

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 2018-08-17 in the Evening 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 :

If V is the brother of U, U is the sister of W and X is the husband of U, then W is V's

Difficulty : Moderate

Average Time : 45 Seconds

Options :

1. Mother
2. Brother-in-law or sister-in-law
3. Uncle or aunty
4. Brother or sister

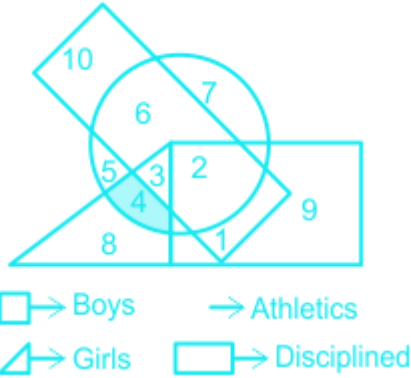
Solution :

The correct answer is **Option 4** i.e. **Brother or sister**

Understanding	Application
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Given:

V is the brother of U,
U is the sister of W.



Since V is the brother of U, the relation of W with U and V will be the same.

But the gender of W is not known so, W could be a brother or sister of V.

Question 2 :

Who is the newly appointed Foreign Secretary of India who took charge in early 2018?

Difficulty : Moderate

Average Time : 61 Seconds

Options :

1. Vijay Keshav Gokhale
2. Usha Rani
3. Nitin Kumar Yadav
4. Rajni Sekhri Sibal

Solution :

Correct Answer is **option 1** i.e. **Vijay Keshav Gokhale**

- Vijay Keshav Gokhale is a retired Indian diplomat and the 32nd Foreign Secretary of India (29 January 2018 to 28 January 2020).
- Gokhale is an Indian Foreign Service officer of the 1981 batch.
- Gokhale was previously the Indian ambassador to China.
- Gokhale during his tenure as the Ambassador of India to China played a key role in resolving the 2017 Doklam

crisis between both the nations.

Question 3 :

If three groups could be formed using the given figures only once, these groups would be

Difficulty : Moderate**Average Time : 68 Seconds****Options :**

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

Solution :

The correct answer is **Option 4** i.e. (1,2,5), (3,7,8) and (4,6,9)

Understanding	Application
If we observe the shape inside figures only: Figures 1, 2, and 5 have similar shapes. Figures 3, 7, and 8 have similar shapes. Figures 4, 6, and 9 have similar shapes.	Hence, three groups would be (1,2,5), (3,7,8), and (4,6,9).

Comprehension :

The bar graph represents the favourite fruit of grade 4 students.

Question 4 :

Which fruit among the given below was chosen by the least students?

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

- Mango
2. Grapes
3. Orange
4. Apple

Solution :

Correct Answer is option 2 i.e. Grapes

Application

Apple is chosen by the 12 students.
Orange is chosen by the 14 students.
Grapes is chosen by the 6 students.
Mango is chosen by the 10 students.
Pineapple is chosen by the 8 students.
Hence, Grapes was chosen by the least students

Question 5 :

Which of the following plant tissues is capable of cell division?

Difficulty : Moderate

Average Time : 92 Seconds

Options :

1. Parenchyma
2. Sclerenchyma
3. Meristem
4. Xylem

Solution :

Correct Answer is **option 3** i.e. **Meristem**

- The meristem is a type of tissue that occurs in plants.

It consists of undifferentiated cells capable of **cell division**.

- Cells in the meristem can develop into all the other tissues and organs that occur in plants.
- Differentiated plant cells generally cannot divide or produce cells of a different type.

Question 6 :

Metals can be given different shapes according to our needs because they possess the properties of:

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

1. Conductivity and sonorosity
2. Malleability and ductility
3. Malleability and sonorosity
4. Ductility and conductivity

Solution :

Correct Answer is **option 2** i.e. **Malleability and ductility**

Name	Meaning
Malleability:	Ability of a material to deform under stress (compressive stress). If a material is malleable then it can be converted into thin sheets by hammering or rolling.
Ductility:	Ductility is when a solid material stretches under tensile stress. If ductile, a material may be stretched into a wire.

Conductivity:	Conductivity is used for the rate or degree that electricity, heat, or sound travels through something.
Sonorosity:	Ringling sound of some metals produced when they hit any other metal.

Question 7 :

Two pipes, when working one at a time can fill a cistern in 2 hours and 3 hours, respectively while a third pipe can drain the cistern empty in 6 hours. All the three pipes were opened together when the cistern was $\frac{1}{6}$ full. How long will it take for the cistern to be completely full?

Difficulty : Moderate

Average Time : 83 Seconds

Options :

1. 1 hour
2. 1 hour 30 minutes
3. 1 hour 20 minutes
4. 1 hour 15 minutes

Solution :

The correct answer is Option 4 i.e. 1 hour 15 minutes.

Understanding	Application	Calculation
Two pipes, when working one at a time can fill a cistern in 2 hours and 3 hours, respectively while a third pipe can drain the cistern empty in 6 hours.	Suppose, Total capacity of cistern = 6	LCM of 2, 3 & 6 = 6

Efficiency = Work/Time	So, Efficiency of 3 pipes = 3, 2 & 1	$6/2 = 3$ $6/3 = 2$ $6/6 = 1$
Since the cistern is 1/6th full. Remaining capacity = $6 \times 5/6$ = 5 units	So, Time to fill = $5/(3 + 2 - 1)$ = 5/4 hours = 1 hour 15 minutes	

Question 8 :

If the initial velocity of a car is 5 m/s, and the final velocity is 10 m/s in a 5-second journey, then the acceleration is _____.

Difficulty : Moderate**Average Time : 74 Seconds****Options :**

1. 10 m/s^2
2. 0.1 m/s^2
3. 1 m/s^2
4. 5 m/s^2

Solution :

The correct answer is **option 3** i.e. 1 m/s^2

From Newton's first law of motion:

$$v = u + at$$

Where,

Initial velocity (u) = 5 m/s



Final velocity (v) = 10 m/s

Time (t) = 5 sec

So,

$$10 = 5 + 5a$$

$$5a = 5$$

$$a = 1 \text{ m/s}^2$$

Question 9 :

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

Difficulty : Moderate

Average Time : 52 Seconds

Options :

1. Ohm
2. Walt
3. Strength
4. Watt

Solution :

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

Understanding

Work : Joule :: Power :

Joule is the unit of work.

Similarly, the unit of Power is Watt.

Hence, Watt is the correct answer.

Question 10 :

Which of the following metals is a liquid at room temperature?

Difficulty : Moderate

Average Time : 43 Seconds

Options :



Lithium

2. Mercury

3. Sodium

4. Calcium

Solution :

Correct Answer is **option 2** i.e. **mercury**

- Liquid metal consists of alloys with very low melting points which form a eutectic that is liquid at room temperature.
- Mercury has a melting point of -39°C and a boiling point of 357°C , which makes it liquid at room temperature (around 20°C).
- Bromine is the only non-metal which is liquid and diatomic molecule at room temperature.
- Metals such as caesium, gallium, and rubidium melt just above room temperature.

Question 11 :

Krishna cycled a distance of 90 km at a certain speed. If he cycled 3 km slower every hour, he would have taken 5 more hours to reach his destination. What is the speed in km/hr at which Krishna actually cycled?

Difficulty : Moderate

Average Time : 59 Seconds

Options :

1. 7.5

2. 18

3. 15

4. 9

Solution :

The correct answer is **option 4** i.e. **9**.

Distance = 90 km

Suppose actual speed = x km/hr

Time = Distance/Speed

According to the question:

$$90/(x - 3) - 90/x = 5$$

$$(x - x + 3)/(x^2 - 3x) = 5/90$$

$$3/(x^2 - 3x) = 1/18$$

$$x^2 - 3x - 54 = 0$$

$$(x - 9)(x + 6) = 0$$

So, $x = 9$

Hence, Actual speed = 9 km/hr

Question 12 :

What is the number of squares in the following figure?

Difficulty : Moderate

Average Time : 48 Seconds

Options :

1. 4
2. 5
3. 8
4. 7

Solution :

The correct answer is **Option 2** i.e. **5**

Understanding	Application
<p>Given figure:</p> <p> → Boys → Athletics → Girls → Disciplined </p>	<p>In the figure:</p> <p>4 small squares and 1 big square are there.</p> <p>Hence, a total of 5 squares.</p>

Question 13 :



Which of the given options is the pattern of the sequence 1, 5, 11, 19, 29 ?

Difficulty : Moderate

Average Time : 48 Seconds

Options :

1. $x^2 + x - 1$
2. $x^2 + x + 1$
3. $x^2 + x - 2$
4. $x^2 - x - 1$

Solution :

The correct answer is **Option 1** i.e. $x^2 + x - 1$.

1, 5, 11, 19, 29

We need to check each option by putting $x = 1, 2, 3, \dots$

Option 1:

$$x^2 + x - 1$$

Putting $x = 1$

$$1 + 1 - 1 = 1$$

Putting $x = 2$

$$4 + 2 - 1 = 5$$

Putting $x = 3$

$$9 + 3 - 1 = 11$$

Putting $x = 4$

$$16 + 4 - 1 = 19$$

It is following the given sequence, hence option 1 is correct.

Question 14 :

The product of two numbers is 20. One of them is 1.25. What is the other number?

Difficulty : Moderate

Average Time : 55 Seconds

Options :



12

2. 14

3. 16

4. 15

Solution :

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

Let the numbers be a and b.

Then

Product of 2 numbers a and b = 20

So,

$ab = 20$ and $a = 1.25$

So,

$b = 20/1.25$

$b = 16$

Hence, 16 is the 2nd number.

Question 15 :

If three groups could be formed using the given figures only once, these groups would be

Difficulty : Moderate

Average Time : 42 Seconds

Options :

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

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

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

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

Solution :

The correct answer is **Option 3** i.e. **(1,5,7), (2,6,9) and (4,3,8)**

Understanding	Application
<p>If we observe the outside figures only:</p> <p>Figures 1, 5, and 7 have a rectangle as the outermost figure.</p> <p>Figures 2, 6, and 9 have a triangle as the outermost figure.</p> <p>Figures 3, 4, and 8 have a circle as the outermost figure.</p>	<p>Hence, three groups would be (1,5,7), (2,6,9), and (4,3,8).</p>

Question 16 :

Which of the four figures can replace the question mark?

Difficulty : Moderate

Average Time : 51 Seconds

Options :

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

Solution :

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

Understanding	Application
<p>Figures in the 1st and 2nd columns are mixed to form figures in the 3rd column.</p>	<p>Following the logic, The missing figure will be the same as the answer in figure A.</p>

**Question 17 :**

Consider the given question and decide which of the following statements is sufficient to answer the question. What is the weight of ten iron balls if each ball is of the same weight? Statements: 1. One-fourth of each ball's weight is 5 kg. 2. The total weight of three iron balls is 20 kg more than the total weight of two iron balls.

Difficulty : Moderate

Average Time : 60 Seconds

Options :

1. Either statement 1 or 2 is sufficient
2. Both statement 1 and 2 are sufficient
3. Statement 2 alone is sufficient while statement 1 alone is insufficient
4. Statement 1 alone is sufficient while statement 2 alone is insufficient

Solution :

The correct answer is **option 1** i.e. **Either statement 1 or 2 is sufficient.**

Statement 1:

Weight of each ball = $5 \times 4 = 20$ kg

So weight of 10 balls can be found.

Statement 2:

Weight of 1 ball = weight of 3 balls – weight of 2 balls = 20 kg

So, weight of 10 balls can be found.

Hence, Either statement 1 or 2 is sufficient.

Question 18 :

Which of the following classifications is based on atomic numbers?

Difficulty : Moderate

Average Time : 51 Seconds

Options :

1. Mendeleev's Periodic Table
2. Modern Periodic Table
3. Newlands Law Of Octaves
4. Dobereiner's Law of Triads

**Solution :**

Correct Answer is **option 2** i.e. **Modern Periodic Table**

Modern Periodic Table:

- Elements are arranged in the table by **increasing atomic number**.
- In the modern periodic table, each element is represented by its chemical symbol.
- The number above each symbol is its atomic number.
- Modern Periodic Table was developed by a scientist named **Henry Moseley**.

Mendeleev's Periodic Table:

- Arranged the elements in order of relative atomic mass.

Newlands Law Of Octaves:

- When the elements are arranged in increasing order of their atomic masses, the properties of the eighth element are similar to that of the first.

Dobereiner's Law of Triads:

- Dobereiner's Law of Triads deals with putting three elements in order of atomic weight. The average of the first and third elements' atomic masses is the atomic mass of the second element.

Question 19 :

(1.004 - 0.4) is equal to:

Difficulty : Moderate

Average Time : 77 Seconds

Options :

1. 0.604
2. 0.004
3. 0.640
4. 1

Solution :

The correct answer is **Option 1** i.e. **0.604**

$$1.004 - 0.4$$

$$= 1.004 - 0.400$$



= 0.604

Question 20 :

What is the atomicity of Phosphorus?

Difficulty : Moderate

Average Time : 31 Seconds

Options :

1. Di-atomic
2. Poly-atomic
3. Tetra-atomic
4. Mono-atomic

Solution :

Correct Answer is **option 3** i.e. **Tetra-atomic**

- Atomicity is the number of atoms of an element present in one molecule of that particular element.
- For example, each Diatomic-composed of 2 atoms e.g. H_2 , N_2 , O_2 ; Triatomic-composed of 3 atoms e.g. O_3 ; Polyatomic-composed of 3 or more atoms e.g. P_4 , S_8 .
- Atomicity of Phosphorous is 4 as it exists as P_4 and is Tetra-atomic.

Question 21 :

The motile germ cell is called a/an:

Difficulty : Moderate

Average Time : 49 Seconds

Options :

1. Male gamete
2. Gamete
3. Female gamete
4. Isogamete

Solution :

Correct Answer is **option 1** i.e. **Male gamete**

- A germ cell is any biological cell that gives rise to the gametes of an organism that reproduces sexually.
- Depending on the species and the sex of the individual, these germ cells eventually commit themselves to producing sex gametes, sperm in the case of males and ova (eggs) in the case of females.

The motile germ-cell is called the male gamete and the germ-cell containing the stored food is called the female gamete.

Question 22 :

What is the measure of the smaller of the two angles formed between the hour hand and the minute hand of a clock when it is 5 : 49 p.m.?

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

1. 119°
2. 119.5°
3. 120°
4. 120.5°

Solution :

The correct answer is **Option 2** i.e. **119.5°**

Understanding	Application
We know the direct formula for the angle between the hour and minute hand of the clock: $= (11/2) \times M - 30 \times H$ M is for minutes and H is for Hours	Given time: 5 : 49 H = 5 and M = 49 Hence, Angle = $(11/2) \times 49 - 30 \times 5$ $= 269.5 - 150$ $= 119.5^\circ$

Question 23 :

Assuming that the charge of an electron is $1.6 \times 10^{19} C$, the number of electrons passing through a section of wire per second when the wire carries a current of 1 A is:

Difficulty : Moderate**Average Time : 61 Seconds**

Options :

1. 6.25×10^{18}
2. 1.6×10^{19}
3. 1.6×10^{19}
4. 0.625×10^{17}

Solution :

Correct Answer is **option 1** i.e. 6.25×10^{18}

Given:

Charge of an electron (e) = 1.6×10^{-19}

Current I = 1 A & Time = 1 sec

We know that:

$$I = Q/t$$

$$\text{So, } Q = 1 \times 1 = 1 \text{ C}$$

$$Q = n \times e$$

Where Q = Charge, n = number of electrons

So,

$$n = 1/(1.6 \times 10^{-19}) = 6.25 \times 10^{18}$$

Question 24 :

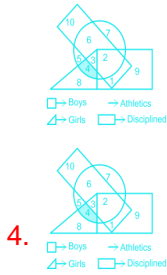
Select the option that would come next in the given figure series.

Difficulty : Moderate

Average Time : 51 Seconds

Options :

- 1.
- 2.



Solution :

The correct answer is **Option 2**

Understanding	Application
<p>In the given sequence:</p> <p>The shape (Having 3 sides) outside is rotated by 180 degrees in each step.</p> <p>The 3 signs are moving upwards in each step replacing the already existing signs.</p>	<p>Following the same sequence,</p> <p>The next figure will have:</p> <p>The outside shape has a downward open end.</p> <p>The point will replace plus sign, plus will replace minus sign, and minus sign will replace the point.</p> <p>Hence, the figure in option 2 is the correct answer.</p>

Question 25 :

The LCM of 14, 21 and 35 is:

Difficulty : Moderate

Average Time : 78 Seconds

Options :

1. 7
2. 140

70

4. 210

Solution :

The correct answer is **Option 4** i.e. **210**

Factorizing the numbers:

$$14 = 2 \times 7$$

$$21 = 3 \times 7$$

$$35 = 5 \times 7$$

LCM is the least common multiple i.e. the minimum number that will be a multiple of all given numbers.

Hence,

$$\text{LCM} = 2 \times 3 \times 5 \times 7 = 210$$

Question 26 :

Choose the correct water image of the given problem figure from the answer figures:

Difficulty : Moderate**Average Time : 42 Seconds****Options :**

1. B

2. D

3. C

4. A

Solution :

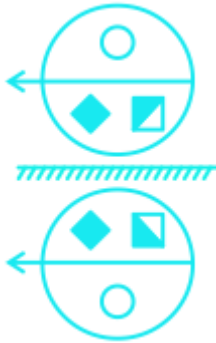
The correct answer is **Option 4** i.e. **A**

Understanding	Application
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Water Images:
The reflection of an object into the water is its water image. It appears by inverting an object vertically i.e. upside down.

In the water image of the given figure:

Half dark and complete dark squares which are in the lower half of the original figure will be at the upper half of the water image but in inverted form. The pointed line in the middle will be as it is in the water image.



Hence, the answer in figure A is the water image.

Question 27 :

_____ was a Chinese Buddhist monk, who studied Buddhist Scriptures at Nalanda and is famous for his 17 year-long trips to India, between AD 627 to 643.

Difficulty : Moderate

Average Time : 71 Seconds

Options :

1. Megasthenes
2. Hiuen Tsang
3. Fa-hien



Al Beruni

Solution :

The correct answer is **option 2** i.e. **Hiuen Tsang**.

- Hiuen Tsang was the Chinese traveler, Buddhist monk, and scholar who visited India in Ancient Times between AD 627-643 during the early Tang dynasty.
- Tai Tsung has sent Hiuen-Tsang as envoy to Harshavardhana's court.
- He visited India during the reign of Harshavardhana who came to admire him for his deep devotion towards Buddhism.

Question 28 :

5 men or 10 women can complete a job in 20 days. In how many days can 3 men and 4 women complete it?

Difficulty : Moderate

Average Time : 49 Seconds

Options :

1. 10
2. 25
3. 15
4. 20

Solution :

The correct answer is **option 4** i.e. **20**.

5 men or 10 women can complete a job in 20 days.

So,

5 men = 10 Women

1 Men = 2 Women

thus,

3 men and 4 women = 6 + 4 = 10 women

And it is given that:

10 women can complete the job in 20 days.

Question 29 :

Consider the argument and decide which of the given assumptions is/are implicit. Argument: The Supreme Court has

decided that all rapists will be hanged till death. Assumption: 1. Women will get protection. 2. The number of rape cases can be reduced.

Difficulty : Moderate

Average Time : 49 Seconds

Options :

1. Only assumption 2 is implicit
2. Neither 1 nor 2 is implicit
3. Both 1 and 2 are implicit
4. Only assumption 1 is implicit

Solution :

The correct answer is **Option 1** i.e. **Only assumption 2 is implicit**

Understanding	Application
<p>Argument: The Supreme Court has decided that all rapists will be hanged till death.</p> <p>Assumption: 1. Women will get protection. 2. The number of rape cases can be reduced.</p>	<p>Nothing about the protection of women from other crimes is mentioned in the argument so assumption 1 is not implicit.</p> <p>Due to fear of punishment (hanged till death), the rape cases might get decreased. So, assumption 2 is implicit.</p> <p>Hence, Only assumption 2 is implicit.</p>

Question 30 :

Aluminium oxide is _____ in nature.

Difficulty : Moderate

Average Time : 62 Seconds

**Options :**

1. acidic
2. neutral
3. basic
4. amphoteric

Solution :

Correct Answer is **option 4** i.e. **amphoteric**

- Aluminium oxide or aluminum oxide is a chemical compound of aluminium and oxygen with the chemical formula Al_2O_3 .
- Aluminium oxide is an amphoteric substance, meaning it can react with both acids and bases, such as hydrofluoric acid and sodium hydroxide, acting as an acid with a base and a base with an acid, neutralising the other and producing a salt.
- Aluminium oxide is a thermally unstable and insoluble compound that occurs naturally in various minerals such as corundum, a crystalline variant of the oxide, and bauxite

Comprehension :

Directions: The given graph shows the distribution of minerals in the human body. Study the graph and answer the questions that follow.

Question 31 :

Which two minerals are required approximately in the same percentage for the human body?

Difficulty : Moderate

Average Time : 63 Seconds

Options :

1. Sodium and potassium
2. Calcium and sodium
3. Calcium and magnesium
4. Magnesium and potassium

Solution :

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

From the Pie chart:

Percentage of Sodium for the human body = 8%

Percentage of Potassium for the human body = 9%

Hence, these two minerals are required approximately in the same percentage for the human body.

Question 32 :

Which Indian actor's biography is titled 'Anything but Khamosh'?

Difficulty : Moderate

Average Time : 45 Seconds

Options :

1. Vinod Khanna
2. Shatrughan Sinha
3. Dharmendra
4. Raj Babbar

Solution :

The correct answer is **option 2** i.e. **Shatrughan Sinha**

'Anything but Khamosh':

- Biography of Shatrughan Sinha.
- Written by noted film journalist Bharti S Pradhan
- Released by BJP veteran LK Advani in Delhi in 2016.
- In his biography, Shatrughan talked at length about his early struggling days in Bollywood.

About Shatrughan Sinha:

- Apart from being a member of Lok Sabha and Rajya Sabha twice, he was Union Cabinet Minister of Health and Family Welfare and Shipping in the Atal Bihari Vajpayee government.
- He was elected to the 15th Lok Sabha in 2009 from Patna Sahib, Bihar.

Question 33 :

What is the Centre of Curvature of a spherical mirror?

Difficulty : Moderate

Average Time : 60 Seconds

Options :

1. It is the centre of a hollow sphere of which the spherical mirror is a part.
2. It is the midpoint of a spherical mirror.

It is the point on the principal axis through which rays of light parallel to the principal axis pass after reflection.

4. It is a point from which the rays of light appear to be coming from on the principal axis of a convex mirror.

Solution :

Correct Answer is **option 1** i.e. **It is the centre of a hollow sphere of which the spherical mirror is a part.**

- Centre of curvature is the centre of the sphere of which the spherical mirror is a part.
- The point in the center of the sphere from which the mirror was sliced is known as the center of curvature and is denoted by the letter C in the diagram.
- This point is equidistant from all points on the reflecting surface of the mirror.

Question 34 :

Junko sold an item for Rs. 220 at a loss of 12%. By how much should she have raised the price to make a profit of 10%?

Difficulty : Moderate

Average Time : 72 Seconds

Options :

1. Rs. 25
2. Rs. 48.40
3. Rs. 44
4. Rs. 55

Solution :

The correct answer is **option 4** i.e. **Rs. 55**

Junko sold an item for Rs. 220 at a loss of 12%

So,

$$CP = 220/0.88 = \text{Rs. } 250$$

Since profit required = 10%

So,

$$\text{New SP} = 250 \times 1.1 = \text{Rs. } 275$$

$$\text{Hence, increase in SP} = 275 - 220 = \text{Rs. } 55$$

Question 35 :

Two water-squash mixtures, the first with a water-to-squash ratio of 5 : 1 and the latter with a ratio of 3 : 1 are blended in

the ratio 3 : 2. What is the final water : squash ratio in the blend?

Difficulty : Moderate

Average Time : 51 Seconds

Options :

1. 4 : 1
2. 10 : 9
3. 5 : 3
4. 6 : 1

Solution :

The correct answer is **option 1** i.e. **4 : 1**

Understanding	Application	Calculation
Two mixtures are mixed in ratio 3 : 2 to prepare the blend.	Suppose, Quantity of mixture 1 = 30 L Quantity of mixture 2 = 20 L	
Water-to-squash ratio in 1 st mixture is 5 : 1	So, Water in mixture 1 = 25 L Squash in mixture 1 = 5 L	$30 \times \frac{5}{6} = 25$ $30 \times \frac{1}{6} = 5$
Water-to-squash ratio in 2 nd mixture is 3 : 1	So, Water in mixture 2 = 15 L Squash in mixture 2 = 5 L	$20 \times \frac{3}{4} = 15$ $20 \times \frac{1}{4} = 5$
Total water in blend = $25 + 15 = 40$ L Total squash in blend = $5 + 5 = 10$ L	So, Final water : squash ratio in the blend = $40 : 10 = 4 : 1$	

Question 36 :

Solve the following: $4 (7 \ 12 \div 4) = ?$

Difficulty : Moderate

Average Time : 171 Seconds

Options :

1. -2
2. 6
3. 0.75
4. -14

Solution :

The correct answer is **Option 2** i.e. 6

$$4 (7 - 12 \div 4)$$

$$-4 - (-7 - 3)$$

$$-4 + 10$$

$$6$$

Question 37 :

Select the missing term based on the given related pair of letter clusters. ABC : ZYX :: DEF :

Difficulty : Moderate

Average Time : 37 Seconds

Options :

1. VUW
2. WUV
3. WVU
4. UVW

Solution :

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

Understanding	Application
---------------	-------------

ABC : ZYX In alphabetical order: Z is opposite to A Y is opposite to B X is opposite to C	Similarly, for DEF: W is opposite to D V is opposite to E U is opposite to F Hence, WVU is the answer.
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Question 38 :

R+JM2\$#QR?*O@7F3 Using the above sequence fill in the blank: R#* : J?F :: \$OJ :

Difficulty : Moderate

Average Time : 56 Seconds

Options :

1. #@3
2. QF*
3. QF#
4. MOF

Solution :

The correct answer is **Option 3** i.e. **QF#**

Understanding	Application
---------------	-------------

<p>R+JM2\$#QR?*O@7F3</p> <p>Each term in the given sequence is assigned number 1, 2, 3... according to their position from the left.</p>	<p>R#* : J?F :: \$OJ :</p> <p>R(1) #(7) *(11) : J(3) ?(10) F(15)</p> <p>Sum: 19 & 28</p> <p>[Difference of 9]</p> <p>\$(6) O(12) J(3) : Q(8) F(15) #(7)</p> <p>Sum: 21 & 30</p> <p>[Difference of 9]</p> <p>Hence, QF# is the correct answer.</p>
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Question 39 :

The average marks obtained by a group of 10 students were 20. One student left the group as a result of which the average of the remaining students rose to 21. But another student joined, as a result of which the average marks of the group dropped a bit and became 20.6. What were the average marks obtained by the student who left and the one who joined?

Difficulty : Moderate

Average Time : 67 Seconds

Options :

1. 14
2. 15
3. 16
4. 13

Solution :

The correct answer is **Option 1** i.e. **14**

Understanding	Application	Calculation
The average marks obtained by a group of 10 students were 20.	So, Total marks of 10 students = 200	$10 \times 20 = 200$
Average when 1 student left = 21 Suppose that student is X	So, Total marks of 10 students – X's marks = 189 X's marks = 200 – 189 X's marks = 11	$21 \times 9 = 189$
Average when another student joined = 20.6 Suppose that student is Y	So, Total marks of 10 students – X's marks + Y's marks = 206 Y's marks = 206 – 200 + 11 Y's marks = 17	$20.6 \times 10 = 206$

We got: X's marks = 11 Y's marks = 17	Hence, Average = 14	$(11 + 17)/2$ 14
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Question 40 :

Sound is a:

Difficulty : Moderate

Average Time : 82 Seconds

Options :

1. Electromagnetic wave
2. Surface wave
3. Mechanical wave
4. Tidal wave

Solution :

Correct Answer is **option 3** i.e. **Mechanical wave**

- Mechanical waves are the waves which require matter (medium) for their propagation and transfer energy through the medium.
- Sound waves are mechanical waves because they need a material medium for propagation, like air or liquids like water, or metals like silver.

Question 41 :

Select the option that depicts the correct mirror image for the given word(ignore the size).

Difficulty : Moderate

Average Time : 45 Seconds

Options :

- 1.
- 2.
- 3.
- 4.

Solution :

The correct answer is **Option 2**

Understanding	Application
<p>A mirror image is a reflected duplication of an object that appears almost identical but is reversed in the direction perpendicular to the mirror</p>	<p>Hence, option 2 is correct.</p>

Question 42 :

Select the number pair that does NOT belong in the following group. (1, 1), (4, 64), (8, 512), (9, 719)

Difficulty : Moderate

Average Time : 70 Seconds

Options :

1. (1, 1)
2. (8, 512)
3. (9, 719)
4. (4, 64)

Solution :

The correct answer is **Option 3** i.e. (9, 719)

Understanding	Application

Logic:	(1, 1), (4, 64), (8, 512), (9, 719)
2nd number is the cube of 1st number.	$1^3 = 1$ $4^3 = 64$ $8^3 = 512$ $9^3 = 729$ (Not 719)
	Hence, (9, 719) does not belong to the following group.

Question 43 :

R. Ashwin of India became the quickest bowler to reach 300 test wickets in just 54 tests. Where was this historic test played?

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

1. Delhi
2. Kolkata
3. Nagpur
4. Kanpur

Solution :

Correct Answer is **option 3** i.e. **Nagpur**

- India off-spinner Ravichandran Ashwin became the fastest bowler to reach the milestone of 300 Test wickets in his 54th match.
- This match was played against Sri Lanka in Nagpur.
- Australian fast bowling legend Lillee had reached the milestone in 56 Test matches way back in 1981 and it took 36 years for another bowler to eclipse the record.

Question 44 :

A spherical glass vessel has a cylindrical neck 7 cm long and 4 cm in diameter. The diameter of the spherical part is 21 cm. Find the quantity of water it can hold.

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

**Options :**

1. 4929 cm³
2. 4939 cm³
3. 4932 cm³
4. 4930 cm³

Solution :

The correct answer is **option 2** i.e. **4939 cm³**

Diameter of spherical part = 21 cm

So,

$$r = 21/2 \text{ cm}$$

So,

$$\begin{aligned} \text{Volume of sphere} &= \frac{4}{3} \times \pi \times r^3 \\ &= \frac{4}{3} \times \frac{22}{7} \times 21/2 \times 21/2 \times 21/2 \\ &= 4851 \text{ cm}^3 \end{aligned}$$

Cylindrical neck:

$$H = 7 \text{ cm and}$$

$$R = 4/2 = 2 \text{ cm}$$

So,

$$\begin{aligned} \text{Volume of cylinder} &= \pi \times R^2 \times h \\ &= \frac{22}{7} \times 2 \times 2 \times 7 \\ &= 88 \text{ cm}^3 \end{aligned}$$

Hence,

$$\text{Total quantity of water it can hold} = 4851 + 88 = 4939 \text{ cm}^3$$

Question 45 :

What is the value of $12 + 3(2 \times 3) (18 \div 6)$?

Difficulty : Moderate

Average Time : 57 Seconds

**Options :**

1. -5
2. 9
3. -9
4. 5

Solution :

The correct answer is **option 3** i.e. -9

$$\begin{aligned} &12 + 3(2 \times 3) (18 \div 6) \\ &= 12 + 3 \times (-6) \quad 3 \\ &= 12 - 18 - 3 \\ &= -9 \end{aligned}$$

Question 46 :

46% of 250 is equal to:

Difficulty : Moderate

Average Time : 33 Seconds

Options :

1. 115
2. 92
3. 112
4. 103.5

Solution :

The correct answer is **Option 1** i.e. 115

$$\begin{aligned} &46\% \text{ of } 250 \\ &= 46 \div 100 \times 250 \\ &= 46 \times 5 \div 2 \\ &= 23 \times 5 \\ &= 115 \end{aligned}$$

Question 47 :

Choose the correct figure that can replace the question mark.

Difficulty : Moderate

Average Time : 33 Seconds

Options :

1. 2

2. 4

3. 1

4. 3

Solution :

The correct answer is **Option 2** i.e. **4**

Understanding	Application
<p>From 1st figure to 2nd figure: The figure is rotated by 90 degrees in the anti-clockwise direction. Also, one triangle which is dark is made white.</p>	<p>Similarly, from 3rd to 4th figure: The figure is rotated by 90 degrees in the anti-clockwise direction. Also, one triangle which is dark is made white. Hence, answer figure 4 is the right answer.</p>

Question 48 :

The rate of change of velocity is called:

Difficulty : Moderate

Average Time : 54 Seconds

Options :

1. Momentum

Speed

3. Acceleration

4. Force

Solution :

Correct Answer is **option 3** i.e. **Acceleration**

- The rate of change of velocity is called acceleration. An object is accelerating if it is changing its velocity.
- Acceleration is a vector quantity. It has both magnitude and direction.
- The SI unit for acceleration is meter per second square (ms^{-2}).

Question 49 :

Consider the given statement as true and decide which of the given conclusions can definitely be drawn from the given statements. Statements: All dogs are cats. All cats are bats. Conclusions: 1. All bats are cats. 2. All dogs are bats.

Difficulty : Moderate

Average Time : 51 Seconds

Options :

1. Both 1 and 2 follow
2. Only conclusion 1 follows
3. Only conclusion 2 follows
4. Either 1 or 2 follows

Solution :

The correct answer is **Option 3** i.e. **Only conclusion 2 follows**

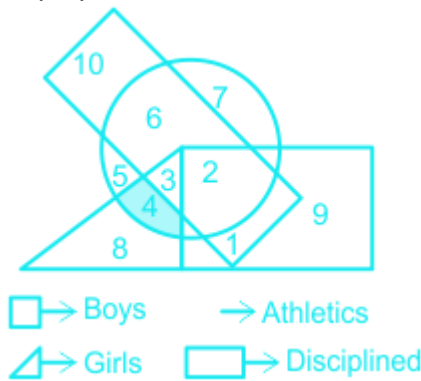
Understanding	Application
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Statements:

All dogs are cats.

All cats are bats.

The following Venn diagram can be prepared:



Conclusions:

1. All bats are cats:

False

(Possible but not definitely true)

2. All dogs are bats:

True (As all dogs are cats and all cats are bats. So, all dogs are bats)

Hence, Only conclusion 2 follows.

Question 50 :

Solve the following: $24 [25 \{26 (27 - 28 - 29)\}] = ?$

Difficulty : Moderate

Average Time : 63 Seconds

Options :

1. -57
2. 1
3. 55
4. -2

Solution :

The correct answer is **option 3** i.e. **55**

$$24 [25 - \{26 (27 - 28 - 29)\}]$$

$$24 [25 - \{26 (-30)\}]$$

$$24 [25 - \{26 + 30\}]$$

$$24 [25 - \{56\}]$$

$$24 [-31]$$

$$24 + 31 = 55$$

Question 51 :

Dwarfness can be controlled by treating plants with:

Difficulty : Moderate

Average Time : 37 Seconds

Options :

1. Gibberellic acid
2. Cytokinin
3. Ethylene
4. Auxin

Solution :

Correct Answer is **option 1** i.e. **Gibberellic acid**

- Gibberellic acid is a hormone found in plants and fungi.
- Its chemical formula is $C_{19}H_{22}O_6$.
- When purified, it is a white to pale-yellow solid.
- Gibberellins have a number of effects on plant development.
- They can stimulate rapid stem and root growth, induce mitotic division in the leaves of some plants, and increase seed germination rates.

Question 52 :

Consider the given statement to be true and decide which of the given courses of action logically follow(s) from the statement. Statement: All the central government employees went on strike due to the non-implementation of the pay commission. Course of Action: 1. Pay commission should be implemented immediately. 2. All central government employees should be suspended.

Difficulty : Moderate

Average Time : 62 Seconds

Options :

1. Neither 1 nor 2 follows.

Both 1 and 2 follow.

3. Only 2 follows.

4. Only 1 follows.

Solution :

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

Understanding	Application
Statement: All the central government employees went on strike due to the non-implementation of pay commissions.	Course of Action: 1. Pay commission should be implemented immediately. (Such a big decision can't be taken in a hurry so it does not follow) 2. All central government employees should be suspended. (This is not a valid reason for suspending the employees as they have the right to protest so it also does not follow)

Question 53 :

One nanometer is:

Difficulty : Moderate

Average Time : 59 Seconds

Options :

1. 10^{11} m

2. 10^{10} m

3. 10^8 m

 10^9 m **Solution :**

Correct Answer is **option 4** i.e. 10^{-9} m

- Nanometer is a unit of length in the metric system, equal to one billionth of a metre (0.000000001 m or 10^{-9} m).
- The word nano comes from the Greek word for "dwarf".
- A nanometer is 10 times smaller than the width of your DNA, and 10 times bigger than the size of an atom.

Question 54 :

Which team won the 2016 Champions Trophy Women's Hockey tournament defeating the Netherlands in the finals in London?

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

1. Australia
2. Argentina
3. India
4. China

Solution :

Correct Answer is **option 2** i.e. **Argentina**

Champions Trophy Women's Hockey tournament:

- International field hockey tournament held by the International Hockey Federation (FIH).
- The 2016 Women's Hockey Champions Trophy was the 22nd edition.
- It was held between 18 and 26 June 2016 in London, United Kingdom.
- Argentina won the tournament for a record seventh time after defeating the Netherlands 2–1 in the final.

Question 55 :

If a body is whirled in a circle, then the work done on it _____.

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

1. is zero

is positive

3. cannot be determined

4. is negative

Solution :

Correct Answer is **option 1** i.e. **is zero**

When the body is whirled in a circle, then the work done on it will be zero.

This is because the centripetal force acts on the body towards the centre and perpendicular to the circular motion of the body.

Thus, the angle between the force and displacement becomes 90° .

Now,

Work done = $F \times d \times \cos 90 = 0$ (Since, $\cos 90^\circ = 0$)

Question 56 :

AS\$1%MB#6&NC=3!OD+KP Starting from 1 till O (inclusive of both), if every alternate letter or number or symbol is dropped then the fifth term from right is:

Difficulty : Moderate

Average Time : 56 Seconds

Options :

1. C

2. &

3. M

4. #

Solution :

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

Understanding	Application
---------------	-------------



AS\$1%MB#6&NC=3!OD+KP Starting from 1 till O (inclusive of both), if every alternate letter or number or symbol is dropped then: 1M#&C3O	1M#&C3O So, Fifth term from right = #
--	---

Question 57 :

The pair of linear equations $3x + y = 1$ and $px + 2y = 5$ has no finite solution if:

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

1. $p = 6$
2. $p = 6$
3. $0 < p < 6$
4. $p = 0$

Solution :

The correct answer is **Option 2** i.e. $p = 6$.

The pair of linear equations:

$$3x + y = 1 \text{ and}$$

$$px + 2y = 5$$

We know:

2 equations have no finite solutions if their slopes are equal.

We can write the equations as:

$$y = -3x + 1 \text{ and}$$

$$y = -px/2 + 5/2$$

Here,

For no finite solution:

$$\text{Slope of 1st equation} = \text{Slope of 2nd equation}$$



$$-3 = -p/2$$

$$p = 6$$

Question 58 :

The two roots of a quadratic equation are given as $x = 1/2$ and $x = -1/3$. The equation can be written as:

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

1. $x^2 + 2x - 3 = 0$

2. $2x^2 - x + 3 = 0$

3. $6x^2 - x - 1 = 0$

4. $x^2 - 2x + 3 = 0$

Solution :

Correct Answer is option 3 i.e. $6x^2 - x - 1 = 0$

Roots:

$$x = 1/2 \text{ and } x = -1/3$$

We can write the equation as:

$$x^2 - (1/2 + (-1/3))x + (1/2) \times (-1/3) = 0$$

$$x^2 - 1/6x - 1/6 = 0$$

$$6x^2 - x - 1 = 0$$

Question 59 :

Consider the given statement and decide which of the following argument(s) is/are strong. Statement: Should CDBT abolish income tax in India? Argument 1: Yes, it is an unnecessary burden on the wage earners in India. Argument 2: No, it is a good source of revenue for the Indian Government.

Difficulty : Moderate**Average Time : 61 Seconds****Options :**

1. Only argument 1 is strong.

2. Both arguments 1 and 2 are strong.

3. Neither argument 1 nor 2 is strong.

Only argument 2 is strong.

Solution :

The correct answer is **Option 4** i.e. **Only argument 2 is strong**

Understanding	Application
Statement: Should CBDT abolish income tax in India?	Arguments: 1: Yes, it is an unnecessary burden on the wage earners in India. (Since this money is used for public welfare only, it can't be termed as an unnecessary burden. Hence not strong) 2: No, it is a good source of revenue for the Indian Government. (Indeed, it is a good source of revenue and necessary for covering the expenditure done by the government. Hence strong.)

Question 60 :

In the below Venn diagram which number space represents the girls who are athletes but not disciplined?

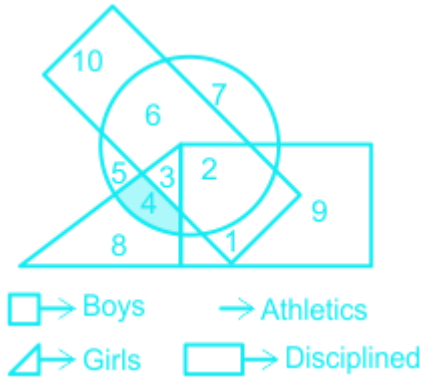
Difficulty : Moderate**Average Time : 65 Seconds****Options :**

- 1. 3
- 2. 4
- 3. 8
- 4. 7

Solution :

The correct answer is **Option 2** i.e. **4**

We can represent the required area in the shaded form here:



The shaded area represents the girls who are athletes but not disciplined. So the answer will be 4.

Question 61 :

If $60/75$ is equivalent to $4/x$ then the value of x is:

Difficulty : Moderate

Average Time : 43 Seconds

Options :

- 1. 5
- 2. 4
- 3. 15
- 4. 18

Solution :

The correct answer is **Option 1** i.e. 5.

$60/75$ is equivalent to $4/x$.

$$60/75 = 4/x$$

$$4/5 = 4/x$$

So, $x = 5$

Question 62 :

The egg is carried from the ovary to the womb through:

Difficulty : Moderate

Average Time : 33 Seconds

Options :

1. the uterus
2. the vas deferens
3. the oviduct
4. the cervix

Solution :

Correct Answer is **option 3** i.e. **the oviduct**

- Fallopian tubes, or oviducts, connect the ovaries and uterus.
- They are also the place where the egg and sperm meet and fertilization occurs.
- In addition, the tubes have the **ability to carry the eggs/embryos to the uterus.**

Question 63 :

The Indira Point, the southern point of India, is situated in the _____ tip of Great Nicobar Island.

Difficulty : Moderate

Average Time : 46 Seconds

Options :

1. eastern
2. western
3. northern
4. southern

Solution :

Correct Answer is **option 4** i.e. **southern**

Indira Point:

- Indira Point is a village in the Nicobar district at Great Nicobar Island of in India.
- It is the location of the southernmost point of India's territory.
- It situated in the southern tip of Great Nicobar Island.
- This village was named as Indira Point after former Prime Minister Indira Gandhi.

Indira Col:

- Northernmost Point – Located in the eastern Karakoram range in the Himalayas, Siachen Glacier, near, is the



northernmost point in India.

Question 64 :

Select the Answer Figure that will correctly fit in the blank space in the Problem Figure.

Difficulty : Moderate

Average Time : 57 Seconds

Options :

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

Solution :

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

In row 1, a part of the given figure is removed in each step.

In rows 2 and 3, a part of the given figure is added in each step.

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

Question 65 :

India is collaborating with which country to set up a high-speed rail link between Mumbai and Ahmedabad?

Difficulty : Moderate

Average Time : 44 Seconds

Options :

1. Britain
2. Japan
3. China
4. Germany

Solution :

Correct Answer is **option 2** i.e. **Japan**

- India, in collaboration with Japan, is building its first high-speed railway, the Mumbai–Ahmedabad high-speed rail corridor, on a 508 km (316 mi) long route between Mumbai and the western city of Ahmedabad.
- Pre-construction preparatory work began in the third quarter of 2017 and is expected to be completed in 2023.



The bullet train running between Ahmedabad and Mumbai will cover the distance of 508 km within two to three hours.

- Japan had offered India a 50-year loan of 88000 crores at just 0.1% interest to fund the project.

Question 66 :

Which one of the following is the largest source of natural energy to humans?

Difficulty : Moderate

Average Time : 55 Seconds

Options :

1. Plants
2. Earth
3. Animals
4. Sun

Solution :

Correct Answer is **option 4** i.e. **Sun**

- The largest source of energy by far in our solar system is the **Sun**.
- We get solar heat energy from the sun, and sunlight can also be used to produce electricity from solar (photovoltaic) cells.
- The sun heats the earth's surface and the Earth heats the air above it, causing wind.
- In addition to direct solar power from photovoltaic and solar thermal sources, coal, oil, natural gas, biomass, and even the wind and hydropower we harness to generate electricity originally derive their energy content from the effects of sunlight.

Question 67 :

Solve the following $1/(1 + \sin) + 1/(1 - \sin) = ?$

Difficulty : Moderate

Average Time : 56 Seconds

Options :

1. $2 \cos^2$
2. 1
3. 0
4. $2 \sec^2$

Solution :



The correct answer is **option 4** i.e. $2\sec^2$

$$1 - \sin^2 = \cos^2$$

$$1/\cos = \sec$$

$$1/(1 + \sin) + 1/(1 - \sin)$$

$$[(1 - \sin + 1 + \sin)/(1 - \sin^2)]$$

$$2/\cos^2$$

$$2\sec^2$$

Question 68 :

John is 15 years younger than Jill. 12 years ago, Jill's age was 1.5 times that of John. Jill is nowyears old.

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

1. 57

2. 30

3. 42

4. 45

Solution :

The correct answer is **Option 1** i.e. **57**.

John is 15 years younger than Jill

Suppose Jill's age = X

John's age = (X - 15)

12 years ago, Jill's age was 1.5 times that of John:

So,

$$(X - 12) = 1.5(X - 15 - 12)$$

$$X - 12 = 1.5X - 40.5$$

$$0.5X = 28.5$$

$$X = 57$$



Hence, Jill is 57 years old.

Question 69 :

Which of the following solutions is alkaline?

Difficulty : Moderate

Average Time : 45 Seconds

Options :

1. $[H^+] 1 \times 10^7 \text{ MOI/l}$
2. $[H^+] = 1 \times 10^4 \text{ MOI/l}$
3. $[H^+] = 1 \times 10^7 \text{ MOI/l}$
4. $[H^+] > 1 \times 10^7 \text{ MOI/l}$

Solution :

Correct Answer is **option 1** i.e. $[H^+] 1 \times 10^{-7} \text{ MOI/l}$

An acidic solution has a high concentration of hydrogen ions (H^+) greater than that of pure water.

A alkaline solution has a low concentration of hydrogen ions (H^+), less than that of pure water.

Concentration of hydrogen ions (H^+) is nothing but pH of the solution.

If $[H^+] = 1 \times 10^{-7} \text{ MOI/l}$

Then $\text{pH} = \log (10^{-7}) = \text{pH } 7.0$

We know that alkaline solution has $\text{pH} > 7$

So,

$[H^+] 1 \times 10^{-7} \text{ MOI/l}$ for alkaline solution.

Question 70 :

Which state of India celebrates the 'Sangai Festival' in November?

Difficulty : Moderate

Average Time : 83 Seconds

Options :

1. Gujarat
2. Manipur
3. Assam

**Tamil Nadu****Solution :**

Correct Answer is **option 2** i.e. **Manipur**

'Sangai Festival':	<ul style="list-style-type: none">• Sangai festival is an annual cultural festival organised by Manipur Tourism Department every year from 21 to 30 November.
What is Sangai:	<ul style="list-style-type: none">• Sangai, a regional name given to this rare species of deer.• It is the state animal of Manipur.
Significance:	<ul style="list-style-type: none">• This festival is celebrated to promote Manipur as a world class tourism destination• It also showcases the states contributions to art and culture, handloom, handicrafts, fine arts, indigenous sports, cuisine, music and adventure sports, as well as the natural environment.

Question 71 :

26% of a number is 65. What is the number?

Difficulty : Moderate**Average Time : 108 Seconds****Options :**

1. 50
2. 250
3. 260
4. 40

Solution :

The correct answer is **option 2** i.e. **250**.



26% of a number is 65

Suppose the number is X,

So,

$$X \times 26/100 = 65$$

$$X = 6500/26$$

$$X = 250$$

Hence, number is 250.

Question 72 :

Who is the Defence Minister of India as of February 2018?

Difficulty : Moderate

Average Time : 41 Seconds

Options :

1. **Nirmala Sitharaman**
2. Maneka Gandhi
3. Sushma Swaraj
4. Uma Bharti

Solution :

Correct Answer is **option 1** i.e. **Nirmala Sitharaman**

- Nirmala Sitharaman is an Indian politician serving as the current Minister of Finance and Corporate Affairs of India.
- She is a member of the Rajya Sabha, the upper house of the Indian Parliament, since 2014.
- She formerly served as the Defence Minister of India, thereby becoming India's second female defense minister
- Rajnath Singh is the current Defence Minister of India.

Question 73 :

Which one of the following is commonly used as an indicator to measure the exact pH?

Difficulty : Moderate

Average Time : 52 Seconds

Options :

1. **Eosin**



Phenolphthalein

3. Universal indicator

4. Litmus

Solution :

Correct Answer is **option 3** i.e. **Universal indicator**

- A universal indicator is a pH indicator made of a solution of several compounds that exhibits several smooth colour changes over a wide range pH values to indicate the acidity or alkalinity of solutions.
- Red colour shows a pH of 0 to 3 for Strong acid.
- Orange or yellow colour shows a pH of 3 to 6 for Weak acid.
- Green colour shows a pH of 7 for Neutral.
- Blue colour shows a pH of 8 to 11 for Weak base.
- Violet or Indigo colour shows a pH of 11 to 14 for Strong base.

Question 74 :

The Shanti Swarup Bhatnagar Prize is annually awarded for outstanding achievement in which area?

Difficulty : Moderate

Average Time : 57 Seconds

Options :

1. Science and Technology
2. Indian Classical Music
3. Tribal Art Forms
4. Literature

Solution :

Correct Answer is **option 1** i.e. **Science and Technology**

- The Shanti Swarup Bhatnagar Prize for Science and Technology is a science award in India given annually by the Council of Scientific and Industrial Research (CSIR) for notable and outstanding research, applied or fundamental, in biology, chemistry, environmental science, engineering, mathematics, medicine and Physics.
- The award is named after the founder Director of the Council of Scientific & Industrial Research, Shanti Swarup Bhatnagar.
- The prize comprises a citation, a plaque, and a cash award of Rs. 5 lakh.

Question 75 :

The acceleration due to gravity at the surface of the earth (mass M and radius R) is proportional to _____.



Difficulty : Moderate

Average Time : 56 Seconds

Options :

1. MR
2. M/R^2
3. M^2/R
4. M/R

Solution :

Correct Answer is **option 2** i.e. M/R^2

According to law of gravitation the force on a body of mass m , near the surface of earth is given by:

$$F = G (mM/R^2)$$

Let this force produce an acceleration g in the body of mass m .

Then

$$G (mM/R^2) = mg$$

So,

$$g = G M/R^2$$

Hence, acceleration due to gravity is proportional to M/R^2 .

Rrb Alp CBT - 1 Previous Year Question Paper Analysis

The analysis of Rrb Alp CBT - 1 Previous Year Question Paper held on 2018-08-17 in the Evening exam is as follows:

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

Rrb Alp CBT - 1 Previous Year Question Paper Topic

Wise Weightage

CBT -1

1. GK - 74

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.
3. 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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Exam Dates
Admit Card
Exam Results
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Further Guidance on Rrb Alp CBT - 1 Previous Year Question Paper

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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.