. Sudipta Das
3. Anosh Irani
4. Samit Basu

Solution :

The correct answer is **Option 2** i.e. **Sudipta Das**

- The science fiction book 'The Extra-Terrestrial Delivery' is penned by Sudipta Das.
- In this work, the author has wonderfully combined the entire spectrum, from Physics to Metaphysics, and merged poetry into prose to intriguingly illustrate the Big Picture.

Question 64 :

Which of the following games is used to prevent food material from getting oxidised?

Difficulty : Moderate   **Average Time : 45 Seconds**

Options :

1. Chlorine

2. Hydrogen

3. Oxygen

4. Nitrogen

Solution :

The correct answer is **Option 4** i.e. **Nitrogen**

- Nitrogen is indeed used to prevent food materials from getting oxidized.
- It is commonly employed in food packaging processes to create a modified atmosphere inside the packaging, which helps preserve the freshness and quality of the food.

Question 65 :

The tendency of undisturbed objects to stay at rest or to keep moving with the same velocity is called_____?

Difficulty : Moderate   **Average Time : 45 Seconds**

Options :

1. momentum

2. force

3. Energy

4. Inertia

Solution :

The correct answer is **Option 4** i.e. **Inertia**

- The tendency of undisturbed objects to stay at rest or to keep moving with the same velocity is called **inertia**.
- Inertia is a fundamental property of matter described by Newton's First Law of Motion, which states that an object will remain at rest or in uniform motion in a straight line unless acted upon by an external force.

Question 66 :

How many electrons in the outermost shell?

Difficulty : Moderate   **Average Time : 47 Seconds**

Options :

1. 6

2. 10

3. 8

4. 4

Solution :

The correct answer is **Option 3** i.e. 8

- Atoms tend to achieve a stable electron configuration by having 8 electrons in their outermost shell, except for the first shell, which can only hold a maximum of 2 electrons.
- This is known as the octet rule.

Question 67 :

When a ray of light travels from a denser medan to a rand medinant, it bends

Difficulty : Moderate   **Average Time : 41 Seconds**

Options :

1. away from the normal and speeds up

2. towards the normal and speeds up

3. away from the normal and becomes medial

4. towards the normal and slows down

Solution :

The correct answer is **Option 1** i.e. **away from the normal and speeds up**

Actually, when a ray of light travels from a denser medium to a rarer medium, it bends away from the normal and slows down. This phenomenon is known as refraction.

- Refraction occurs because the speed of light changes as it passes from one medium to another.

Question 68 :

The pH of a solution is 3. When its pH changes to 6, then H+'ion concentration:

Difficulty : Moderate   **Average Time : 54 Seconds**

Options :

1. increases 2 times

2. increases 3 times

3. decreases 1000 times

4. decreases 100 times

Solution :

The correct answer is **Option 3** i.e**. decreases 1000 times**

- Actually, when the pH of a solution changes by 3 units (from pH 3 to pH 6), the H^+ ion concentration decreases by a factor of 1000.
- This decrease in H^+ ion concentration is due to the logarithmic nature of the pH scale.

Question 69 :

Which is the form of energy that does not occur while riding a bicycle

Difficulty : Moderate   **Average Time : 46 Seconds**

Options :

1. Kinetic energy

2. Heat energy

3. Mechanical energy

4. Chemical energy

Solution :

The correct answer is **Option 4** i.e**. Chemical energy**

- No chemical reaction or substance is there while riding a bicycle, hence no chemical energy.
- Chemical energy does not come into the picture while riding a bicycle.

The energy stored in the bonds of a chemical substance is termed it's Chemical energy.

Question 70 :

_____reproduces by multiple fission.

Difficulty : Moderate   Average Time : 44 Seconds

Options :

1. Rhizopus

2. Plasmodium

3. Planaria

4. Yeast

Solution :

The correct answer is **Option 2** i.e**. Plasmodium**

- Plasmodium reproduces by multiple fission.
- During multiple fission, the nucleus of the parent cell divides multiple times, and the cytoplasm then separates into multiple daughter cells, each containing a nucleus.

Question 71 :

Among chemical properties, Mendeleev concentrated on the compounds formed by the elements with:

Difficulty : Moderate   Average Time : 41 Seconds

Options :

1. Hydrogen and Oxygen

2. Hydrogen and Sodium

3. Carbon and Hydrogen

4. Carbon and Sodium

Solution :

The correct answer is **Option 1** i.e**. Hydrogen and Oxygen**

- Dmitri Mendeleev, the Russian chemist who formulated the periodic table, indeed focused on the compounds formed by elements with hydrogen and oxygen, among other chemical properties, during his development of the periodic table.
- Mendeleev arranged the elements according to their atomic mass and observed recurring patterns in their chemical

properties.

Question 72 :
How many atoms are present in one molecule of Ozone?

Difficulty : Moderate   **Average Time : 48 Seconds**

Options :
1. 2
2. 1
3. 3
4. 4

Solution :
The correct answer is **Option 1** i.e. **3**

- One molecule of ozone (O_3) consists of three oxygen atoms bonded together.
- Therefore, there are indeed three atoms present in one molecule of ozone.

Question 73 :
According to Ohm's law, if current (1) increases and potential difference (V) remains constant, then

Difficulty : Moderate   **Average Time : 38 Seconds**

Options :
1. resistance increases
2. potential difference decreases
3. resistance unchanged
4. resistance decreases

Solution :
The correct answer is **Option 4** i.e. **resistance decreases**

- According to Ohm's law, if the current (I) increases and potential difference (V) remains constant, then Resistance (R) decreases.
- Ohm's law states that the current through a conductor between two points is directly proportional to the voltage across the two points.

Question 74 :

The kinetic energy of a ball weighing 0.5 kg moving with a velocity of 4 m/s will be

Difficulty : Moderate   **Average Time : 49 Seconds**

Options :

1. 12 J

2. 8 J

3. 4 J

4. 16 J

Solution :

The correct answer is **Option 3** i.e. **4 J**

- The kinetic energy of a ball weighing 0.5 kg moving with a velocity of 4 m/s will be 4 J.
- The word 'kinesis' means 'motion', thus the energy possessed by an object by virtue of its moving state is termed as Kinetic Energy (K.E).
- The formula for calculating K.E is K.E. $= \frac{1}{2} m v^2$.

Question 75 :

Sound travels at a speed of 333 ms-1 in the air, thus, in 1 s, a distance of 333 m is travelled by:

Difficulty : Moderate   **Average Time : 52 Seconds**

Options :

1. particles

2. receiver

3. source

4. disturbance

Solution :

The correct answer is **Option 4** i.e **disturbance**

- Sound travels at approximately 333 meters per second (m/s) in dry air at room temperature.
- This means that in one second, a sound wave will travel a distance of 333 meters.

Rrb Alp CBT - 1 Previous Year Question Paper Analysis

The analysis of Rrb Alp CBT - 1 Previous Year Question Paper held on 2023-10-27 in the Morning Shift exam is as follows:

1. 75 questions were moderate.
2. The safe score is 40 marks.
3. 75 questions were asked from CBT and 75 questions were asked from CBT
4. 0 questions should have been skipped if you were short of time.

Rrb Alp CBT - 1 Previous Year Question Paper Topic Wise Weightage

CBT

Rrb Alp CBT - 1 Previous Year Question Paper Tips and Tricks

1. Try to solve Rrb Alp CBT - 1 Previous Year Question Paper without taking any help from the solutions.
2. Rrb Alp CBT - 1 Previous Year Question Paper require proper usage of concept so firstly read the question thoroughly and then use the right concept.

In case you're not able to solve the question in less than 30 seconds in the exam then you should skip the question and move to the next question.

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About Neetu Mam

Neetu Mam is primarily passionate for the English language and teaching from the last 20 years however for the Rrb Alp CBT - 1 Previous Year Question Paper. She has guided her team to provide the best explanation for the question.