



RRB JE 2025 CBT-1

Junior Engineer, DMS, CMA · CEN 05/2025 · CBT-1 · Question Paper

English

All 7 Shifts (Sets) · Official Answer Key

About this Compilation

This booklet contains all **7 shift papers** of the **RRB JE 2025 CBT-1** examination in **English**, with the correct option marked as per the official answer key.

✓ Correct option (highlighted green)

Sections. The JE CBT-1 paper is not divided into sections and the saved paper carries no section labels. In this book the questions of every shift are grouped by subject (Mathematics, General Intelligence and Reasoning, General Awareness, General Science), assigned from our topic tags, so the section counts may differ slightly from the notified pattern.

4 questions without question text. The saved paper record has no question text or figure for them; they are printed with their options and official answer and marked in the text.

How to use

- Use the **Index** page to jump directly to any set (clickable).
- Questions appear section by section in the order of the paper, numbered 1 onward.
- Diagram and wide-table questions appear at full width at the end of their section.
- The correct answer is highlighted in green with a tick.

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Index — All Sets (click to open)

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Mathematics

32 Questions • Answer Key

Q1 Mathematics

Let C be a circle with center O. Let AB be a tangent to C, such that AB touches the circle at P. Let X and Y be any two points on C. If $\angle APX = 60^\circ$ and $\angle BPY = 30^\circ$, find $\angle PYX$ and $\angle PXY$, respectively.

A. $60^\circ, 30^\circ$ ✓B. $30^\circ, 60^\circ$ C. $90^\circ, 30^\circ$ D. $90^\circ, 60^\circ$

Q2 Mathematics

X people were given a contract for doing a piece of work in 32 days. 8 people did not turn up to work due to sickness, and the rest of the people completed the work in 40 days. What is the value of X?

A. 42

B. 40 ✓

C. 38

D. 44

Q3 Mathematics

Rashmi and Varsha together have ₹22576. If $\frac{5}{16}$ of Rashmi's amount is equal to $\frac{3}{7}$ of Varsha's amount, how much money does Rashmi have?

A. ₹13052

B. ₹13054

C. ₹13050

D. ₹13056 ✓

Q4 Mathematics

What should come in place of '?' in the given series?

23 34 45 56 67 ?

A. 75

B. 76

C. 78 ✓

D. 77

Q5 Mathematics

The base and the corresponding height of a parallelogram are 93 cm and 29 cm, respectively. The area of the parallelogram (in cm^2) is:

A. 2697 ✓

B. 2696

C. 2701

D. 2714

Q6 Mathematics

The LCM of $2^3 \times 6^2 \times 11$, $2^2 \times 11^2 \times 17$ and $6^3 \times 11^2 \times 17^2$ is:

A. $25 \times 33 \times 112 \times 172$ ✓B. $24 \times 34 \times 112 \times 172$ C. $24 \times 33 \times 112 \times 172$ D. $25 \times 34 \times 112 \times 172$

Q7 Mathematics

What is the remainder when 3^{939} is divided by 8?

A. 3 ✓

B. 5

C. 0

D. 2

Q8 Mathematics

Girish scored 459 marks in an examination and was 81 marks short of 20% of the maximum marks. In the same examination, his friend scored 756 marks. What is the percentage of marks scored by his friend?

A. 27%

B. 28% ✓

C. 29%

D. 30%



Q9 Mathematics

The difference between simple interest and compound interest, compounded annually, on a certain sum of money for 2 years at 11% per annum is ₹371. Find the sum. [Give your answer rounded off to the nearest integer.]

A. ₹30,672

B. ₹30,661



C. ₹30,669

D. ₹30,679

Q10 Mathematics

A shopkeeper marks an article at ₹x and offers a discount of 50% on it. He sells it for ₹287 after charging VAT of 64% on the discounted price. What is the value of x?

A. 300

B. 250

C. 350



D. 200

Q11 Mathematics

The average of the first 18 positive multiples of 10 is:

A. 18

B. 10

C. 95



D. 90

Q12 Mathematics

Ajay can row at 4.5 km/h in still water. It takes him twice the time to row up as it takes for him to row down the same distance. Find the speed of the stream (in km/h).

A. 0.5

B. 2

C. 3

D. 1.5

**Q13 Mathematics**

From the top of a cliff the angle of depression of a point on the ground 240 feet away from the bottom of the cliff is 30° . Find the height of the cliff (in feet, rounded off to the nearest integer). (Use $\sqrt{3} = 1.732$)

A. 146

B. 124

C. 130

D. 139

**Q14 Mathematics**

100 apples were bought at ₹1,240 per hundred and were sold at a profit of ₹935. Find the selling price (in ₹) per dozen of apples.

A. 256

B. 271

C. 261



D. 266

Q15 Mathematics

If 25 people, working for 10 hours a day, can complete 2 units of work in 5 days, then how many days will be required for 15 people to complete 18 units of work, if each person works for 10 hours a day?

A. 70

B. 75



C. 60

D. 85

Q16 Mathematics

In a factory, the average daily wage of 12 skilled workers and 18 unskilled workers is ₹604. If the average wage of the skilled workers is ₹754, then find the average wage of the unskilled workers.

A. ₹524

B. ₹514

C. ₹504



D. ₹534

Q17 Mathematics

What should come in place of the question mark (?) in the given series?

7 10 16 25 37 ?

A. 52



B. 50

C. 51

D. 53



Q18 Mathematics

Simplify the following.

$$112 \div [16 \div 8 \times \{18 + 12 - (3 + 10 - (4 + 7))\}]$$

A. 4

B. 3

C. 11

D. 2

**Q19 Mathematics**

Mahesh has borrowed an amount of ₹4,40,000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 6% per annum after 4 years?

A. 1,03,600

B. 1,05,600



C. 1,04,600

D. 1,06,600

Q20 Mathematics

Ajay spends 80% of his income. His income is increased by 30%, and his expenditure is increased by 10%. Find the percentage increase in his savings.

A. 90%

B. 100%

C. 110%



D. 105%

Q21 Mathematics

If the mode and median of a certain data are 24 and 18, respectively, then the mean of the data is:

A. 15



B. 20

C. 22

D. 24

Q22 Mathematics

A toy manufacturer originally makes a conical toy with a base radius of 3 cm and a height of 7 cm. Due to customer demand, he now wants to produce a similar toy that has 75% of the original volume, while keeping the same base radius as before. What should be the height of the new toy? (Take $\pi = \frac{22}{7}$)

A. 5.25 cm



B. 5.5 cm

C. 5.75 cm

D. 5.125 cm



Q23 Mathematics

[Question text / figure not saved in the source paper record. Options and official answer as released.]

A. $\frac{31}{40}$

B. $\frac{41}{40}$



C. $\frac{37}{40}$

D. $\frac{47}{40}$

Q24 Mathematics

If $x = \sqrt[3]{512}$, $y = \sqrt[6]{64}$ and $z = 6^3 - 2 \times 10^2$, then $\sqrt[3]{10(x^2 + y^3 + z + 12)}$ is equal to:

A. 20

B. 30

C. 40

D. 10

**Q25 Mathematics**

The selling price of 45 books is equal to the cost price of 18 books. Find the loss or gain percentage.

A. $\frac{100}{27}\%$ gain

B. $\frac{100}{27}\%$ loss

C. 60 % gain

D. 60 % loss

**Q26 Mathematics**

A sum of money is divided among X, Y and Z in the ratio 4:3:6. If the share of Z is ₹3300 more than Y, then how much amount will X get more than Y?

A. ₹1000

B. ₹1300

C. ₹1100

D. ₹1200



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Q27 Mathematics

Find the median from the following data.

Age in years	15-25	25-35	35-45	45-55	55-65	65-75	75-85
No. of patients	10	17	22	26	30	24	21

A. 70 years

B. 55 years

C. 47 years

D. 65 years

Q28 Mathematics

The quadratic equation whose roots are $\frac{1}{\sqrt{2}}$ and $\frac{1}{\sqrt{2}}$ is:

A. $2x^2 - (4\sqrt{2})x - 1 = 0$

B. $3x^2 - (2\sqrt{2})x - 1 = 0$

C. $2x^2 + (2\sqrt{5})x + 1 = 0$

D. $2x^2 - (2\sqrt{2})x + 1 = 0$

Q29 Mathematics

While covering a distance of 36 km, a man noticed that after cycling for 2 hour 5 minutes, the distance covered by him was $\frac{6}{7}$ of the remaining distance. What was his approximate speed in km/h?

A. 8.7

B. 8

C. 6.7

D. 7.4

Q30 Mathematics

Consider a quadratic equation $3x^2 + 4x - 8 = 0$. Which of the following quadratic equations will have both roots common with the given quadratic equation?

A. $-1.5x^2 - 2x + 4 = 0$

B. $3x^2 + 4x + 8 = 0$

C. $3x^2 - 4x + 8 = 0$

D. $-1.5x^2 + 2x + 4 = 0$



Q31 Mathematics

Solve the following linear equations.

$2x + 3y - 5z = 4,$

$x + 3y - 2z = 12,$

$2x + y - 3z = 5$

A. $x = \frac{43}{8}, y = \frac{-65}{8}, z = \frac{-39}{8}$

B. $x = \frac{43}{8}, y = \frac{65}{8}, z = \frac{39}{8}$

C. $x = \frac{-43}{8}, y = \frac{-65}{8}, z = \frac{39}{8}$

D. $x = \frac{65}{8}, y = \frac{39}{8}, z = \frac{43}{8}$ ✓

Q32 MathematicsFind the value of $\frac{x+3}{x^2-2x} \times \frac{2x-1}{x^2+2x+4} \times \frac{x^4-8x}{2x^2+5x-3}$.

A. 2

B. -1

C. 1 ✓

D. 0

General Intelligence and Reasoning

23 Questions • Answer Key

Q33 General Intelligence and Reasoning

In a certain code,

'tall boy smart' is coded as 'we ki no'

'short boy lazy' is coded as 'pa ki ru'

'tall girl lazy' is coded as 'we sa ru'

(all the codes are two letter coded only)

What is the code for "tall boy"?

A. pa ru

B. we sa

C. sa ki

D. we ki ✓

Q34 General Intelligence and Reasoning

Each of P, Q, R, S, T, U and V has an exam on a different day of a week, starting from Monday and ending on Sunday of the same week.

Only five people have exams between T and R. S has exam on Wednesday. V has exam immediately after P but not on Saturday. Q has exam immediately before T.

How many people have exams between U and V?

A. Two ✓

B. Four

C. Three

D. One



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Q35 General Intelligence and Reasoning

Hitesh starts from Point A and drives 10 km towards east. He then takes a left turn, drives 5 km, turns left and drives 11 km. He then takes a left turn and drives 6 km. He takes a final left turn, drives 1 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90° turns only unless specified.)

- A. 2 km to the south
- B. 1 km to the south
- C. 2 km to the north
- D. 1 km to the north

**Q36 General Intelligence and Reasoning**

In a certain code language,
 $A + B$ means 'A is the son of B'
 $A - B$ means 'A is the sister of B'
 $A \times B$ means 'A is the wife of B'
 $A \div B$ means 'A is the brother of B'

Based on the above, how is C related to G if ' $C \times S + D - F \div G$ '?

- A. Father's sister's daughter
- B. Mother's sister's daughter
- C. Sister's son's wife
- D. Mother's sister's son

**Q37 General Intelligence and Reasoning**

Refer to the following letter and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) K & Z # % X N E A A Y C + H \ Y = C \$ M H (Right)

How many such letters are there each of which is immediately preceded by a symbol and also immediately followed by a letter?

- A. One
- B. Two
- C. Zero
- D. Three

**Q38 General Intelligence and Reasoning**

21 is related to 274 following a certain logic. Following the same logic, 26 is related to 339. To which of the following is 34 related, following the same logic?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

- A. 445
- B. 443
- C. 447
- D. 452

**Q39 General Intelligence and Reasoning**

Select the triad which follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

NF – RJ – VN
 MB – QF – UJ

- A. RM – UT – PR
- B. HK – LN – FL
- C. TW – YZ – SY
- D. OG – SK – WO

**Q40 General Intelligence and Reasoning**

If + means $\times$, $\times$ means $\div$, $\div$ means $+$, then what will come in place of the question mark (?) in the following equation?

$$3 - 24 \times 6 \div 21 + 7 = ?$$

- A. 36
- B. 26
- C. 31
- D. 28



Q41 General Intelligence and Reasoning

In a certain code language,
 A + B means 'A is the mother of B',
 A - B means 'A is the brother of B',
 A x B means 'A is the wife of B',
 A % B means 'A is the father of B' and
 A # B means 'A is the daughter of B'.

How is F related to M if 'F # H x J % E % M'?

A. Father's sister



B. Brother's son

C. Father's mother

D. Son's daughter

Q42 General Intelligence and Reasoning

A question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements carefully and decide the appropriate answer.

Five people, A, B, C, D and E, are sitting in a straight line facing north. Who sits to the immediate left of C?
 I. B sits second from one of the extreme ends of the line. Only one person sits between B and C. D sits third to the right of C.
 II. D sits to the immediate right of B. Only three people sit between D and A. E sits to the immediate right of C.

A. Data in both statements I and II together is NOT sufficient to answer the question

B. Data in both statements I and II together (and not statement I alone or statement II alone) is sufficient to answer the question

C. Data in statement I alone is sufficient to answer the question while data in statement II is not

D. Data in statement II alone is sufficient to answer the question while data in statement I is not

**Q43 General Intelligence and Reasoning**

Refer to the following letter, symbol series and answer the question.

(Left) V E @ M O S % & V I % X \$ T P N \$ V # C & B J
 (Right)

If all the letters are dropped from the series, which of the following will be fifth from the left?

A. #

B. %

C. \$



D. @

Q44 General Intelligence and Reasoning

Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:

All papers are bags.

All bags are copies.

Some copies are erasers.

Conclusions:

(I): All papers are erasers.

(II): All bags are erasers.

A. Only conclusion (II) follows.

B. Both conclusions (I) and (II) follow.

C. Neither conclusion (I) nor (II) follows.



D. Only conclusion (I) follows.

Q45 General Intelligence and Reasoning

What should come in place of the '?' in the given series, based on the English alphabetical order?

RLO QKN PJM OIL ?

A. NGK

B. NHK



C. NHL

D. NGL

Q46 General Intelligence and Reasoning

In a certain code,
 'heavy metal music' is coded as 'mx zb kg'
 'heavy storm warning' is coded as 'kw vg mx'
 'crazy metal storm' is coded as 'zb rq vg'
 (all the codes are two letter coded only)
 What is the code for 'warning music'?

A. kg rq

B. zb vg

C. kw kg



D. mx rq



Q47 General Intelligence and Reasoning

Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(11, 13, 17)
(8, 7, 11)

- A. (9, 9, 5)
- B. (6, 21, 25)
- C. (13, 17, 13)
- D. (10, 11, 15) ✓

Q48 General Intelligence and Reasoning

Each of G, H, I, J, P, Q and R has an exam on a different day of a week, starting from Monday and ending on Sunday of the same week. Only two people have exam before Q. Only one person has exam after P. Only three people have exam between Q and J. Only one person has exam between I and H. G has exam immediately before I. How many people have exam between R and I?

- A. Two ✓
- B. One
- C. None
- D. Three

Q49 General Intelligence and Reasoning

Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which is the letter-cluster that does NOT belong to that group?

(Note: The odd one out is not based on the number of consonants/vowels or their positions in the letter-cluster.)

- A. VWT
- B. PQN
- C. YZW
- D. KMI ✓

Q50 General Intelligence and Reasoning

D, R, A, W and S have different marks. Only one person has scored between W and S. Only one person has scored between S and D. A has scored less than W and S. How many people have scored less than R?

- A. Two
- B. Four
- C. Three ✓
- D. One

Q51 General Intelligence and Reasoning

Seven people, F, J, M, L, R, V and X, are sitting in a row, facing north.

No one sits to the right of J. Only three people sit between J and R. Only two people sit between R and M. V sits third to the left of L. X sits to the immediate right of L. How many people sit to the left of X?

- A. 1
- B. 4 ✓
- C. 3
- D. 2

Q52 General Intelligence and Reasoning

LKLJ is related to GFGE in a certain way based on the English alphabetical order. In the same way, NMNL is related to IHIG. To which of the following is QPQO related, following the same logic?

- A. LLKQ
- B. LKKJ
- C. LKLJ ✓
- D. LJKJ

Q53 General Intelligence and Reasoning

81 is related to 260 following a certain logic. Following the same logic, 108 is related to 287. To which of the following is 156 related, following the same logic?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

- A. 340
- B. 332
- C. 334
- D. 335 ✓



Q54 General Intelligence and Reasoning

Refer to the following letter and symbol series and answer the question that follows. Counting to be done from left to right only.

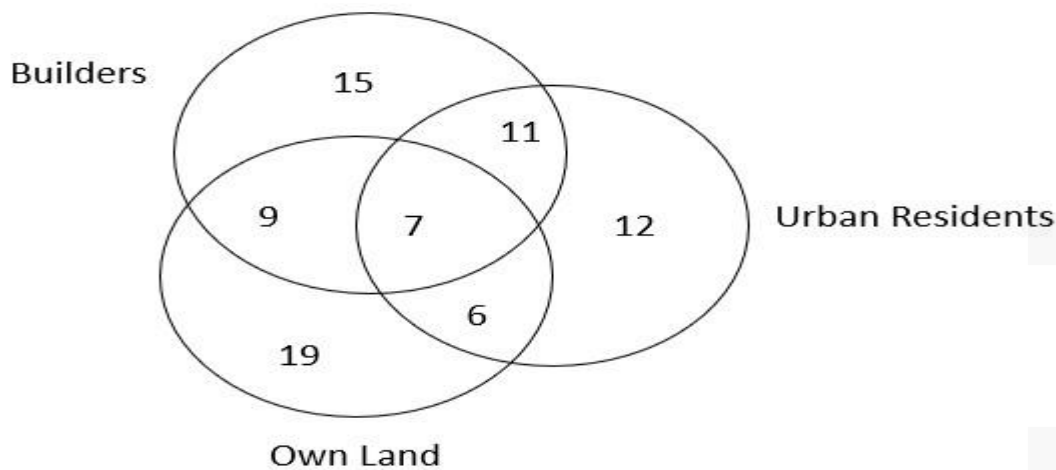
(Left) U P X @ F H R A A # / E M # U L J \ L \ \ (Right)

How many such symbols are there each of which is immediately preceded by a symbol and also immediately followed by a letter?

- A. None
- B. Two
- C. Three
- D. One

**Q55 General Intelligence and Reasoning**

Study the given diagram carefully and answer the question that follows. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.)



How many builders are urban residents and own land?

- A. 7
- B. 6
- C. 9
- D. 11

**General Awareness**

15 Questions • Answer Key

Q56 General Awareness

Which of the following coastal features in India is believed to have submerged due to tectonic or sea-level changes, as referenced in Indian mythology and archaeology?

- A. Sunderbans in West Bengal
- B. Rameshwaram near Tamil Nadu
- C. Dwaraka near Gujarat
- D. Kavaratti in Lakshadweep

**Q57 General Awareness**

What was the primary theme of the International Symposium on Health Technology Assessment (ISHTA) 2025?

- A. Enhancing global health security efforts
- B. Showcasing medical device technologies
- C. Promoting digital health innovations
- D. Bridging evidence to policy for healthcare



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Q58 General Awareness

How did Mahatma Gandhi's views on untouchability shape the priorities of the Indian National Congress during the Gandhian phase?

- A. Making abolition of untouchability a central objective ✓
- B. Endorsing separate political electorates for communities
- C. Concentrating on political integration of princely states
- D. Shifting primary focus toward agrarian economic reforms

Q59 General Awareness

The term 'Ragam-Tanam-Pallavi' is associated with which style of Indian music?

- A. Carnatic Music ✓
- B. Hindustani Music
- C. Sufi Music
- D. Folk Music

Q60 General Awareness

Which two districts of Uttarakhand share the inter-state border with Himachal Pradesh in the north-west?

- A. Pauri and Rudrapur
- B. Champawat and Bageshwar
- C. Uttarkashi and Dehradun ✓
- D. Chamoli and Pithoragarh

Q61 General Awareness

In which year was the first national Census of India carried out during British India?

- A. 1901
- B. 1891
- C. 1851
- D. 1871 ✓

Q62 General Awareness

The 44th Amendment Act of 1978 restored the standard term of the Lok Sabha and State Legislature to how many years?

- A. three
- B. five ✓
- C. six
- D. seven

Q63 General Awareness

Which Indian filmmaker was inducted as a registered member of the European Film Academy in 2025?

- A. Pan Nalin ✓
- B. Kiran Rao
- C. Neeraj Ghaywan
- D. Sriram Raghavan

Q64 General Awareness

Who was appointed as the Chairman of the Union Public Service Commission by President Droupadi Murmu in May 2025?

- A. Dr. Anil Kumar
- B. Dr. Ajay Kumar ✓
- C. Dr. Ajit Kumar
- D. Dr. Alok Kumar

Q65 General Awareness

Which statement is correct regarding the definition of biodegradable substances?

- A. Substances that are broken by chemical process
- B. Substances that are broken by mechanical process
- C. Substances that are broken by biological process ✓
- D. Substances that are broken by physical process

Q66 General Awareness

Who is the author of the book 'Leo: The Untold Story of Chennai Super Kings', which was launched in March 2025?

- A. Aniruddha Srikanth
- B. K. Chandrashekhara
- C. Ravichandran Ashwin
- D. P.S. Raman ✓

Q67 General Awareness

Which of the following is NOT a feature of the Comprehensive Environmental Pollution Index?

- A. It can applied to locations other than industrial clusters.
- B. It was first introduced in 1983. ✓
- C. All the polluting sources identified in the area shall be notified and brought into the public domain.
- D. It shall be an early warning tool.



Q68 General Awareness

In the 2024 Global Hunger Index released on October 2024, India is ranked 105th out of the how many countries?

A. 210

B. 90

C. 195

D. 127

**Q69 General Awareness**

What is the constitutional consequence if the Lok Sabha passes a no-confidence motion against the ruling government?

A. The Speaker of Lok Sabha is removed by the President

B. The Council of Ministers is obligated to step down



C. Only the Prime Minister must submit resignation

D. The government may continue without any change

Q70 General Awareness

Which of the following is NOT true regarding the Poona Pact of 1932?

A. Ambedkar refused to sign the pact.



B. It dropped the idea of separate electorates for depressed classes.

C. Seats reserved for depressed classes increased in the legislatures.

D. It was accepted by the government.

General Science

30 Questions • Answer Key

Q71 General Science

A cricket ball of mass 0.15 kg is thrown horizontally at 30 m/s from the top of a building. What is the ball's kinetic energy as it leaves the hand?

A. 90 J

B. 67.5 J



C. 45.5 J

D. 135 J

Q72 General Science

Why are bulbs filled with nitrogen and argon gases instead of air?

A. To reduce electricity consumption

B. To increase brightness

C. To make the bulb heavier

D. To prolong the life of the filament

**Q73 General Science**

Sodium hydroxide (NaOH) contains _____ as its anion.

A. Na⁺

B. NO₃⁻

C. H⁺

D. OH⁻

**Q74 General Science**

If a convex mirror forms a point-sized image at its focus, where is the object located?

A. Between P and F

B. At infinity



C. Between F and the pole

D. At the pole

Q75 General Science

How does the magnetic field strength at the center of a circular loop change if the current through the loop is doubled?

A. It becomes half as large

B. It becomes four times as large

C. It becomes twice as large



D. It remains unchanged



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Q76 General Science

Atomic masses of elements are compared with a standard reference. Carbon-12 was chosen as the standard for the atomic mass unit mainly because:

- A. Carbon is present in very large amounts in nature
- B. Carbon-12 gives atomic masses close to whole numbers ✓
- C. Carbon shows very little chemical reactivity with elements
- D. Carbon is able to form a large number of compounds

Q77 General Science

When two aqueous solutions react inside a sealed flask and form products, what happens to the total mass of the system?

- A. It decreases due to precipitation
- B. It remains unchanged throughout ✓
- C. It fluctuates during reaction
- D. It increases due to gas formation

Q78 General Science

Ribosomes are attached to the surface of the rough endoplasmic reticulum. What is the primary function of the rough endoplasmic reticulum?

- A. Lipid synthesis
- B. Energy production and cellular respiration
- C. Protein synthesis and transport ✓
- D. DNA replication and transcription

Q79 General Science

Which cell organelle is responsible for the manufacture of lipids in the cell?

- A. Rough Endoplasmic Reticulum
- B. Golgi Apparatus
- C. Smooth Endoplasmic Reticulum ✓
- D. Mitochondria

Q80 General Science

Which statement correctly describes the atomic number of an element?

- A. Total number of nucleons in the atom
- B. Total mass of all subatomic particles
- C. Number of protons present in the nucleus ✓
- D. Number of neutrons present in the nucleus

Q81 General Science

Which of the following metals is NOT refined by electrolytic refining?

- A. sodium ✓
- B. copper
- C. zinc
- D. tin

Q82 General Science

When a man pushes a wall but the wall does not move, what is the work done by the man on the wall?

- A. Maximum work is done as the man uses full effort.
- B. Zero work is done as there is no displacement of the wall. ✓
- C. Negative work is done as the wall resists the push.
- D. Positive work is done as force is applied.

Q83 General Science

Coal is primarily formed from:

- A. Lava flows from volcanoes
- B. Mineral deposits in the Earth
- C. Layers of dead plants compressed over millions of years ✓
- D. Remains of animals preserved in rocks

Q84 General Science

When methane (CH_4) burns completely in the presence of sufficient oxygen, which products are formed?

- A. Carbon monoxide and water
- B. Carbon dioxide and carbon
- C. Carbon and hydrogen
- D. Carbon dioxide and water ✓

Q85 General Science

Sonora-64 and Lerma Rojo are high-yielding varieties (HYVs) of which crop introduced during the Green Revolution in India?

- A. Rice
- B. Wheat ✓
- C. Maize
- D. Barley



Q86 General Science

Why is using compost or vermi-compost preferable to excessive use of fertilizers for increasing soil fertility?

- A. It replaces the need for irrigation and weeding.
- B. It supplies only micro-nutrients and avoids macronutrients.
- C. It recycles biological waste and avoids environmental harm. ✓
- D. It eliminates bacterial and viral plant diseases.

Q87 General Science

Which structural feature primarily enables upward movement of water against gravity in plants?

- A. Large intercellular spaces in spongy mesophyll
- B. Thin-walled sieve tubes with companion cells
- C. Actively dividing meristematic tissues
- D. Lignified xylem vessels forming continuous columns ✓

Q88 General Science

What is the function of the iris in the human eye?

- A. Forms the image on the retina
- B. Refracts incoming light rays
- C. Controls the size of the pupil ✓
- D. Transmits signals to the brain

Q89 General Science

Refer to the two statements given below and choose the CORRECT option.

Statement A: Selective reabsorption in nephrons helps maintain water and salt balance in the body.

Statement B: Selective reabsorption prevents nitrogenous wastes from entering the filtrate.

- A. Statement A is correct but B is incorrect. ✓
- B. Both statements A and B are correct.
- C. Statement A is incorrect but B is correct.
- D. Both statements A and B are incorrect.

Q90 General Science

Which of the following statements about washing soda is CORRECT?

- A. Washing soda is chemically sodium carbonate decahydrate ($\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$) ✓
- B. It is obtained by heating sodium bicarbonate to 100°C
- C. Washing soda is acidic in nature
- D. It does not remove permanent hardness of water

Q91 General Science

Which statement best explains why unsaturated carbon compounds are generally more reactive than saturated carbon compounds?

- A. Unsaturated compounds form only straight carbon chains
- B. Unsaturated compounds contain only single bonds between carbon atoms
- C. Unsaturated compounds have fewer hydrogen atoms attached to carbon
- D. Unsaturated compounds have double or triple bonds between carbon atoms ✓

Q92 General Science

When a gun is fired, it recoils backward as the bullet moves forward. How does this demonstrate Newton's third law of motion?

- A. The bullet moves forward only because the gun has stored energy.
- B. The gun pushes the bullet forward, and the bullet pushes the gun backward with an equal and opposite force. ✓
- C. The gun moves backward because it is heavier than the bullet.
- D. The gun recoils because the bullet moves faster than the gun.

Q93 General Science

Systolic pressure is measured when the heart _____.

- A. Fills with blood
- B. Contracts ✓
- C. Stops beating
- D. Relaxes



Q94 General Science

Which of the following everyday examples represents a homogeneous mixture?

A. Salt completely dissolved in water



B. Chalk powder stirred in water

C. Sand mixed uniformly with iron filings

D. Oil mixed thoroughly with water

Q95 General Science

If a material has an absolute refractive index of 1.7, what does this imply about the speed of light in that material compared to vacuum?

A. Light travels 1.7 times faster in the material than in vacuum.

B. Light travels 1.7 times slower in the material than in vacuum.



C. The speed difference cannot be determined from this value.

D. Light travels at the same speed in both.

Q96 General Science

Which bee variety is commonly known as the Indian bee and is used for commercial honey production?

A. *Apis mellifera*

B. *Apis dorsata*

C. *Apis cerana indica*



D. *Apis florae*

Q97 General Science

Which enzyme initiates carbohydrate digestion in the human mouth?

A. Trypsin released by pancreas

B. Lipase secreted by liver

C. Pepsin secreted by gastric glands

D. Salivary amylase present in saliva

**Q98 General Science**

A physicist uses a convex lens to focus sunlight onto a piece of paper and notices the smallest, brightest spot forms at a certain distance from the lens. Which property of the lens does this experiment help to determine?

A. The experiment helps to determine the focal length of the lens.



B. The experiment helps to determine the diameter of the lens.

C. The experiment helps to determine the principal axis of the lens.

D. The experiment helps to determine the optical center of the lens.

Q99 General Science

Why are cross-breeding programmes between indigenous and exotic poultry breeds undertaken?

A. To create hybrids showing similarity with their ancestors

B. To create hybrids with less attractive features

C. To increase only the egg size

D. To develop new varieties with desirable traits

**Q100 General Science**

If an ammeter reading increases when a thicker wire replaces a thinner one of the same material and length, what is the most likely reason?

A. The wire's resistivity increased

B. The wire's length is shorter

C. The resistance of the thicker wire is lower, allowing more current



D. The voltage across the wire decreased



Mathematics

33 Questions • Answer Key

Q1 Mathematics

What should come in place of '?' in the given series?

3 8 6 11 9 14 ?

A. 17

B. 16

C. 12



D. 15

Q2 Mathematics

The number 343264 is divisible by:

A. 27

B. 43

C. 29

D. 32



Q3 Mathematics

A shopkeeper bought six identical mobile phones for ₹72,000. He sold two of these mobile phones for ₹42,000. Find his gain percentage.

A. 77%

B. 78%

C. 75%



D. 76%

Q4 Mathematics

A man bought two types of sharpeners, one at ₹18 for 9 sharpeners and the other at ₹8 per sharpener. He purchased an equal number of each type and sold all the sharpeners at ₹8 per piece. Find his percentage profit.

A. 80%

B. 85%

C. 60%



D. 75%

Q5 Mathematics

Two water supply lines A and B can fill a reservoir individually in 10 hours and 12 hours, respectively. A discharge outlet D can empty the reservoir completely in 6 hours. If all three are opened together at 7:00 A.M., at what time will one-fourth of the reservoir be filled?

A. 11 A.M.

B. 11 P.M.

C. 10 P.M.



D. 10 A.M.

Q6 Mathematics

A tap can fill a cistern in 27 hours, while another tap can empty the full cistern in 36 hours. If the cistern is initially empty and both taps are opened together, find the time (in hours) required to fill one-fourth of the cistern.

A. 108

B. 54

C. 81

D. 27



Q7 Mathematics

What should come in place of the question mark (?) in the given series?

10 13 19 28 40 ?

A. 53

B. 52

C. 55



D. 54

Q8 Mathematics

Let C be a circle with centre O, and R be an external point to C. Let RP and RQ be two tangents to circle C with P and Q being the points of tangency, respectively. If $\angle PRQ = 60^\circ$, then find $\angle POQ$.

A. 100° B. 60° C. 80° D. 120° 

Q9 Mathematics

If x is inversely proportional to y , and $y = 7$ when $x = 16$, find the value of x , when $y = 2$.

- A. 55
- B. 53
- C. 56
- D. 47

**Q10 Mathematics**

Find the mean proportional of 144 and 9.

- A. 35
- B. 37
- C. 39
- D. 36

**Q11 Mathematics**

A 200 m long train crosses a man walking at a speed of 6.6 km/h in the opposite direction in 15 seconds. What is the speed (in km/h) of the train?

- A. 42.2
- B. 37.2
- C. 41.4
- D. 46.3

**Q12 Mathematics**

The product of two consecutive natural numbers is 12. The greater of the two numbers is:

- A. 6
- B. 3
- C. 2
- D. 4

**Q13 Mathematics**

Mr. Madan got 9 out of 10 marks in English, 15 out of 16 in life sciences and the ratio of the percentage of his marks in English and Mathematics is 15: 16. If the total marks of Mathematics are 20, then find the difference of the percentage of his marks in Mathematics and life sciences.

- A. 2.25%
- B. 3.5%
- C. 5.25%
- D. 4.35%

**Q14 Mathematics**

If at the same rate of interest, in 2 years, the simple interest is ₹48 and compound interest, compounded annually, is ₹54, then what is the principal (in ₹)?

- A. 96
- B. 91
- C. 100
- D. 89

**Q15 Mathematics**

The average of the first 18 positive multiples of 9 is:

- A. 9
- B. 85.5
- C. 18
- D. 81

**Q16 Mathematics**

Simplify: $23 - [3 - \{9 - (4 + 5)\}]$

- A. 24
- B. 27
- C. 20
- D. 17

**Q17 Mathematics**

A trader gives 10% discount on the marked price of an article and gives 40 articles free for buying 112 articles and gains 26% in the entire transaction. Assuming a customer pays for 112 articles, the marked price of an article is what percentage more than its cost price?

- A. 95%
- B. 98%
- C. 90%
- D. 82%

**Q18 Mathematics**

Rupesh has borrowed an amount of ₹4,40,000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 7% per annum after 3 years?

- A. 91400
- B. 92400
- C. 93400
- D. 94400



Q19 Mathematics

Anwar's salary is ₹19,000 per month. He spends ₹4,500 on house rent, ₹1,500 on bills and the rest of the amount is his monthly savings. Find his savings (in ₹) in a year, if in the month of his birthday, he spent his complete monthly savings for his birthday celebration.

- A. 1,17,000
- B. 1,30,000
- C. 1,56,000
- D. 1,43,000

**Q20 Mathematics**

Three bells ring at intervals of 4, 6, and 9 minutes, respectively. If they all ring together at 9:00 a.m., at what time will they ring together again?

- A. 9:54 a.m.
- B. 9:36 a.m.
- C. 9:42 a.m.
- D. 9:48 a.m.

**Q21 Mathematics**

If two cars start at the same point and move along a straight road, Car X at a constant speed of 40 km/h and Car Y at a constant speed of 60 km/h, which statement correctly compares their motions after 2 hours?

- A. Both cars will have traveled the same distance after 2 hours.
- B. Car Y will be 40 km ahead of Car X after 2 hours.
- C. Car Y will be 20 km ahead of Car X after 2 hours.
- D. Car X will be 40 km ahead of Car Y after 2 hours.

**Q22 Mathematics**

In covering a distance of 130 km, Amit takes 4 hours more than Vinay. If Amit doubles his speed, then he would take 9 hour less than Vinay. Amit's original speed is:

- A. 5 km/h
- B. 9 km/h
- C. 6 km/h
- D. 14 km/h

**Q23 Mathematics**

A cubical gift box has each side measuring 12.4 cm. It is to be wrapped all over with a gift paper. Find the area to be wrapped.

- A. 1022.45 cm²
- B. 822.75 cm²
- C. 922.56 cm²
- D. 1082.50 cm²

**Q24 Mathematics**

Find the median of the following data.

7, 19, 88, 20, 19, 26, 90, 81, 44, 34.

- A. 30
- B. 28
- C. 32
- D. 34

**Q25 Mathematics**

In what ratio should sugar costing ₹38 per kg be mixed with sugar costing ₹55 per kg so that by selling the mixture at ₹57.20 per kg, there is a profit of 10%?

- A. 12 : 1
- B. 3 : 14
- C. 12 : 5
- D. 15 : 1



Q26 Mathematics

What is the mean of the following distribution?

Marks	10	28	48	69	87
No. of Students	15	34	37	44	12

A. 78

B. 34

C. 49



D. 71

Q27 Mathematics

Solve the following linear equations.

$$x + y - 2z = 10, \quad 3x + y - z = 12, \quad x + 2y - z = 5$$

A. $x = -3, y = 1, z = 4$

B. $x = 4, y = -1, z = -3$

C. $x = 3, y = -1, z = -4$



D. $x = -4, y = 1, z = 3$

Q28 Mathematics

A road roller of diameter 2.24 m and length 1 m has to press a ground of area 880 m^2 . How many revolutions does it make to complete the work?

$$\left(\text{Use } \pi = \frac{22}{7} \right)$$

A. 109

B. 100

C. 114

D. 125



Q29 Mathematics

If $\frac{x}{x^2 - 4x + 1} = \frac{1}{9}$, then the value of $x^3 + \frac{1}{x^3}$ is:

A. 2158



B. 1256

C. 1839

D. 729



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Q30 Mathematics

If $\operatorname{cosec}^2\theta + 4\sin^2\theta = 4$, where $0^\circ \leq \theta \leq 90^\circ$, then find the value of θ .

A. 60°

B. 45° ✓

C. 90°

D. 30°

Q31 Mathematics

The ratio of fare of a person between Auto and Bus is 2 : 3.5 and the ratio of number of passengers travelled, on a particular day, by Auto and Bus is 4 : 7. By what fraction the total fare collected by Auto on that particular day is less than the total fare collected by Bus?

A. $\frac{1}{3}$

B. $\frac{33}{49}$ ✓

C. $\frac{2}{5}$

D. $\frac{3}{5}$

Q32 Mathematics

The value of $\sqrt{\left(42 + \sqrt{\left(46 + \sqrt{\left(3 + \sqrt{\left(34 + \sqrt{(4)}\right)}\right)}\right)}\right)}$ is:

A. 9

B. 11

C. 8

D. 7 ✓

Q33 Mathematics

One root of the quadratic equation $2x^2 + (k+3)x + 2k = 0$ is reciprocal of the other. Find the roots.

A. -1 and 1

B. 1 and 1

C. $\frac{1}{2}$ and 2

D. -1 and -1 ✓



Q34 General Intelligence and Reasoning

B is the mother of U. U is the sister of N. C is the father of Y. Y is the husband of N. How is Y related to B?

A. Daughter's husband ☒

B. Husband

C. Father

D. Daughter's son

Q35 General Intelligence and Reasoning

If + means $\times$, $\times$ means $\div$, $\div$ means $+$, then what will come in place of the question mark (?) in the following equation?

$$53 + 28 \div 72 \times 8 - 3 = ?$$

A. 52 ☒

B. 51

C. 28

D. 27

Q36 General Intelligence and Reasoning

A question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements carefully and decide the appropriate answer.

Among 5 people, A, B, C, D and E, each of a different height, who is the second-tallest?

I: E is shorter than A. B is taller than D but shorter than E.

II: Only C is taller than A. D is shorter than E.

A. The data in statement I and II together (and not statement I alone or statement II alone) is sufficient to answer the question

B. The data in statement I and II put together is NOT sufficient to answer the question

C. The data in statement I alone is sufficient to answer the question while data in statement II is not

D. The data in statement II alone is sufficient to answer the question while data in statement I is not ☒

Q37 General Intelligence and Reasoning

KJ 3 is related to MF -10 in a certain way. In the same way, EH 6 is related to GD -7. To which of the given options is QJ 4 related, following the same logic?

A. RF -9

B. RE -7

C. SE -7

D. SF -9 ☒

Q38 General Intelligence and Reasoning

This question is based on the five, three-digit numbers given below.

(Left) 694 874 742 459 648 (Right)

(Example- 697 – First digit = 6, second digit = 9 and third digit = 7)

What will be the resultant if second digit of the highest number is added to the third digit of lowest number?

A. 13

B. 14

C. 12

D. 16 ☒

Q39 General Intelligence and Reasoning

Refer to the following letter, symbol series and answer the question.

(Left) Z U % & J L C @ M * N # % Q X Y & \$ T E % X (Right)

If all the letters are dropped from the series, which of the following will be sixth from the left?

A. *

B. &

C. #

D. % ☒

Q40 General Intelligence and Reasoning

In a certain code language,

A + B means 'A is the daughter of B'

A - B means 'A is the brother of B'

A x B means 'A is the wife of B'

A ÷ B means 'A is the father of B'

Based on the above, how is E related to K if 'E x F - G + H ÷ K'?

A. Daughter

B. Brother's daughter

C. Wife

D. Brother's wife ☒



Q41 General Intelligence and Reasoning

88 is related to 225 following a certain logic. Following the same logic, 124 is related to 261. To which of the following is 178 related, following the same logic?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

A. 311

B. 315

C. 317

D. 313

Q42 General Intelligence and Reasoning

What should come in place of ? in the given series based on the English alphabetical order?
TLP SKO RJN QIM ?

A. PHK

B. PGK

C. PGL

D. PHL

Q43 General Intelligence and Reasoning

Atharv starts from Point A and drives 12 km towards west. He then takes a right turn, drives 3 km, turns right and drives 16 km. He then takes a right turn and drives 9 km. He takes a final right turn, drives 4 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again?

(All turns are 90 degree turns only unless specified.)

A. 5 km to the north

B. 6 km to the north

C. 5 km to the south

D. 6 km to the south

Q44 General Intelligence and Reasoning

Six friends, O, P, Q, G, H and I, live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it is numbered 2 and so on, till the topmost floor, which is numbered 6.

Q lives on an odd-numbered floor. Only two people live between Q and O. H lives immediately above O. G lives immediately below P.

How many people live between I and P?

A. Two

B. Three

C. One

D. None

Q45 General Intelligence and Reasoning

Seven people, F, J, M, L, R, V and X, are sitting in a row, facing north.

Only V sits to the left of F. Only four people sit between V and J. Only X sits between R and L, and R is not an immediate neighbor of J.

How many people sit to the left of L?

A. 1

B. 2

C. 3

D. 4

Q46 General Intelligence and Reasoning

L, I, S, T, E and N, each has a different age. Only N is younger than L. S is older than T, but younger than E. Only I is older than E. Who is the third youngest?

A. T

B. E

C. I

D. N



Q47 General Intelligence and Reasoning

Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

(33, 1089, 17)
(21, 441, 11)

A. (30, 900, 16)

B. (27, 729, 14) ✓

C. (18, 324, 11)

D. (24, 576, 13)

Q48 General Intelligence and Reasoning

Refer to the following letter and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) M L Z Q @ L X + E S E / J L Q Y Q W + X R (Right)

How many such letters are there each of which is immediately preceded by a symbol and also immediately followed by a symbol?

A. None ✓

B. Three

C. Two

D. One

Q49 General Intelligence and Reasoning

I, J, K, U, V and W live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it, number 2 and so on, till the topmost floor is numbered 6. Only two people live between V and J. Only K lives above W. U lives on an even numbered floor. V lives on the lowermost floor. How many people live between I and K?

A. One

B. Two ✓

C. Three

D. Four

Q50 General Intelligence and Reasoning

Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which is the one that does not belong to that group?

(NOTE: The odd man out is not based on the number of consonants/vowels or their position in the letter cluster.)

A. HM - QL

B. NT - XT ✓

C. OT - XS

D. AF - JE

Q51 General Intelligence and Reasoning

19 is related to 210 following a certain logic. Following the same logic, 27 is related to 298. To which of the following is 43 related, following the same logic?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

A. 476

B. 474 ✓

C. 478

D. 475

Q52 General Intelligence and Reasoning

Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. You have to decide which conclusion(s) logically follow(s) from the given statements.

Statements: All stamp are logo. All stamp are cheque. All stamp are document.

Conclusions (I): All logo are document.

Conclusions (II): Some document are cheque.

A. Neither conclusion (I) nor (II) follows

B. Only conclusion (I) follows

C. Both conclusions (I) and (II) follow

D. Only conclusion (II) follows ✓



Q53 General Intelligence and Reasoning

Which of the following letter-clusters should replace # and % so that the pattern and relationship followed between the letter-cluster pair on the left side of :: is the same as that on the right side of :: ?

: GJE :: SVQ : %

A. # = PLG, % = QJN

B. # = IPG, % = QTM

C. # = MKG, % = QKI

D. # = ILG, % = QTO

**Q54 General Intelligence and Reasoning**

In this question, a group of number/symbol is coded using letter codes as per the codes given below and the conditions which follow. The correct combination of codes following the conditions is your answer. If none of the conditions follow, then codes for the respective Number/Symbol to be followed directly as given in the table.

NUMB ER/SY MBOL	7	\$	8	6	&	#	3	+	5	4	2	9	@	*
CODE	B	C	R	T	H	U	L	P	A	Q	V	N	J	M

Conditions –

(i) If the first element is a symbol and the last a number, the codes for these two (the first and the last elements) are to be interchanged.

(ii) If the first element is an odd number and the last an even number, the first and last elements are to be coded as ©

(iii) If both second and third elements are perfect squares, the third element is to be coded as the code for the second element.

7 & * 8 4

A. M H M R ©

B. B H M R Q

C. © H M R ©



D. © H M Q ©



Q55 General Intelligence and Reasoning

In this question, a group of number/symbol is coded using letter codes as per the codes given below and the conditions which follow. The correct combination of codes following the conditions is your answer. If none of the conditions follow, then codes for the respective Number/Symbol to be followed directly as given in the table.

Number/symbol	2	@	9	5	\$	3	&	%	#	7	+	4	8	6
Code	P	T	L	J	A	W	E	Q	D	R	S	B	U	F

Conditions –

- If the first element is a number and the last a symbol, the codes for these two (the first and the last elements) are to be interchanged.
- If the first element is an odd number and the last an even number, the first and last elements are to be coded as *
- If both second and third elements are perfect squares, the third element is to be coded as the code for the second element.

What will be the code for the following group of number-symbol?

537+

A. JRWS

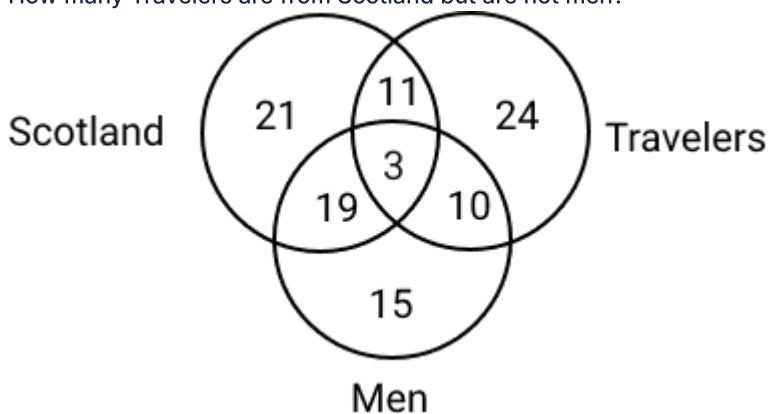
B. SRWJ

C. JWRS

D. SWRJ

**Q56** General Intelligence and Reasoning

Study the given Venn diagram carefully and answer the question. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.) How many Travelers are from Scotland but are not men?



A. 11

B. 19

C. 15

D. 10



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Q57 General Awareness

What global events in late 2019 and early 2020 have contributed to a rethinking of globalisation strategies among policymakers?

- A. Technological stagnation and inflation
- B. COVID-19 pandemic ✓
- C. Urbanization and migration
- D. Decrease in oil prices and global warming

Q58 General Awareness

Which measure has been made mandatory for brick kilns in India to reduce emissions, as per the 2024 government report on pollution control?

- A. Retrofitting of biomass combustion units
- B. Use of electrostatic filters in stacks
- C. Conversion to solar thermal drying systems
- D. Transition to zig-zag kiln technology ✓

Q59 General Awareness

In 2025, which Indian state government announced a legacy policy aimed at ensuring the long-term utilization of sports infrastructure developed for the National Games?

- A. Gujarat
- B. Maharashtra
- C. Uttarakhand ✓
- D. Bihar

Q60 General Awareness

The Indian classical dance forms Kuchipudi and Bharatanatyam originated in which Indian states, respectively?

- A. Tamil Nadu and Andhra Pradesh
- B. Karnataka and Andhra Pradesh
- C. Andhra Pradesh and Tamil Nadu ✓
- D. Kerala and Tamil Nadu

Q61 General Awareness

Which of the following bodies is described as the "real executive" in the Indian political system?

- A. Prime Minister of India ✓
- B. Supreme Court of India
- C. Council of Ministers
- D. President of India

Q62 General Awareness

Who is the author of the book titled 'I Am?', which was launched by Vice-president of India, Jagdeep Dhankhar in February 2025?

- A. Satya Nadella
- B. Roshni Nadar
- C. Gopichand P. Hinduja ✓
- D. Grandhi Mallikarjuna Rao

Q63 General Awareness

In May 2025, DRDO's DMSRDE laboratory in _____ created an advanced polymeric membrane designed for high-pressure desalination of seawater.

- A. Pune
- B. Kanpur ✓
- C. Jaipur
- D. Hyderabad

Q64 General Awareness

Which state hosted the 38th National Games of India in 2025?

- A. Karnataka
- B. Gujarat
- C. Maharashtra
- D. Uttarakhand ✓

Q65 General Awareness

Which of the following features distinguishes the Purvanchal hills from the rest of the Himalayan mountain system?

- A. They stretch in a convex arc along the eastern frontier ✓
- B. They form the highest peaks of the Zaskar range
- C. They are snow-covered throughout the year
- D. They include the Aravalli and Satpura hill groups

Q66 General Awareness

Which reformer attempted to synthesize Indian and Western religious thought in the 19th century?

- A. Swami Vivekananda
- B. Raja Ram Mohan Roy ✓
- C. Keshab Chandra Sen
- D. Sir Syed Ahmed Khan



Q67 General Awareness

Which of the following was NOT a major recommendation of the Kelkar Task Force (2002) on direct taxes?

- A. Reduction in corporate tax rate to 40 percent for domestic companies ✓
- B. Extension of PAN to cover all economic agents/citizens
- C. Elimination of the standard deduction for salaried taxpayers
- D. Elimination of the minimum alternate tax on corporate entities

Q68 General Awareness

What was the immediate cause that sparked the 1857 uprising among Indian sepoys?

- A. Use of greased cartridges in Enfield rifles ✓
- B. Disbandment of local rulers
- C. Heavy taxation
- D. Attack on Lucknow by the British army

Q69 General Awareness

Article 23 of the Indian Constitution prohibits which of the following?

- A. Prohibition of traffic in human beings and forced labour ✓
- B. Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth
- C. Prohibition of employment of children in factories, etc.
- D. Prohibition of solemnisation of child marriages

Q70 General Awareness

Select the correct option regarding the following two statements labelled Assertion (A) and Reason (R).

Assertion (A): Burning plastic waste is a safe method of disposal.

Reason (R): Burning plastic releases toxic gases harmful to humans and the environment.

- A. Assertion is false, reason is true ✓
- B. Both assertion and reason are true, but reason does not correctly explain the assertion
- C. Assertion is true, reason is false
- D. Both assertion and reason are true, and reason correctly explains the assertion

Q71 General Awareness

Who is the Chairperson of the Hyderabad City Security Council (HCSC) supporting the STREE Summit 2025?

- A. Geeta Goti
- B. CV Anand ✓
- C. Joshna Chinappa
- D. C Shekar Reddy

Q72 General Awareness

Which of the following options correctly explains why the eastern coastal plains of India are wider and more deltaic than the western coastal plains?

- A. Eastern rivers form large deltas due to gentle slopes ✓
- B. Eastern plains have more tectonic uplift
- C. Eastern rivers flow over steep gradients
- D. Eastern plains receive less tidal influence

General Science

28 Questions • Answer Key

Q73 General Science

In which of the following organisms are chromoplasts present?

- A. Hydra
- B. Star fish
- C. Rose ✓
- D. Amoeba

Q74 General Science

Which process is responsible for the removal of waste byproducts from the body in living organisms?

- A. Nutrition
- B. Transportation
- C. Excretion ✓
- D. Respiration



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Q75 General Science

Why is it important to dry agricultural produce first in sunlight and then in shade before storage?

- A. To reduce moisture content and prevent growth of pests and fungi. ✓
- B. To improve the color and taste of the produce.
- C. To make the grains easier to pack and prevent growth of weeds.
- D. To increase the size and brightness of the grains.

Q76 General Science

Which substance has a molecular mass of 44 u?

- A. Carbon monoxide
- B. Ammonia
- C. Methane
- D. Carbon dioxide ✓

Q77 General Science

What is the mass by mass percentage of salt in a solution prepared by dissolving 10 g of salt in 90 g of water?

- A. 90%
- B. 1%
- C. 10% ✓
- D. 100%

Q78 General Science

An object of mass 3 kg initially at rest is subjected to a constant force of 9 N for 2 seconds. What will be its final velocity?

- A. 18 m/s
- B. 6 m/s ✓
- C. 3 m/s
- D. 9 m/s

Q79 General Science

Which of the following arrangements produces a nearly uniform magnetic field in the central region of a circular current-carrying system under steady conditions?

- A. Arranging loops in random orientations
- B. Allowing current to vary with time in a single loop
- C. Using multiple closely wound turns of identical radius with constant current ✓
- D. Using loops of varying radii

Q80 General Science

Which method helps prevent rancidity?

- A. Exposing food to sunlight
- B. Storing food in airtight containers ✓
- C. Adding excess water
- D. Heating food continuously

Q81 General Science

Refer to the two statements given below and choose the CORRECT option.

Statement A: Mixed cropping helps reduce the risk of total crop failure under adverse environmental conditions.

Statement B: In mixed cropping, different crops are grown in a definite row arrangement to minimise competition.

- A. Both statements A and B are incorrect.
- B. Both statements A and B are correct.
- C. Statement A is incorrect but B is correct.
- D. Statement A is correct but B is incorrect. ✓

Q82 General Science

Which of the following statements about Plaster of Paris (POP) is CORRECT?

- A. POP is $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$ and sets slowly without water
- B. POP is $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ and sets quickly on mixing with water
- C. POP is $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$ and hardens by reacting with water ✓
- D. POP is $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ and is mainly used as a fertilizer

Q83 General Science

A person with both myopia and hypermetropia is most likely to use which type of lens?

- A. Concave lens
- B. Convex lens
- C. Bi-focal lens ✓
- D. Cylindrical lens



Q84 General Science

A scientist is designing an artificial multi-cellular organism. What must they include to ensure all cells receive nutrients and remove wastes effectively?

- A. Simple diffusion through the entire surface
- B. A transportation system for food, oxygen, and waste ✓
- C. Only specialised tissues for nutrition
- D. Direct contact of every cell with the environment

Q85 General Science

Bleaching powder is commonly used:

- A. As a fuel
- B. To disinfect water ✓
- C. To make soap
- D. As a sweetener

Q86 General Science

Which calculation correctly gives the molecular mass of nitric acid (HNO_3)?

- A. $1 + 14 + 3$
- B. $1 + 14 + 16$
- C. $2 + 14 + 48$
- D. $1 + 14 + 48$ ✓

Q87 General Science

A student drags a suitcase on a flat airport floor. If the force applied and the distance moved both double, how does the work done change?

- A. Work done becomes four times greater. ✓
- B. Work done halves.
- C. Work done doubles.
- D. Work done remains unchanged.

Q88 General Science

A farming community wants to maximize crop yield despite limited increase in cultivable land. Which set of practices should they prioritize to achieve this goal?

- A. Farming without introducing modern technology or high-yielding varieties.
- B. Solely expanding the use of traditional farming methods.
- C. Crop variety improvement and crop production improvement only.
- D. Crop variety improvement, crop production improvement, and crop protection management. ✓

Q89 General Science

If a constant force acts on two objects of different masses, which statement best describes their acceleration according to the second law of motion?

- A. The object with greater mass will have greater acceleration.
- B. The object with smaller mass will have greater acceleration. ✓
- C. Acceleration does not depend on mass.
- D. Both objects will have the same acceleration.

Q90 General Science

Which observation best supports the statement that humans have double circulation of blood?

- A. Blood flows only once through the heart in one complete cycle
- B. Oxygenated and deoxygenated blood mix in the heart
- C. Blood passes through the heart twice in one complete circulation ✓
- D. Right side of the heart pumps oxygenated blood

Q91 General Science

When an object is placed at infinity in front of a convex mirror, what is the nature of the image formed?

- A. Virtual and erect ✓
- B. Real and inverted
- C. Real and erect
- D. Virtual and inverted

Q92 General Science

Which statement correctly describes an ion?

- A. A charged atom or group of atoms ✓
- B. A compound formed by covalent bonds
- C. A neutral atom formed by chemical bonding
- D. A molecule containing similar atoms only

Q93 General Science

If an atom loses two electrons, which of the following changes will occur?

- A. The atomic number will increase by 2.
- B. The neutron number will decrease by 2.
- C. The atomic number will decrease by 2.
- D. The atom will become a cation with +2 charge. ✓



Q94 General Science

In graphite, a carbon atom is attached with:

- A. Four other carbon atoms
- B. Two other carbon atoms
- C. One other carbon atom
- D. Three other carbon atoms ✓

Q95 General Science

A student claims that the force exerted by the Earth on the Moon is much stronger than the force exerted by the Moon on the Earth. Based on Newton's third law and the Universal Law of Gravitation, is this claim correct?

- A. No, both forces are equal in magnitude but opposite in direction ✓
- B. Yes, because Earth is more massive, it exerts more force
- C. No, Earth exerts a much smaller force on the Moon
- D. No, the Moon exerts a stronger force because it is closer to Earth

Q96 General Science

In the context of uniform circular motion, which of the following examples from everyday life best illustrates this concept?

- A. A car moving with changing speed along a circular track
- B. A pendulum bob swinging to and fro
- C. A satellite revolving around the Earth at a fixed speed in a circular orbit ✓
- D. A person walking randomly in a park

Q97 General Science

Equal pieces of zinc and copper are added separately to dilute sulphuric acid. Which observation is CORRECT?

- A. Neither metal evolves hydrogen gas
- B. Only zinc evolves hydrogen gas ✓
- C. Both metals evolve hydrogen gas
- D. Only copper evolves hydrogen gas

Q98 General Science

Bee-keeping is suitable as an additional income because it:

- A. Requires low investment ✓
- B. Needs large land area
- C. Depends on irrigation
- D. Uses chemical fertilisers

Q99 General Science

Animal tissues differ from plant tissues because animal tissues:

- A. Show unlimited growth
- B. Lack specialized functions
- C. Possess rigid cell walls
- D. Are mostly living and flexible ✓

Q100 General Science

A solar cooker uses a mirror to concentrate sunlight onto a vessel. Which type of mirror is used and what property makes it suitable?

- A. A concave mirror because it focuses parallel sunlight to a single point ✓
- B. A plane mirror because it reflects light uniformly
- C. A convex mirror because it spreads light over a large area
- D. A convex mirror because it provides a wide field of view



Mathematics

32 Questions • Answer Key

Q1 Mathematics

Water flows at the rate of 10 m/min from a cylindrical pipe 6 mm in diameter. How long will it take to fill up a conical vessel whose diameter at the base is 60 cm and depth 21 cm?

- A. 1 hour, 20 minutes
- B. 1 hour, 12 minutes
- C. 1 hour, 10 minutes ✓
- D. 1 hour, 6 minutes

Q2 Mathematics

The LCM of $5^3 \times 8^2 \times 12$, $5^2 \times 12^2 \times 16$ and $8^3 \times 12^2 \times 16^2$ is:

- A. $220 \times 32 \times 53$
- B. $219 \times 32 \times 53$
- C. $221 \times 32 \times 53$ ✓
- D. $222 \times 32 \times 53$

Q3 Mathematics

Two circles, having their centres at A and at B, touch externally at a point M. From a point P on a tangent at M, tangents PQ and PR are drawn to the circles with points of contact Q and R, respectively. If AP = 13 cm and AM = 5 cm, find the value of PQ + PR - PM.

- A. 10 cm
- B. 13 cm
- C. 12 cm ✓
- D. 14 cm

Q4 Mathematics

Amit had invested same amount of sums at simple interest as well as compound interest, compounded annually. The time period of both the sums was 2 years and rate of interest too was the same 10% per annum. At the end, he found a difference of ₹45 in both the interests received. What were the sums (in ₹) invested in each case?

- A. 4,500 ✓
- B. 3,750
- C. 4,850
- D. 3,600

Q5 Mathematics

The sum of the squares of two consecutive odd natural numbers is 3530. The sum of the numbers is:

- A. 98
- B. 100
- C. 80
- D. 84 ✓

Q6 Mathematics

If x varies directly as y and inversely as z, and x = 16 when y = 40 and z = 3, then find x when y = 50 and z = 6.

- A. 12
- B. 16
- C. 15
- D. 10 ✓

Q7 Mathematics

In what ratio must a fruit vendor mix two varieties of mangoes costing ₹60/kg and ₹68.40/kg, so that by selling the mixed variety of mangoes at ₹79.80/kg, he may gain 18.75%?

- A. 1 : 6 ✓
- B. 6 : 1
- C. 7 : 3
- D. 3 : 7

Q8 Mathematics

P and Q together can fill a cistern with water in 24 hours. If P alone can fill the cistern with water in 96 hours, then in how many hours will Q alone fill three-fourth of the same cistern with water?

- A. 49
- B. 48
- C. 25
- D. 24 ✓



Q9 Mathematics

Mahesh has borrowed an amount of ₹420000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 6% per annum after 2 years?

A. 50400



B. 49400

C. 51400

D. 53400

Q10 Mathematics

During a sale 50% of the goods are sold at 19% profit, 20% of the remaining goods are sold at 40% profit and the still remaining goods are sold at a loss of 25%. If there is an overall profit of $x\%$, then what is the value of x ?

A. 2

B. 4

C. 3.5



D. 5

Q11 Mathematics

What should come in place of '?' in the given series?

115, 119, 127, 139, 155, ?

A. 177

B. 175



C. 171

D. 173

Q12 Mathematics

What is the remainder when $(x^2 - 4x + 7)$ is divided by $(x - 2)$?

A. 7

B. 3



C. 1

D. -1

Q13 Mathematics

The price of fuel decreases by 35%, 10% and 50% in three successive months, but increases by 40% in the fourth month. What is the percentage increase/decrease in the price of fuel in the fourth month as compared to its original price?

A. Decreases by 63.97%

B. Decreases by 59.05%



C. Increases by 56.75%

D. Increases by 64.45%

Q14 Mathematics

The simplified value of $178 - 7 \times (3 + 17) + 22$ is:

A. 67

B. 58

C. 60



D. 66

Q15 Mathematics

The length of a cuboid is three times its height, and the breadth is twice the height. If the height is $(x^2 + 2)$ cm, find the lateral surface area of the cuboid at $x = 2$.

A. 360 cm²



B. 420 cm²

C. 240 cm²

D. 300 cm²

Q16 Mathematics

The marks scored by 10 students are given below.

12, 12, 20, 12, 12, 17, 17, 18, 18, 13

The mode of the data is:

A. 12



B. 20

C. 17

D. 15

Q17 Mathematics

A and B can complete a work in 15 days and 10 days, respectively. They started doing the work together but after 4 days, B had to leave, and A completed the remaining work alone. The entire work was completed in _____ days.

A. 10

B. 6

C. 9



D. 5



Q18 Mathematics

If Chandu covers 285 km in a boat in 45 hours against the stream while he takes 18 hours to cover the same distance downstream, then find the speed of the stream.

A. 5.16 km/h

B. 4.75 km/h ☒

C. 1.39 km/h

D. 5.78 km/h

Q19 Mathematics

What should come in place of '?' in the given series?

250 200 160 130 ?

A. 110 ☒

B. 120

C. 90

D. 100

Q20 Mathematics

If 15% of A is equal to 20% of B and 10% of B is equal to 25% of C, what is the ratio of A : B : C?

A. 22:17:11

B. 12:9:7

C. 20:15:6 ☒

D. 8:7:6

Q21 Mathematics

The average of the first 18 positive multiples of 8 is:

A. 18

B. 8

C. 72

D. 76 ☒

Q22 Mathematics

If third proportional of 8 and 48 be x, then what is the value of x?

A. 291

B. 288 ☒

C. 289

D. 286

Q23 Mathematics

A vending machine contains ₹1, 50 paise, and 25 paise coins. In one tray, the number of coins of these denominations is in the ratio 2:3:4, and their total value is ₹180. In another tray, the values of ₹1, 50 paise, and 25 paise coins are in the ratio 13:11:7, and the total number of coins in this tray is 378. How many 50-paise coins are there in total across both trays?

A. 251

B. 252 ☒

C. 253

D. 250

Q24 Mathematics

Simplify: $\frac{4}{5} + \left(\frac{1}{1 + \frac{5}{8}} \right) - \frac{3}{5}$

A. $\frac{60}{71}$

B. $\frac{58}{63}$

C. $\frac{48}{65}$

D. $\frac{53}{65}$ ☒



Q25 Mathematics

Find the discriminant of the equation $\frac{x-3}{x-4} + \frac{x-6}{x-5} = \frac{5}{2}$.

- A. 6
- B. -6
- C. 7
- D. -7



Q26 Mathematics

What is the volume (in cm^3) of a solid sphere whose radius is 2.1 cm (rounded off to two decimal places)? (Use $\pi = \frac{22}{7}$)

- A. 32.80
- B. 38.81
- C. 36.80
- D. 34.81



Q27 Mathematics

Assertion (A): If the median of the given data (provided in ascending order): 26, 29, 42, 53, x, x + 2, 70, 75, 82, 93, is 60 then the value of x is 59

Reason (R): When the number of observations (n) is even the median is the value of the $\frac{1}{2}$ (sum of middle terms)

provided data is arranged in ascending order.

- A. Both Assertion (A) and Reason are true and R is the correct explanation of A.
- B. Both Assertion (A) and Reason are true and R is not the correct explanation of A.
- C. Assertion (A) is true but Reason (R) is false.
- D. Assertion (A) is false but Reason (R) is true.



Q28 Mathematics

[Question text / figure not saved in the source paper record. Options and official answer as released.]

- A. $\frac{-6 - \sqrt{5}}{31}$
- B. $\frac{-7 - \sqrt{5}}{31}$
- C. $\frac{-6 - \sqrt{5}}{36}$
- D. $\frac{-6 - \sqrt{5}}{41}$



Q29 Mathematics

Mr. Y travelled 438 km, 820 km and 972 km at a speed of 6 km/hr, 20 km/hr and 27 km/hr, respectively. Find his average speed in km/hr.

A. $14\frac{11}{15}$

B. $14\frac{8}{15}$

C. $14\frac{13}{15}$ ✓

D. $14\frac{14}{15}$

Q30 Mathematics

A dealer purchases 1,200 eggs at ₹4.50 each. During transit, 8% of the eggs break. The remaining eggs are sold at ₹6.00 each. Find the overall profit percentage.

A. $22\frac{2}{3}\%$ ✓

B. $22\frac{1}{3}\%$

C. $21\frac{2}{3}\%$

D. $21\frac{1}{3}\%$

Q31 Mathematics

The value of $\sqrt{\left(77 + \sqrt{\left(12 + \sqrt{\left(10 + \sqrt{\left(32 + \sqrt{(16)}\right)}\right)}\right)}\right)}$ is:

A. 13

B. 9 ✓

C. 8

D. 11



Q32 Mathematics

By selling an article at 76% of its marked price, a trader makes a loss of 20%. What will be the profit percentage, if he sells it at 99% of its marked price?

A. $2\frac{2}{19}\%$

B. $1\frac{1}{19}\%$

C. $4\frac{4}{19}\%$ ✓

D. $3\frac{3}{19}\%$

General Intelligence and Reasoning

23 Questions • Answer Key

Q33 General Intelligence and Reasoning

What will come in place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?

$$12 \div 3 + 32 \times 4 - 5 = ? + 3$$

A. 34

B. 38

C. 32

D. 36 ✓

Q34 General Intelligence and Reasoning

In a certain code language,
 A + B means 'A is the son of B'
 A - B means 'A is the sister of B'
 A x B means 'A is the wife of B'
 A ÷ B means 'A is the father of B'

Based on the above, how is C related to G if 'C x S + D ÷ F - G'?

A. Brother's daughter

B. Wife

C. Daughter

D. Brother's wife ✓

Q35 General Intelligence and Reasoning

In a certain code,
 'great people gathering' is coded as 'sc nj gy'
 'great minds together' is coded as 'xg jp sc'
 'read people minds' is coded as 'nj ys jp'
 (all the codes are two letter coded only)
 What is the code for 'together gathering'?

A. sc ys

B. gy jp

C. gy ys

D. xg gy ✓

Q36 General Intelligence and Reasoning

A question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements is sufficient to answer the question. Read both the statements and decide the appropriate answer.

Question: Ax, Bk, Cq, Dp and Ev are sitting around a circular table, facing the centre. Who sits to the immediate left of Cq?

Statements:

(I) Bk sits second to the left of Ev. Dp sits second to the right of Ev.

(II) Ax sits second to the right of Cq. Dp sits to the immediate left of Bk.

A. Data in statements I and II together are not sufficient to answer the question.

B. Data in Statement I alone is sufficient to answer the question, while data in statement II is not.

C. Data in Statement II alone is sufficient to answer the question, while data in statement I is not. ✓

D. Both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.



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Q37 General Intelligence and Reasoning

In a certain code language,
 A + B means 'A is the mother of B',
 A - B means 'A is the brother of B',
 A x B means 'A is the wife of B',
 A % B means 'A is the father of B' and
 A # B means 'A is the daughter of B'.

How is E related to J if 'E % V + T # H % J'?

- A. Wife's father
- B. Daughter's son
- C. Mother's father ✓
- D. Daughter's husband

Q38 General Intelligence and Reasoning

Seven people, F, J, M, L, R, V and X, are sitting in a row, facing north.

Only two people sit between F and L. Only M sits to the right of J. Only one person sits between L and J. R sits at some place to the right of V but at some place to the left of X.

How many people sit to the left of R?

- A. 2 ✓
- B. 1
- C. 3
- D. 4

Q39 General Intelligence and Reasoning

Meena, Sunita, Kavita, Rina and Priti have different heights. Only two people are shorter than Kavita. Rina is taller than Priti but shorter than Sunita. Meena is the tallest. Who is the shortest?

- A. Rina
- B. Sunita
- C. Priti ✓
- D. Meena

Q40 General Intelligence and Reasoning

In a certain code,
 'child plays game' is coded as 'ra so tu'
 'adult plays work' is coded as 'ke so mi'
 'game work activity' is coded as 'tu mi lo'

Q. What is the code for **activity**?

- A. tu
- B. lo ✓
- C. mi
- D. ke

Q41 General Intelligence and Reasoning

Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only. (All numbers are single-digit numbers only)

(Left) 2 # @ 1 4 ^ 8 9 + 2 ? \$ 3 ^ 7 * 9 8 (Right)

How many such symbols are there, each of which is immediately preceded by a number and also immediately followed by another number?

- A. Three
- B. Four ✓
- C. Two
- D. Five

Q42 General Intelligence and Reasoning

QSTV is related to ZBCE in a certain way based on the English alphabetical order. In the same way, VXYA is related to EGHJ. To which of the following is XZAC related, following the same logic?

- A. GIJL ✓
- B. GJIR
- C. GHIL
- D. GIIL

Q43 General Intelligence and Reasoning

Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

SWC67, XBH56, CGM45, HLR34, ?

- A. NQW23
- B. MQW23 ✓
- C. MOW23
- D. MQX23

Q44 General Intelligence and Reasoning

Kartik starts from Point A and drives 11 km towards east. He then takes a right turn, drives 5 km, turns right and drives 14 km. He then takes a right turn and drives 11 km. He takes a final right turn, drives 3 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again?

(All turns are 90 degree turns only unless specified.)

- A. 6 km to the south ✓
- B. 6 km to the north
- C. 7 km to the south
- D. 7 km to the north



Q45 General Intelligence and Reasoning

This question is based on the following words.

OUT USE TUG RIP

How many letters are there between the second letter of the first word from the right and the second letter of the first word from the left as per the English alphabetical order?

A. 11



B. 10

C. 12

D. 14

Q46 General Intelligence and Reasoning

Each of P, Q, R, S, T, U and V has an exam on a different day of a week, starting from Monday and ending on Sunday of the same week.

Only five people have exams after T. Only five people have exams before R. U has exam immediately before P. V has exam before U but on someday after S.

How many people have exams between V and Q?

A. One

B. Four

C. Two

D. Three

**Q47 General Intelligence and Reasoning**

In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

36, 289

58, 465

A. 19, 183

B. 21, 168

C. 23, 185



D. 32, 256

Q48 General Intelligence and Reasoning

In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

21, 274

34, 443

A. 24, 312

B. 27, 351

C. 26, 339



D. 29, 376

Q49 General Intelligence and Reasoning

Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:

All chocolates are juices.

All juices are medicines.

No juice is a biscuit.

Conclusions:

(I): No medicine is a biscuit.

(II): No chocolate is a biscuit.

A. Neither conclusion (I) nor (II) follows.

B. Only conclusion (II) follows.



C. Both conclusions (I) and (II) follow.

D. Only conclusion (I) follows.

Q50 General Intelligence and Reasoning

QL 2 is related to SG 16 in a certain way. In the same way, EI 6 is related to GD 20. To which of the following is PN 8 related, following the same logic?

A. UJ 23

B. YU 11

C. JI 12

D. RI 22



Q51 General Intelligence and Reasoning

Based on the alphabetical order, three of the following four are alike in a certain way and thus form a group. Which is the one that does not belong to that group? (Note: The odd man out is not based on the number of consonants/vowels or their position in the letter cluster.)

- A. DBX
- B. MLG
- C. USO
- D. WUQ

**Q52 General Intelligence and Reasoning**

Select the set in which the numbers are related in the same way as are the numbers of the following sets. (NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(24, 8, 96)
(28, 7, 98)

- A. (44, 6, 134)
- B. (52, 4, 102)
- C. (32, 6, 96)
- D. (48, 8, 144)

**Q53 General Intelligence and Reasoning**

Refer to the following letter and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) D K & Ω # E S Y C + * A B @ R T % U \$ £ Q G (Right)

How many such letters are there each of which is immediately preceded by another letter and also immediately followed by a symbol?

- A. 6
- B. 3
- C. 5

D. 4

**Q54 General Intelligence and Reasoning**

Each of C, D, E, F, X, Y and Z has an exam on a different day of a week starting from Monday and ending on Sunday of the same week.

Only two people have exams before D. Only one person has exam after C. Only three people have exams between D and Z. Only one person has exam between X and Y. F has exam immediately before X.

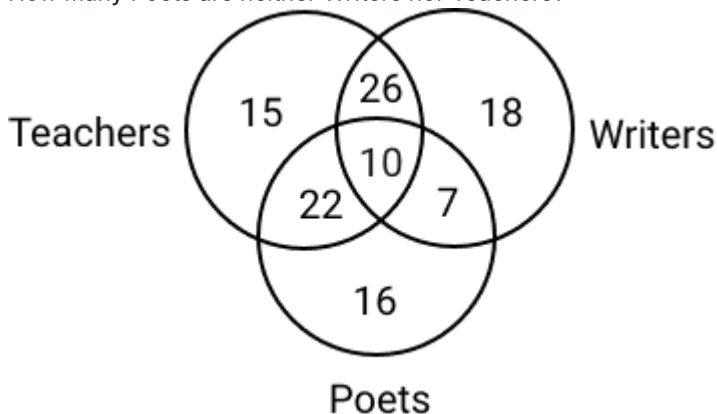
How many people have exam(s) between E and X?

- A. Two
- B. Three
- C. One
- D. Four

**Q55 General Intelligence and Reasoning**

Study the given Venn diagram carefully and answer the question. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.)

How many Poets are neither Writers nor Teachers?



- A. 16
- B. 22
- C. 10
- D. 15



Q56 General Awareness

Who was the Chairman of the 'Committee to Review Policy for Public Enterprises', set up by the Government of India in 1984?

- A. Subimal Dutt
- B. S. S. Tarapore
- C. Arjun Sengupta ✓
- D. K. Kasturirangan

Q57 General Awareness

Which of the following is the main reason for the flatness of the Great Indian Plains?

- A. Glacial erosion
- B. Tectonic uplift
- C. Wind erosion
- D. River deposition ✓

Q58 General Awareness

The 'Middle-Income Trap' refers to _____.

- A. Exclusive focus on agriculture
- B. Struggle to attain high income status ✓
- C. Over-reliance on foreign aid
- D. Rapid transition to high-income status

Q59 General Awareness

Why are terrestrial food chains usually limited to 4–5 trophic levels?

- A. Energy available decreases at higher trophic levels ✓
- B. Decomposers recycle all energy
- C. Top predators eat less
- D. Plants produce less oxygen

Q60 General Awareness

An individual who is not a member of either House of Parliament may be appointed to the Council of Ministers; however, they must become a member of either House within a specified time frame of:

- A. 12 Months
- B. 06 Months ✓
- C. 09 Months
- D. 03 Months

Q61 General Awareness

The Indian Home Rule League at Madras was founded by _____.

- A. Subhas Chandra Bose
- B. Bala Gangadhar Tilak
- C. Annie Besant ✓
- D. Mahatma Gandhi

Q62 General Awareness

What is the rank of the Indian Air Force as per the Global Firepower Index, 2025?

- A. Fifth
- B. Seventh
- C. Fourth ✓
- D. Sixth

Q63 General Awareness

Match the following List-I (World Events) with List-II (Outcomes) and choose your answer from the code given below.

World Events (List -I) Outcome (List-II)

1. United Nations Conference on the Human Environment, 1972 i) Millennium Development Goals (MDG)
2. Brundtland Report, 1987 ii) Adoption of Sustainable Development Goals (SDGs)
3. UN Millennium Summit, 2000 iii) Environmental Movement
4. UN Summit, 2015 iv) The word 'Sustainable Development' was introduced

- A. 1(i), 2(ii), 3(iii), 4(iv)
- B. 1(iii), 2(iv), 3(i), 4(ii) ✓
- C. 1(i), 2(iv), 3(iii), 4(ii)
- D. 1(i), 2(ii), 3(iv), 4(iii)

Q64 General Awareness

What key difference set the Kheda Satyagraha apart from the Ahmedabad Mill Strike during the phase of heightened nationalist activity?

- A. Mobilisation of rural peasants versus organisation of urban workers ✓
- B. Reliance on petitions and appeals to colonial authorities
- C. Common leadership under the same nationalist figures
- D. Emphasis on constitutional and legislative demands



Q65 General Awareness

In April 2025, which two Indian cricketers were featured in the Wisden 2025 honours list?

- ☒ A. Jasprit Bumrah and Smriti Mandhana
- ☐ B. Ravindra Jadeja and Harmanpreet Kaur
- ☐ C. Rohit Sharma and Renuka Thakur
- ☐ D. Ravichandran Ashwin and Jemimah Rodrigues

Q66 General Awareness

Select the correct option regarding the following two statements labelled Assertion (A) and Reason (R).

Assertion (A): Excess accumulation of biodegradable waste can also create environmental problems.

Reason (R): Slow decomposition may lead to foul smell and spread of disease.

- ☒ A. Both A and R are true, and R is the correct explanation of A
- ☐ B. A is false, but R is true
- ☐ C. Both A and R are true, but R is not the correct explanation of A
- ☐ D. A is true, but R is false

Q67 General Awareness

In January 2025, India became the fourth nation in the world to successfully dock two satellites in space. What was the name of this mission?

- ☒ A. SpaDeX
- ☐ B. Gaganyaan
- ☐ C. Mars Orbiter
- ☐ D. Chandrayaan-3

Q68 General Awareness

India is ranked at what position among 142 Countries, in the World Justice Project(WJP) Rule of Law Index 2024, released on October 2024?

- ☐ A. 52nd
- ☐ B. 10th
- ☒ C. 79th
- ☐ D. 14th

Q69 General Awareness

The Indian dancer Guru Vempati Chinna Satyam was related to which dance form, for which he was honoured with the Padma Bhushan in 1998?

- ☐ A. Mohiniyattam
- ☐ B. Kathakali
- ☐ C. Manipuri
- ☒ D. Kuchipudi

Q70 General Awareness

What is the correct sequence in which the oath of office binds a Union Minister?

- ☒ A. Allegiance to the → Constitution, → Sovereignty and integrity → Faithful discharge of duties → Impartiality
- ☐ B. Integrity → Constitution → Sovereignty → Duty → Impartiality (justice without fear or favour)
- ☐ C. Allegiance → Sovereignty → Duty and Impartiality → Faithful discharge
- ☐ D. Constitution → Justice → Integrity → Sovereignty

Q71 General Awareness

Who was honored with the Padma Shri in 2025 for preserving the traditional Tanglia weaving art?

- ☐ A. Pawan Goenka
- ☒ B. Parmar Lavjibhai Nagjibhai
- ☐ C. Prashanth Prakash
- ☐ D. Vinayak Lohani

Q72 General Awareness

Which peak marks the north-western end of the Great Himalaya?

- ☐ A. Namcha Barwa
- ☐ B. Mount Everest
- ☐ C. Kanchenjunga
- ☒ D. Nanga Parbat



Q73 General Science

A ball is placed at the edge of a table and left undisturbed. Which form of energy does the ball primarily possess due to its position, and what can happen if it is pushed off the table?

- A. The ball possesses elastic potential energy due to its shape.
- B. The ball possesses kinetic energy and will remain at rest unless a force acts on it.
- C. The ball possesses chemical energy and will release it when it falls.
- D. The ball possesses potential energy and will convert it to kinetic energy as it falls. ✓

Q74 General Science

A scientist wants to demonstrate that dispersion depends on wavelength. She shines monochromatic red light through a prism. What does she observe and why?

- A. Only a single red ray emerges; no spectrum forms because there is only one wavelength. ✓
- B. Red light is absorbed, so nothing emerges
- C. A full spectrum appears, showing all colors
- D. Multiple red rays emerge, each at a different angle

Q75 General Science

Which crop should a farmer consider for cultivation if he wants to increase protein content in his harvest?

- A. Vegetables and spices
- B. Pulses. ✓
- C. Oilseeds
- D. Cereals

Q76 General Science

Which metal releases the most heat when reacting with excess hydrochloric acid?

- A. Nickel
- B. Magnesium. ✓
- C. Iron
- D. Zinc

Q77 General Science

Which process is used to convert zinc carbonate ore into zinc oxide before reduction?

- A. Heating with aluminium powder
- B. Heating strongly in limited air. ✓
- C. Heating strongly in excess air
- D. Heating with carbon powder

Q78 General Science

Why is mercury obtained from cinnabar ore through two heating steps instead of direct reduction?

- A. Mercury metal reacts with oxygen on heating
- B. Mercury oxide forms only in absence of air
- C. Mercury sulphide must first change into oxide. ✓
- D. Mercury sulphide melts before decomposition

Q79 General Science

A student observes that a compass needle deflects when brought near a current-carrying wire. Using your understanding of magnetic fields, explain why this happens.

- A. The wire produces an electric force that acts on the compass needle.
- B. A current-carrying wire creates a magnetic field that exerts a force on the compass needle. ✓
- C. The wire heats up, causing air currents to move the needle.
- D. The wire causes a gravitational effect moving the needle.

Q80 General Science

What does Snell's law of refraction state about the ratio of the sine of the angle of incidence to the sine of the angle of refraction for a given colour and pair of media?

- A. It depends on the type of mirror.
- B. It changes with the angle of incidence.
- C. It varies with the normal.
- D. It remains constant. ✓



Q81 General Science

Refer to the two statements given below and choose the CORRECT option.

Statement A: Milch animals are reared primarily for the production of milk.

Statement B: Milch animals are mainly used for ploughing agricultural fields.

- A. Both statements A and B are correct.
- B. Both statements A and B are incorrect.
- C. Statement A is incorrect but B is correct.
- D. Statement A is correct but B is incorrect. ✓

Q82 General Science

The nucleus contains chromosomes, which appear as rod-shaped structures only when the cell is about to divide. These chromosomes are composed of ____.

A. DNA and proteins ✓

B. RNA and lipids

C. Glucose and enzymes

D. Amino acids and carbohydrates

Q83 General Science

During aerobic respiration, each pyruvate molecule is broken down to give ____ molecules of carbon dioxide.

A. Four

B. One

C. Three ✓

D. Two

Q84 General Science

A ball at rest is dropped from the top of a 20 m high building. Calculate the speed with which it hits the ground. (Take $g = 10 \text{ m/s}^2$)

A. 10 m/s

B. 40 m/s

C. 14 m/s

D. 20 m/s ✓

Q85 General Science

Compare the products of complete and incomplete combustion of methane:

- A. Complete $\rightarrow \text{CO}_2 + \text{H}_2\text{O}$; Incomplete $\rightarrow \text{CO} + \text{H}_2\text{O}$ ✓
- B. Complete $\rightarrow \text{CO} + \text{H}_2\text{O}$; Incomplete $\rightarrow \text{C} + \text{H}_2\text{O}$
- C. Complete $\rightarrow \text{CO} + \text{H}_2\text{O}$; Incomplete $\rightarrow \text{CO}_2 + \text{H}_2\text{O}$
- D. Complete $\rightarrow \text{CO}_2$ only; Incomplete $\rightarrow \text{H}_2\text{O}$ only

Q86 General Science

Why does the temperature remain constant during melting of ice even on heating?

- A. Heat energy escapes from ice into the surroundings
- B. Heat energy converts directly into work
- C. Heat energy is used to overcome particle attraction ✓
- D. Heat energy increases kinetic energy instantly

Q87 General Science

A large central vacuole is a characteristic feature of which of the following cells?

- A. Protozoan cells
- B. Animal cells
- C. Bacterial cells
- D. Plant cells ✓

Q88 General Science

When an object is in free fall near the Earth's surface, which of the following physical quantities remains constant if air resistance is neglected?

- A. Energy remains constant.
- B. Velocity remains constant.
- C. Momentum remains constant.
- D. Acceleration due to gravity remains constant. ✓

Q89 General Science

Iron nails are coated with zinc to prevent rusting. Even if the zinc layer is scratched, rusting does not occur because —

- A. Zinc forms a hard oxide layer.
- B. Zinc acts as a sacrificial anode and corrodes instead of iron. ✓
- C. Zinc reacts with moisture to form a protective film
- D. Iron becomes stainless in the presence of zinc.



Q90 General Science

What is the main purpose of giving vaccinations to farm animals?

- A. To improve the quality of animal feed
- B. To protect them from major viral and bacterial diseases ✓
- C. To prevent attacks from external parasites
- D. To increase milk production

Q91 General Science

A bi-convex lens forms a real, inverted image twice as large as the object. Where is the object located relative to the lens?

- A. At twice the focal length from the lens
- B. At the focal length from the lens
- C. Between one focal length and twice the focal length from the lens ✓
- D. Beyond twice the focal length from the lens

Q92 General Science

Which type of spherical mirror has its reflecting surface curved inwards, facing towards the centre of the sphere?

- A. Plane mirror
- B. Convex mirror
- C. Parabolic mirror
- D. Concave mirror ✓

Q93 General Science

An electric iron uses a heating element made of an alloy instead of pure metal. Which property of alloys justifies this choice?

- A. Alloys are better conductors
- B. Alloys have lower resistivity
- C. Alloys have higher resistivity and do not oxidise readily at high temperatures ✓
- D. Alloys are cheaper

Q94 General Science

A car travels 120 meters north in 10 seconds and then instantly returns to its original position in the next 10 seconds. Which statement best describes the car's average velocity for the entire trip?

- A. The average velocity is 6 m/s because the total distance is 240 m in 20 seconds.
- B. The average velocity is 12 m/s because the total time is 10 seconds.
- C. The average velocity is 12 m/s because the car covered 120 m in 10 seconds.
- D. The average velocity is zero because the displacement is zero. ✓

Q95 General Science

Why do muscle cells sometimes respire anaerobically during heavy exercise?

- A. Because the supply of oxygen is limited ✓
- B. Because the body wants to store energy
- C. Because lactic acid is required
- D. Because glucose is unavailable

Q96 General Science

Baking soda (NaHCO_3) is commonly used in cooking. Which of the following statements about it is correct?

- A. It is acidic in nature and has $\text{pH} < 7$.
- B. It does not react with water or acids.
- C. It is a strong base that turns red litmus blue.
- D. It reacts with acids to release carbon dioxide gas. ✓

Q97 General Science

A bright metal turns dull over time due to oxidation. What is this process called?

- A. Sublimation
- B. Corrosion ✓
- C. Filtration
- D. Evaporation



Q98 General Science

Refer to the two statements given below and choose the CORRECT option.

Statement A: Poor storage conditions result in weight loss and discolouration of grains.

Statement B: Poor storage conditions enhance seed viability and grain texture.

A. Statement A is incorrect but B is correct.

B. Both statements A and B are incorrect.

C. Statement A is correct but B is incorrect. ✓

D. Both statements A and B are correct.

Q99 General Science

Which measurable quantity remains the same when a liquid is transferred between containers?

A. Shape of the liquid remains unchanged

B. Volume of the liquid remains unchanged ✓

C. Density of the liquid always increases

D. Mass of the liquid becomes zero

Q100 General Science

Which of the following is the correct relationship between the number of carbon and hydrogen atoms in alkenes?

A. C_nH_{2n} ✓

B. C_nH_{2n-2}

C. C_nH_{2n+4}

D. C_nH_{2n+2}



Mathematics

31 Questions • Answer Key

Q1 Mathematics

Kiran has borrowed an amount of ₹4,40,000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 7% per annum after 2 years?

A. 61600



B. 62600

C. 63600

D. 60600

Q2 Mathematics

Simplify the following.

$$294 \div [10 \div 5 \times \{11 + 12 - (8 + 5 - (10 + 1))\}]$$

A. 2

B. 15

C. 7



D. 4

Q3 Mathematics

A camp has provisions for 51 persons for 12 days. If the number of persons is increased to 102, for how many days will the same provisions last?

A. 9

B. 5

C. 6



D. 4

Q4 Mathematics

The internal surface area (in m^2) of an open cuboidal tank whose internal length, internal breadth and internal height are given as 3 m, 11 m, and 9 m, respectively, is:

A. 285



B. 314

C. 303

D. 295

Q5 Mathematics

In a 100-meter race, X runs at 5 m/s and Y at 4 m/s. How much head start should X give Y (in meters) so that the race ends in a tie?

A. 25

B. 20



C. 15

D. 10

Q6 Mathematics

In a wallet containing gold, silver and bronze tokens, the ratio of gold to silver tokens was 5:17 while the ratio of bronze to gold tokens was 18:19. What was the ratio of bronze to silver tokens?

A. 98:328

B. 95:330

C. 90:323



D. 93:327

Q7 Mathematics

A person standing 20 meters away from the base of a tower observes that the angle of elevation to the top of the tower is 60° . Find the height of the tower. (Rounded off to two decimal places)

A. 36.67 m

B. 34.64 m



C. 32.60 m

D. 38.38 m

Q8 Mathematics

During a round-trip journey where a person walks to a location at 5 km/h and returns at 3 km/h, which statement about average speed is correct?

A. Average speed is 3 km/h.

B. Average speed equals the arithmetic mean of 5 km/h and 3 km/h.

C. Average speed will be less than the arithmetic mean of 5 km/h and 3 km/h.



D. Average speed is 5 km/h.



Q9 Mathematics

Anirudh and Brahmaji are assigned the work of constructing a wall. Anirudh can do the job in 60 hours alone where as Brahmaji can do the job three times faster. Anirudh starts the work during the first hour and Brahmaji does the work during the second hour. During the third hour both do the job simultaneously. If they continue in this fashion, how long it will take for them to complete the job?

A. 21.5 hours

B. 22.5 hours

C. 23 hours



D. 7.5 hours

Q10 Mathematics

Find the least number which when divided by 5, 6, 3 and 4 leaves a remainder 2, but when divided by 7 leaves no remainder.

A. 147

B. 198

C. 182



D. 168

Q11 Mathematics

A store offers a trade discount of 16% on all items. In addition, they offer a "Buy four get one free" scheme on specific items. If a customer purchases five items each marked at ₹700 and the "Buy four get one free" scheme applies, what is the total discounted price for five items, the customer has to pay?

A. ₹2336

B. ₹2352



C. ₹2305

D. ₹2378

Q12 Mathematics

Chetan's salary was first reduced by 40% and subsequently raised by 24%. How much percentage was his final salary lower compared to his initial salary?

A. 25.6%



B. 9.6%

C. 24%

D. 40%

Q13 Mathematics

9 identical cartons together weigh 72 kg. How many cartons of the same type would be needed to make up a total 168 kg?

A. 21



B. 20

C. 24

D. 18

Q14 Mathematics

The population of country is 10 crores at present and is expected to grow to 17.28 crores in the next three years. Neglecting the death rate, the uniform annual percentage rate of growth is:

A. 10

B. 20



C. 12

D. 11

Q15 Mathematics

If $7 : 21 :: 2.2 : x$ and $7 : 49 :: 9 : y$, what is the ratio of x to y ?

A. 11 : 105



B. 15 : 115

C. 12 : 103

D. 9 : 106

Q16 Mathematics

Girish scored 664 marks in an examination and was 8 marks short of 84% of the maximum marks. In the same examination, his friend scored 472 marks. What is the percentage of marks scored by his friend?

A. 59%



B. 61%

C. 58%

D. 56%



Q17 Mathematics

Choose the correct statements about triangles from the ones given below:

- A. A triangle can be formed with sides 9 cm, 13 cm, 3 cm.
- B. In $\triangle PQR$, if $\angle P = 50^\circ$, $\angle Q = 30^\circ$, then QR is the longest side of the triangle.
- C. Area of an equilateral triangle of side 6 cm is $18\sqrt{3} \text{ cm}^2$.
- D. In $\triangle DEF$ and $\triangle PQR$, $\angle D = \angle P$, $\angle E = \angle Q$ and $DF = PR$. Then $\triangle DEF$ is congruent to $\triangle PQR$.

A. Only A, B, C

B. Only B, C, D

C. Only D

D. Only A

Q18 Mathematics

The length of a rectangular ground is 21 m more than its breadth. Its area is $31,042 \text{ m}^2$. Its breadth (in m) is:

A. 166

B. 151

C. 161

D. 182

Q19 Mathematics

The average sale of cars by a dealer per day in the month of March, other than on Saturdays and Sundays, is 151. The average sale of cars per day on Sundays is 129. What is the average sale of cars per day on Saturdays, if the first Saturday is on the 3rd of March and average sale of cars per day for the whole month is 148?

A. 145

B. 155

C. 150

D. 153

Q20 Mathematics

The 7-digit number 93A562B is divisible by 9, What is the minimum value of $(A + B)$?

A. 5

B. 7

C. 4

D. 2

Q21 Mathematics

The product of two consecutive natural numbers is 506. The greater of the two numbers is:

A. 17

B. 23

C. 18

D. 21

Q22 Mathematics

A dishonest vendor claims that he is selling goods at their cost price. But he is weighing 902 grams for 1000 grams. What is his profit percentage (rounded off to 2 decimal places)?

A. 10.86%

B. 11.82%

C. 12.08%

D. 6.51%

Q23 Mathematics

The average of the first 18 positive multiples of 15 is:

A. 142.5

B. 15

C. 135

D. 18

Q24 Mathematics

Standard deviation of 10, 12, 9, 8, 21 is (correct to two decimals):

A. 4.69

B. 4.89

C. 4.59

D. 4.79



Q25 Mathematics

If $(5x+1)^3 + (x+3)^3 + 8(3x-4)^3 = 6(5x+1)(x+3)(3x-4)$, then the value of x is:

A. $\frac{2}{3}$

B. $\frac{1}{3}$

C. $\frac{1}{4}$

D. $\frac{1}{2}$

Q26 Mathematics

Find the mode of the given data (correct to two places of decimal).

Class interval	0-6	6-12	12-18	18-24	24-30
Frequency	8	7	5	9	4

A. 20.67

B. 22.45

C. 19.24

D. 21.36

Q27 Mathematics

Find the value of x, y and z from the following equations:

$$3x + 2y - z = 24, \quad x - 5y + 3z = 16, \quad x + y - 3z = 21$$

A. $x = \frac{-97}{21}, y = \frac{-289}{42}, z = \frac{229}{42}$

B. $x = \frac{-229}{42}, y = \frac{-289}{42}, z = \frac{97}{21}$

C. $x = \frac{389}{42}, y = \frac{-97}{21}, z = \frac{-229}{42}$

D. $x = \frac{289}{42}, y = \frac{97}{21}, z = \frac{229}{42}$

Q28 Mathematics

Simplify : $\frac{\sqrt[3]{5832}}{\sqrt[4]{1296}} \times \frac{3}{54} \times 168$

A. 25

B. 18

C. 36

D. 28



Q29 Mathematics

A cylindrical vessel contains 154 litres of water. If the radius of the base is 14 cm, the height (in cm) of the water column in the vessel is:

(Take $\pi = \frac{22}{7}$)

A. 250 cm



B. 260 cm

C. 240 cm

D. 275 cm

Q30 Mathematics

Two men A and B walk round a circle 1300 metres in circumference. A walks at the rate of 150 metres per minute and B at the rate 80 metres per minute. If they both start at the same time from the same point and walk in the same direction, after how much time will they meet each other?

A. $15\frac{4}{7}$ min

B. $16\frac{5}{7}$ min

C. $17\frac{8}{7}$ min

D. $18\frac{4}{7}$ min

**Q31 Mathematics**

The selling price of 20 books is equal to the cost price of 31 books. Find the loss or gain percentage.

A. 55 % loss

B. $\frac{100}{11}$ % loss

C. $\frac{100}{11}$ % gain

D. 55 % gain



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Q32 General Intelligence and Reasoning

Each of C, D, E, F, X, Y and Z has an exam on a different day of a week starting from Monday and ending on Sunday of the same week.

No one has exam before Z. Only three people have exam between Z and F. Only one person has exam between F and X. Y has exam on Wednesday. D has exam on one of the days after E but on one of the days before C.

On which day of the week does D have exam?

- A. Friday
- B. Tuesday
- C. Thursday
- D. Wednesday

Q33 General Intelligence and Reasoning

Each of A, B, C, M, N and O has scored different marks. Only two people have scored between O and B. Only one person has scored more than M. Only three people have scored between M and O. N has scored more than C but less than A.

How many people have scored less than C?

- A. One
- B. Two
- C. Four
- D. Three

Q34 General Intelligence and Reasoning

Select the pair which follows the same pattern as that followed by the two set of pairs given below. Both pairs follow the same pattern.

IIO : JDK
NGR : OBN

- A. IQL : IKH
- B. ITX : IOS
- C. ORL : PMH
- D. BHW : BCR

Q35 General Intelligence and Reasoning

Seven people, A, L, M, I, R, H and S, are sitting in a row, facing north.

Only three people sit to the left of A. Only H sits to the right of R. Only three people sit between R and L. M sits at some place to the left of I but at some place to the right of S.

How many people sit between S and I?

- A. Two
- B. One
- C. Three
- D. Four

Q36 General Intelligence and Reasoning

Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only. (Note: All numbers are single digit numbers only.)

(Left) 8 9 & 8 \$ 5 # @ & # 4 @ 3 ! + ? 4 5 & 8 (Right)

If all the symbols are dropped from the series, which of the following will be seventh from the right?

- A. 8
- B. 4
- C. 5
- D. 3

Q37 General Intelligence and Reasoning

Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which is the one that does not belong to that group?

(NOTE: The odd man out is not based on the number of consonants/vowels or their position in the letter cluster.)

- A. TM - HP
- B. LD - XF
- C. WP - KS
- D. ZS - NV

Q38 General Intelligence and Reasoning

What should come in place of '?' in the given series?

116, 121, 131, 146, 166, ?

- A. 195
- B. 193
- C. 189
- D. 191



Q39 General Intelligence and Reasoning

This question is based on the following words.

MUG TOP ACE GAS

How many letters are there between the second letter of the first word from the right and the second letter of the first word from the left as per the English alphabetical order?

A. 19



B. 18

C. 22

D. 20

Q40 General Intelligence and Reasoning

Which of the following letter-clusters should replace # and % so that the pattern and relationship followed between the letter-cluster pair on the left side of :: is the same as that on the right side of :: ?

: ORM :: MPK : %

A. # = QTO, % = KNI



B. # = MKO, % = KNI

C. # = TTO, % = KMK

D. # = QTO, % = KPY

Q41 General Intelligence and Reasoning

Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

HUL 19 , MZQ 36, REV 53, WJA 70 , ?

A. BOF 87



B. BMF 90

C. CMD 80

D. BNE 88

Q42 General Intelligence and Reasoning

In this question, a question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements is sufficient to answer the question. Read both the statements and decide the appropriate answer.

Af, Bg, Cq, Dy and En are sitting around a circular table, facing the centre. Who sits second to the right of Bg?

(I) Af sits to the immediate right of En. Cq is the immediate neighbour of Dy and En.

(II) Dy sits to the immediate right of Bg. En sits second to the left of Bg.

A. Data in Statements I and II together are NOT sufficient to answer the question.

B. Both Statements I and II together (and not Statement I alone or Statement II alone) are sufficient to answer the question.

C. Data in Statement II alone is sufficient to answer the question while data in Statement I is not.

D. Data in Statement I alone is sufficient to answer the question while data in Statement II is not.

**Q43 General Intelligence and Reasoning**

P is the brother of W. W is the father of R. T is the father of J. J is the son of R. How is J related to P?

A. Daughter's son

B. Daughter's husband

C. Brother's daughter's son



D. Brother's daughter's husband

Q44 General Intelligence and Reasoning

Govind starts from Point A and drives 5 km towards south. He then takes a left turn, drives 5 km, turns left and drives 12 km. He then takes a left turn and drives 11 km. He takes a final left turn, drives 7 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90° turns only unless specified.)

A. 6 km to the west

B. 5 km to the west

C. 5 km to the east

D. 6 km to the east



Q45 General Intelligence and Reasoning

Six friends, O, P, Q, G, H and I, live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it is numbered 2 and so on, till the topmost floor, which is numbered 6.

Only one person lives above Q. P lives on an even-numbered floor but not on floor number 4. Only two people live between P and H. Only two people live between Q and I. O lives immediately below Q.

How many people live between G and O?

A. Two



B. None

C. One

D. Three

Q46 General Intelligence and Reasoning

What should come in place of '?' in the given series?

17 30 43 56 69 ?

A. 82



B. 81

C. 83

D. 80

Q47 General Intelligence and Reasoning

217 is related to 115 following a certain logic. Following the same logic, 183 is related to 81. To which of the given options is 234 related, following the same logic?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

A. 145

B. 121

C. 132



D. 139

Q48 General Intelligence and Reasoning

Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusion(s) logically follow(s) from the statements.

Statements: Some bins are cats. No cat is a deer. No cat is a tree.

Conclusions:

(I): No bin is a deer.

(II): Some trees are deers.

A. Both conclusions (I) and (II) follow.

B. Only conclusion (I) follows.

C. Only conclusion (II) follows.

D. Neither conclusion (I) nor (II) follows.

**Q49 General Intelligence and Reasoning**

If + means -, - means $\times$, $\times$ means $\div$, $\div$ means +, then what will come in place of the question mark (?) in the following equation?

$$8-21\times3\div75+13=?$$

A. 128

B. 119

C. 118



D. 120

Q50 General Intelligence and Reasoning

Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying, etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(2,9,17)

(11,16,60)

A. (3,2,34)

B. (9,12,8)

C. (11,8,12)

D. (6,17,41)



Q51 General Intelligence and Reasoning

Refer to the following letter, number and symbol series and answer the question that follows.

(Left) L 8 * Q 3 \$ M ^ Y 7 & T 2 % R \$ F 6 # P @ N 9 ! K 4 @ Z ^ W (Right)

If all the symbols are dropped, which of the following will be seventh from the right?

A. N

B. 6

C. F

D. P



Q52 General Intelligence and Reasoning

In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

94, 375

115, 396

A. 76, 358

B. 107, 389

C. 81, 364

D. 72, 353



Q53 General Intelligence and Reasoning

In a certain code language,
A + B means 'A is the daughter of B'
A – B means 'A is the brother of B'
A x B means 'A is the wife of B'
A ÷ B means 'A is the father of B'

Based on the above, how is E related to K if 'E + F ÷ G – H x K'?

A. Sister

B. Mother

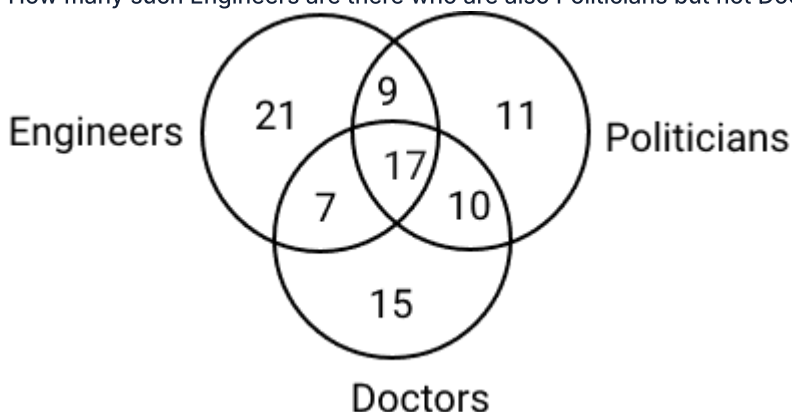
C. Wife's sister

D. Wife's mother



Q54 General Intelligence and Reasoning

Study the given Venn diagram carefully and answer the question. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts) How many such Engineers are there who are also Politicians but not Doctors?



A. 10

B. 7

C. 17

D. 9



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Q55 General Intelligence and Reasoning

In this question, a group of numbers/symbols is coded using letter codes as per the codes given below and the conditions which follow. The correct combination of codes following the conditions is your answer. If none of the conditions follow, then codes for the respective Number/Symbol are to be followed directly as given in the table.

Numb er/sy mbol	2	@	5	8	\$	9	&	%	#	6	+	7	3	1
Code	P	T	F	J	W	A	E	R	D	Q	S	B	U	L

Conditions:

- If the first element is a number and the last a symbol, the codes for these two (the first and the last elements) are to be interchanged.
- If the first element is an even number and the last an odd number, the first and last elements are to be coded as \$.
- If both the second and third elements are perfect cubes, the third element is to be coded as the code for the second element.

What is the code for the following group of numbers/symbols?

28%5

A. \$JR\$



B. PJRF

C. \$RJ\$

D. PRJF

Q56 General Intelligence and Reasoning

In this question, a group of number/symbol is coded using letter codes as per the codes given below and the conditions which follow. The correct combination of codes following the conditions is your answer. If none of the conditions follow, then codes for the respective Number/Symbol to be followed directly as given in the table.

NUMB ER/SY MBOL	7	\$	8	6	&	#	3	+	5	4	2	9	@	*
CODE	A	E	R	T	H	U	K	L	P	Z	C	V	N	Q

Conditions –

- If the first element is a symbol and the last a number, the codes for these two (the first and the last elements) are to be interchanged.
- If the first element is an odd number and the last an even number, the first and last elements are to be coded as ©
- If both second and third elements are perfect squares, the third element is to be coded as the code for the second element.

What will be the code for the following group?

7 4 9 @ \$

A. A V Z N E

B. E Z Z N E

C. A Z Z N E



D. A Z Z R E



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Q57 General Awareness

When was Namami Gange Programme launched to clean the Ganga river?

- A. 2020
- B. 2017
- C. 2014
- D. 2015

**Q58 General Awareness**

What is the purpose of the Draft National Sports Governance Bill, 2024, introduced by the Indian Government?

- A. To centralize all sports decisions under one authority
- B. To establish a framework for ethical governance and athlete welfare in sports federations
- C. To increase commercialization of sports in Urban and Semiurban areas
- D. To eliminate traditional sports from national competitions

**Q59 General Awareness**

Why are non-biodegradable substances harmful for the environment?

- A. Can be broken down by bacteria
- B. Needs heat and temperature for breakdown, releases harmful chemicals
- C. Easily mixes with soil
- D. Causes no pollution in water

**Q60 General Awareness**

How much fund is allotted to the Khelo India (national programme for development of sports) for FY26?

- A. ₹1,200 crore
- B. ₹1,000 crore
- C. ₹1,600 crore
- D. ₹1,400 crore

**Q61 General Awareness**

The Deccan Plateau is separated from the Chota Nagpur Plateau by which of the following?

- A. Western Ghats
- B. Aravalli Hills
- C. Mahanadi Basin
- D. Vindhya Range

**Q62 General Awareness**

Which of the following is an effect of non-biodegradable substances in water bodies?

- A. Helps plants grow
- B. Water becomes fertile
- C. Provides nutrients for fish
- D. Clogs drains and harms aquatic life

**Q63 General Awareness**

Which of the following statements correctly differentiates the power of the Rajya Sabha from the Lok Sabha?

- A. Rajya Sabha can authorise Parliament to make laws on State subjects
- B. Rajya Sabha can amend Money Bills
- C. Rajya Sabha has equal power with Lok Sabha in all financial matters
- D. Rajya Sabha can initiate a motion of no-confidence against the Council of Ministers

**Q64 General Awareness**

Who has been elected as the President of Centre of Films for Children and Young People (CIFEJ) for the 2025–2027 term?

- A. SS Rajamouli
- B. Jitendra Mishra
- C. Lokesh Kanagaraj
- D. Om Raut

**Q65 General Awareness**

Which missile system is being developed under Project Kusha to enhance India's air defence capabilities?

- A. Extended Range Air Defence System
- B. MICA
- C. S-400
- D. BrahMos

**Q66 General Awareness**

Which of the following statements about Parliamentary Committees is TRUE?

- A. Ad Hoc Committees are permanent in nature.
- B. Standing Committees are reconstituted from time to time and are permanent.
- C. There are no temporary Parliamentary Committees.
- D. All Parliamentary Committees are permanent.



Q67 General Awareness

Which economic model advocates that developing countries should prioritize import substitution over free trade to promote economic development?

- A. Comparative Advantage Theory
- B. Import Substitution Industrialization ✓
- C. Neoliberalism
- D. Export-led Growth Model

Q68 General Awareness

Which individuals actively supported Mahatma Gandhi during the Kheda Satyagraha movement?

- A. Raj Kumar Shukla and Rajendra Prasad
- B. Ambalal Sarabhai and Anasuya Ben
- C. Vallabhbhai Patel and Rajendra Prasad
- D. Vallabhbhai Patel and Indulal Yajnik ✓

Q69 General Awareness

Social indicators of development improved after economic growth accelerated. Which of the following indicators saw the most consistent improvement after 1991?

- A. Consumer Price Index
- B. Maternal Mortality Rate ✓
- C. Fiscal deficit
- D. Gini coefficient

Q70 General Awareness

What lies between the sand dunes and the coast in the East Coastal Plains?

- A. Deltas
- B. Mountains
- C. Lagoons ✓
- D. Beaches

Q71 General Awareness

According to Dadabhai Naoroji's Drain of Wealth theory, what major economic issue needed to be addressed to end India's exploitation under British rule?

- A. Excessive land revenue imposed on peasants
- B. Unequal economic exchange between India and Britain ✓
- C. Religious discrimination by colonial authorities
- D. Limited administrative participation for Indians

Q72 General Awareness

Which of the following is one of Asia's largest cattle fairs, organized at the confluence of two mighty rivers, the Ganga and Gandak?

- A. Suraj Kund Craft Mela
- B. Sonepur Fair ✓
- C. Thrissur Pooram
- D. Flamingo Festival

Q73 General Awareness

In February 2025, the Union Minister of External Affairs and Heads of Missions from 61 countries visited Kaziranga National Park, located in which state of India?

- A. Nagaland
- B. Arunachal Pradesh
- C. Manipur
- D. Assam ✓



Q74 General Science

A sound wave travels from air into water. How does its frequency, speed, and wavelength change as it crosses the boundary?

- A. Its frequency increases, speed remains the same, and wavelength decreases
- B. Its frequency decreases, speed decreases, and wavelength increases
- C. Its frequency remains constant, speed decreases, and wavelength decreases
- D. Its frequency remains constant, speed increases, and wavelength increases ✓

Q75 General Science

Suppose a student wants to design an amusement park ride that moves people in a circle at uniform speed. Which concept should the student apply to ensure riders stay safely in their seats during the circular motion?

- A. A constant inward (centripetal) force is needed on the riders to keep them in uniform circular motion ✓
- B. Increasing speed randomly will keep them safe
- C. A constant outward force is needed to keep riders pressed against their seats
- D. Gravity alone is sufficient to keep the riders in place

Q76 General Science

Which of the following does NOT describe a property of ethanol (C_2H_5OH)?

- A. It turns blue litmus paper red. ✓
- B. It is a clear, colourless liquid with a pleasant smell.
- C. It is soluble in water in all proportions.
- D. It reacts with sodium to release hydrogen gas.

Q77 General Science

Which property explains why the path of light is not visible when a beam passes through a true solution?

- A. Particles are smaller than one nanometre ✓
- B. Particles are heavier than solvent molecules
- C. Particles can be removed by filtration
- D. Particles settle down on standing still

Q78 General Science

Methane reacts with chlorine in the presence of sunlight to form chloromethane and hydrogen chloride. Which of the following statements is CORRECT?

Statement I: Only one chlorine atom can substitute at a time.

Statement II: The reaction is an example of a substitution reaction.

Statement III: Multiple substitution can occur if the reaction continues.

- A. I, II and III are true ✓
- B. Only II and III are true
- C. Only I and II are true
- D. Only I and III are true

Q79 General Science

Why are solids described as rigid in nature?

- A. Their particles move freely with weak mutual attraction
- B. Their particles slide easily under applied external force
- C. Their particles are closely packed with strong attraction ✓
- D. Their particles possess very low mass and volume

Q80 General Science

Which metal listed below shows the strongest reaction when added to dilute hydrochloric acid?

- A. Copper
- B. Iron
- C. Zinc
- D. Magnesium ✓

Q81 General Science

Which statement correctly describes a heterogeneous mixture?

- A. Its composition remains fixed and constant always
- B. Its components cannot be separated by physical methods
- C. Its composition is not uniform throughout the mixture ✓
- D. Its particles are uniformly distributed at particle level



Q82 General Science

When an object is placed at the center of curvature (C) of a concave mirror, what is the nature of the image formed?

- A. Real and inverted** ✓
- B. Enlarged and inverted
- C. Virtual and erect
- D. Highly diminished, point-sized

Q83 General Science

Which of the following is present only in plant cell?

- A. Cell wall** ✓
- B. Nucleus
- C. Endoplasmic reticulum
- D. Vacuoles

Q84 General Science

What is a key difference between chemical fertilisers and manures in terms of nutrient release to plants?

- A. Chemical fertilisers enhance biological activity.
- B. Manures have higher and less variable nutrient concentrations.
- C. Conventional chemical fertilisers release nutrients gradually.
- D. Manures release nutrients gradually.** ✓

Q85 General Science

Why is it important to keep the level of vitamins A and K high in poultry feeds for broilers?

- A. To reduce the size of eggs
- B. To make broilers resistant to external parasites
- C. To ensure proper nutrition for healthy growth and development** ✓
- D. To increase their tolerance to cold weather

Q86 General Science

Which rule helps to determine the direction of force acting on a current-carrying conductor in a magnetic field?

- A. Ampere's rule
- B. Fleming's left-hand rule** ✓
- C. Faraday's law
- D. Right-hand rule

Q87 General Science

What happens to the work done if the displacement becomes zero despite a force being applied?

- A. The work done increases.
- B. The work done is zero.** ✓
- C. The work done remains constant.
- D. The work done decreases.

Q88 General Science

Magnesium ribbon burns with:

- A. No visible flame
- B. A yellow luminous flame
- C. A bright white flame** ✓
- D. A blue non-luminous flame

Q89 General Science

A plant sheds its leaves and bark to remove stored waste products. How does this strategy differ from the way animals excrete wastes?

- A. Plants have a single organ system for waste removal, unlike animals.
- B. Plants use parts that will be shed, while animals have specialized organs for excretion.** ✓
- C. Plants use blood circulation for excretion, unlike animals.
- D. Plants use digestive systems to remove waste, unlike animals.

Q90 General Science

If a point is located below the principal axis of a spherical mirror, what sign is assigned to its perpendicular distance according to the sign convention for spherical mirrors?

- A. Positive
- B. Negative** ✓
- C. Zero
- D. Depends on mirror type

Q91 General Science

Which two elements are primarily added to soil by green manure?

- A. Nitrogen and phosphorus** ✓
- B. Nitrogen and potassium
- C. Potassium and magnesium
- D. Phosphorus and calcium



Q92 General Science

Which of the following statements is TRUE for all saturated hydrocarbons?

- A. They readily undergo addition reactions.
- B. They contain at least one double bond.
- C. They show substitution reactions rather than addition reactions. ✓
- D. They are generally very reactive due to triple bonds.

Q93 General Science

A young child is diagnosed with both myopia and hypermetropia in different eyes. What is the most appropriate corrective approach?

- A. Using cylindrical lenses in both eyes
- B. Providing identical convex lenses for both eyes
- C. Providing glasses with different lenses for each eye (concave for one, convex for the other) ✓
- D. Using bifocal lenses in both eyes

Q94 General Science

Why does a torch bulb glow only when the switch is turned on?

- A. Because the battery is charged
- B. Because the switch completes the circuit, allowing current to flow ✓
- C. Because the bulb is in series with the cell
- D. Because the bulb is functional

Q95 General Science

A technician needs to connect a new appliance in a domestic circuit to ensure it receives full voltage and can be operated independently. What should the technician do?

- A. Connect the appliance only to the neutral wire
- B. Connect the appliance in series with existing appliances
- C. Connect the appliance only to the earth wire
- D. Connect the appliance in parallel with existing appliances ✓

Q96 General Science

Why is it important to provide dairy cattle with a sloping floor in their sheds and balanced rations in their diet?

- A. To keep the shed dry and facilitate cleaning, and reduce roughage intake.
- B. To protect from parasites, and increase fibre content.
- C. To keep the shed dry and facilitate cleaning, and to support health and milk production. ✓
- D. To prevent diseases and to support health and milk production.

Q97 General Science

Which of the following compounds has a formula unit mass of 100 u?

- A. CaCO_3 ✓
- B. CaCl_2
- C. Na_2CO_3
- D. MgO

Q98 General Science

Why is potassium hydroxide used in the bell-jar experiment involving photosynthesis?

- A. To absorb carbon dioxide ✓
- B. To supply oxygen
- C. To remove water
- D. To provide sunlight

Q99 General Science

Where is perinuclear space present?

- A. Within the nucleolus
- B. Outside the nucleus
- C. Inside of the nucleus
- D. Between two layers of the nuclear envelope ✓

Q100 General Science

Which change will promote micelle formation in a detergent solution?

- A. Increasing detergent concentration above Critical Micelle Concentration(CMC) ✓
- B. Decreasing detergent concentration below Critical Micelle Concentration(CMC)
- C. Adding more water to dilute the solution
- D. Lowering the temperature below Kraft point



Mathematics

32 Questions • Answer Key

Q1 Mathematics

Sujit is three times as old as his son, and his daughter is 3 years younger than the son. If the sum of the ages of these three people 3 years ago from now was 88 years, then Sujit's present age (in years) is

A. 48

B. 60

C. 56

D. 66

Q2 Mathematics

The harmonic mean of 4, 8 and 16 is (Rounded off to four decimal places)

A. 6.8517

B. 6.5817

C. 6.5871

D. 6.8571

Q3 Mathematics

The list price of a washing machine is ₹87,200. It is sold to a retailer after two successive discounts of 9% and 50%. The retailer wants to earn a profit of 25% on his cost after allowing a 48% discount (on its new list price) to the customer. At what price should he list the washing machine?

A. ₹95,476

B. ₹95,333

C. ₹95,434

D. ₹95,375

Q4 Mathematics

The average of the first 18 positive multiples of 14 is:

A. 14

B. 133

C. 18

D. 126

Q5 Mathematics

A shopkeeper bought six identical mobile phones for ₹45,000. He sold two of these mobile phones for ₹42,000. Find his gain percentage.

A. 180%

B. 181%

C. 179%

D. 178%

Q6 Mathematics

X people were given a contract for doing a piece of work in 18 days. 2 people did not turn up to work due to sickness, and the rest of the people completed the work in 27 days. What is the value of X?

A. 2

B. 10

C. 14

D. 6

Q7 Mathematics

A and B jointly start a business. The investment of A is equal to three times the investment of B. Find the share of A in the annual profit of ₹55204.

A. ₹41,403

B. ₹42,403

C. ₹43,403

D. ₹40,403

Q8 Mathematics

Simplify: $52 - \{38 \div (4 \times 7 - 9)\}$

A. 46

B. 50

C. 55

D. 57



Q9 Mathematics

The price of fuel decreases by 55%, 55% and 30% in three successive months, but increases by 50% in the fourth month. What is the percentage increase/decrease in the price of fuel in the fourth month as compared to its original price?

[Give your answer correct to two places after decimal.]

- A. Increases by 76.66%
- B. Decreases by 81.55%
- C. Decreases by 78.74%
- D. Increases by 75.63%

Q10 Mathematics

Three persons, A, B and C, took part in a 2000 m race. To reach the finish line at the same time, A can give to B a start of 500 m and to C a start of 300 m. How many metres of start can C give to B in a 3400 m race?

- A. 200
- B. 400
- C. 800
- D. 600

Q11 Mathematics

A is faster than B. In a 2500 m race, A gives B a start of 200 meters. A runs at 25 m/s. Who wins and by how much if B runs at 23 m/s?

- A. They finish together
- B. B wins by 100 meters
- C. A wins by 50 meters
- D. A wins by 100 meters

Q12 Mathematics

What should come in place of the question mark (?) in the given series?

6 19 45 97 201 ?

- A. 403
- B. 400
- C. 406
- D. 409

Q13 Mathematics

A solid sphere is melted and recast into 18 identical cones, each having a base radius of 3 cm and height of 18 cm. Find the radius of the sphere.

- A. 9 cm
- B. 8 cm
- C. 7 cm
- D. 10 cm

Q14 Mathematics

The 7-digit number 57A001B is divisible by 9. What is the minimum value of (A + B)?

- A. 8
- B. 2
- C. 3
- D. 5

Q15 Mathematics

P and Q together can fill a cistern with water in 24 hours. If P alone can fill the cistern with water in 72 hours, then in how many hours will Q alone fill three-fourth of the same cistern with water?

- A. 28
- B. 54
- C. 55
- D. 27

Q16 Mathematics

A total profit of ₹14,500 is to be distributed amongst A, B, and C such that A : B = 16 : 3 and B : C = 6 : 20. The share (in ₹) of C in the profit is:

- A. 5,100
- B. 5,000
- C. 4,850
- D. 4,950

Q17 Mathematics

Monthly income of Mohit is ₹12800 and his monthly expenditure is ₹ 4000. If his income is decreased by 25% and expenditure is decreased by ₹ 1000, then find the decrease in his monthly savings?

- A. ₹ 2600
- B. ₹ 2800
- C. ₹ 2400
- D. ₹ 2200



Q18 Mathematics

David has borrowed an amount of ₹440000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 6% per annum after 2 years?

- A. 51800
- B. 54800
- C. 53800
- D. 52800

**Q19 Mathematics**

Find the LCM of 8, 12, and 20.

- A. 180
- B. 120
- C. 60
- D. 150

**Q20 Mathematics**

Suman's earnings in a month are five-sevenths of Meera's. In the next month, Meera's earnings become five-eighths of Suman's previous month earnings. By what percent are Meera's current earnings less than Suman's current earnings?

- A. 25%
- B. 20%
- C. 35.5%
- D. 37.5%

**Q21 Mathematics**

The difference between compound interest, compounded annually, and simple interest for 3 years at a rate of 20% per annum is ₹256. What is the principal lent?

- A. ₹1,000
- B. ₹3,000
- C. ₹2,000
- D. ₹4,000

**Q22 Mathematics**

O and C are respectively the orthocentre and the circumcentre of an acute angled triangle ΔPQR . $\angle QCR = 138^\circ$. A perpendicular PM is dropped from P on side QR. If $\angle PQR = 52^\circ$, what is the degree measure of $\angle RPM$?

- A. 69
- B. 42
- C. 31
- D. 38

**Q23 Mathematics**

The following data represents the number of goals scored by a football team in 10 matches.

2, 3, 1, 4, 2, 5, 2, 3, 2, 4

The mode of the above data is x. If one more match is played, and the team scores 3 goals, what will be the difference between the previous mode and the new mode?

- A. 2
- B. 0
- C. 3
- D. 1

**Q24 Mathematics**

The length of a rectangular field is 34 m more than its breadth. Its area is 5040 m^2 . Its breadth (in m) is:

- A. 54
- B. 44
- C. 56
- D. 37

**Q25 Mathematics**

In a seminar, 5 teachers and 7 students spent money on books. The average spending of all of them together was ₹260. The average spending of the teachers alone was ₹400. Find the average spending amount of the students.

- A. ₹120
- B. ₹160
- C. ₹140
- D. ₹180

**Q26 Mathematics**

A man bought two types of apples, one at ₹2 for 3 apples and the other at ₹6 per apple. He purchased an equal number of each type and sold all the apples at ₹6 per apple. Find his percentage profit.

- A. 80%
- B. 78%
- C. 75%
- D. 77%



Q27 Mathematics

What should come in place of '?' in the given series?

145 129 113 97 81 ?

A. 64

B. 63

C. 65



D. 61

Q28 Mathematics

Let a and b be roots of the equation $x^2 - 7x + c = 0$, and the roots of the equation $x^2 - dx + 216 = 0$ are a^2b and b^2a . The value of d is ____.

A. 45

B. 42



C. 48

D. 40

Q29 Mathematics

A man, 1.8 m tall, is standing on a 1.0 m high platform near its edge, to observe the top of a building.

The building is at distance of $25\sqrt{3}$ m away from the platform. The angle of elevation from his eye to the top of the building is 30° . The height (in m) of the building is:

A. 26.8

B. 27.8



C. 25.8

D. 28.8

Q30 Mathematics

The value of $\sqrt{\left(17 + \sqrt{\left(57 + \sqrt{\left(45 + \sqrt{\left(7 + \sqrt{81}\right)}\right)}\right)}\right)}$ is:

A. 1

B. 2

C. 7

D. 5



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Q31 Mathematics

If $x + \frac{1}{17x} = 3$, then the value of $17x^3 + \frac{1}{289x^3}$ is:

A. 345

B. 435

C. 534

D. 450

**Q32 Mathematics**

Find the volume of a hemisphere, the circumference of whose base is 35.2 cm

(rounded off to two places of decimals; use $\pi = \frac{22}{7}$).

A. 363.56 cm³B. 369.34 cm³C. 367.96 cm³D. 361.25 cm³**General Intelligence and Reasoning**

23 Questions • Answer Key

Q33 General Intelligence and Reasoning

In a certain code,
'blue pen write' is coded as 'ka tu re'
'red pen draw' is coded as 'mo tu si'
'blue brush draw' is coded as 'ka lo si'
(all the codes are two letter coded only)
What is the code for "blue pen"?

A. lo si

B. re ka

C. ka tu

D. mo lo

**Q34 General Intelligence and Reasoning**

Refer to the following letter, number and symbol series and answer the question that follows.

(Left) % P N G @ 8 7 % 6 # \$ * L C T 1 @ # 2 Z 8 E 9 (Right)

If all the numbers are dropped from the series, which of the following will be fifth from the right?

A. Z

B. @

C. #

D. T

**Q35 General Intelligence and Reasoning**

Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(14, 12, 168)

(16, 13, 208)

A. (19, 11, 209)

B. (18, 14, 262)

C. (17, 13, 224)

D. (15, 14, 220)

**Q36 General Intelligence and Reasoning**

Seven people, A, L, M, I, R, H and S, are sitting in a row, facing north.

No one sits to the right of S. Only three people sit between S and H. Only two people sit between H and R. M sits third to the left of L. I sits to the immediate right of L.

How many people sit between A and R?

A. Three

B. Two

C. Four

D. One



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Q37 General Intelligence and Reasoning

Diwakar starts from Point A and drives 8 km towards West. He then takes a left turn, drives 6 km, turns left and drives 11 km. He then takes a left turn and drives 9 km. He takes a final left turn, drives 3 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90 degrees turns only unless specified)

- A. 2 km to the south
- B. 3 km to the south
- C. 3 km to the north
- D. 2 km to the north

Q38 General Intelligence and Reasoning

In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting / multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

124, 232
107, 215

- A. 136, 244
- B. 181, 288
- C. 178, 276
- D. 153, 271

Q39 General Intelligence and Reasoning

What should come in place of the '?' in the given series, based on the English alphabetical order?

PJL OIK NHJ MGI ?

- A. LEG
- B. LFH
- C. LEH
- D. LFG

Q40 General Intelligence and Reasoning

What will come in the place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?

$$16 \div 2 + 22 \times 2 - 8 = ? + 3$$

- A. 31
- B. 34
- C. 32
- D. 28

Q41 General Intelligence and Reasoning

H is the brother of A. R is the sister of K. P is the son of K. K is the wife of A. How is P related to H?

- A. Sister's son
- B. Father's son
- C. Brother
- D. Brother's son

Q42 General Intelligence and Reasoning

A question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements carefully and decide the appropriate answer.

Six people, A, B, C, D, E and F, are sitting in a straight line facing north. How many people sit to the right of D?
I: No one sits to the right of F. Only two people sit between F and B.
II: D sits to the immediate left of F. E sits to the immediate left of B.

- A. Data in both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question
- B. Data in both statements I and II together are NOT sufficient to answer the question
- C. Data in Statement I alone is sufficient to answer the question while data in statement II is not
- D. Data in Statement II alone is sufficient to answer the question while data in statement I is not



Q43 General Intelligence and Reasoning

Refer to the following letter, number and symbol series and answer the question that follows.

(Left) K 6 & M 4 @ R 7 ! F ^ N \$ Q 8 # T @ P 9 * Y 3 & Z 2 \$ L ^ W (Right)

If all the letters are dropped, which of the following will be fifth from the right?

A. 3



B. 9

C. &

D. *

Q44 General Intelligence and Reasoning

In a certain code,

'cracking lame jokes' is coded as 'kt vs fm'

'cracking colourful fireworks' is coded as 'fi ye kt'

'lame but colourful' is coded as 'vs xc ye'

(all the codes are two letter coded only)

What is the possible code for 'fireworks lame'?

A. fi vs



B. fm ye

C. kt xc

D. fm xc

Q45 General Intelligence and Reasoning

Seven boxes B, C, D, P, Q, R and S are kept one over the other but not necessarily in the same order. Only three boxes are kept above B. Only one box is kept between P and B. Only three boxes are kept between P and R. R is kept at some place above B. D is kept immediately below R. Q is kept at one of the places above S. C is not kept immediately above or below P. Which box is kept at the lowermost position?

A. S



B. R

C. C

D. P

Q46 General Intelligence and Reasoning

Select the triad which follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

IL - GJ - DF

NQ - LO - IK

A. PS - NQ - KL

B. PS - NQ - KM



C. OS - NR - KL

D. OS - NQ - KL

Q47 General Intelligence and Reasoning

Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 - Operations on 13 such as adding / subtracting / multiplying, etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(13,22,2)

(4,26,15)

A. (25,8,6)

B. (1,22,5)

C. (13,35,14)

D. (23,43,13)

**Q48 General Intelligence and Reasoning**

Based on the alphabetical order, three of the following four are alike in a certain way and thus form a group.

Which is the one that does not belong to that group?

(Note: The odd man out is not based on the number of consonants/vowels or their position in the letter cluster.)

A. ZYB

B. MMO



C. QPS

D. GFI

Q49 General Intelligence and Reasoning

MU 11 is related to OY -2 in a certain way. In the same way, PQ 10 is related to RU -3. To which of the following is UR 14 related, following the same logic?

A. WV 1



B. WX 1

C. WW 3

D. VW 3



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Q50 General Intelligence and Reasoning

In a certain code language,
A + B means 'A is the daughter of B'
A - B means 'A is the brother of B'
A x B means 'A is the wife of B'
A ÷ B means 'A is the father of B'

Based on the above, how is E related to K if 'E - F + G ÷ H x K'?

- A. Father
- B. Wife's brother
- C. Brother
- D. Wife's father

Q51 General Intelligence and Reasoning

C, H, A, N, G and E, each have a different age. C's age is 21 years, and C is younger than H and older than A. Four people have ages less than 21 years. Only one person is younger than N. G is not the youngest. G is younger than A. Who is the youngest?

- A. N
- B. A
- C. G
- D. E

Q52 General Intelligence and Reasoning

Each of B, Q, C, N, X, U and M has an exam on a different day of a week, starting from Monday and ending on Sunday of the same week. Only two people have exams before Q. Only one person has the exam after N. B has the exam before U but after Q. X has the exam immediately before C. M does not have the exam before U. How many people have exams between U and X?

- A. Four
- B. One
- C. Two
- D. Three

Q53 General Intelligence and Reasoning

Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. You have to decide which conclusions logically follow(s) from the given statements.

Statements:

All rabbits are mats.
All rabbits are zebras.
All zebras are lamps.

Conclusions:

(I): All rabbits are lamps.
(II): Some zebras are mats.

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

Q54 General Intelligence and Reasoning

This question is based on the five, three-digit numbers given below.

(Left) 857 329 417 628 751 (Right)

(Example- 697 - First digit = 6, second digit = 9 and third digit = 7)

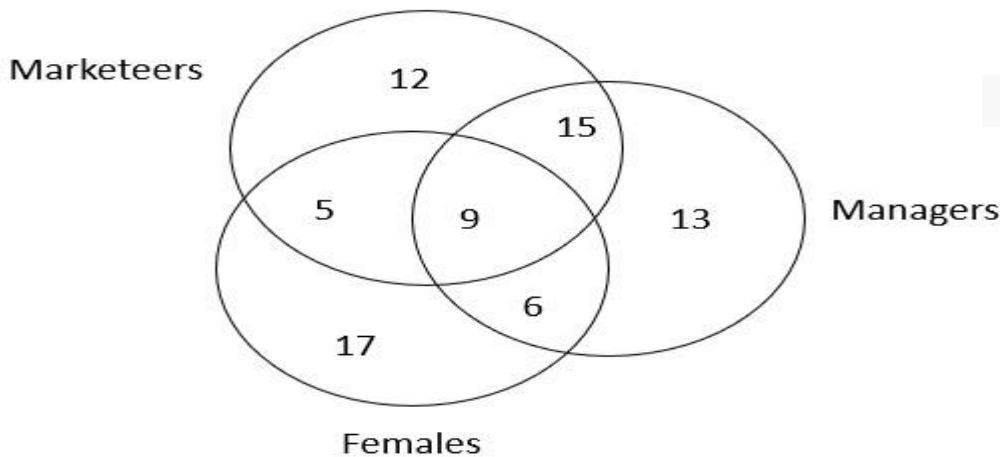
What will be the resultant if third digit of the highest number is added to the third digit of lowest number?

- A. 15
- B. 17
- C. 14
- D. 16



Q55 General Intelligence and Reasoning

Study the given diagram carefully and answer the question that follows. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.)



How many managers are there?

- A. 42
- B. 44
- C. 41
- D. 43

**General Awareness**

15 Questions • Answer Key

Q56 General Awareness

Which of the following rivers originates from the Amarkantak Plateau?

- A. Godavari
- B. Mahanadi
- C. Narmada
- D. Krishna

**Q57 General Awareness**

Which of the following statements is/are correct about a non-Constitutional body, Reserve Bank of India (RBI)?

- (1) RBI performs several crucial functions like regulating and supervising the banking system, managing the currency and credit system and managing foreign exchange reserves.
- (2) RBI was established on April 1, 1935 in accordance with the provisions of the Reserve Bank of India Act, 1934.
- (3) The Central Office of the RBI was initially established in Kolkata but was permanently moved to Mumbai in 1937

- A. (2) and (3) only
- B. (1) only
- C. (1), (2) and (3)
- D. (1) and (2) only

**Q58 General Awareness**

Libia Lobo Sardesai, who was honoured with the Padma Shri In January 2025, is known for her contribution to which of the following causes?

- A. Promotion of Konkani literature
- B. Goa's liberation struggle
- C. Environmental conservation in Western Ghats
- D. Women's education in coastal India

**Q59 General Awareness**

Which of the following days was observed on 21st May 2025?

- A. National Human Rights Day
- B. National Anti-terrorism day
- C. Indian Navy Day
- D. National Voters Day



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Q60 General Awareness

According to a circular issued by the Union Shipping Ministry in April 2025, what is the recalculated length of India's coastline using the new methodology of calculation?

- A. 15416.6 km
- B. 12520.73 km
- C. 9516.6 km
- D. 11098.81 km

**Q61 General Awareness**

Which company developed India's first indigenous surgical robotic system that recently performed two world-first robotic cardiac telesurgeries with an ultra-low latency of just 35-40 milliseconds?

- A. Siemens Healthineers India
- B. Intuitive Surgical India
- C. Medtronic India
- D. SS Innovations

**Q62 General Awareness**

Who was honoured with the Lata Deenanath Mangeshkar Award in April 2025 for his contributions to education and nation-building?

- A. Narayana Murthy
- B. Kumar Mangalam Birla
- C. Alakh Pandey
- D. Anand Mahindra

**Q63 General Awareness**

What is it called when the government sells part of its share in public sector companies to the public?

- A. Industrialisation
- B. Disinvestment
- C. Globalisation
- D. Nationalisation

**Q64 General Awareness**

What was the name of the headquarters of the Ghadar Party?

- A. Azad Ashram
- B. Hindustan Ashram
- C. Bharat Ashram
- D. Yugantar Ashram

**Q65 General Awareness**

Which international agreement aims to limit global temperature rise below 2°C?

- A. Montreal Protocol
- B. Rio Declaration
- C. Kyoto Protocol
- D. Paris Agreement

**Q66 General Awareness**

Which Indian actor has been officially named as 'Fit India Icon' by Union Sports Minister Mansukh Mandaviya in March 2025?

- A. Ayushmann Khurrana
- B. Shahid Kapoor
- C. Allu Arjun
- D. Hrithik Roshan

**Q67 General Awareness**

Which of the following statements regarding the Namu Drone Didi scheme is/are correct?

1. It is a Central Sector Scheme for providing drones to Women Self Help Groups for the period from 2024-25 to 2025-26 with an outlay of ₹1,261 crore.
2. The scheme aims to provide drones to 15,000 selected Women Self Help Groups for providing rental services to farmers for agriculture purposes.
3. Under the scheme, Women Self Help Groups receive substantial financial assistance, covering 80% of the drone and accessory costs, up to ₹8 lakh.

- A. 1, 2 and 3



- B. Only 1 and 2
- C. Only 3
- D. Only 2 and 3

Q68 General Awareness

Which of the following is a musical instrument that consists of a set of glass, metal or clay bowls, each having varying levels of water?

- A. Shehnai
- B. Sarod
- C. Sitar
- D. Jaltarang



Q69 General Awareness

Which of the following provisions in the Indian Constitution deals with the duty of the State to separate the judiciary from the executive?

- A. Article 51
- B. Article 50** ✓
- C. Article 48A
- D. Article 44

Q70 General Awareness

Which form of nationalist protest emerged in response to the Partition of Bengal in 1905 that integrated economic, social, and political action?

- A. Boycotting British goods and promoting indigenous industries** ✓
- B. Submitting petitions to the British Parliament for reversal
- C. Pursuing constitutional agitation within legislative councils
- D. Organising armed resistance against colonial authorities

General Science

30 Questions • Answer Key

Q71 General Science

What role does the earth wire play in the safety of domestic appliances with metallic bodies?

- A. It increases the appliance's voltage
- B. It provides a low-resistance path for leakage current** ✓
- C. It controls the current flow
- D. It prevents the fuse from melting

Q72 General Science

A security mirror in a store is required to provide a wide field of view and always form diminished, upright images regardless of the position of objects. Which type of mirror and principle should be used for its design?

- A. Concave mirror using the mirror formula for real, inverted images
- B. Convex mirror using the mirror formula for virtual, diminished images** ✓
- C. Concave mirror for magnification
- D. Plane mirror for undistorted images

Q73 General Science

In a redox reaction, what is the role of a 'reducing agent'?

- A. It is a substance that only participates in decomposition reactions.
- B. It is a substance that causes reduction and itself gets oxidized.** ✓
- C. It is an agent that helps other substances to be oxidized.
- D. It is a catalyst that speeds up the reaction.

Q74 General Science

When a light ray enters a rectangular glass slab obliquely from air, what happens to its direction at the first interface?

- A. It bends towards the normal** ✓
- B. It gets reflected back
- C. It travels straight
- D. It bends away from the normal

Q75 General Science

A cyclic compound that contains only single bonds is classified as:

- A. Aromatic
- B. Aliphatic
- C. Saturated** ✓
- D. Unsaturated

Q76 General Science

Why do gases exert pressure on the walls of the container?

- A. Gas particles possess very low kinetic energy
- B. Gas particles stay fixed inside the container
- C. Gas particles move randomly and strike the walls** ✓
- D. Gas particles attract the container walls strongly

Q77 General Science

Why is nitrogen gas used to prevent oxidation in bags containing foods such as chips?

- A. Nitrogen gas inhibits oxidation by replacing oxygen.** ✓
- B. Nitrogen gas makes chips crispier.
- C. Nitrogen gas accelerates oxidation.
- D. Nitrogen gas enhances the taste of the food.



Q78 General Science

Which of the following is an example of membrane bound little structures present in a cell?

A. Lysosome



B. Ribosome

C. Nucleoplasm

D. Cytoplasm

Q79 General Science

Which combination best represents essential life processes for maintaining an individual organism?

A. Growth, movement, reproduction and response

B. Reproduction, variation, heredity and adaptation

C. Locomotion, feeding, communication and defence

D. Nutrition, respiration, transportation and excretion

**Q80 General Science**

Which of the following irrigation methods leads to the least wastage of water?

A. Drip irrigation



B. Sprinkler irrigation

C. Flood irrigation

D. Furrow irrigation

Q81 General Science

A low platelet count may lead to _____.

A. Fever

B. Anemia

C. Excessive bleeding



D. Infection

Q82 General Science

Which of the following is NOT correctly matched, with regard to plant and animal cells?

A. Plastids - Present in plant cells

B. Cell wall - Present in animal cells



C. Vacuoles - Very large and present in plant cells

D. Plastids - Absent in animal cells

Q83 General Science

According to the law of constant proportions, the compound in which hydrogen and oxygen are present in a fixed mass ratio of 1:8 is:

A. Hydrogen peroxide

B. Ammonia

C. Methane

D. Water

**Q84 General Science**

Which statement is INCORRECT regarding prokaryotic organism?

A. Membrane-bound organelles are absent

B. Single chromosome is present

C. Nuclear region is defined



D. Primitive form of organism

Q85 General Science

Which of the following statements is correct regarding the storage of grains?

A. Abiotic factors responsible for losses in stored grains are temperature, rodents and fungi.

B. Storage losses in agriculture produce can be very low.

C. Biotic factors responsible for losses in stored grains are insects, rodents and moisture.

D. Biotic factors responsible for losses in stored grains are insects, rodents and fungi.

**Q86 General Science**

A device operates at 2 amperes current and 220 volts potential difference for 5 hours. How much electrical energy does it consume, expressed in kilowatt hours (kWh)?

A. 0.22 kWh

B. 2.2 kWh



C. 5 kWh

D. 1.1 kWh

Q87 General Science

A cyclist increases her speed from 6 m/s to 12 m/s in 3 seconds on a straight road. What is her acceleration during this period?

A. 3 m/s²

B. 0.5 m/s²

C. 2 m/s²



D. 6 m/s²



Q88 General Science

An object is placed on a shelf 2 m above the ground. If the shelf is raised to 4 m, what happens to the potential energy of the object?

- A. The potential energy remains the same
- B. The potential energy halves
- C. The potential energy doubles ✓
- D. The potential energy triples

Q89 General Science

A room heater and an electric bulb both convert electrical energy to heat, but why does only the bulb emit significant visible light?

- A. The heater is made of a different material
- B. The bulb's filament reaches a higher temperature, emitting visible light ✓
- C. The heater uses magnetic effect instead of heating effect
- D. The circuit design is different

Q90 General Science

Why do wet clothes dry faster when spread out?

- A. Clothes become hotter
- B. Water boils off
- C. Water escapes faster due to sunlight
- D. Surface area is increased ✓

Q91 General Science

In a parallel combination of three resistors, which statement correctly describes the total current in the circuit?

- A. It is the average of the currents through each resistor
- B. It is equal to the current through the resistor with the lowest resistance
- C. It is equal to the sum of the currents through each resistor ✓
- D. It is the same as the current through each resistor

Q92 General Science

Which of the following best supports the concept that matter is made-up of particles?

- A. Ice melts to form water
- B. Water boils at 100°C
- C. A drop of ink spreads uniformly in water ✓
- D. Metals conduct electricity

Q93 General Science

Which of the following will diffuse slowest in air?

- A. Oxygen
- B. Ammonia
- C. Hydrogen
- D. Chlorine ✓

Q94 General Science

Which statement best explains why blood cells are **NOT** found in the urine of a healthy person?

- A. They are broken down in the kidneys
- B. They are filtered and returned to the blood
- C. They are too large to pass through glomerular pores ✓
- D. They are reabsorbed in tubules

Q95 General Science

A ball initially at rest is dropped from a height and takes 5 seconds to reach the ground. What is the average speed during its fall? ($g = 10 \text{ m/s}^2$)

- A. 50 m/s
- B. 10 m/s
- C. 20 m/s
- D. 25 m/s ✓

Q96 General Science

Chloroplast is present in which of the following parts of a cell?

- A. Endoplasmic reticulum
- B. Cytoplasm ✓
- C. Nucleoplasm
- D. Peroxisome

Q97 General Science

Which property correctly distinguishes liquids from solids?

- A. Liquids cannot diffuse into other substances
- B. Liquids have fixed shape but no fixed volume
- C. Liquids have fixed volume but no fixed shape ✓
- D. Liquids are completely incompressible in nature



Q98 General Science

Which of the following does NOT define the motion of a pendulum swinging back and forth?

- ☒ A. The pendulum exhibits uniform motion
- ☐ B. The pendulum exhibits periodic motion
- ☐ C. The pendulum exhibits accelerated motion
- ☐ D. The pendulum exhibits non-uniform motion

Q99 General Science

When magnesium reacts with oxygen to form magnesium oxide, which of the following statements is NOT correct?

- ☐ A. The compound formed contains ionic bonds.
- ☐ B. Oxygen gains electrons to form O^{2-} ions.
- ☒ C. Magnesium loses electrons to form Mg^{3+} ions.
- ☐ D. Magnesium loses electrons to form Mg^{2+} ions.

Q100 General Science

Match the tobacco practice with the long-term consequences of consuming it.

	Column A		Column B
(a)	Cigarette smoking	(i)	Oral cancer
(b)	Chewing tobacco	(ii)	Emphysema
(c)	Passive smoking	(iii)	Respiratory infections
(d)	Long-term nicotine exposure	(iv)	Cardiovascular disorders

- ☐ A. a-ii, b-i, c-iii, d-iv
- ☒ B. a-ii, b-i, c-iv, d-iii
- ☐ C. a-iv, b-ii, c-i, d-iii
- ☐ D. a-i, b-iii, c-ii, d-iv



Mathematics

31 Questions • Answer Key

Q1 Mathematics

A train moves 120 km at 60 km/h and then another 60 km at 30 km/h. What is the average speed for the entire journey?

- A. 40 km/h
- B. 50 km/h
- C. 45 km/h
- D. 30 km/h



Q2 Mathematics

P gives Q a head-start of 10 seconds in a 600 m race, but both finish the race at the same time. Find the time taken by P to finish the race if the speed of Q is 4 m/sec.

- A. 142 Seconds
- B. 144 Seconds
- C. 146 Seconds
- D. 140 Seconds



Q3 Mathematics

The height of a tree varies as the square root of its age. When the age of the tree is 324 years, its height is 19 feet. What will be the height of the tree (in feet) at the age of 81 years?

- A. 9.14
- B. 9.5
- C. 8.39
- D. 9.01



Q4 Mathematics

If the cost price of 24 articles is equal to the selling price of 15 articles, then find the percentage of profit.

- A. 60%
- B. 71%
- C. 40%
- D. 55%



Q5 Mathematics

A student scored 60, 70, and 80 in three subjects with weights 2, 3, and 5, respectively. What is the weighted mean score?

- A. 71
- B. 77
- C. 73
- D. 75



Q6 Mathematics

The ratio of the cost prices of articles X and Y is 3 : 7. A man earns a profit of 49% by selling X and loses 16% by selling Y. What is his gain/loss percentage in the entire transaction?

- A. Loss, 5%
- B. Gain, 3%
- C. Loss, 3.5%
- D. Gain, 3.5%



Q7 Mathematics

The lengths of the three sides of a triangle are 13 cm, 14 cm and 15 cm, respectively. Find the area (in cm^2) of the incircle of this triangle. [Use $\pi = 3.14$]

- A. 50.24
- B. 56.52
- C. 53.38
- D. 47.10



Q8 Mathematics

Gopal has borrowed an amount of ₹420000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 5% per annum after 4 years?

- A. 82000
- B. 84000
- C. 83000
- D. 85000



Q9 Mathematics

The total surface area (in m^2) of a cube, each of whose edges measures 285 m, is:

A. 487344

B. 487350



C. 487362

D. 487308

Q10 Mathematics

A and B can complete a work in 15 days and 10 days, respectively. They started doing the work together but after 2 days, B had to leave, and A completed the remaining work alone. The whole work was completed in _____ days.

A. 10

B. 13

C. 11

D. 12

**Q11 Mathematics**

The average of the first 18 positive multiples of 7 is:

A. 66.5



B. 18

C. 63

D. 7

Q12 Mathematics

The sum of the squares of two consecutive even natural numbers is 3700. The sum of the numbers is:

A. 72

B. 86



C. 96

D. 80

Q13 Mathematics

If $2 : 4 :: 4.6 : x$ and $4 : 16 :: 2 : y$, what is the ratio of x to y ?

A. 21 : 21

B. 27 : 30

C. 24 : 18

D. 23 : 20

**Q14 Mathematics**

In an election between two candidates, 86% of the registered voters cast their votes and 6% of the votes polled were found invalid. The winning candidate got 58% of the valid votes and won the election by a margin of 202100 votes. How many voters were registered?

A. 1562200

B. 1562800

C. 1562500



D. 1562400

Q15 Mathematics

The radius of a solid right circular cone is 24 cm and its height is 32 cm. The total surface area of the cone is:

A. $960\pi \text{ cm}^2$



B. $1536\pi \text{ cm}^2$

C. $576\pi \text{ cm}^2$

D. $1728\pi \text{ cm}^2$

Q16 Mathematics

A grocer wishes to sell a mixture of two varieties of rice worth ₹56 per kg. In what ratio must he mix the rice to reach this selling price, when cost of one variety of rice is ₹54 per kg and the other is ₹64 per kg?

A. 3 : 1

B. 3 : 2

C. 4 : 1



D. 2 : 3

Q17 Mathematics

Which of the following numbers is divisible by both 9 and 43?

A. 7095

B. 8901



C. 7230

D. 10710

Q18 Mathematics

Garima bought an original hardbound book for ₹56,000. Its value depreciates by 5% per year. What will be the price (in ₹) of the book after 3 years?

A. 48,713

B. 47,052

C. 48,013



D. 48,512



Q19 Mathematics

Two trains having lengths of 430 m and 120 m are running at speeds of 70 km/h and 100 km/h, respectively, in the same direction. The time taken (in minutes) by the faster train, coming from behind, to completely cross the other train is:

A. 3.2

B. 4.1

C. 1.1

D. 1.6

Q20 Mathematics

The equations $x^2 - 5x + 6 = 0$ and $x^2 + ax + b = 0$, have exactly one common root, and the other root of the second equation is -4 . Among the following, which are the possible values of a and b ?

A. $a=2, b=-8$ B. $a=5, b=-20$ C. $a=3, b=-6$ D. $a=1, b=12$ **Q21 Mathematics**

Rupesh's salary was first reduced by 44% and subsequently raised by 15%. How much percentage was his final salary lower compared to his initial salary?

A. 15%

B. 29%

C. 35.6%

D. 6.6%

Q22 Mathematics

The value of $\sqrt{\left(90 + \sqrt{\left(97 + \sqrt{\left(4 + \sqrt{\left(19 + \sqrt{(36)}\right)}\right)}\right)}\right)}$ is:

A. 9

B. 10

C. 12

D. 7

Q23 Mathematics

[Question text / figure not saved in the source paper record. Options and official answer as released.]

A. $\frac{73}{48}$ B. $\frac{79}{48}$ C. $\frac{67}{48}$ D. $\frac{71}{48}$ 

Q24 Mathematics

If $x^2 - kx - 49 = 0$ and $x^2 - 5kx + 11 = 0$ ($k > 0$) have a common root, then the value of k is:

A. $\frac{15}{2}$

B. $\frac{15}{7}$

C. $\frac{15}{8}$ ✓

D. $\frac{15}{4}$

Q25 Mathematics

If $m + n + o = 15$ and $mn + no + om = 75$, then determine the value of $m^3 + n^3 + o^3 - 3mno$.

A. 0 ✓

B. 3

C. 5

D.

Q26 Mathematics

The HCF and the LCM of two numbers are 15 and 300, respectively. If one of the numbers is $\frac{5}{4}$ times of the other, what is the larger number?

A. 110

B. 84

C. 75 ✓

D. 88



Q27 Mathematics

The mean marks of the following distribution is:

Marks Obtained	No. of Students
36	12
35	11
93	18
17	5

A. 56



B. 75

C. 60

D. 72

Q28 Mathematics

Two inlet pipes A and B and one outlet pipe O are attached to a cistern. Pipe A fills the cistern in 8 hours, pipe B in 12 hours, and the outlet O can empty a full cistern in 24 hours. If all three pipes are opened simultaneously, how long will it take to fill the cistern?

A. 6 hours



B. 6.8 hours

C. 6.5 hours

D. 5.5 hours

Q29 Mathematics

Simplify: $88 - 1 \times (5 + 12) - 19$

A. 60

B. 52



C. 62

D. 54



Q30 Mathematics

If $5\sin Y + \cos Y = \sqrt{2}\sin Y$, then find the value of $\tan Y$.

A. $\frac{-5 - \sqrt{2}}{28}$

B. $\frac{-5 - \sqrt{2}}{23}$ ✓

C. $\frac{-5 - \sqrt{2}}{33}$

D. $\frac{-6 - \sqrt{2}}{23}$

Q31 Mathematics

A trader gives 8% discount on the marked price of an article and gives 3 articles free for buying 18 articles and gains 38% in the entire transaction. Assuming a customer pays for 18 articles, the marked price of an article is what percent more than its cost price?

A. 70%

B. 85%

C. 75% ✓

D. 79%

General Intelligence and Reasoning

25 Questions • Answer Key

Q32 General Intelligence and Reasoning

Seven people, A, L, M, I, R, H and S, are sitting in a row, facing north.

Only A sits to the left of S. Only four people sit between A and H. Only I sits between L and R and L is not an immediate neighbor of H.

Who sits at the extreme right of the line?

A. R

B. H

C. A

D. M ✓

Q33 General Intelligence and Reasoning

What should come in place of the '?' in the given series, based on the English alphabetical order?

DIB FKD HMF JOH ?

A. LRJ

B. LQI

C. LRI

D. LQJ ✓

Q34 General Intelligence and Reasoning

H is the brother of A. R is the sister of K. P is the son of K. K is the wife of A. How is H related to R?

A. Sister's husband's brother ✓

B. Husband's father

C. Husband's brother

D. Sister's husband's father



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Q35 General Intelligence and Reasoning

U, V, W, X, Y, and Z live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it, number 2, and so on, till the topmost floor is numbered 6. Only two people live between W and Z. Only X lives above V. Y lives on an even-numbered floor. W lives on the lowermost floor.

How many people live between U and X?

A. Two



B. One

C. Three

D. Four

Q36 General Intelligence and Reasoning

M, A, T, H and S, each have different ages and all ages are integers. M is younger than only two persons. H is 88 years old, which is the second highest age. S is younger than M but older than A. Who is the eldest?

A. T



B. A

C. S

D. H

Q37 General Intelligence and Reasoning

If + means $\times$, $\times$ means $\div$, $\div$ means $+$, then what will come in place of the question mark (?) in the following equation?

$$7-24\times 6\div 18+7=?$$

A. 48

B. 40

C. 39



D. 45

Q38 General Intelligence and Reasoning

A question is given followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements carefully and decide the appropriate answer.

5 people - P, Q, X, Y and Z, have an exam on different days of the same week between Monday and Friday. Who has an exam on Thursday?

I. Q has an exam on Tuesday. No one has an exam between P and Q. Z has an exam immediately after X.

II. X has an exam on one of the days after Q. Only three people have an exam between P and Y

A. Data in statement I alone is sufficient to answer the question while data in statement II is not

Data in statements I and II together (and not statement I alone or statement II alone) is sufficient to answer the question



C. Data in statements I and II together is NOT sufficient to answer the question

D. Data in statement II alone is sufficient to answer the question while data in statement I is not

Q39 General Intelligence and Reasoning

Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(136, 220, 84)

(144, 240, 96)

A. (164, 254, 92)

B. (140, 238, 98)



C. (156, 210, 56)

D. (152, 260, 88)

Q40 General Intelligence and Reasoning

Refer to the following letter, symbol series and answer the question

(Left) H F % G R @ # S \$ M * % & N E Q Z U L @ T W

(Right)

If all the symbols are dropped from the series, which of the following will be fourth from the right?

A. Q

B. L

C. Z

D. U



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Q41 General Intelligence and Reasoning

24 is related to 270 following a certain logic. Following the same logic, 31 is related to 340. To which of the following is 43 related, following the same logic?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

A. 450

B. 430

C. 420

D. 460

**Q42 General Intelligence and Reasoning**

In a certain code,

'big grand wedding' is coded as 'rc af bg'

'grand birthday celebration' is coded as 'kp vg rc'

'enjoy big celebration' is coded as 'af zd vg'

(all the codes are two letter coded only)

What is the possible code for 'birthday bash'?

A. kp rc

B. kp tn



C. rc zd

D. bg vg

Q43 General Intelligence and Reasoning

This question is based on the five, three-digit numbers given below.

(Left) 453 914 527 658 715 (Right)

(Example- 697 – First digit = 6, second digit = 9 and third digit = 7)

NOTE - All operations to be done from left to right.

What will be the resultant if the third digit of the highest number is multiplied with the second digit of the lowest number?

A. 17

B. 19

C. 20



D. 18

Q44 General Intelligence and Reasoning

In a certain code language,

'A + B' means 'A is the son of B',

'A – B' means 'A is the sister of B',

'A x B' means 'A is the wife of B' and

'A ÷ B' means 'A is the father of B'.

How is Q related to D if 'Q + E ÷ R – C x D'?

A. Father

B. Brother

C. Wife's father

D. Wife's brother

**Q45 General Intelligence and Reasoning**

Select the triad which follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

NQ-KO-IL

FI-CG-AD

A. JM-GK-EH



B. IM-GL-FH

C. IM-GK-FH

D. JM-GK-FH

Q46 General Intelligence and Reasoning

What should come in place of the question mark (?) in the given series?

6 10 38 106 326 ?

A. 980

B. 923

C. 958

D. 970

**Q47 General Intelligence and Reasoning**

Six friends, O, P, Q, G, H and I, live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it is numbered 2 and so on, till the topmost floor, which is numbered 6.

Only two people live between O and H. O lives above P.

Only two people live between Q and P. Only one person

lives between G and P. G lives on floor numbered 1.

How many people live above I?

A. Two



B. One

C. Three

D. None



Q48 General Intelligence and Reasoning

What should come in place of '?' in the given series?

2 7 22 67 ?

A. 203

B. 202



C. 201

D. 204

Q49 General Intelligence and Reasoning

Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:

All cups are glasses.

All glasses are bottles.

All bottles are jars.

Conclusions:

(I): All cups are bottles.

(II): All glasses are jars.

A. Both conclusions (I) and (II) follow.



B. Only conclusion (I) follows.

C. Only conclusion (II) follows.

D. Neither conclusion (I) nor (II) follows.

Q50 General Intelligence and Reasoning

RD 15 is related to UI -1 in a certain way. In the same way, WG 13 is related to ZL -3. To which of the following is OG 1 related, following the same logic?

A. RL -15



B. JK -12

C. HU -10

D. KO -16

Q51 General Intelligence and Reasoning

In a certain code,

'boy likes games' is coded as 'tu vw xy'

'girl likes music' is coded as 'za vw rs'

'music games hobby' is coded as 'rs xy pq'

Q. What is the code for **hobby** ?

A. xy

B. rs

C. vw

D. pq

**Q52 General Intelligence and Reasoning**

Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which is the one that does not belong to that group?

(NOTE: The odd man out is not based on the number of consonants/vowels or their position in the letter cluster.)

A. SU - KM

B. XZ - PR

C. QS - IK

D. LN - CE

**Q53 General Intelligence and Reasoning**

This question is based on the words given below.

IRE AWE DAY FUR

In each of the words, each vowel is changed to the second letter preceding it in the English alphabetical order, and each consonant is changed to the letter immediately following it in the English alphabetical order. In how many letter-clusters thus formed will no vowel appear?

A. Four

B. Two

C. Three



D. One

Q54 General Intelligence and Reasoning

Ajay starts from Point A and drives 6 km towards north. He then takes a left turn, drives 5 km, turns left and drives 15 km. He then takes a left turn and drives 12 km. He takes a final left turn, drives 9 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90° turns only unless specified.)

A. 6 km to the east

B. 7 km to the west



C. 7 km to the east

D. 6 km to the west



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Q55 General Intelligence and Reasoning

18 is related to 270 following a certain logic. Following the same logic, 21 is related to 315. To which of the following is 24 related, following the same logic?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

A. 390

B. 370

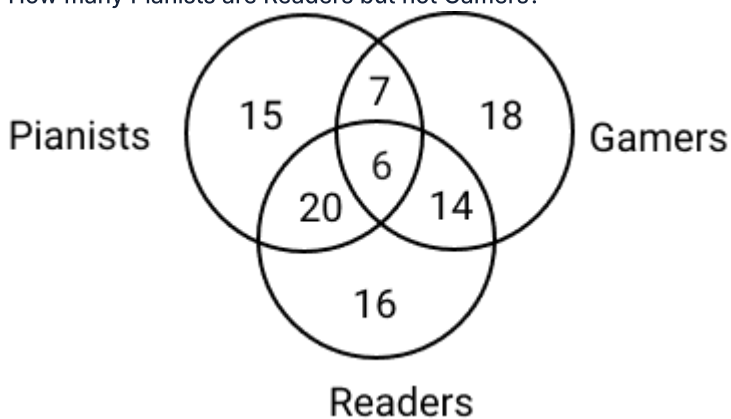
C. 360



D. 375

Q56 General Intelligence and Reasoning

Study the given Venn diagram carefully and answer the question. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.) How many Pianists are Readers but not Gamers?



A. 14

B. 15

C. 20



D. 18

General Awareness

18 Questions • Answer Key

Q57 General Awareness

Which Fundamental Duty was added by the 86th Constitutional Amendment in 2002?

A. To promote harmony among all people of India

B. To provide opportunities for education to children aged 6–14 years



C. To safeguard public property

D. To uphold and protect the sovereignty of India

Q58 General Awareness

A town replaces all plastic bags with cloth bags. Which chain reaction is expected in the ecosystem?

A. More plastic accumulates in water bodies

B. Cloth bags cause soil toxicity

C. Plastic still enters the food chain

D. Reduced pollution and decreased biological magnification



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Q59 General Awareness

Which of the following Acts in India specifically deals with controlling air pollution?

- A. Air (Prevention and Control of Pollution) Act, 1988
- B. Air (Prevention and Control of Pollution) Act, 1981 ✓
- C. Air (Prevention and Control of Pollution) Act, 1990
- D. Air (Prevention and Control of Pollution) Act, 1984

Q60 General Awareness

Which Indian player was appointed as the co-chair of the International Hockey Federation's new FIH Athletes Committee in 2024?

- A. Raj Kumar Pal
- B. PR Sreejesh ✓
- C. Harmanpreet Singh
- D. Amit Rohidas

Q61 General Awareness

What is the theme of the STREE Summit 2025, as inferred from its description?

- A. "Empowering Women, Empowering Society"
- B. "Gender Equality: A Path to Progress"
- C. "Women's Rights are Human Rights"
- D. "She Triumphs Through Respect, Equality, and Empowerment" ✓

Q62 General Awareness

What was a consequence of the economic structure in India between 1947 and 1991?

- A. High levels of foreign direct investment
- B. Rapid technological advancement in all sectors
- C. Full privatization of the public sector
- D. Slow industrial growth due to heavy regulation and protectionism ✓

Q63 General Awareness

Which of the following is an advantage of paper cups over plastic cups?

- A. They are stronger
- B. They are biodegradable ✓
- C. They are reusable
- D. They are cheaper

Q64 General Awareness

Who is the chairperson of the RBI's committee formed to develop the Framework for Responsible and Ethical AI (FREE-AI) in the financial sector as of December 2024?

- A. Professor Pushpak Bhattacharyya from IIT Bombay ✓
- B. Dr. Rajeev Chandrasekhar from Ministry of Electronics
- C. Dr. Krishnamurthy Subramanian from IMF Board
- D. Professor K. VijayRaghavan from Office of PSA

Q65 General Awareness

Which of the following is/are correct about C. Vijayaraghavachariar?

- I. He was called 'The Hero of Salem'.
- II. He was known as the 'Lion of North India'.

- A. Both I and II
- B. Neither I nor II
- C. Only II
- D. Only I ✓

Q66 General Awareness

What is the origin of the material that makes up the Bhabar belt?

- A. Weathering of local rocks
- B. Debris washed down from high ranges ✓
- C. Glacial deposits
- D. Aeolian deposits

Q67 General Awareness

Which of the following islands is the southernmost point of India?

- A. Little Andaman
- B. Car Nicobar
- C. Kavaratti
- D. Indira Point ✓

Q68 General Awareness

In a pond ecosystem, removal of phytoplankton would most directly affect _____.

- A. Abiotic components
- B. Secondary consumers like fish-eating birds
- C. Decomposers only
- D. Primary consumers like zooplankton ✓



Q69 General Awareness

Prafulla Chaki and Khudiram Bose are known for their attempt to assassinate which British official?

- A. Lord Curzon
- B. Douglas Kingsford ✓
- C. John Morley
- D. Lord Minto

Q70 General Awareness

The Alapana in Carnatic music is equivalent to which part in Hindustani music?

- A. Alap ✓
- B. Bandish
- C. Sargam
- D. Taan

Q71 General Awareness

In 1964, who chaired the Committee on Prevention of Corruption and suggested the Central Vigilance Commission be established?

- A. G K Pillai
- B. G V Ramakrishna
- C. K. Santhanam ✓
- D. P K Mohanty

Q72 General Awareness

According to the Global Firepower Index 2025, what is India's global rank in terms of conventional military strength?

- A. 5th
- B. 3rd
- C. 2nd
- D. 4th ✓

Q73 General Awareness

Open Market Operations (OMOs) are conducted by RBI to control _____.

- A. Money supply ✓
- B. Foreign trade
- C. State budgets
- D. Corporate profits

Q74 General Awareness

In December 2024, Masli, a village in which state, became the first border solar village in India?

- A. Odisha
- B. Karnataka
- C. Gujarat ✓
- D. Madhya Pradesh

General Science

26 Questions • Answer Key

Q75 General Science

Which of the following is a biotic factor causing storage losses in grains?

- A. Moisture
- B. Temperature
- C. Sunlight
- D. Insects ✓

Q76 General Science

Which pair of olfactory indicators loses its smell in a basic solution?

- A. Onion and blue litmus
- B. Vanilla essence and clove oil ✓
- C. Turmeric and onion
- D. Phenolphthalein and onion

Q77 General Science

Refer to the two statements given below and choose the CORRECT option.

Statement A: While writing the chemical formula of a compound, the total positive and negative charges must balance each other.

Statement B: Balancing valencies ensures that the compound formed is electrically neutral.

- A. Both statements A and B are incorrect.
- B. Statement A is correct but B is incorrect.
- C. Both statements A and B are correct. ✓
- D. Statement A is incorrect but B is correct.



Q78 General Science

Why is intracellular digestion suitable for unicellular organisms?

- A. They have large body cavities.
- B. They lack specialized digestive organs. ✓
- C. They lack digestive enzymes.
- D. They depend on external digestion.

Q79 General Science

Identify the CORRECT statement about the chlor-alkali process:

- A. Hydrogen gas is formed at the cathode and chlorine gas at the anode. ✓
- B. Sodium hydroxide is generated near the anode during electrolysis.
- C. It is used for the preparation of Na_2CO_3 solution by electrolysis of brine.
- D. NaOH is formed at the anode and chlorine gas at the cathode.

Q80 General Science

An electric refrigerator has a power rating of 500 W and is used for 6 hours each day. If the cost of electrical energy is ₹4.00 per kilowatt-hour, what will be the total cost of operating the refrigerator for 30 days?

- A. ₹180
- B. ₹360 ✓
- C. ₹300
- D. ₹240

Q81 General Science

A designer wants to create a device that spreads light from a small bulb to illuminate a wide area uniformly. Which lens should be used and why?

- A. A convex lens, because it converges light rays
- B. A plane glass, because it transmits light without bending
- C. A prism, because it bends light at an angle
- D. A concave lens, because it diverges light rays outward ✓

Q82 General Science

Which material can be magnetised using the strong magnetic field inside a solenoid?

- A. Soft iron ✓
- B. Plastic
- C. Copper
- D. Aluminum

Q83 General Science

A farmer wants to improve both the quantity and taste of honey produced on his bee farm. Which of the following strategies should he adopt?

- A. Move the apiary to an area with fewer flowers.
- B. Use only local bee varieties for honey production.
- C. Reduce the number of beehives and increase the number of bees.
- D. Increase the variety and quantity of flowering plants near the beehives. ✓

Q84 General Science

What happens to insoluble impurities during electrolytic refining?

- A. They evaporate
- B. They settle as anode mud ✓
- C. They deposit on cathode
- D. They dissolve completely

Q85 General Science

A wire of a given material has length l and cross-sectional area A , and its resistance is $9\ \Omega$. Another wire of the same material has length $l/3$ and cross-sectional area $3A$. What will be the resistance of the second wire?

- A. $1\ \Omega$ ✓
- B. $2\ \Omega$
- C. $6\ \Omega$
- D. $0.5\ \Omega$



Q86 General Science

A passenger in a moving car feels a jerk backward when the car suddenly starts. How does the first law of motion explain this experience?

- A. The passenger tends to remain at rest while the car moves forward, showing inertia.** ✓
- B. Friction from the seat creates the backward jerk.
- C. The seat pushes the passenger forward, causing the sensation.
- D. The passenger is pushed backward by the air inside the car.

Q87 General Science

What happens to the potential energy of an object if its mass is halved while its height above the ground remains constant?

- A. The potential energy is halved** ✓
- B. The potential energy is doubled
- C. The potential energy becomes zero
- D. The potential energy remains unchanged

Q88 General Science

A gardener notices fallen leaves under a tree. Which strategy of plant excretion does this illustrate, and what type of waste handling is involved?

- A. Releasing waste as oxygen only.
- B. Converting waste into fruits.
- C. Excreting waste through roots only.
- D. Storing waste in leaves that fall off.** ✓

Q89 General Science

If atmospheric refraction did not occur, which change would be most noticeable during the observation of stars from Earth?

- A. Stars would disappear from the night sky.
- B. Stars would not twinkle; their light would remain steady.** ✓
- C. Stars would change color rapidly.
- D. Planets would twinkle like stars.

Q90 General Science

Which statement accurately describes how energy transforms during the free fall of an object under gravity?

- A. Potential energy is converted into heat energy during the fall.
- B. Both potential and kinetic energies remain constant.
- C. Potential energy decreases while kinetic energy increases, maintaining constant total mechanical energy.** ✓
- D. Potential energy and kinetic energy both decrease.

Q91 General Science

A micelle has its hydrophobic ends directed:

- A. Towards the center away from water** ✓
- B. Towards water molecules directly
- C. Outside forming hydrogen bonds
- D. Randomly in all possible directions

Q92 General Science

Washing soda is commonly used to:

- A. Neutralise acids in human blood
- B. Remove grease and soften water** ✓
- C. Increase acidity in baked foods
- D. Preserve meat for long periods

Q93 General Science

Which element exists as a monoatomic molecule?

- A. Chlorine
- B. Oxygen
- C. Argon** ✓
- D. Nitrogen

Q94 General Science

A student adds lead (II) nitrate ($\text{Pb}(\text{NO}_3)_2$) to an unknown solution. A yellow precipitate forms. What could the unknown solution be?

- A. Copper sulphate (CuSO_4)
- B. Barium sulphate (BaSO_4)
- C. Sodium chloride (NaCl)
- D. Potassium iodide (KI)** ✓



Q95 General Science

What is the reason why electrons move in a conducting wire when connected to a battery, but not when the wire is left untouched?

- A. Wire is made of copper
- B. Electrons have intrinsic energy for movement
- C. Gravity acts on electrons in the wire
- D. A battery creates a potential difference that sets electrons in motion ✓

Q96 General Science

Why are crops with different nutrient requirements chosen for inter-cropping?

- A. To increase the duration of crop growth
- B. To prevent all pests and diseases completely
- C. To ensure maximum utilisation of nutrients supplied to the field ✓
- D. To allow for crop rotation in succession

Q97 General Science

If the bicuspid (mitral) valve fails to close properly, which immediate effect is most likely during ventricular contraction?

- A. Mixing of oxygenated and deoxygenated blood in the ventricles
- B. Backflow of blood from the right ventricle to the right atrium
- C. Backflow of blood from the left ventricle to the left atrium ✓
- D. Reduced flow of blood to the lungs

Q98 General Science

Why is alcohol considered a cleaner fuel than petrol?

- A. It burns without oxygen
- B. It produces less smoke ✓
- C. It burns at low temperature
- D. It gives higher energy

Q99 General Science

Which of the following types of connective tissue is present in the larynx of a human body?

- A. Cartilage ✓
- B. Areolar
- C. Ligament
- D. Adipose

Q100 General Science

Consider the reaction:



Which of the following statements is/are correct?

- (A) The reaction represents the oxidation of a primary alcohol to a carboxylic acid.
- (B) Alkaline KMnO_4 acts as an oxidising agent.
- (C) Alkaline KMnO_4 acts as a reducing agent.

- A. A, B and C
- B. Only A and B ✓
- C. Only A and C
- D. Only B



Mathematics

30 Questions • Answer Key

Q1 Mathematics

In the Assumed Mean Method, if the assumed mean (A) = 55 and an observed value $x = 40$, what is the deviation d ?

- A. 1.5
- B. -15
- C. -1.5
- D. 15



Q2 Mathematics

Find the ratio between the fourth proportional of 8, 12 and 4, and the third proportional of 6 and 9.

- A. 7:11
- B. 9:13
- C. 5:11
- D. 4:9



Q3 Mathematics

A boat travels 36 km downstream in 3 hours and returns upstream covering the same distance in 5 hours. What is the speed of boat in still water?

- A. 9.6 km/hour
- B. 8.5 km/hour
- C. 10.2 km/hour
- D. 11.7 km/hour



Q4 Mathematics

Calculate the population standard deviation of the data 13, 17, 23, 26, 31, 28, 15, 34, 17, and 26.
(Round off your answer to two decimal places.)

- A. 6.81
- B. 7.18
- C. 6.19
- D. 7.26



Q5 Mathematics

When x is added to each of 13, 19, 16 and 23, then the numbers so obtained, in this order, are in proportion. Then, if $5x : y :: y : (8x-4)$, and $y > 0$, what is the value of y ?

- A. 42
- B. 41
- C. 30
- D. 37



Q6 Mathematics

Akshay has borrowed an amount of ₹440000 from a bank to start a business. How much simple interest (in ₹) will he pay at a rate of 5% per annum after 4 years?

- A. 89000
- B. 88000
- C. 78000
- D. 87000



Q7 Mathematics

The average of the first 18 positive multiples of 11 is:

- A. 18
- B. 11
- C. 104.5
- D. 99



Q8 Mathematics

Amit had invested same amount of sums at simple as well as compound interest, compounded annually. The time period of both the sums was 2 years and rate of interest too was same 10% per annum. At the end, he found a difference of ₹97 in both the interests received. What were the sums (in ₹) invested?

- A. 8,950
- B. 10,050
- C. 8,800
- D. 9,700



Q9 Mathematics

A tap can fill a cistern in 32 hours, while another tap can empty the full cistern in 64 hours. If the cistern is initially empty and both taps are opened together, find the time (in hours) required to fill one-fourth of the cistern.

A. 64

B. 16



C. 32

D. 48

Q10 Mathematics

The list price of a refrigerator is ₹15,000. It is sold to a retailer after two successive discounts of 32% and 40%. The retailer wants to earn a profit of 45% on his cost after allowing a 49% discount (on its new list price) to the customer. At what price should he list the refrigerator?

A. ₹17,325

B. ₹17,504

C. ₹17,400



D. ₹17,412

Q11 Mathematics

Five years ago, the ratio of the ages of Amit and Bhanu was 2 : 3. Fifteen years from now, their ages will be in the ratio of 5 : 6. Find the sum of their present ages. (Give your answer in years and months, if relevant.)

A. 43 years

B. 80 years

C. 43 years, 4 months



D. 43 years, 3 months

Q12 Mathematics

The monthly income of Chetan is ₹60,000 and his expenditure is ₹35,000. If his income increases by 25%, and his expenditure increases by 15%, then what will be the percentage increase in his savings?

A. 36%

B. 38%

C. 39%



D. 35%

Q13 Mathematics

Girish scored 695 marks in an examination and was 17 marks short of 89% of the maximum marks. In the same examination, his friend scored 688 marks. What is the percentage of marks scored by his friend?

A. 83%

B. 86%



C. 87%

D. 84%

Q14 Mathematics

In what ratio should sugar costing ₹34/kg be mixed with sugar costing ₹58/kg so that by selling the mixture at ₹52.80/kg, there is a profit of 32%?

A. 5 : 2

B. 5 : 3

C. 7 : 3

D. 3 : 1

**Q15 Mathematics**

A farmer wants to plant 95 mango trees, 171 banyan trees, and 152 banana trees in equal rows (in terms of the number of trees). Also, he wants to create distinct rows of trees, with only one type of tree in each row. Find the minimum number of rows required.

A. 23

B. 19

C. 18

D. 22

**Q16 Mathematics**

The ratio of the cost prices of articles X and Y is 1:2. A man earns a profit of 12% by selling X and incurs a loss of 36% by selling Y. What is his overall gain or loss percentage in the entire transaction?

A. Gain, 26.5%

B. Gain, 20%

C. Loss, 20%



D. Loss, 24.5%



Q17 Mathematics

If $14.8 : x :: x : 3.7$ and $x > 0$, then find the value of x .

A. 7.4



B. 11.4

C. 12.9

D. 4.1

Q18 Mathematics

If $\frac{4(x^2 + 1) - 8x}{3x} = 6$, $x > 0$, then find the positive value of $\sqrt{x} + \frac{1}{\sqrt{x}}$.

A. $\sqrt{\frac{17}{2}}$



B. $\sqrt{\frac{5}{3}}$

C. $\sqrt{\frac{2}{3}}$

D. $\sqrt{\frac{2}{5}}$

Q19 Mathematics

The roots of the equation $ax^3 - 24x^2 + 188x - 480 = 0$ are three consecutive even natural numbers. The value of a is _____.

A. 3

B. 2

C. 1



D. 4

Q20 Mathematics

A regular hexagon is inscribed in a circle. If the length of the shortest diagonal of the hexagon is 12 cm, find one-sixth of the area (in cm^2) of the region lying between the circle and the hexagon.

A. $6(2\pi - 3\sqrt{3})$

B. $4(3\pi - 2\sqrt{3})$

C. $6(3\pi - 2\sqrt{3})$

D. $4(2\pi - 3\sqrt{3})$



Q21 Mathematics

[Question text / figure not saved in the source paper record. Options and official answer as released.]

A. $5\frac{319}{225}$

B. $5\frac{319}{215}$

C. $5\frac{219}{225}$ ✓

D. $5\frac{229}{255}$

Q22 Mathematics

The value of $4^3 - 7^2 + \left(\frac{16}{4}\right)^2 - 4 + 9 \times 1 = \underline{\hspace{2cm}}$

A. 44

B. 36 ✓

C. 42

D. 33

Q23 Mathematics

If $14\sin Y + \cos Y = \sqrt{14}\sin Y$, then find the value of $\tan Y$.

A. $\frac{-15 - \sqrt{14}}{182}$

B. $\frac{-14 - \sqrt{14}}{182}$ ✓

C. $\frac{-14 - \sqrt{14}}{192}$

D. $\frac{-14 - \sqrt{14}}{187}$

Q24 Mathematics

A shopkeeper sells his goods at cost price. If by using false weights he gains $3\frac{19}{27}\%$, then what weight does he use for 1 kg (in g, rounded off to 2 decimal places)?

A. 954.79

B. 987.35

C. 938.99

D. 964.29 ✓



Q25 Mathematics

A can do a work in 9 days and B in 12 days. They work on alternate days, beginning with B. In how many days will the work be completed?

A. $8\frac{1}{3}$

B. $12\frac{1}{3}$

C. $9\frac{1}{3}$

D. $10\frac{1}{3}$ ✓

Q26 Mathematics

Find the roots of the quadratic equation $15x^2 - x - 2 = 0$

A. $x = \frac{-1}{3}$ or $x = \frac{-2}{5}$

B. $x = \frac{1}{3}$ or $x = \frac{2}{5}$

C. $x = \frac{-1}{3}$ or $x = \frac{2}{5}$ ✓

D. $x = \frac{1}{3}$ or $x = \frac{-2}{5}$

Q27 Mathematics

The radius and slant height of a cone are 59.5 cm and 85 cm, respectively. Find its total surface area.

(Take $\pi = \frac{22}{7}$)

A. 27,021.5 cm² ✓

B. 28,021.5 cm²

C. 27,000.5 cm²

D. 30,021.5 cm²

Q28 Mathematics

Simplify: $110 - 42 \times (5 + 6) - 6$

A. -350

B. -363

C. -358 ✓

D. -348



Q29 Mathematics

How many metres of cloth 2 metres wide will be required to make a conical tent with the diameter of the base being 14 metres and its slant height being 9.5 metres?

(Use $\pi = \frac{22}{7}$)

A. 109.5

B. 114.5

C. 124.5

D. 104.5

**Q30 Mathematics**

Mr. W travelled 425 km, 946 km and 340 km at a speed of 5 km/hr, 43 km/hr and 34 km/hr, respectively. Find his average speed in km/hr.

A. $14\frac{70}{117}$

B. $14\frac{73}{117}$

C. $14\frac{75}{117}$

D. $14\frac{71}{117}$

**General Intelligence and Reasoning**

25 Questions • Answer Key

Q31 General Intelligence and Reasoning

Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

(13, 91, 27)

(19, 133, 39)

A. (26, 130, 53)

B. (25, 175, 50)

C. (29, 210, 57)

D. (20, 140, 41)

**Q32 General Intelligence and Reasoning**

Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:

All apples are mangos.

All mangos are balls.

No ball is a cat.

Conclusions:

(I): No apple is a cat.

(II): Some balls are apples.

A. Only conclusion (II) follows

B. Both conclusions (I) and (II) follow



C. Neither conclusion (I) nor (II) follows

D. Only conclusion (I) follows



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Q33 General Intelligence and Reasoning

What should come in place of '?' in the given series?

7 10 16 25 ?

A. 34

B. 43

C. 37



D. 40

Q34 General Intelligence and Reasoning

If + means -, - means x, x means ÷, ÷ means +, then what will come in place of the question mark (?) in the following equation?

$4 - 18 \times 3 \div 50 + 33 = ?$

A. 30

B. 31

C. 40

D. 41

**Q35 General Intelligence and Reasoning**

In a certain code,
'parents teach good values' is coded as 'sc fs ye un',
'strong values shape character' is coded as 'lx zv fs lb' and
'good habits discipline strong' is coded as 'ye hk gb zv'.

(All the codes are two-letter codes only.)
What is the possible code for 'character'?

A. Either 'ye' or 'lb'

B. Either 'fs' or 'zv'

C. Either 'lb' or 'fs'

D. Either 'lb' or 'lx'

**Q36 General Intelligence and Reasoning**

Each of C, D, E, F, X, Y and Z has an exam on a different day of a week starting from Monday and ending on Sunday of the same week.

X has exam on Friday. Only two people have exams between Y and X. Only four people have exams between C and Y. D has exam immediately after F. Z doesn't have exam on Monday.

How many people have exam(s) between Z and E?

A. Two

B. One

C. Four



D. Three

Q37 General Intelligence and Reasoning

What should come in place of the question mark (?) in the given series?

2 16 44 100 212 ?

A. 430

B. 433

C. 435

D. 436

**Q38 General Intelligence and Reasoning**

In a certain code,
'green apple sweet' is coded as 'ta lo mi'
'red apple fresh' is coded as 'ku lo pe'
'green mango fresh' is coded as 'ta si pe'
(all the codes are two letter coded only)
What is the code for "green apple"?

A. ku lo

B. ta lo



C. ta pe

D. mi si

Q39 General Intelligence and Reasoning

Select the pair which follows the same pattern as that followed by the two set of pairs given below. Both pairs follow the same pattern.

JKK : KFH
HVO : IQL

A. FJL : GDI

B. CUK : DPG

C. OOP : PJM



D. CPR : DKN

Q40 General Intelligence and Reasoning

Refer to the following letter, number and symbol series and answer the question that follows.

(Left) H @ \$ V 1 B 2 C N E T U 8 6 % # L C N Q A (Right)

If all the letters are dropped from the series, which of the following will be fifth from the left?

A. 8



B. %

C. 6

D. 2



Q41 General Intelligence and Reasoning

Based on the English alphabetical order, three of the following four letter cluster pairs are alike in a certain way and thus form a group. Which is the one that does not belong to that group?

(Note: The odd man out is not based on the number of consonants/vowels or their position in the letter cluster.)

A. KI-EF



B. SQ-NL

C. AY-VT

D. LJ-GE

Q42 General Intelligence and Reasoning

This question is based on the following words/letter clusters.

(left) ADS DUG AGS BEG (right)

How many letters are there between the second letter of the second word/letter cluster from the right and the second letter of the second word/letter cluster from the left, counted in the English alphabetical order?

A. 14

B. 12

C. 13



D. 11

Q43 General Intelligence and Reasoning

19 is related to 287 following a certain logic. Following the same logic, 23 is related to 347. To which of the following is 28 related, following the same logic?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

A. 420

B. 426

C. 424

D. 422

**Q44 General Intelligence and Reasoning**

In a certain code language,
A + B means 'A is the daughter of B'
A – B means 'A is the brother of B'
A x B means 'A is the wife of B'
A ÷ B means 'A is the father of B'

Based on the above, how is E related to K if 'E – F + G x H ÷ K'?

A. Father

B. Son

C. Husband

D. Brother

**Q45 General Intelligence and Reasoning**

Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting /multiplying, etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(133,5,23)

(107,1,18)

A. (18,24,1)

B. (10,22,2)

C. (75,9,4)

D. (76,20,16)

**Q46 General Intelligence and Reasoning**

P is the brother of W. W is the father of R. T is the father of J. J is the son of R. How is T related to P?

A. Daughter's husband

B. Daughter's son

C. Brother's daughter's husband



D. Brother's daughter's son



Q47 General Intelligence and Reasoning

Simar starts from Point A and drives 10 km towards south. He then takes a right turn, drives 7 km, turns right and drives 12 km. He then takes a right turn and drives 9 km. He takes a final right turn, drives 2 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again?

(All turns are 90 degree turns only unless specified.)

- A. 2 km to the east
- B. 3 km to the west
- C. 2 km to the west
- D. 3 km to the east

Q48 General Intelligence and Reasoning

Seven boxes, D, E, F, G, H, W and X, are kept one over the other, but not necessarily in the same order. Only H is kept above E. Only D is kept between E and G. Only F is kept below X. How many boxes are kept between W and E?

- A. Three
- B. One
- C. Four
- D. Two

Q49 General Intelligence and Reasoning

Refer to the following letter, number, symbol series and answer the question that follows. (NOTE: All numbers are single digit numbers only) Counting to be done from left to right only.

(Left) H 9 & 3 L ! 6 M \$ 7 R @ 4 C % 2 F # 5 K * 8 P (Right)

How many such symbols are there, each of which is immediately preceded by a number and also immediately followed by another symbol?

- A. One
- B. None
- C. Two
- D. Three

Q50 General Intelligence and Reasoning

Select the triad which follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

JM-HK-FI
MP-KN-IL

- A. QS-NP-KO
- B. PS-NQ-LO
- C. PS-NQ-KO
- D. QS-MP-KO

Q51 General Intelligence and Reasoning

D, R, A, W and S have different marks. Only one person has scored between A and R. Only one person has scored between R and W. S has scored more than R and W. How many people have scored less than D?

- A. Three
- B. Two
- C. Four
- D. One

Q52 General Intelligence and Reasoning

What should come in place of ? in the given series based on the English alphabetical order?

JMQ ILP HKO GJN ?

- A. FJM
- B. FJN
- C. FIM
- D. FIN

Q53 General Intelligence and Reasoning

Seven people, F, J, M, L, R, V and X, are sitting in a row, facing north.

Only three people sit to the left of X. Only M sits to the right of R. Only three people sit between R and V. J sits at some place to the left of L but at some place to the right of F. How many people sit to the left of V?

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



Q54 General Intelligence and Reasoning

A question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements carefully and decide the appropriate answer.

Question: 5 people, P, Q, X, Y and Z, have an exam on different days of the same week between Monday and Friday. Who has an exam on Thursday?

Statements:

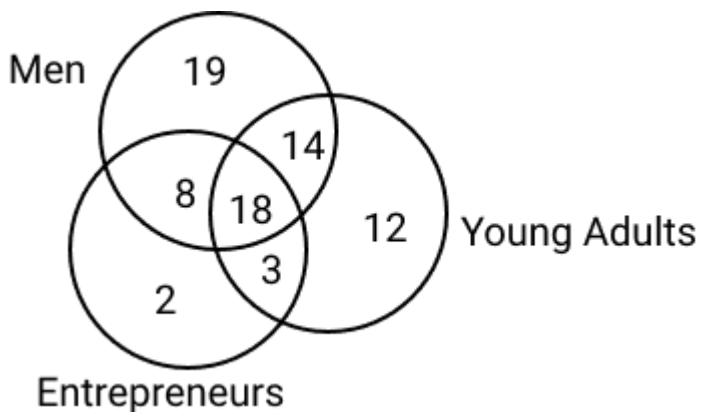
I. P has an exam on Wednesday. Only one person has an exam between P and Q. Z has an exam immediately before X.

II. No one has an exam between P and Y. Only two people have an exam between Y and X. Z does not have an exam on Monday.

- A. Data in statement II alone is sufficient to answer the question while data in statement I is not
- B. Data in statement I alone is sufficient to answer the question while data in statement II is not
- C. Data in statements I and II together (and not statement I alone or statement II alone) is sufficient to answer the question ☒
- D. Data in statements I and II together is not sufficient to answer the question

Q55 General Intelligence and Reasoning

Study the given diagram carefully and answer the question that follows. The numbers in different sections indicate the number of persons. (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.)



How many young adults are entrepreneurs?

- A. 18
- B. 3
- C. 22
- D. 21 ☒



Q56 General Awareness

India commemorated the _____ birth anniversary of Rabindranath Tagore on May 7, 2025.

- A. 162nd
- B. 166th
- C. 164th
- D. 160th

**Q57 General Awareness**

Ozone shields the surface of the Earth from which type of radiation coming from the Sun?

- A. Ultra violet
- B. White light
- C. X rays
- D. Infra-red

**Q58 General Awareness**

As per the India Meteorological Department (IMD), what is the approximate total annual normal rainfall received in the Thar Desert, which has a coefficient of variation (CV) of about 38%?

- A. 50 mm per year
- B. 250 mm per year
- C. 200 mm per year
- D. 150 mm per year

**Q59 General Awareness**

Which of the following statements best explains why humans are severely affected by biological magnification?

- A. Humans occupy the top trophic level in many food chains
- B. Humans consume less food than other consumers in food chain
- C. Humans can break down toxins
- D. Humans are best decomposers in food chain

**Q60 General Awareness**

What should be done in order to minimise waste production?

- A. Change and adapt sustainable lifestyle
- B. Use non-biodegradable products
- C. Maximise plastic packaging of products
- D. Increase plastic usage

**Q61 General Awareness**

Which region is the Sarhul festival, organised on 1st April 2025, particularly significant in?

- A. The coastal regions of India
- B. The Himalayan region
- C. The Chhotanagpur region and Jharkhand
- D. The southern states of India

**Q62 General Awareness**

Which of the following objectives is stated in Article 38 of the Indian Constitution?

- A. To establish a social order based on justice—social, economic, and political
- B. To provide equal education opportunities for all
- C. To establish military rule for national security
- D. To guarantee employment to all citizens

**Q63 General Awareness**

Which rivers have contributed to the formation of the Northwestern Plains of India?

- A. Narmada, Tapti, and Mahanadi
- B. Satluj, Beas, and Ravi
- C. Ganga, Yamuna, and Brahmaputra
- D. Krishna, Godavari, and Kaveri

**Q64 General Awareness**

What is the primary composition of the stable composite developed by IIT Mandi that prevents 2D semiconductors from degrading?

- A. Tungsten disulfide (WS) encapsulated in polydimethylsiloxane (PDMS)
- B. Carbon nanotubes embedded in polymer matrix
- C. Boron nitride mixed with epoxy resin
- D. Graphene combined with silicone



Q65 General Awareness

Which of the following articles is INCORRECTLY matched with the Constitutional Provisions related to Parliament ?

- A. Article 89---- Chairman and Deputy Chairman of Council of States
- B. Article 105--- Powers and Privileges of the Houses of Parliament
- C. Article 93 ----Speaker and Deputy Speaker of the House of People
- D. Article 99 ---Composition of the Council of States/Rajya Sabha ✓

Q66 General Awareness

Which of the following is/are correct about Tej Bahadur Sapru?

I. He helped Annie Besant to build up the Central Hindu College at Banaras.
II. He entered politics during the Home Rule movement.
III. He participated in the Round Table Conferences held between 1930 and 1932 in London.

- A. Only I
- B. Only II and III
- C. Only II
- D. All I, II and III ✓

Q67 General Awareness

The Five Ps of Sustainable Development are:

- A. Population, Peace, Production, Power, Partnership
- B. People, Peace, Power, Planet, Partnership
- C. Poverty, Peace, Protection, Plant, Product
- D. People, Peace, Prosperity, Planet, Partnership ✓

Q68 General Awareness

By the late 1960s, what major achievement did India attain in agriculture?

- A. Started exporting food grains
- B. Stopped using fertilizers
- C. Became self-sufficient in food grains ✓
- D. Shifted entirely to organic farming

Q69 General Awareness

'Utkal Diwas', which was celebrated on 1st April 2025, marks the anniversary of the statehood of _____.

- A. Chhattisgarh
- B. Telangana
- C. Odisha ✓
- D. Uttarakhand

Q70 General Awareness

Which of the following folk dances is performed to celebrate a good harvest and is popular in the states of Odisha and Chhattisgarh?

- A. Bhangra
- B. Karma ✓
- C. Garba
- D. Rouf

Q71 General Awareness

Under the Stand-Up India Scheme, bank loans from Scheduled Commercial Banks (SCBs) are provided in what range for eligible beneficiaries?

- A. ₹25 lakh to ₹2 crore
- B. ₹10 lakh to ₹1 crore ✓
- C. ₹5 lakh to ₹50 lakh
- D. ₹1 crore to ₹5 crore

Q72 General Awareness

Who among the following has overtaken Yuzvendra Chahal to become India's highest wicket-taker in T20 Internationals at Eden Gardens in Kolkata on 22 January 2025?

- A. Kuldeep Yadav
- B. Arshdeep Singh ✓
- C. Jasprit Bumrah
- D. Mohammed Siraj



Q73 General Awareness

Which demand advanced by the Moderate leadership of the Indian National Congress (1885–1905) most clearly reflected their objective of expanding Indian involvement within colonial decision-making structures?

- A. Immediate transfer of political authority to Indian hands
- B. Preferential allocation of bureaucratic appointments to Indians
- C. Expansion of legislative councils for Indian representation ✓
- D. Curtailment of regressive indirect taxation

General Science

27 Questions • Answer Key

Q74 General Science

Which of the following everyday mixtures is best classified as a suspension?

- A. Chalk powder mixed with water ✓
- B. Copper sulphate dissolved in water
- C. Salt solution prepared in water
- D. Sugar completely dissolved in water

Q75 General Science

If the current in a wire is 2 amperes, how much charge flows through a cross-section in 5 seconds?

- A. 2.5 coulombs
- B. 10 coulombs ✓
- C. 7 coulombs
- D. 0.4 coulombs

Q76 General Science

What is the sign of the focal length for a convex lens as per the sign convention for spherical lenses?

- A. Negative
- B. Zero
- C. Variable
- D. Positive ✓

Q77 General Science

Which observation supports the law of constant proportions for water?

- A. Water exists in three states
- B. Water boils at fixed temperature
- C. Hydrogen and oxygen ratio is fixed ✓
- D. Water conducts electricity weakly

Q78 General Science

What conclusion can be drawn from the experiment in which potassium permanganate solution remains coloured even after repeated dilution?

- A. Particles of matter are visible to naked eye
- B. Particles of matter are fixed and stationary
- C. Particles of matter are extremely small in size ✓
- D. Particles of matter occupy no space at all

Q79 General Science

A student uses a convex lens to project an image of a tree onto a wall. If the image is found to be smaller than the tree, what can be inferred about the tree's position relative to the lens?

- A. The tree is placed beyond twice the focal length (beyond $2F$) of the lens. ✓
- B. The tree is between the lens and its focal point.
- C. The tree is at the focal point of the lens.
- D. The tree is at twice the focal length from the lens.

Q80 General Science

A dentist uses a mirror to obtain a large image of a patient's tooth. Which mirror should the dentist use and why?

- A. Plane mirror, because it gives a real image
- B. Spherical mirror, because it gives a virtual image
- C. Concave mirror, because it gives a magnified image ✓
- D. Convex mirror, because it gives a magnified image



Q81 General Science

Why are sulphide ores usually converted into oxides before the extraction of metals?

- A. Sulphide ores contain more gangue materials
- B. Metal oxides are easier to reduce than sulphides ✓
- C. Metal sulphides react faster with carbon
- D. Sulphide ores are unstable at room temperature

Q82 General Science

If a body at rest is dropped from a certain height and takes 4 seconds to reach the ground, what is the approximate height from which it was dropped? (Take $g = 10 \text{ m/s}^2$)

- A. 100 meters
- B. 80 meters ✓
- C. 160 meters
- D. 40 meters

Q83 General Science

Which of the following tissues ensures that food made in the leaves is delivered to all plant parts?

- A. Epidermis
- B. Mesophyll
- C. Xylem
- D. Phloem ✓

Q84 General Science

In a micelle, which part faces outward toward water?

- A. Grease molecule
- B. Ionic head ✓
- C. Non-polar end
- D. Hydrocarbon tail

Q85 General Science

Plant diseases are caused by pathogens transmitted through:

- A. Sunlight exposure
- B. Soil, water and air ✓
- C. Fertilisers and manure only
- D. Crop residues alone

Q86 General Science

Why are brackets used in the formula $\text{Ca}(\text{OH})_2$?

- A. To show ionic nature
- B. To balance oxygen atoms
- C. To indicate two hydroxide groups ✓
- D. To represent molecular bonding

Q87 General Science

When dilute hydrochloric acid reacts with calcium carbonate, the gas evolved is passed through limewater. On passing the gas in excess, the milkiness disappears due to the formation of:

- A. Calcium carbonate
- B. Calcium oxide
- C. Calcium hydroxide
- D. Calcium hydrogen carbonate ✓

Q88 General Science

Which of the following situations is NOT an example of action and reaction forces?

- A. A bat hitting a cricket ball
- B. A rocket launching upwards
- C. A ball thrown upward comes back down due to the pull of gravity. ✓
- D. A swimmer pushing water backwards

Q89 General Science

How do check-dams help in improving agricultural water availability and soil quality?

- A. They divert water away from farms and increase soil erosion.
- B. They store water only for city use, and reduce soil erosion.
- C. They increase groundwater levels and reduce soil erosion. ✓
- D. They directly irrigate fields with river water and increase soil erosion.



Q90 General Science

A car suddenly changes direction while moving at constant speed. Which aspect of inertia is being demonstrated, and how does the car's mass influence this effect?

- A. The inertia of direction is demonstrated, and a car with greater mass will resist the change in direction more. ✓
- B. The inertia of speed is demonstrated, and a lighter car resists direction change more.
- C. Mass only affects speed, not direction, when a car turns.
- D. The inertia of rest is demonstrated, and the car's mass does not affect direction changes.

Q91 General Science

Why are metals such as sodium and calcium extracted by electrolytic reduction instead of heating with carbon?

- A. They exist only as molten chlorides in nature
- B. They have greater affinity for oxygen than carbon ✓
- C. They decompose when heated with carbon
- D. They form unstable oxides at high temperature

Q92 General Science

What is the primary material used to develop vermicompost?

- A. Bacteria and viruses
- B. Earthworms ✓
- C. Yeast
- D. Chemical fertilisers

Q93 General Science

A farmer wants to grow wheat with better baking quality and resistance to drought. Which two characteristics should be targeted in variety improvement?

- A. Higher yield and wider adaptability
- B. Improved quality and biotic resistance
- C. Wider adaptability and biotic resistance
- D. Improved quality and abiotic resistance ✓

Q94 General Science

Which of the following is usually 'stored under high pressure'?

- A. N₂
- B. Solid CO₂
- C. H₂
- D. NaCl ✓

Q95 General Science

Which waste based difference between the renal artery and renal vein is directly related to excretory function?

- A. The renal vein has higher pressure
- B. The renal artery contains more urea ✓
- C. The renal vein contains more oxygen
- D. The renal artery has more valves

Q96 General Science

A student claims that two cars of equal mass, one moving at 40 km/h and another at 80 km/h, have the same kinetic energy if their engines provide the same power. What is the error in this reasoning?

- A. Kinetic energy depends on the square of speed, not just on power supplied. ✓
- B. The cars have equal energy if the engines are identical.
- C. Both cars have equal kinetic energy since both cover the same distance.
- D. Power supplied determines energy, regardless of speed.

Q97 General Science

When using the sign convention for spherical mirrors, which direction along the principal axis is considered positive?

- A. To the right of the origin (along + x-axis) ✓
- B. Downwards from the principal axis
- C. To the left of the origin (along - x-axis)
- D. Upwards from the principal axis

Q98 General Science

How do rays parallel to the principal axis behave after reflection from a convex mirror?

- A. They appear to diverge from a point on the principal axis. ✓
- B. They pass through the centre of curvature.
- C. They get reflected back along the same path.
- D. They actually converge at the focus.

Q99 General Science

The fluid content inside the plasma membrane is named:

- A. Genes
- B. Chromosomes
- C. Chromatin
- D. Cytoplasm ✓



Q100 General Science

Why does our palm feel cold when acetone or petrol is poured on it?

- A. The liquid increases moisture on skin surface
- B. The liquid absorbs heat from the skin to evaporate ☒
- C. The liquid blocks heat flow from surroundings
- D. The liquid reacts chemically with our skin surface

blackbook

