Rrb Group D CBT - 1 Previous Year Question Paper Overview

Here, you can solve all the questions asked in Rrb Group D CBT - 1 Previous Year Question Paper on 2018-10-12 in the Afternoon exam. The detailed solutions are also provided for every previous year question and some of these questions can be asked again in your Rrb Group D CBT - 1 exam. There are 100 questions in the exam and 90 minutes are provided for the Rrb Group D CBT - 1 exam. The Cutoff of the exam was 77 marks hence you should try to score at least 87 marks.

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

Question 1 :

Raja Ravi Verma was a painter and sculptor from the state of .....

Difficulty : Moderate **Average Time : 43 Seconds**

Options :

1. Uttar Pradesh
2. Kerala
3. Tamilnadu
4. Assam

Solution :

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

Raja Ravi Verma:	• Raja Ravi Varma was a celebrated Indian painter and artist. • He is considered among the greatest painters in the history of Indian art. • His works are held to be among the best examples of the fusion of European techniques with a purely Indian sensibility. • He was from Kilimanoor, Kerala.

Question 2 :

Which of the following cup/tournament is NOT associated with Cricket?

Difficulty : Moderate **Average Time : 63 Seconds**

Options :

1. Irani trophy
2. Ranji trophy
3. Begum Hazrat mahal trophy
4. Vijay Hazare trophy

Solution :

The correct answer is **option 3** i.e. **Begum Hazrat mahal trophy**.

- Begum Hazrat mahal trophy is related to football.
- Irani trophy, Ranji trophy and Vijay Hazare trophy are related to cricket.

Question 3 :

Find the odd one out.

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

Options :

1. Quadratic Equation
2. Cubic Equation
3. Linear Equation
4. Real Numbers

Solution :

The correct answer is **option 4** i.e. **Real Numbers**.

Application
Quadratic Equation, Cubic Equation, Linear Equation: All three have 1 or more than 1 variables. But Real Numbers are just numbers (Constants) like 1, 2, 3 etc. Hence, '**Real Numbers**' is the odd one.

Question 4 :

The atomic number of the atom that becomes stable by gaining 3 electrons in 5th shell is:

Difficulty : Moderate **Average Time : 62 Seconds**

Options :

1. 57
2. 51
3. 55
4. 59

Solution :

The correct answer is **option 2** i.e. **51**.

- The atom that becomes stable by gaining 3 electrons in 5^{th} shell will have the following configuration:

  2, 8, 18, 18, 5

Thus atomic number = 2 + 8 + 18 + 18 + 5 = 51

Question 5 :

Which of the following statements is correct?

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

Options :

1. Two or more resistors are said to be connected in series if different current flows through them.
2. Two or more resistors are said to be connected in series if the same current flows through them.
3. Two or more resistors are said to be connected in parallel if the same current flows through them.
4. Two or more resistors are said to be connected in parallel if different current flows through them.

Solution :

The correct answer is **option 2** i.e. **Two or more resistors are said to be connected in series if the same current flows through them**.

- When 2 or more resistors are connected in series, the current flowing through them will be same.
- When 2 or more resistors are connected in parallel, the current flowing through them will be different but vice versa is not true.

Question 6 :

Consider the following question and decide which of the statements is sufficient to answer the question. The simple interest on a sum of money is Rs. 100. What is the sum? Statements: I. The interest rate is 20% per annum. II. The sum earned simple interest in 5 years.

Difficulty : Moderate

Average Time : 83 Seconds

Options :

1. Both statements I and II are sufficient
2. Only statement I is sufficient
3. Only statement II is sufficient
4. Either statement I or II is sufficient

Solution :

The correct answer is **option 1** i.e. **Both statements I and II are sufficient**.

Understanding	Application

Statements: I. The interest rate is 20% per annum. II. The sum earned simple interest in 5 years	Simple interest = Rs. 100 Now, From statement 1: r = 20 From statement 2: t = 5 Both the values of r and t are needed to get the amount of sum. Hence, Both statements I and II are sufficient.

Question 7 :

Which children's movie features the famous song, "The Bare Necessities"?

Difficulty : Moderate **Average Time : 63 Seconds**

Options :

1. The Jungle Book
2. Rockford
3. Stanley's Tiffin Box
4. The BFG

Solution :

The correct answer is **option 1** i.e. **The Jungle Book**.

The Bare Necessities:	• "The Bare Necessities" is a song, written by Terry Gilkyson, from the animated 1967 Disney film The Jungle Book. • Sung by Phil Harris as Baloo and Bruce Reitherman as Mowgli.

Question 8 :

Which of the following is NOT an equation of motion?

Difficulty : Moderate **Average Time : 59 Seconds**

Options :

1. $s = ut + 1/2\ at^3$
2. $v = u + at$
3. $s = ut + 1/2\ at^2$
4. $v^2 = u^2 + 2as$

Solution :

The correct answer is **option 1** i.e. **$s = ut + 1/2\ at^3$**

3 equations of motion are:

1. $v = u + at$
2. $s = ut + ½\ at^2$
3. $v^2 = u^2 + 2as$

Hence, equation in option 1 is not an equation of motion.

Question 9 :

A and B can complete a task in 70 days, B and C can complete it in 52.5 days while C and A can do the same task together in 42 days. How many days will each of A, B and C take to complete the task individually?

Difficulty : Moderate **Average Time : 67 Seconds**

Options :

1. 105, 210 and 70
2. 56, 84 and 168
3. 70, 10 and 105
4. 84, 168 and 56

Solution :

The correct answer is **option 1** i.e. **105, 210 and 70**

Understanding	Application	Calculation

A and B can complete a task in 70 days, B and C can complete it in 52.5 days while C and A can do the same task together in 42 days.	Suppose, Total work = 210 units	LCM of 70, 52.5 and 42 = 210
Efficiencies = Work/Time	Efficiency of (A + B) = 3	210/70 = 3
Efficiencies = Work/Time	Efficiency of (B + C) = 4	210/52.5 = 4
Efficiencies = Work/Time	Efficiency of (C + A) = 5	210/42 = 5
From all 3 equations:	(A + B + C) = 6	(3 + 4 + 5)/2 = 6
	Hence, Efficiency of A = 6 – 4 = 2 Efficiency of B = 6 – 5 = 1 Efficiency of C = 6 – 3 = 3	
Now, Time = Work/Efficiency	Time taken Individually: By A = 105 days By B = 210 days By C = 70 days	210/2 = 105 210/1 = 210 210/3 = 70

Question 10 :

Which of the following statements is not true?

Difficulty : Moderate **Average Time : 370 Seconds**

Options :

1. Bacteria present in the mouth produce acids by degradation of sugar and food particles remaining in the mouth.

When pH of the mouth is higher than 5.5. then tooth decay starts.

3. Tooth enamel made of calcium phosphate is the hardest substance in the body.
4. Using toothpaste, which are generally basic, helps neutralise the excess acid and prevent tooth decay.

Solution :

The correct answer is **option 2** i.e. **When pH of the mouth is higher than 5.5. then tooth decay starts**.

- When there is excessive acid in the tooth, the decay starts. More acid means less pH that means statement 2 i.e. When pH of the mouth is higher than 5.5. then tooth decay starts is not correct.

Question 11 :

Consider the following question and decide which of the statements is sufficient to answer the question. Question: Find the value of z. Statements: 1) z2 = 36 + a 2) a = x2 & x = 8

Difficulty : Moderate **Average Time : 73 Seconds**

Options :

1. Either 1 or 2 is sufficient
2. Both 1 and 2 are sufficient
3. Only 1 is sufficient
4. Only 2 is sufficient

Solution :

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

Understanding	Application

Statements: 1) z2 = 36 + a 2) a = x2 & x = 8	From statement 2: x = 8 so, a = 82 = 64 From statement 1: z2 = 36 + 64 = 100 z = 10 Hence, Both 1 and 2 are sufficient to answer the question.

Question 12 :

The sum of a rational and an irrational number is a/an .....

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

Options :

1. Rational number
2. Natural number
3. Irrational number
4. Complex number

Solution :

The correct answer is **option 3** i.e. **Irrational number**.

Application
The sum of a rational and an irrational number is an Irrational number always. Ex: 2/5 + 2 = [2(5 + 1)/5] is also an irrational number.

Question 13 :

The Godavari, Krishna, Kaveri and Vaigai are ..... flowing rivers.

Difficulty : Moderate **Average Time : 57 Seconds**

Options :

1. north
2. east
3. west
4. south

Solution :

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

West flowing rivers:	• Narmada, Tapti, Mahi, Sabarmati, Luni etc.
East flowing rivers:	• Mahanadi, Godavari, Krishna, Kaveri, Ganga, Brahmaputra, Penneru, Penneiyar, Vaigai, and the Subarnarekha etc.

Question 14 :

Sarthak can fill a sand-pit with sand in 36 days while Vivan takes 90 days to fill it. Ali can take the entire sand of a filled sand-pit out in 60 days. If all three start working when the pit is empty, in how many days will the sand-pit be full again?

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

Options :

1. 45
2. 54
3. 48
4. 50

Solution :

The correct answer is **option 1** i.e. **45**

Understanding	Application	Calculation

Sarthak and Vivan take 36 and 90 days to fill the pit. Ali takes 60 days to empty the pit.	Suppose, Capacity of pit = 180 units	LCM of 36, 90 and 60 = 180
Efficiencies = Work/Time	Efficiency of Sarthak = 5	180/36 = 5
Efficiencies = Work/Time	Efficiency of Vivan = 2	180/90 = 2
Efficiencies = Work/Time	Efficiency of Ali = -3	180/60 = 3
All three start working when the pit is empty.	Work done in 1 day = 4 units	5 + 2 – 3 = 4
Time = Total work/(Work done in 1 day)	Hence, Time taken = 45 days	180/4 = 45

Question 15 :

Find odd one out.

Difficulty : Moderate

Average Time : 80 Seconds

Options :

1. VI

7

3. IX
4. VII

Solution :

The correct answer is **option 2** i.e. **7**

Understanding
VI, IX and VII are written in roman numbers but 7 is not. Hence, 7 is the odd one.

Question 16 :

Select the option that is related to the third term in the same way as the second term is related to the first term. STEPS : SPETS : : CLOCK : ......?

Difficulty : Moderate **Average Time : 57 Seconds**

Options :

1. KCOCL
2. KCLOC
3. KOCLC
4. KCOLC

Solution :

Th correct answer is **option 4** i.e. **KCOLC**

Concept	Understanding
Logic: The sequence of letters is reversed.	STEPS : SPETS :: CLOCK : ......? Hence, CLOCK will be coded as KCOLC.

Question 17 :

Shesh Arland Madhukar is a ..... writer who was honoured with the Sahitya Academy Bhasha Sanunan Award in January, 2018.

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

Options :

1. Maithili
2. Kannada
3. Magahi
4. Sanskrit

Solution :

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

Shesh Arland Madhukar:	• Magahi writer Shesh Anand Madhukar was on January 31, 2018 honoured with the Sahitya Akademi Bhasha Samman Award 2018. • Madhurkar was conferred the award by Sahitya Akademi President Vishwanath Prasad Tiwari. • The award prize consists of Rs 1 lakh cheque and a memento.

Question 18 :

Which of the following Venn diagrams best illustrates the relation between the three given classes? Professor, Student, Player

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

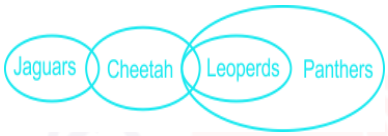
Options :

B

2. C
3. D
4. A

Solution :

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

Understanding	Application
Professor, Student, Player Professor and Students are different entities. Some Students could be player also. Professor and Player are also different entities.	Hence, correct representation will be as shown:  Hence, Figure D is correct.

Question 19 :

Sravanthi is Varun's maternal grandmother. How is Varun's only sister's mother related to Sravanthi?

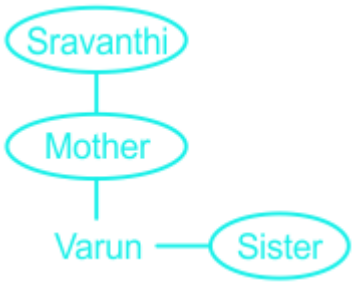
Difficulty : Moderate **Average Time : 89 Seconds**

Options :

1. Daughter
2. Sister-in-law
3. Aunt
4. Sister

Solution :

The correct answer is **option 1** i.e. **Daughter**.

Understanding
Sravanthi is Varun's maternal grandmother. Now, Varun's only sister's mother will be Varun's mother also. And, Sravanthi is Varun's Mother's mother.    Hence, Varun's only sister's mother will be Daughter of Sravanthi.

Question 20 :

Read the statement and decide which of the conclusions logically follows from the statement. Statement: This cup is filled with tea. Conclusions: I. The tea is too hot. II. The tea is sweet.

Difficulty : Moderate | **Average Time : 76 Seconds**

Options :

1. Neither conclusion I nor II follows
2. Only conclusion I follows
3. Both conclusions I and II follow
4. Only conclusion II follows

Solution :

The correct answer is **option 1** i.e. **Neither conclusion I nor II follows**.

Understanding	Application

Statement: This cup is filled with tea.	**Conclusions:** I. The tea is too hot. (Not mentioned anything about it.) II. The tea is sweet. (Not mentioned anything about it.) Hence, Neither conclusion I nor II follows.

Question 21 :

The ..... has created National Highways Investment Promotion Cell (NHIPC) for attracting domestic and foreign investment for highways projects.

Difficulty : Moderate **Average Time : 59 Seconds**

Options :

1. SAIL
2. SAIL
3. TRAI
4. NHAI

Solution :

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

National Highways Investment Promotion Cell (NHIPC):	• The National Highways Authority (NHAI) of India has created an (NHIPC) for attracting domestic and foreign investment for highways projects. • The cell will focus on engaging with global institution investors, construction companies, developers and fund managers for building investor participation in road infrastructure projects.

Question 22 :

Three out of the four options given below are related in a particular way. Choose the option that is different or odd from the others.

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

Options :

1. Jhelum
2. Betwa
3. Chambal
4. Yamuna

Solution :

The correct answer is **option 1** i.e. **Jhelum**.

Here,

Betwa and Chambal are tributaries of the Yamuna River while Jhelum river is tributary of Indus river.

Hence, Jhelum is the odd one.

Question 23 :

A sum of money when invested for a year at the rate of 10% interest per annum compounded half-yearly becomes Rs. 44,100 at maturity. The sum invested was .....

Difficulty : Moderate

Average Time : 53 Seconds

Options :

1. Rs. 40500
2. Rs. 40500
3. Rs. 39800
4. Rs. 40250

Solution :

The correct answer is **option 1** i.e. **Rs. 40000**

Understanding	Application	Calculation

A = Rs. 44100 Given that the interest is compounded half-yearly: r = 10/2 = 5% t = 1 × 2 = 2	For CI A = P(1 + r/100)t P = Rs. 40000	44100 = P(1 + 5/100)2 P × 441/400 = 44100 P = 40000

Question 24 :

An athlete in the Olympic mines covers a distance of 100 m in 10 s. If its weight is approx 70 kg, his kinetic energy can be estimated to be in the range of _____.

Difficulty : Moderate **Average Time : 59 Seconds**

Options :

1. 200000 J-500000 J
2. 200000 J-500000 J
3. 20000 J-50000 J
4. 2000 J-5000 J

Solution :

The correct answer is **option 4** i.e. **2000 J-5000 J**

Velocity of the athlete = 100/10 = 10 m/s

Approximate mass of athlete = 70 kg

So,

Kinetic energy = ½ mv^2 = ½ × 70 × 100 = 3500 J

Hence, range = 2000 J – 5000 J

Question 25 :

Shamim had to travel 420 km in 8 hours. If he travelled at an average speed of 60 km/h and took two breaks in between, the shorter break being one-third the duration of the longer, how many minutes was the longer break for?

Difficulty : Moderate **Average Time : 59 Seconds**

Options :

1. 45
2. 30
3. 40
4. 35

Solution :

The correct answer is **option 1** i.e. **45**.

Understanding	Application	Calculation
Shamim had to travel 420 km in 8 hours. He travelled at an average speed of 60 km/h and took two breaks in between, the shorter break being one-third the duration of the longer. Suppose duration of the longer break = x hrs	So, 420/60 + x + x/3 = 8 x = ¾ hours x = 45 minutes Hence, duration of the longer break = 45 minutes	420/60 + x + x/3 = 8 7 + 4x/3 = 8 4x/3 = 1 x = 3/4

Question 26 :

What is the HCF of 132 and 176?

Difficulty : Moderate

Average Time : 61 Seconds

Options :

1. 33
2. 66
3. 44

22

Solution :

The correct answer is **option 3** i.e. **44**

Application
132 = 11 × 3 × 22 176 = 11 × 24 Hence, HCF = 11 × 22 = 44

Question 27 :

Newton's second law of motion .....

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

Options :

1. is also called as law of conservation of momentum.
2. is also called as law of inertia
3. describes the relationship between the forces on two interacting objects.
4. explains about change in momentum.

Solution :

The correct answer is **Option 4** i.e. **explains about change in momentum**.

Newton's second law of motion:	• The second law states that the rate of change of momentum of a body is directly proportional to the force applied, and this change in momentum takes place in the direction of the applied force.

Question 28 :

The least reactive elements of the periodic table are:

Difficulty : Moderate

Average Time : 54 Seconds

Options :

1. Transition elements
2. Inner transition elements
3. Alkali metals
4. Noble gases

Solution :

The correct answer is **option 4** i.e. **Noble gases**.

Noble gases:	• The noble gases make up a group of chemical elements with similar properties; under standard conditions, they are all odorless, colorless, monatomic gases with very low chemical reactivity. • The six naturally occurring noble gases are helium, neon, argon, krypton, xenon, and the radioactive radon.

Question 29 :

The square root of 19881 is:

Difficulty : Moderate

Average Time : 60 Seconds

Options :

1. 149
2. 129
3. 141
4. 131

Solution :

The correct answer is **option 3** i.e. **141**

Application

Square root of 19881:

It is a number between 19600 (140^2) and 22500 (150^2).

Number will be between 140 and 150 whose square has last digit 1.

Possible numbers = 141 and 149

Since, the number 19881 is near to 19600 (140^2).

Hence, Square root of 19881 = 141

Question 30 :

What change will occur to the pH of a solution if its Hydrogen ion concentration is increased?

Difficulty : Moderate **Average Time : 62 Seconds**

Options :

1. The pH will decrease.
2. The pH will first increase and after some time, decrease.
3. The pH will remain the same.
4. The pH will increase.

Solution :

The correct answer is **option 1** i.e. **The pH will decrease**.

Hydrogen ion concentration:	• The concentration of hydrogen ions in a solution expressed usually in moles per liter or in pH units and used as a measure of the acidity of the solution. • In the pH scale, as H+ ion concentration increases, pH values decrease. • This means that a low pH value represents a high H+ ion concentration (acidic solution) and a high pH value represents a low H+ concentration (basic solution).

Question 31 :

The Mission Olympic Cell (MOC) of the Union Ministry of Sports and Youth Affairs included the Men's ..... team of India in

the Target Olympic Podium scheme.

Difficulty : Moderate **Average Time : 77 Seconds**

Options :

1. Hockey
2. Shooting
3. Football
4. Badminton

Solution :

The correct answer is **option 1** i.e. **Hockey**.

- Target Olympic Podium (TOP) Scheme was formulated in July 2014 under overall ambit of National Sports Development Fund (NSDF) with the aim to identify, groom and prepare potential medal prospects for Olympic and Paralympic Games.
- Till date, 352 athletes have received assistance under TOP Scheme.
- Indian men's hockey side becomes first team to be included in Target Olympic Podium Scheme.
- Each of the 18 members of the hockey team will now get a monthly allowance of Rs 50,000.

Question 32 :

75% of the students passed in an examination. If 2 more students had passed the examination, 80% would have been successful. How many students are there in the class?

Difficulty : Moderate **Average Time : 67 Seconds**

Options :

1. 40
2. 30
3. 50
4. 32

Solution :

Correct Answer is**option 1** i.e. **40**

Understanding	Application
Suppose total students = x	Since 75% of the students passed in an examination; So, Number of passed students = 0.75x
If 2 more students had passed the examination, 80% would have been successful.	So, (0.75x + 2) = 0.8x 0.05x = 2 x = 40 Hence, total students = 40

Question 33 :

Which of the following is NOT a difference between lenses and mirrors?

Difficulty : Moderate **Average Time : 141 Seconds**

Options :

1. Light reflects from a mirror. Light goes through and is refracted by a lens.
2. A concave mirror converges light to a focal point. For lenses, light converges to a point for a convex lens.
3. A convex mirror converges light, as does a concave lens.
4. Lenses have two focal points, one on either side of the lens.

Solution :

The correct answer is **option 3** i.e. **A convex mirror converges light, as does a concave lens**.

- Mirror works on the principle of reflection while lens works on the principle of refraction.
- A convex mirror or diverging mirror is a curved mirror in which the reflective surface bulges towards the light source.
- A concave lens is a diverging lens, meaning that it spreads out light rays that have been refracted through it.

Hence, option 3 is correct.

Question 34 :

The median of the first 25 whole numbers is:

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

Options :

1. 10
2. 12.5
3. 15
4. 12

Solution :

Correct Answer is option 4 i.e. 12

Application
Median of the first 25 whole numbers (0, 1, 2…..25) = 12

Question 35 :

4 W X Z 8 Q P O J 6 G T M V E U H 5 3 B If the letters in the position 8, 12, 13 and 15 from the left are picked to form a meaningful word, then the third letter of the word would be:

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

Options :

1. P

O

3. E
4. M

Solution :

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

Understanding
4 W X Z 8 Q P O J 6 G T M V E U H 5 3 B Letters in the position 8, 12, 13 and 15 from the left are: O, T, M, E Meaningful word from these letters is TOME, MOTE. Third letter of the word is M or T. But T is not in option. Hence, M is the correct answer

Question 36 :

A cube of 9 cm edge is immersed completely in a rectangular vessel containing water. If the base of the vessel is 12 cm ×15 cm then find the rise in the level of water when the cube is immersed?

Difficulty : Moderate **Average Time : 75 Seconds**

Options :

1. 4.55 cm
2. 6.05 cm
3. 6.55 cm
4. 4.05 cm

Solution :

Correct Answer is option 4 i.e. 4.05 cm

Understanding	Application	Calculation

Suppose rise in the level of water = h Volume of the water raised = Volume of Cube	So, 12 × 15 × h = 9 × 9 × 9 h = 4.05 cm	12 × 15 × h = 9 × 9 × 9 180h = 729 h = 729/180 h = 4.05

Question 37 :

Mohan's mother was four times as old as Mohan ten years ago. After 10 years, she will be twice as old as Mohan. How old is Mohan today?

Difficulty : Moderate **Average Time : 151 Seconds**

Options :

1. 20 years
2. 15 years
3. 22 years
4. 32 years

Solution :

Correct Answer is option 1 i.e. 20 years

Understanding	Application
Suppose age of Mohan = x Age of Mohan's mother = y	
Mohan's mother was four times as old as Mohan ten years ago.	(y – 10) = 4 × (x – 10) 4x – y = 40 – 10 = 30 4x – y = 30

After 10 years, she will be twice as old as Mohan.	(y + 10) = 2 × (x + 10) y – 2x = 20 – 10 = 10 y – 2x = 10
Solving both equations:	x = 20, y = 50 Hence, Age of Mohan = 20 years

Question 38 :

105 × 2 ÷ (3 × 5) 6 =?

Difficulty : Moderate

Average Time : 200 Seconds

Options :

1. -70
2. 5
3. 8
4. 35

Solution :

Correct Answer is option **3** i.e. **8**

Application
105 × 2 ÷ (3 × 5) 6 = ? Applying BODMAS rule: 105 × 2 ÷ 15 – 6 14 – 6 8

Question 39 :

The arithmetic mean of four distinct numbers is 90. If the greatest of the four numbers is 120, what is the maximum

possible value of the range of the set of four numbers?

Difficulty : Moderate **Average Time : 93 Seconds**

Options :

1. 115
2. 117
3. 116
4. 118

Solution :

Correct Answer is option 2 i.e. 117

Understanding	Application
The arithmetic mean of four distinct numbers is 90.	So, Sum of numbers = 90 × 4 = 360
The greatest of the four numbers is 120.	Sum of remaining 3 numbers = 360 – 120 = 240
Now, Maximum possible values of other numbers = 119, 118, 117	But; 119 + 118 + 117 = 354 240 Hence, 3rd number will be 3 so that: 119 + 118 + 3 = 240 Hence, Range = 3 to 119 i.e. 117.

Question 40 :

The process of releasing of an egg from the ovary is called .....

Difficulty : Moderate **Average Time : 169 Seconds**

Options :

1. Fertilisation
2. Reproduction
3. Gestation
4. Ovulation

Solution :

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

Ovulation:	• Ovulation is the release of an egg from one of a woman's ovaries. • After the egg is released, it travels down the fallopian tube, where fertilization by a sperm cell may occur.

Question 41 :

Barkha Dutt is known for her role as which of the following?

Difficulty : Moderate **Average Time : 57 Seconds**

Options :

1. Politician
2. Doctor
3. Journalist
4. Actor

Solution :

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

Barkha Dutt:	• Barkha Dutt is an Indian television journalist and author. • Barkha emerged as a prominent figure after her frontline war reporting on the Kargil Conflict between India and Pakistan in 1999. • Awards: Padma Shri • Books: This Unquiet Land: Stories from India's Fault Lines • TV shows: We the People

Question 42 :

..... describes pollination by the agency of ants.

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

Options :

1. Emasculation
2. Ficus Religiosa
3. Dirmecophily
4. Myrmecophily

Solution :

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

Myrmecophily:	It is the term applied to positive interspecies associations between ants and a variety of other organisms such as plants, other arthropods, and fungi.

Question 43 :

Oxides of non-metals are usually _____

Difficulty : Moderate **Average Time : 57 Seconds**

Options :

1. acidic
2. neutral

less reactive

4. basic

Solution :

The correct answer is **option 1** i.e. **acidic**.

Oxides of non-metals:	• Non-metal oxides are usually gases at room temperature. • They dissolve in water to form acidic solutions. • Non-metal oxides such as sulphur dioxide and nitrogen oxide are responsible for acid rain.

Question 44 :

How many sectors are present in the below figure?

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

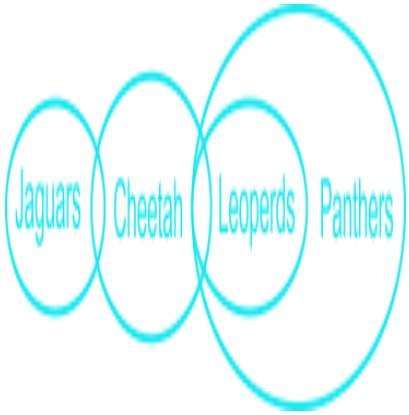
Options :

1. 64
2. 40
3. 48
4. 56

Solution :

Correct Answer is option 4 i.e. 56

Understanding	Application

Given figure:  Here, we have center O and total 8 radiuses are drawn.	Each radius/line (Like AO,BO etc.) forms 7 different sectors with other 7 radiuses at different angles. Hence, total sectors = 7 × 8 = 56

Question 45 :

As of February 2018. the Chairman of Central Board of Film Certification is:

Difficulty : Moderate **Average Time : 107 Seconds**

Options :

1. Sujit Sircar
2. Prasoon Joshi
3. Swanand Kirkire
4. Pahlaj Niialani

Solution :

The correct answer is **option 2** i.e. **Prasoon Joshi**.

Chairman of Central Board of Film Certification:	• The Union Information and Broadcasting Ministry has appointed Prasoon Joshi as the new Chairman of Central Board of Film Certification (CBFC) on August 11, 2017. • He will replace Pahlaj Nihalani and shall have tenure of three years. • Prasoon Joshi is renowned songwriter-poet known for his contribution to various films and for designing successful ad campaigns. • He has been honoured with Padma Shri.

Question 46 :

Find the next term in the following series. 48, 47, 50, 49, ...?

Difficulty : Moderate **Average Time : 67 Seconds**

Options :

1. 52
2. 58
3. 60
4. 57

Solution :

The correct answer is **option 1** i.e. **52**

Understanding
Logic: (- 1) and (+ 3) alternately.
48, 47, 50, 49, ...?
48 – 1 = 47
47 + 3 = 50
50 – 1 = 49
49 + 3 = **52**
Hence, next term is 52.

Question 47 :

Which of the following numbers is a composite?

Difficulty : Moderate **Average Time : 40 Seconds**

Options :

1. 263
2. 293
3. 283
4. 273

Solution :

Correct Answer is option 4 i.e. 273

Understanding	Application	Calculation
Composite number: is a positive integer. which is not prime (i.e., which has factors other than 1 and itself).	273 is divisible by 3. Hence, it is composite number.	273/3 = 91

Question 48 :

Atomic Power Station is located at Rawatbhata in the state of .....

Difficulty : Moderate **Average Time : 115 Seconds**

Options :

1. Maharashtra
2. Madhya Pradesh
3. Rajasthan
4. Gujarat

Solution :

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

Rawatbhata Atomic Power Station:	Located at Rawatbhata in the state of Rajasthan, India. **Units operational:** 1 x 200 MW 4 x 220 MW Total capacity: 1080 MW **Operator:** Nuclear Power Corporation of India Ltd (NPCIL)

Question 49 :

Find the number of triangles in the given figure.

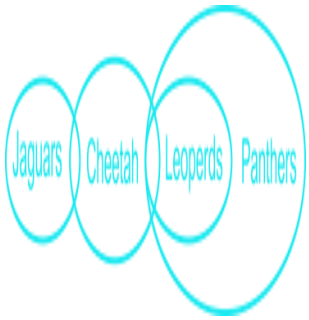
Difficulty : Moderate **Average Time : 59 Seconds**

Options :

1. 14
2. 12
3. 10
4. 16

Solution :

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

Understanding	Application
	The triangles are: ABJ, ACJ, ABC, CDI, EDI, CDE, FGH, GHB, BGF, BJH, HJK, JKI, JIC, JHI (Total 14 triangles)

Question 50 :

The square root of which of the numbers below will be rational?

Difficulty : Moderate **Average Time : 69 Seconds**

Options :

1. 16848
2. 41872
3. 49883
4. 43264

Solution :

Correct Answer is option 4 i.e. 43264

Understanding	Application
We need to check the square roots.	Square root of 16848 = 129.79 Square root of 41872 = 204.62 Square root of 49883 = 223.34 Square root of 43264 = 208 Hence, square root of 43264 is rational.

Question 51 :

A body of mass m moving with velocity 4 km/h collides with a body of mass 3m at rest. Now the coalesced mass starts to move with a velocity of:

Difficulty : Moderate **Average Time : 112 Seconds**

Options :

1. 4 km/h
2. 3 /4 km/h
3. 1 km/h
4. 2 km/h

Solution :

Correct Answer is option 3 i.e. 1 km/h

Initial velocity of moving mass = 4 km/hr Initial velocity of stationary mass = 0 Hence, Thus momentum of the system initially = 4 × m + 0 = 4m Let the velocity of coalesced mass be v. Hence, Momentum of the system finally = (m + 3m)v According to conservation of momentum: (m + 3m)v = 4m So, v = 1 km/hr

Question 52 :

Which of the numbers given below is NOT divisible by 4?

Difficulty : Moderate **Average Time : 106 Seconds**

Options :

1. 89700
2. 76166
3. 43584
4. 74708

Solution :

Correct Answer is option 2 i.e. 76166

Understanding	Application

We need to check the divisibility by 4.	89700/4 = 22425 76166/4 = 19041.5 43584/4 = 10896 74708/4 = 18677 Hence, 76166 is NOT divisible by 4.

Question 53 :

Rs. 10000 invested at 30% rate of interest per annum. but compounded every four months, will give an amount of Rs. ..... in one year.

Difficulty : Moderate **Average Time : 110 Seconds**

Options :

1. 13270
2. 13000
3. 13300
4. 13310

Solution :

Correct Answer is **option 4** i.e. **13310**

Understanding	Application	Calculation
P = Rs. 10000 r = 30% per annum time = 1 year	Since the interest is compounded every four months: r = 30/3 = 10% t = 3	

For CI: $A = P(1 + r/100)^t$	A = Rs. 13310	$A = 10000 \times (1 + 10/100)^3$ $10000 \times 1331/1000$ 13310

Question 54 :

Preethi tells Kajol, "Your mother's father's own son is my husband." How is Preethi related to Kajol?

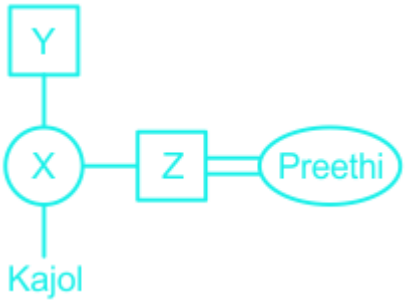
Difficulty : Moderate **Average Time : 180 Seconds**

Options :

1. Daughter
2. Cousin
3. Sister-in-law
4. Aunt

Solution :

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

Understanding	Application
Preethi tells Kajol, "Your mother's father's only son is my husband"	Family tree:  Hence, Preethi is Aunt of Kajol.

Question 55 :

Select the option that is related to the third term in the same way as the second term is related to the first term. Bird : Nest : : Lion : ?

Difficulty : Moderate

Average Time : 75 Seconds

Options :

1. Hive
2. Den
3. Igloo
4. Convent

Solution :

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

Application
Bird : Nest :: Lion : ? The birds live in the Nest. In the same way, the place where Lion lives is called Den. Hence, Den is the correct answer.

Question 56 :

Arjit's age is 3 years more than 1.5 times the age of Heera, whose age in turn is 10 years more than 2/3 the age of Deepika. If 5 times the age of Deepika is equal to 3 times the age of Arjit, what is the sum of the present ages of the trio?

Difficulty : Moderate

Average Time : 66 Seconds

Options :

1. 99 years
2. 95 years
3. 100 years
4. 97 years

Solution :

Correct Answer is option 3 i.e. 100 years

Understanding	Application	Calculation
Age of Heera is 10 years more than 2/3 the age of Deepika. Suppose the age of Deepika = x	Age of Heera = 2x/3 + 10	2/3 × x + 10 2x/3 + 10
Arjit's age is 3 years more than 1.5 times the age of Heera	Age of Arjit = x + 18	(2x/3 + 10) × 1.5 + 3 x + 15 + 3 x + 18
Now, 5 times the age of Deepika is equal to 3 times the age of Arjit	So, 5x = 3(x + 18) 2x = 54 x = 27	
	Hence, Age of Heera =	2x/3 + 10 28
	Age of Arjit =	x + 18 = 45
	Sum of ages = 100 years	27 + 28 + 45 = 100

Question 57 :

Neela was sweeping the floor. When she was facing south-west, she moved the broom 90° along the floor to her right. In which direction is the broom facing with respect to its initial position?

Difficulty : Moderate

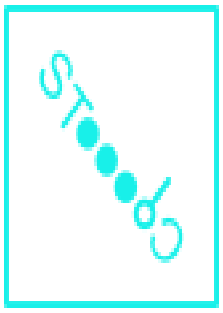
Average Time : 344 Seconds

Options :

1. North-west
2. South-west
3. North-east
4. South-east

Solution :

The correct answer is option 1 i.e. North-west

Understanding	Application
Neela was sweeping the floor. When she was facing south-west, she moved the broom 90° along the floor to her right	Broom is facing North west direction with respect to its initial position. 

Question 58 :

The two roots of a quadratic equation are given as x = 5/3 and x = -3/10. The equation can be written as:

Difficulty : Moderate

Average Time : 80 Seconds

Options :

1. (10x 3)(3x 5) = 0
2. (10x + 3)(3x 5) = 0
3. (10x + 3)(3x + 5) = 0

(10x 3)(3x + 5) = 0

Solution :

Correct Answer is option 2 i.e. (10x + 3)(3x 5) = 0

Understanding	Application
Roots: x = 5/3 and x = -3/10	So, (x – 5/3) = 0 and (x + 3/10) = 0
	So, The equation is: (3x – 5) (10x + 3) = 0

Question 59 :

How many groups are there in the modern periodic table?

Difficulty : Moderate

Average Time : 129 Seconds

Options :

1. 9
2. 18
3. 21
4. 8

Solution :

Correct Answer is option 2 i.e. 18

Modern periodic table:	• The modern table arranges the elements by increasing atomic number instead of atomic mass (Done in Mendeleev's table). • The modern table has more elements than Mendeleev's table. • Modern table has many more groups—18 compared with just 8 in Mendeleev's table.

Question 60 :

Ratnagiri mines are found in which state?

Difficulty : Moderate **Average Time : 80 Seconds**

Options :

1. Gujarat
2. Telangana
3. Maharashtra
4. Karnataka

Solution :

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

Ratnagiri mines:	• Ratnagiri is a port city on the Arabian Sea coast in Ratnagiri District in Maharashtra. • The district is a part of Konkan division of Maharashtra. • Specialty of Ratnagiri district is the wide-spread laterite mines. • This type of rock which is less hard than the basalt rock is an inseparable part of the Konkani life.

Question 61 :

Founded in 1927, Dr. Bhimrao Ambedkar University is a non-profit public higher education institution located in the urban setting of the large city of .....

Difficulty : Moderate **Average Time : 67 Seconds**

Options :

1. Gorakhpur
2. Agra
3. Lucknow
4. Kanpur

Solution :

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

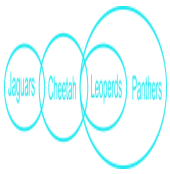
Dr. Bhimrao Ambedkar University:	• Dr. Bhimrao Ambedkar University, formerly Agra University, is a state university located in Agra, Uttar Pradesh, India. • Established: 1927 • Chancellor: Anandiben Patel (Governor)

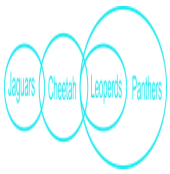
Question 62 :

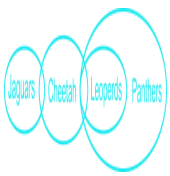
Using the above three shapes form a valid shape and identify your shape with the below options?

Difficulty : Moderate **Average Time : 57 Seconds**

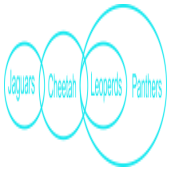
Options :

1. 

2. 

3. 

4.



Solution :

The correct answer is option 1.

Concept	Application
Figure formation: Observation	By observing carefully, we can conclude that figure in option 1 will be the figure formed with the help of given shapes.

Question 63 :

A hollow sphere with external and internal diameters as 24 cm and 16 cm, respectively, is melted into a cylinder with a base diameter of 32 cm. The height of the cylinder is closest to:

Difficulty : Moderate **Average Time : 97 Seconds**

Options :

1. 7.33 cm
2. 5.56 cm
3. 5.16 cm
4. 6.33 cm

Solution :

Correct Answer is option 4 i.e. 6.33 cm

Understanding	Application	Calculation

External radius = 24/2 = 12 cm And Internal radius = 16/2 = 8 cm	Volume of hollow cylinder = 256/3	$4/3 \times (r_1^3 - r_2^3)$ $4/3 \times (12^3 - 8^3)$ $4/3 \times \times 1216$ 4864/3
It is melted into a cylinder with a base diameter of 32 cm (radius = 16 cm)	Volumes will be equal: So, h = 6.33 cm	$\times 16^2 \times h = 4864/3$ h = 19/3 = 6.33

Question 64 :

Study the pattern in the following series and identify which figure from the answer figures will follow next.

Difficulty : Moderate **Average Time : 212 Seconds**

Options :

1. 5
2. 2
3. 3
4. 1

Solution :

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

Understanding

Logic: The figure is rotating by 45 degree anticlockwise in each step with introduction of new element each time in place of one of the dots.

Next figure will be:

Question 65 :

Pressure × Area = ?

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

Options :

1. Thrust
2. Inertia
3. Momentum
4. Volume

Solution :

The correct answer is **option 1** i.e. **Thrust**.

What is Thrust?	• Thrust: Force exerted by an object perpendicular to the surface is called thrust. • Pressure: Force exerted by any object per unit area is called pressure. • Hence, Thrust = Pressure × Area

Question 66 :

The AIADMK party is a regional political party of which state?

Difficulty : Moderate **Average Time : 57 Seconds**

Options :

Karnataka

2. Telangana
3. Tamil Nadu
4. Andhra Pradesh

Solution :

The correct answer is **option 3** i.e. **Tamil Nadu**.

AIADMK party:	• It is an Indian regional political party in the state of Tamil Nadu and in the union territory of Puducherry. • AIADMK is a Dravidian party founded by M. G. Ramachandran. • President: E. Madhusudhanan

Question 67 :

In ..... tissue the cells are widely spaced.

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

Options :

1. Tendons
2. Cartilage
3. Bone
4. Ligament

Solution :

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

What is Cartilage?	• Cartilage is an important structural component of the body. • It is a firm tissue but is softer and much more flexible than bone. • Cartilage is a connective tissue found in many areas of the body. • Cartilage is made up of specialized cells called chondrocytes.

Question 68 :

Ravi sold goods for Rs. 6250 and made a profit of 25% in the process. What would have been his profit percent if he had sold the same goods for Rs. 6000?

Difficulty : Moderate **Average Time : 66 Seconds**

Options :

1. 10%
2. 15%
3. 20%
4. 5%

Solution :

Correct Answer is **option 3** i.e. **20%**

Understanding	Application	Calculation
When SP = Rs. 6250 Profit = 25%	Hence, CP = Rs. 5000	6250/1.25 5000
Now, CP = Rs. 5000 SP = Rs. 6000	So, Profit = [SP – CP]/CP × 100 = 20%	[(6000 – 5000)/5000] × 100 100/5 = 20

Question 69 :

The diagram shows the force field produced by a current-carrying wire. Name the force field.

Difficulty : Moderate **Average Time : 185 Seconds**

Options :

1. Electrostatic field
2. Magnetic field
3. Electromagnetic field

Static field

Solution :
Magnetic field

Question 70 :
The SI unit of thrust is .....

Difficulty : Moderate **Average Time : 27 Seconds**

Options :
1. Pascal
2. Ohm
3. Newton
4. Joule

Solution :
The correct answer is **option 3** i.e. **Newton**.

What is thrust?	• Thrust is a reaction force described quantitatively by Newton's third law. • When a system expels or accelerates mass in one direction, the accelerated mass will cause a force of equal magnitude but opposite direction on that system. • Force, and thus thrust, is measured using the SI unit in Newton.

Question 71 :
Which of the following numbers will have an even number of factors?

Difficulty : Moderate **Average Time : 64 Seconds**

Options :
1. 16900
2. 52900
3. 30000

36100

Solution :

Correct Answer is option 3 i.e. 30000

Application	Calculation
$16900 = 13^2 \times 5^2 \times 2^2$ Number of factors = 27	$(2 + 1) \times (2 + 1) \times (2 + 1)$ $3 \times 3 \times 3 = 27$
$52900 = 23^2 \times 5^2 \times 2^2$ Number of factors = 27	$(2 + 1) \times (2 + 1) \times (2 + 1)$ $3 \times 3 \times 3 = 27$
$30000 = 3 \times 5^4 \times 2^4$ Number of factors = 50	$(1 + 1) \times (4 + 1) \times (4 + 1)$ $2 \times 5 \times 5 = 50$
$36100 = 19^2 \times 5^2 \times 2^2$ Number of factors = 27	$(2 + 1) \times (2 + 1) \times (2 + 1)$ $3 \times 3 \times 3 = 27$
Hence, the number 30000 will have even number of factors.	

Question 72 :

Read the given statement(s) and conclusions carefully. Assuming that the information in the statement(s) is true, even if they appear to be at variance with commonly known facts, select which of the conclusions logically follow(s) from the statement(s) beyond reasonable doubt. Statements: All crayons are pens. All pens are nibs Conclusions: (I) All crayons are nibs (II) All nibs are crayons

Difficulty : Moderate

Average Time : 255 Seconds

Options :

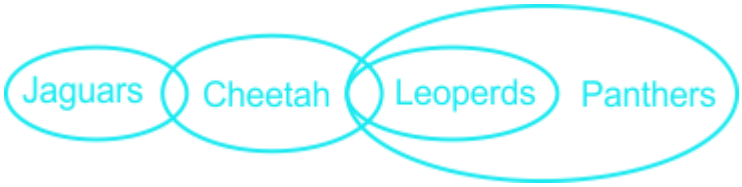
1. Only II follows
2. Only I follows

Both I and II follow

4. Neither I nor II follows

Solution :

The correct answer is **option 2 i.e. Only I follows.**

Understanding
Following venn diagram can be prepared: 
Conclusions: I. All crayons are nibs: **True** (as all crayons are pens and all pens are nibs) II. All nibs are crayons: **False** (Possible but not true.) Hence, Only I follows.

Question 73 :

Who among the following is known as 'The Guardian of Public Purse'?

Difficulty : Moderate **Average Time : 59 Seconds**

Options :

1. Attorney General
2. Comptroller & Auditor General
3. Chief minister
4. Prime minister

Solution :

The correct answer is **option 2** i.e. **Comptroller & Auditor General**.

Comptroller & Auditor General:	• It is an authority, established by Article 148 of the Constitution of India, which audits all receipts and expenditure of the Government of India and the state governments, including those of bodies and authorities substantially financed by the government. • The current CAG of India is Rajiv Mehrishi. • The CAG is ranked 9th and enjoys the same status as a judge of Supreme Court of India in Indian order of precedence.

Question 74 :

..... tissue is found beneath the skin, around the kidneys and between the internal organs.

Difficulty : Moderate **Average Time : 76 Seconds**

Options :

1. Ligament
2. Areolar
3. Tendons
4. Adipose

Solution :

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

What is Adipose?	• Adipose tissue, or fatty tissue, connective tissue consisting mainly of fat cells, specialized to synthesize and contain large globules of fat, within a structural network of fibres. • It is found mainly under the skin but also in deposits between the muscles, in the intestines and in their membrane folds, around the heart.

Question 75 :

Mass / Volume =

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

Options :

Pressure

2. Area
3. Density
4. Force

Solution :

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

What is Density?	• Density is a measure of mass per volume. • The average density of an object equals its total mass divided by its total volume. • An object made from a comparatively dense material (such as iron) will have less volume than an object of equal mass made from some less dense substance (such as water).

Question 76 :

The property of metals wherein they can be beaten into thin sheets is called:

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

Options :

1. expansion
2. malleability
3. ductility
4. conduction

Solution :

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

What is malleability?	• Malleability is a substance's ability to deform under pressure (compressive stress). • If malleable, a material may be flattened into thin sheets by hammering or rolling without breaking.

Question 77 :

In the figure given above, AF is a tangent to the circle at E, CDE= 80° and m(BC) = m(BE). What is the measure of BEA ?

Difficulty : Moderate

Average Time : 62 Seconds

Options :

1. 30°
2. 45°
3. 40°
4. 35°

Solution :

Correct Answer is option 3 i.e. 40°

Understanding	Application
AF is a tangent to the circle at E And CDE = 80°	CEA = CDE = 80° (Alternate segment theorem)
CDEB is a cyclic quadrilateral.	So, CBE = 180 – CDE CBE = 180 – 80 = 100°
m(BC) = m(BE)	So, BEC = BCE = (180 – 100)/2 = 40°
	BEA = CEA - CEB BEA = 80 – 40 = 40°

Question 78 :

Who has played the lead role in the movie 'Dangal' released in 2016?

Difficulty : Moderate **Average Time : 208 Seconds**

Options :

1. Akshay Kumar
2. Shah Rukh Khan
3. Aamir Khan
4. Raj Kumar Rao

Solution :

The correct answer is **option 3** i.e. **Aamir Khan**.

- Lead role: Amir Khan
- Director: Nitesh Tiwari
- It is based on the Phogat family, Aamir Khan stars as Mahavir Singh Phogat, an amateur wrestler who trains his daughters Geeta and Babita to become India's first world-class female wrestlers.

Question 79 :

You are given a question and two statements. Identify which of the statements is/are necessary/sufficient to answer the question. Question: There are 6 baskets in a supermarket that are used to load and unload commodity. All have been filled with tins of 2 different sizes and shapes. In total, how many tins have been loaded in the baskets? Statements: 1. The shape of 6 tins is such that in one basket, only 2 can fit. 2. The tins contain processed sauce

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

Options :

1. The statements are not sufficient
2. Statement 1 alone is sufficient
3. Statement 2 alone is sufficient
4. Statement 1 and 2 together are necessary

Solution :

Correct Answer is option 1 i.e. The statements are not sufficient.

Understanding	Application
Question: There are 6 baskets in a supermarket that are used to load and unload commodity. All have been filled with tins of 2 different sizes and shapes. In total, how many tins have been loaded in the baskets?	**Statements**: 1. The shape of 6 tins is such that in one basket, only 2 can fit. (It only confirms that 3 baskets are full) 2. The tins contain processed sauce. (Not useful as it does not matter what is inside the tins) Hence, number of tins in all the baskets can't be determined. Hence, The statements are not sufficient.

Question 80 :

Non-metals are generally more electronegative due to their:

Difficulty : Moderate **Average Time : 135 Seconds**

Options :

1. large number of electrons.
2. smaller atomic radii
3. smaller atomic number.
4. smaller ionization energy.

Solution :

The correct answer is **option 2** i.e. **smaller atomic radii**.

- The tendency of non-metals to withdraw bonding electrons towards itself is called electronegative character.
- In general non-metals with lesser number of electrons than the required electrons in the valence shell are tend to show more electronegative in nature.

Question 81 :

Select the option that is related to the third term in the same way as the second term is related to the first term. Alight : Descend : : House : .....?

Difficulty : Moderate **Average Time : 59 Seconds**

Options :

1. Pound
2. Home
3. Hug
4. Hen

Solution :

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

Understanding	Application
Alight: Descend : : House : .....? Here, Alight means to descend from a train, bus, or other form of transport. Hence, these two are synonyms.	Similarly, Home is also called House.

Question 82 :

Find out the two signs that need to be switched for the equation to be equated. 5 + 6 × 3 4 ÷ 2 = (1)

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

Options :

1. × & +
2. & ÷
3. ÷ & ×
4. + &

Solution :

The correct answer is **option 3 i.e. ÷ & ×**

Understanding	Application
5 + 6 × 3 – 4 ÷ 2 = (1) to be true. We need to check with the options.	Interchanging ÷ & × 5 + 6 ÷ 3 – 4 × 2 = 5 + 2 – 8 = -1 Hence, ÷ & × will be interchanged to make the equation correct.

Question 83 :

Consider the following statement and decide which of the conclusions logically follows from the statements. Statements: If you're a good computer programmer, then we definitely have a job for you. Conclusions: 1. Good computer programmers are never jobless. 2. We are in need of a good computer programmer.

Difficulty : Moderate **Average Time : 86 Seconds**

Options :

1. Neither conclusion 1 nor 2 follows
2. Only conclusion 2 follows
3. Both conclusions 1 and 2 follow
4. Only conclusion 1 follows

Solution :

The correct answer is option 2 i.e. Only conclusion 2 follows.

Understanding	Application

Statements:	Conclusions:
If you're a good computer programmer, then we definitely have a job for you.	1. Good computer programmers are never jobless. (It is nowhere mentioned) 2. We are in need of a good computer programmer. (Definitely we are in need that is why we are offering a job to good computer programmer) Hence, Only conclusion 2 follows.

Question 84 :

The royal city at Fatehpur Sikri, was built by Mughal Emperor ..... in honour of Sufi saint Shaikh Salim Chishti.

Difficulty : Moderate **Average Time : 82 Seconds**

Options :

1. Aurangzeb
2. Humayun
3. Shah Jahan
4. Akbar

Solution :

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

The royal city at Fatehpur Sikri:	• Fatehpur Sikri is a town in the Agra District of Uttar Pradesh, India. • The city itself was founded as the capital of Mughal Empire in 1571 by Emperor Akbar. • Akbar held the Sufi in such high regard that he had a great city Fatehpur Sikri built around his camp.

Question 85 :

The kinetic energy acquired by a mass (m) in traveling distance starting from rest under the action of constant force is directly proportional to:

Difficulty : Moderate **Average Time : 67 Seconds**

Options :

1/m

2. m^o
3. m
4. 1/m

Solution :

The correct answer is **option 2** i.e. $\mathbf{m^0}$

Work done by external forces = Change in kinetic energy Since particle starts from rest, its initial Kinetic Energy is 0. Hence, Kinetic Energy = Force × Distance Since the force is constant, KE will be independent of mass. KE m^0

Question 86 :

Starting from point O facing West a man walks 4 km to reach point A. He turns right, walks 4 km and reaches point B. Then, he turns right, walks 4 km and reaches point C. He turns right, walks 3 km and reaches point D. He turns left, walks 4 km and reaches point E. Then, he turns right, walks 5 km and reaches point F. At point F, the man is facing ..... direction.

Difficulty : Moderate **Average Time : 72 Seconds**

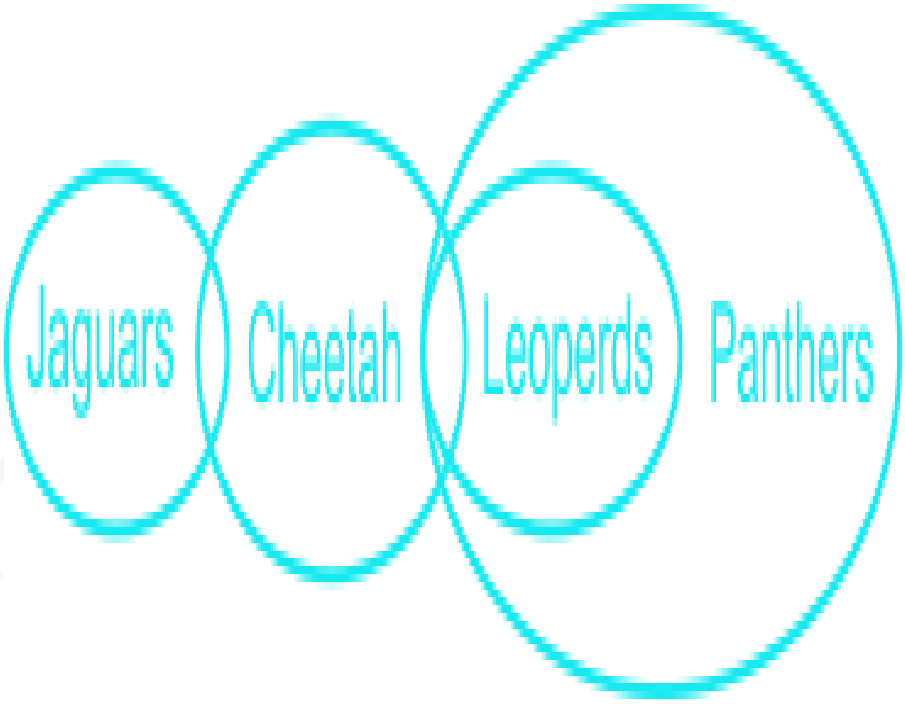
Options :

1. North
2. South
3. East
4. West

Solution :

Correct Answer is option 2 i.e. South

Understanding	Application

Starting from point O facing West a man walks 4 km to reach point A. He turns right, walks 4 km and reaches point B. Then, he turns right, walks 4 km and reaches point C. He turns right, walks 3 km and reaches point D. He turns left, walks 4 km and reaches point E. Then, he turns right, walks 5 km and reaches point F.	Following diagram represents the scenario: Hence, At point F, the man is facing South direction. 

Question 87 :

Who is termed as the 'Plastic Man of India', who has found a way to reuse plastic waste and make durable roads?

Difficulty : Moderate

Average Time : 115 Seconds

Options :

1. Rajagopalan Vasudevan
2. Rajagopalan\Thruganantliam
3. Artinachalani Muruganantham
4. Anmachalain Vasudevan

Solution :

The correct answer is **option 1** i.e. **Rajagopalan Vasudevan**.

Plastic Man of India	• Rajagopalan Vasudevan, is an Indian scientist who has worked mainly in waste management. • He is currently a professor in Thiagarajar College of Engineering. • He developed an innovative method to reuse plastic waste to construct better, more durable and very cost-effective roads. • He was awarded India's fourth highest civilian honour Padma Shri in 2018.

Question 88 :

Choose the mirror image for the following figure:

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

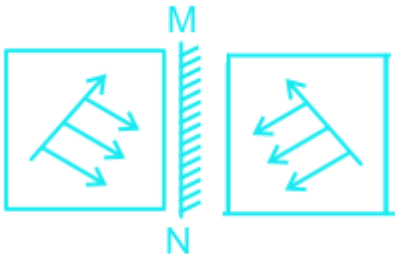
Options :

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

Solution :

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

Concept	Understanding

Mirror Image: Observation	 After carefully observing the options, it is very clear that the figure C is the correct mirror image of question figure.

Question 89 :

Astronauts in space communicate with each other by radio links because .....

Difficulty : Moderate **Average Time : 78 Seconds**

Options :

1. sound waves can't travel in space
2. sound waves have low frequency
3. sound waves travel slowly in space
4. sound waves travel quickly in space

Solution :

The correct answer is **option 1** i.e. **sound waves can't travel in space**.

- Space being an almost perfect vacuum does not allow sound to travel and be heard by the ears.
- As such, astronauts communicate with each other in space when they are spacewalking through the use of radio waves.
- Radio wave signal are sent to their headsets which then translates the signal into the form of sound.

Question 90 :

Genetic information is carried by long chains of molecules. What are these molecules called?

Difficulty : Moderate **Average Time : 64 Seconds**

Options :

Phosphates

2. Nitrogenous Bases
3. RNA
4. Nucleotides

Solution :
The correct answer is **option 4** i.e. **Nucleotides**.

Nucleotides:	• Nucleotides are molecules consisting of a nucleoside and a phosphate group. • They are the basic building blocks of DNA and RNA.
	• DNA (or deoxyribonucleic acid) is the molecule that carries the genetic information in all cellular forms of life and some viruses. • It belongs to a class of molecules called the nucleic acids, which are polynucleotides - that is, long chains of nucleotides.

Question 91 :
Who among the following approved the procurement of 111 utility helicopters for the Indian Navy at a cost of over Rs. 21,000 crores?

Difficulty : Moderate **Average Time : 81 Seconds**

Options :

1. Defence Acquisition Council
2. Defence Procurement Commission
3. Defence Purchase Association
4. Defence Dealers Association

Solution :
The correct answer is **option 1** i.e. **Defence Acquisition Council**.

- Defence Ministry approved procurement of 111 utility helicopters for the Navy at a cost of over Rs 21,000 crore on 25th Aug 2018.
- The decisions were taken at a meeting of the Defence Acquisition Council (DAC)

Defence Acquisition Council:

- The Defence Acquisition Council is the highest decision-making body in the Defence Ministry for deciding on new policies and capital acquisitions for the three services (Army, Navy and Air Force) and the Indian Coast Guard.
- The Minister of Defence is the Chairman of the Council.

Question 92 :

Find the next term in the following series. 24XW23, 22VU21, ...?

Difficulty : Moderate **Average Time : 76 Seconds**

Options :

1. 20RT19
2. 20TS19
3. 20TR19
4. 20ST19

Solution :

The correct answer is **option 2 i.e. 20TS19.**

Understanding	Application

Logic: Both numbers and alphabets are moved backward by 2 in each step.	24XW23, 22VU21, ...? Here, 24 – 2 = 22 – 2 = 20 X – 2 = V – 2 = T W – 2 = U – 2 = S 23 – 2 = 21 – 2 = 19 Hence, 20TS19 is the answer.

Question 93 :

Read the given statement and conclusions carefully and select which of the conclusions logically follow(s) from the statement. Statement: Some jaguars are cheetahs, Some cheetahs are leopards. All leopards are panthers. Conclusion: 1. All leopards are jaguars. 2. Some panthers are cheetahs.

Difficulty : Moderate **Average Time : 59 Seconds**

Options :

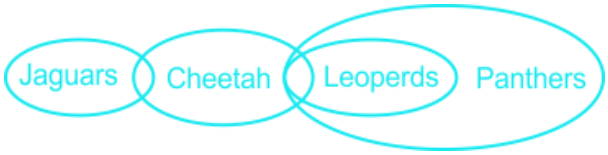
1. Only conclusion 2 follows
2. Only conclusion 1 follows
3. Either 1 or 2 follows
4. Both 1 and 2 follows

Solution :

The correct answer is **option 1 i.e. Only conclusion 2 follows.**

Understanding

Following venn diagram can be prepared:



Conclusions:

I. All leopards are jaguars: **False** (Possible but not true)

II. Some panthers are cheetahs: **True** (some Panthers that are leopards are definitely cheetahs.)

Hence, Only conclusion 2 follows.

Question 94 :

Recently in 2018, assembly elections took place in which of the following states?

Difficulty : Moderate **Average Time : 59 Seconds**

Options :

1. Meghalaya
2. Gujarat
3. Assam
4. West Bengal

Solution :

The correct answer is **option 1** i.e. **Meghalaya**.

Meghalaya Assembly election:	The Meghalaya Legislative Assembly election was held on 27 February 2018 to elect 59 of 60 members to the Meghalaya Legislative Assembly, with the results declared on 3 March. Capital: Shillong Governor: R. N. Ravi Chief minister: Conrad Sangma (National People's Party)

Question 95 :

Four numbers. a, b, c and d, are such that their overall average is 26.5. The average of a and b is 20. The average of c and d is:

Difficulty : Moderate **Average Time : 69 Seconds**

Options :

1. 35.5
2. 31.5
3. 33
4. 32.5

Solution :

Correct Answer is **option 3** i.e. **33**

Understanding	Application	Calculation
The average of a and b is 20	So, a + b = 40	20 × 2 = 40
Average of a, b, c and d is 26.5	So, a + b + c + d = 106	26.5 × 4 = 106

	Now, c + d = 66	106 – 40 = 66
	So, Average of c and d = 33	66/2 = 33

Question 96 :

A solid metallic hemisphere with radius r is melted and cast into a solid right circular cone with the radius of the base = r. What is the ratio of their curved surface areas?

Difficulty : Moderate **Average Time : 225 Seconds**

Options :

1. 5/ 2
2. 2/ 5
3. 3/2
4. 5/2

Solution :

Correct Answer is option 2 i.e. 2/5

Understanding	Application
Hemisphere with radius r is melted and cast into a circular cone with the radius of the base = r Suppose height of cone = h	The volumes must be equal: $2/3 \times r^3 = /3 \times r^2h$ r/h = 1/2

Now, Slant height of cone = l	$l = (r^2 + h^2)$ Since, r/h = 1/2 $l = (r^2 + 4r^2)$ $l = r5$
Curved surface areas of Hemisphere = $2r^2$ And Curved surface areas of cone = rl	Hence, Ratio = $2r^2$: rl $2r^2 : r^2 5$ 2/5

Question 97 :

What is the missing term in the series? YB25, WD23, ..., SH19

Difficulty : Moderate

Average Time : 224 Seconds

Options :

1. UG21
2. UF21
3. UF20
4. UG20

Solution :

The correct answer is option 2 i.e. UF21

Concept	Application

Logic: 1st letter is moved backward by 2. 2nd letter is moved forward by 2. Number is decreased by 2.	YB25, WD23, ..., SH19 Here, Y – 2 = W – 2 = U – 2 = S B + 2 = D + 2 = F + 2 = H 25 – 2 = 23 – 2 = 21 – 2 = 19 Hence, Missing term = UF21

Question 98 :

Read the given statement(s) and conclusions carefully and select which of the conclusions logically follow(s) from the statement(s). Statement: Recent research says listening to specific types of frequencies have a positive effect on human brain and it aids in healing. Conclusions: I. Human brain responds to music. II. Certain frequencies are used to heal diseases in human body.

Difficulty : Moderate **Average Time : 91 Seconds**

Options :

1. Both the conclusions follow.
2. Neither conclusion follows.
3. Only conclusion I follows.
4. Only conclusion II follows

Solution :

The correct answer is option 4 i.e. Only conclusion II follows.

Understanding	Application

Statement:	Conclusions:
Recent research says listening to specific types of frequencies have a positive effect on human brain and it aids in healing.	I. Human brain responds to music. (Not follows as nothing is mentioned about the music here.) II. Certain frequencies are used to heal diseases in human body. (Follows as it is clearly written in the statement that specific types of frequencies aid in healing) Hence, Only conclusion II follows.

Question 99 :

Given is a question followed by two arguments numbered I and II. Read the question and decide which of the arguments is strong with respect to the question. Question: Should shifting agriculture be practiced? Arguments: I. No. It is not a worthy practice. II. Yes. When compared to modern methods of farming, it is less expensive.

Difficulty : Moderate **Average Time : 96 Seconds**

Options :

1. Only argument II is strong.
2. Only argument I is strong.
3. Neither argument I nor II is strong.
4. Either argument I or II is strong.

Solution :

The correct answer is **option 1 i.e. only argument II is strong.**

Understanding	Application

Question: Should shifting agriculture be practiced?	**Arguments**: I. No. It is not a worthy practice. (Not strong as no reason is mentioned with it) II. Yes. When compared to modern methods of farming, it is less expensive. (Strong with supporting reason) Hence, Only argument II is strong.

Question 100 :

Which state cricket team has won the 2018 Vijay Hazare trophy?

Difficulty : Moderate **Average Time : 89 Seconds**

Options :

1. Saurashtra
2. Rajasthan
3. Odisha
4. Karnataka

Solution :

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

2018 Vijay Hazare trophy:	• The 2017–18 Vijay Hazare Trophy was the 16th season of the Vijay Hazare Trophy, a List A cricket tournament in India. • It was contested by the 28 domestic cricket teams of India. • Dates: 5 Feb 2018 – 26 Feb 2018 • Champion: Karnataka cricket team • Location: India • Second: Saurashtra cricket team • Administrator: Board of Control for Cricket in India

Rrb Group D CBT - 1 Previous Year Question Paper

Analysis

The analysis of Rrb Group D CBT - 1 Previous Year Question Paper held on 2018-10-12 in the Afternoon exam is as follows:

1. 100 questions were moderate.
2. The safe score is 77 marks.
3. 100 questions were asked from CBT -1 and 100 questions were asked from CBT -1
4. 19 questions should have been skipped if you were short of time.

Rrb Group D CBT - 1 Previous Year Question Paper Topic Wise Weightage

CBT -1

1. GK - 1

Rrb Group D CBT - 1 Previous Year Question Paper Tips and Tricks

1. Try to solve Rrb Group D CBT - 1 Previous Year Question Paper without taking any help from the solutions.
2. Rrb Group D 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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About Neetu Mam

Neetu Mam is primarily passionate for the English language and teaching from the last 20 years however for the Rrb

Group D CBT - 1 Previous Year Question Paper. She has guided her team to provide the best explanation for the question.