



RRB JE 2024 CBT-1

Junior Engineer, DMS, CMA · CEN 03/2024 · CBT-1 · Question Paper

Gujarati

All 9 Shifts (Sets) · Official Answer Key

About this Compilation

This booklet contains all **9 shift papers** of the **RRB JE 2024 CBT-1** examination in **Gujarati**, 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.

713 of these 900 questions are shown in English. RRB did not release them in Gujarati to any candidate whose response sheet we could reach, so the official English version is printed instead and marked with an **ENGLISH** chip. Nothing here is machine translated.

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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Mathematics

30 Questions • Answer Key

Q1 Mathematics ENGLISH

Two taps can fill a cistern in 2 hours and 54 hours respectively. A third tap can empty it in 54 hours. How long (in hours) will it take to fill the empty cistern, if all of them are opened together?

A. 3

B. 2



C. 5

D. 4

Q2 Mathematics ENGLISH

What is the average of all the natural numbers from 1 to 91?

A. 46



B. 47

C. 45.5

D. 46.5

Q3 Mathematics ENGLISH

The length of each of the two equal sides of an isosceles triangle is 100 cm each and the length of its base is 56 cm. The area (in cm^2) of the triangle is:

A. 2672

B. 2690

C. 2688



D. 2675

Q4 Mathematics ENGLISH

Write the expanded form of $(8a + 3b + 9c)^2$.

A. $64a^2 + 9b^2 + 81c^2 + 48ab + 54bc + 154ac$ B. $64a^2 + 9b^2 + 81c^2 + 52ab + 54bc + 144ac$ C. $64a^2 + 9b^2 + 81c^2 + 48ab + 49bc + 144ac$ D. $64a^2 + 9b^2 + 81c^2 + 48ab + 54bc + 144ac$ 

Q5 Mathematics ENGLISH

The area of a square plot is 289 m^2 . The length of each side of the plot (in m) is:

A. 27

B. 7

C. 11

D. 17



Q6 Mathematics ENGLISH

The marks scored by 10 students are given below.

17, 16, 12, 16, 15, 16, 13, 14, 13, 20

The mode of the data is:

A. 17

B. 16



C. 12

D. 18

Q7 Mathematics ENGLISH

50 men can do a piece of work in 12 days. The number of men required to complete the same work in 50 days is:

A. 19

B. 15

C. 12



D. 11

Q8 Mathematics ENGLISH

The cost of a washing machine is 75% less than the cost of a TV. If the cost of the washing machine increases by 77% and that of the TV decreases by 27%, then what is the change in the total cost of 8 washing machines and 2 TVs?

A. Increase by 31%

B. Decrease by 29%

C. Decrease by 22%

D. Increase by 25%



Q9 Mathematics ENGLISH

Find the simple interest (in closest integral ₹) on ₹4000 at 5.25% per annum rate of interest for the period from 12 February 2024 to 13 April 2024

A. 33

B. 35



C. 34

D. 36

Q10 Mathematics ENGLISH

If third proportional of 12 and 24 be x, then what is the value of x?

A. 50

B. 45

C. 48



D. 49

Q11 Mathematics ENGLISH

$(1 + \sin A)(1 - \sin A)(1 + \tan^2 A)$ is equal to:

A. $\cos A$

B. 0

C. 1

D. $\tan A$ **Q12 Mathematics** ENGLISH

A shopkeeper lists the price of a fan at 20% above its cost price and offers a 10% discount on its list price. If he earns a profit of ₹150, then what is the list price (in ₹) of the fan?

A. 1969

B. 2054

C. 2250



D. 2172

Q13 Mathematics ENGLISH

Find the value of $K^2 - 3K$, for which the number 58K764 is divisible by 11.

A. 48

B. 60

C. 52

D. 40

**Q14 Mathematics** ENGLISH

Find the median of the data given below.

180, 90, 134, 68, 52, 152, 88, 110

A. 100



B. 89

C. 60

D. 110

Q15 Mathematics ENGLISH

Komal invested a sum of ₹5000 at 20% per annum compound interest, compounded annually. If she received an amount of ₹8640 after n years, the value of n is:

A. 3.5

B. 4

C. 2.5

D. 3

**Q16 Mathematics** ENGLISH

Two pieces of cloth measure 96 metres and 144 metres in length. What is the maximum length of cloth that can be cut equally from both pieces without any remainder?

A. 96 metres

B. 12 metres

C. 24 metres

D. 48 metres



Q17 Mathematics ENGLISH

Evaluate: $16 + 16 \div 4 - 3 \times 3$

A. 13

B. 11



C. 10

D. 14

Q18 Mathematics ENGLISH

A number when increased by 50 %, gives 2820. The number is:

A. 3760

B. 1880



C. 940

D. 5640

Q19 Mathematics ENGLISH

17 men can dig a ditch 26 m long in 18 days, working 8 hours a day. How many more men should be engaged to dig a similar ditch 39 m long in 6 days, each man now working 9 hours a day?

A. 48

B. 53

C. 55

D. 51

**Q20 Mathematics** ENGLISH

What is the average of all the natural numbers from 1 to 92?

A. 47.5

B. 46.5



C. 46

D. 47

Q21 Mathematics ENGLISH

There are total 120 students in three sections A, B and C of Class 10. The average marks of the three sections is 85. The average marks of section B and C is 88 and the average marks of section A is 78. Find the number of students in section A.

A. 33

B. 36



C. 24

D. 28

Q22 Mathematics ENGLISH

A man sold an article for ₹346 by first giving a d% discount on its marked price, and then another discount having the same nominal value (in ₹). If the marked price of the article is ₹1730, then what is the value of d?

A. 38

B. 44

C. 40



D. 43

Q23 Mathematics ENGLISH

A shopkeeper bought an article for ₹740. At what price (in ₹) should he sell the article to make 20% profit?

A. 900

B. 876

C. 592

D. 888

**Q24 Mathematics** ENGLISH

Akshat completes his journey in 20 hours. He covers half the distance at 57 km/h and the rest at 95 km/h. What is the length of the journey (in Km)?

A. 1435

B. 1425



C. 1423

D. 1416



Q25 Mathematics ENGLISH

Write the expanded form of $(9a + 4b + 5c)^2$.

A. $81a^2 + 16b^2 + 25c^2 + 76ab + 40bc + 90ac$

B. $81a^2 + 16b^2 + 25c^2 + 72ab + 40bc + 90ac$ ✓

C. $81a^2 + 16b^2 + 25c^2 + 72ab + 35bc + 90ac$

D. $81a^2 + 16b^2 + 25c^2 + 72ab + 40bc + 100ac$

Q26 Mathematics ENGLISH

Radhika travels a distance of 230 km with speed of 46 km/h and 400 km with 100 km/h by her car. Find the average speed (in km/h) of Radhika.

A. 75

B. 72

C. 80

D. 70 ✓

Q27 Mathematics ENGLISH

An electric pole casts a shadow of length 42 m at a time when a tree 12 m high casts a shadow of length 16 m. Find the height of the pole.

A. 30.5 m

B. 29 m

C. 31.5 m ✓

D. 33 m

Q28 Mathematics ENGLISH

Write the expanded form of $(4a + 9b + 5c)^2$.

A. $16a^2 + 81b^2 + 25c^2 + 72ab + 90bc + 50ac$

B. $16a^2 + 81b^2 + 25c^2 + 76ab + 90bc + 40ac$

C. $16a^2 + 81b^2 + 25c^2 + 72ab + 85bc + 40ac$

D. $16a^2 + 81b^2 + 25c^2 + 72ab + 90bc + 40ac$ ✓

Q29 Mathematics ENGLISH

A conical tent has to accommodate 30 persons. Each person must have 5 m^2 spaces on the ground and 120 m^3 of air to breathe. Find the height (in m) of the tent.

A. 60

B. 84

C. 72 ✓

D. 64

Q30 Mathematics ENGLISH

If the three angles of a quadrilateral are 70° , 85° and 95° , then find the fourth angle.

A. 110° ✓

B. 100°

C. 105°

D. 115°



Q31 General Intelligence and Reasoning **ENGLISH**

Select the option in which the triads share the same relationship as that shared by the given triads.

LIFE - IFEL - FELI

CALM - ALMC - LMCA

A. FLIP - LIFP - FPLI

B. LAST - TLAS - STLA

C. MUGS - UGSM - GSMU



D. HUNT - HTUN - HNTU

Q32 General Intelligence and Reasoning **ENGLISH**

In a certain code language, 'soldier protect country' is coded as 'lu mh na', 'entrepreneur prosper country' is coded as 'na ki tu' and 'soldier entrepreneur vital' is coded as 'mh tu sy'. What is the possible code for 'country vital' in that language?

A. na sy



B. mh na

C. sy ki

D. tu na

Q33 General Intelligence and Reasoning **ENGLISH**

In a certain code language, 'house fire gas' is coded as 'dy ph mt', 'pressure gas station' is coded as 'lp ph st', 'station house farm' is coded as 'st bq dy'. What is the code for 'gas' in that language? (Note: All the codes are two-letter coded only.)

A. lp

B. mt

C. ph



D. st

Q34 General Intelligence and Reasoning **ENGLISH**

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 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.)

37.4, 34.6

45, 42.2

A. 32.9, 29.1

B. 69, 66.2



C. 21.5, 17.7

D. 58, 56.2

Q35 General Intelligence and Reasoning **ENGLISH**

Refer to the given number, symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) \$ 7 @ 6 = & 5 Ω 4 > # 8 & % 9 1 * £ 3 (Right)

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

A. One

B. Three

C. Two



D. Four

Q36 General Intelligence and Reasoning **ENGLISH**

Hritik ranked 20th from the bottom and 30th from the top in his class. How many students are there in his class?

A. 45

B. 34

C. 47

D. 49



Q37 General Intelligence and Reasoning **ENGLISH**

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 letter-cluster DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

A. RUAF



B. CFLP

C. HKQU

D. TWCG

Q38 General Intelligence and Reasoning **ENGLISH**

Kamal starts from Point A and drives 17 km towards south. He then takes a left turn, drives 13 km, turns left and drives 21 km. He then takes a left turn and drives 18 km. He takes a final left 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° turns only unless specified.)

A. 5 km to the east



B. 3 km to the east

C. 6 km to the east

D. 4 km to the east

Q39 General Intelligence and Reasoning **ENGLISH**

Refer to the following number and symbol series and answer the question that follows. (Counting to be done from left to right only.)
(Left) @ 2 # 2 4 3 = % 8 * 1 8 @ \$ 4 ! 6 4 3 * 8 = (Right)
How many such numbers are there, each of which is immediately preceded by and also immediately followed by a symbol?

A. One

B. Five

C. Three

D. Four

**Q40** General Intelligence and Reasoning **ENGLISH**

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 ::?

: OKR :: XTA : %

A. # = KLN, % = BXE

B. # = KGN, % = BXE



C. # = KGN, % = BXP

D. # = KGN, % = FXE

Q41 General Intelligence and Reasoning **ENGLISH**

B, C, D, F and H have different marks. Only one person has scored between C and D. Only one person has scored between H and D. F has scored less than C and D. How many people have scored less than B?

A. Four

B. Two

C. Three



D. One

Q42 General Intelligence and Reasoning **ENGLISH**

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 and select the most appropriate answer.

Question:

Five friends, S, T, U, V and W, are of different ages. Who is the second eldest among them?

Statements:

(I) W is younger than T. W is elder than U.

(II) T is the eldest. Only one person is younger than V.

Data in statement II alone is sufficient to

A. 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 are sufficient to answer the question.

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



Q43 General Intelligence and Reasoning **ENGLISH**

Based on the English 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 one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

A. VST

B. ZWX

C. NKL

D. FHD

**Q44** General Intelligence and Reasoning **ENGLISH**

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

17 22 37 62 97 ?

A. 137

B. 140

C. 142



D. 148

Q45 General Intelligence and Reasoning **ENGLISH**

If in a code language, If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '-', then the resultant of which of the following would be 55?

A. 16 C 112 D 63 A 77 B 31

B. 16 A 112 B 63 C 77 D 31



C. 16 D 112 A 63 C 77 B 31

D. 16 B 112 C 63 A 77 D 31

Q46 General Intelligence and Reasoning **ENGLISH**

Two sets of numbers are given below. In each set of numbers, certain mathematical operation(s) on the first number result(s) in the second number. Similarly, certain mathematical operation(s) on the second number result(s) in the third number and so on. Which of the given options follows the same set of operations as in the given 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 to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

16 – 17 – 21 – 30; 13 – 14 – 18 – 27

A. 24 – 25 – 29 – 42

B. 11 – 12 – 16 – 18

C. 15 – 16 – 20 – 26

D. 22 – 23 – 27 – 36

**Q47** General Intelligence and Reasoning **ENGLISH**

Select the term from among the given options that can replace the question mark (?) in the following series.

OJH 20, MHF 25, KFD 35, IDB 55, GBZ 95, ?

A. EXS 175

B. YXS 175

C. EZX 175



D. EXO 175

Q48 General Intelligence and Reasoning **ENGLISH**

What should come in place of the question mark (?) in the given series based on the English alphabetical order?

ONL AZX MLJ YXV ?

A. KHJ

B. JKH

C. JHK

D. KJH



Q49 General Intelligence and Reasoning **ENGLISH**

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

1 13 28 46 67 ?

A. 92

B. 91



C. 90

D. 93

Q50 General Intelligence and Reasoning **ENGLISH**

SKIB is related to OGNG in a certain way based on the English alphabetical order. In the same way, CUCV is related to YQHA. To which of the following options is QIRK related, following the same logic?

A. MEPW

B. MEWP



C. MWEP

D. MWPE

Q51 General Intelligence and Reasoning **ENGLISH**

Six students are sitting around a circular table facing the centre. L is an immediate neighbour of both J and H. I is sitting second to the left of J. K is sitting third to the right of H. G is an immediate neighbour of both I and H. The position of how many persons will remain unchanged if all persons are arranged in English alphabetical order in clockwise direction, starting from G (including G)?

A. One

B. Two

C. Three

D. Four

**Q52** General Intelligence and Reasoning **ENGLISH**

Seven boxes, D, E, F, R, S, T and U, are kept one over the other but not necessarily in the same order. U is kept immediately above T. E is kept immediately above D. Only F is kept above S. Only two boxes are kept above U. E is not kept at third position from the bottom. How many boxes are kept between R and F?

A. Four

B. Two

C. Three



D. One

Q53 General Intelligence and Reasoning **ENGLISH**

If 'A' stands for '+', 'B' stands for 'x', 'C' stands for '+' and 'D' stands for '-', what will come in place of the question mark (?) in the following equation?

93 D 7 B 5 C (69 A 3) C 26 = ?

A. 75

B. 122

C. 93

D. 107

**Q54** General Intelligence and Reasoning **ENGLISH**

P is the sister of Q's brother R. S is the husband of Q and T is the son of S. How is P related to T?

A. Mother's sister



B. Mother's mother

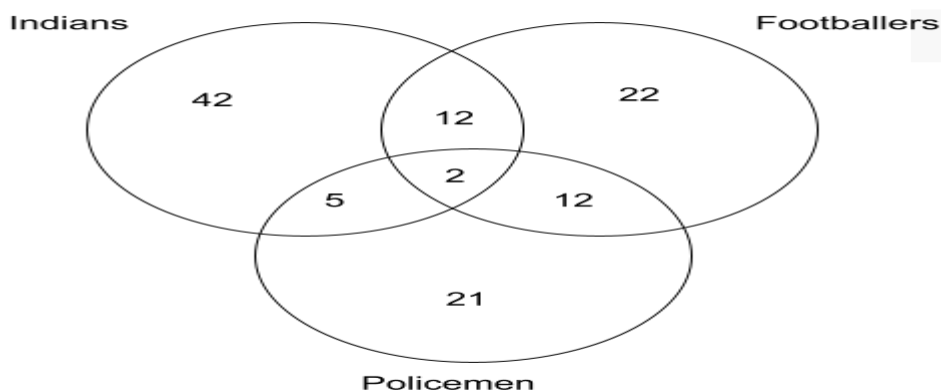
C. Mother

D. Sister



Q55 General Intelligence and Reasoning **ENGLISH**

Study the given diagram carefully and answer the question that follows. The numbers in different sections indicate the number of persons.



How many such policemen exist that are also Indians and footballers?

- A. 5
- B. 2
- C. 12
- D. 3



General Awareness

18 Questions • Answer Key

Q56 General Awareness **ENGLISH**

Which of the following countries hosted the first business summit of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) in 2024?

- A. Thimphu, Bhutan
- B. Dhaka, Bangladesh
- C. New Delhi, India
- D. Kathmandu, Nepal



Q57 General Awareness **ENGLISH**

Who is the author of 'The Great Indian Novel,' published in 2011?

- A. Vikram Seth
- B. Kiran Nagarkar
- C. Arundhati Roy
- D. Shashi Tharoor



Q58 General Awareness **ENGLISH**

Which of the following released the fourth edition of SDG India Index 2023-24?

- A. National Institute for Transforming India
- B. National Commission of Backward Classes
- C. National Commission for Women
- D. National Crime Record Bureau



Q59 General Awareness **ENGLISH**

Which of the following articles deal with the provisions regarding the election, qualification, and removal of the Vice-President of India?

- A. Article 78 - 80
- B. Article 224 - 245
- C. Article 63 - 71
- D. Article 68 - 75



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Q60 General Awareness **ENGLISH**

Who among the following is India's first civilian space tourist?

- A. Prasanth Balakrishnan Nair
- B. Shubhanshu Shukla
- C. Ajit Krishnan
- D. Gopichand Thotakura

Q61 General Awareness **ENGLISH**

Match the following rivers with their tributaries.

Rivers	Tributaries
1. Brahmaputra	a. Betwa
2. Indus	b. Chenab
3. Yamuna	c. Dibang

- A. 1-c, 2-b, 3-a
- B. 1-c, 2-a, 3-b
- C. 1-a, 2-b, 3-c
- D. 1-b, 2-c, 3-a

Q62 General Awareness **ENGLISH**

Where is the Taj Mahotsav held?

- A. In Agra Fort
- B. Near the Western gate of Taj Mahal
- C. In Fatehpur Sikri
- D. Near the Eastern gate of Taj Mahal

Q63 General Awareness **ENGLISH**

Who among the following secured a gold medal for India at the Paris Paralympics 2024?

- A. Preethi Pal
- B. Mona Agarwal
- C. Nishad Kumar
- D. Avani Lekhara

Q64 General Awareness **ENGLISH**

Which of the following committees suggested that the 'duty to pay taxes' should also be a Fundamental Duty of the Indian citizen?

- A. Sarkaria Commission
- B. Swaran Singh Committee
- C. Justice JS Verma Committee
- D. Santhanam Committee

Q65 General Awareness **ENGLISH**

As of 30 September 2024, how many Jan Aushadhi Kendras have been established by the Government of India across the country?

- A. 11,822
- B. 12,822
- C. 14,822
- D. 13,822

Q66 General Awareness **ENGLISH**

Which of the following is an effective method to reduce plastic waste?

- A. Using disposable plastic bags
- B. Burning plastic waste
- C. Recycling and reusing plastic materials
- D. Dumping plastic waste in landfills

Q67 General Awareness **ENGLISH**

Which of the following is a natural ecosystem?

- A. Aquarium
- B. Forest
- C. Garden
- D. Crop field

Q68 General Awareness **ENGLISH**

The first session of Indian National Congress took place at which of the following places?

- A. Lahore
- B. Allahabad
- C. Bombay
- D. Calcutta



Q69 General Awareness **ENGLISH**

Which of the following materials is likely to be non-biodegradable?

- A. Plastic
- B. Paper
- C. Wood
- D. Vegetable peels

Q70 General Awareness **ENGLISH**

Which of the following articles deals with the Finance Commission that distributes taxes between the Centre and State?

- A. Article 282
- B. Article 281
- C. Article 283
- D. Article 280

Q71 General Awareness **ENGLISH**

Chaitanya Mahaprabhu was related to which of the following religious sects?

- A. Shaiva
- B. Kapalika
- C. Vaishnava
- D. Tantra

Q72 General Awareness **ENGLISH**

Which of the following statements accurately describes the role of moral suasion in controlling money?

- A. It is a combination of persuasion and pressure used by the RBI to influence banks' lending behaviour.
- B. It refers to the variation in the statutory liquidity ratio to regulate the allocation of bank credit.
- C. It involves the sale and purchase of government securities to influence the money supply.
- D. It is a direct tool used by the RBI to control the money supply by setting interest rates.

Q73 General Awareness **ENGLISH**

Every year, Foreign Trade Policy has been declared by which ministry of the Government of India?

- A. Ministry of Information
- B. Ministry of Home Affairs
- C. Ministry of External Affairs
- D. Ministry of Commerce and Industry

General Science

27 Questions • Answer Key

Q74 General Science **ENGLISH**

Which of the following is a method of reproduction in plants, where only a single parent is involved?

- A. Pollination
- B. Fertilisation
- C. Sexual reproduction
- D. Asexual reproduction

Q75 General Science **ENGLISH**

Self pollination is possible only in:

- A. bisexual flowers with both stamens and pistil maturing at the different time
- B. unisexual flowers with pistil maturing first
- C. bisexual flowers with both stamens and pistil maturing at the same time
- D. unisexual flowers with stamen maturing first



Q76 General Science **ENGLISH**

The power in a circuit having voltage V and current I during time interval t is:

- A. $(I \times t)/V$
- B. I/V
- C. $I \times V$ ✓
- D. V/I

Q77 General Science **ENGLISH**

In a parallel circuit, how does the voltage across each resistor compare to the total voltage supplied by the battery?

- A. It is inversely proportional to the resistance.
- B. It is zero.
- C. It is divided according to the resistance values.
- D. It is the same for each resistor. ✓

Q78 General Science **ENGLISH**

The dark blue colour in the pH scale refers to _____.

- A. weak basic solution ✓
- B. strong acidic solution
- C. strong basic solution
- D. neutral solution

Q79 General Science **ENGLISH**

What is the relationship between current (I), power (P), and voltage (V)?

- A. $I = V \div P$
- B. $I = P \div V$ ✓
- C. $I = PV$
- D. $I = P2V$

Q80 General Science **ENGLISH**

Which of the following is the product of the neutralisation of hydrochloric acid (HCl) with sodium hydroxide ($NaOH$)?

- A. Sodium hydroxide and water
- B. Sodium chloride and water ✓
- C. Sodium chloride and hydrogen gas
- D. Sodium hydroxide and hydrochloric acid

Q81 General Science **ENGLISH**

An emf is induced whenever there is a change in the magnetic field linked with electric circuits. This is stated by the:

- A. Gravitation law
- B. Faraday's law ✓
- C. Newton's law
- D. Ohm's law

Q82 General Science **ENGLISH**

Which of the following reactions does NOT represent a neutralisation reaction?

- A. $CH_3COOH + NaOH \rightarrow CH_3COONa + H_2O$
- B. $HCl + NaOH \rightarrow NaCl + H_2O$
- C. $Na_2CO_3 + HCl \rightarrow NaCl + CO_2 + H_2O$ ✓
- D. $H_2SO_4 + Ca(OH)_2 \rightarrow CaSO_4 + 2H_2O$

Q83 General Science **ENGLISH**

What property of carbon allows it to form long chains and rings?

- A. Ability to form multiple bonds ✓
- B. Tendency to form single bonds
- C. Ability to form covalent bonds
- D. Ability to form stable bonds with other elements

Q84 General Science **ENGLISH**

What is the primary purpose of an electric fuse in a household circuit?

- A. To regulate voltage supply
- B. To increase current flow
- C. To prevent overloading and short circuits ✓
- D. To reduce resistance in the circuit

Q85 General Science **ENGLISH**

What is the pH range of a strongly acidic solution?

- A. 7-8
- B. 10-11
- C. 12-14
- D. 0-3 ✓



Q86 General Science **ENGLISH**

What is the power rating of a device that draws 1.75 A of current when connected to a 180-V source?

A. 225 W

B. 105 W

C. 315 W



D. 440 W

Q87 General Science **ENGLISH**

Which of the following is NOT an agent of dispersal of seeds?

A. Sunlight



B. Animal

C. Wind

D. Water

Q88 General Science **ENGLISH**

What are regenerative cells used by Hydra for?

A. Hydra uses regenerative cells for reproduction by fragmentation.

B. Hydra uses regenerative cells for reproduction by sexual reproduction.

C. Hydra uses regenerative cells for reproduction by spore formation.

D. Hydra uses regenerative cells for reproduction by budding.



Q89 General Science **ENGLISH**

In a series combination of resistors, how is the voltage distributed across each resistor?

A. The same across all resistors

B. Directly proportional to resistance



C. Inversely proportional to resistance

D. Unaffected by resistance values

Q90 General Science **ENGLISH**

The commutator in an electric motor is used to:

A. reverse the direction of current flowing through the coil



B. maintain the potential difference in the circuit

C. maintain the magnetic field in the circuit

D. change the direction of the magnetic field

Q91 General Science **ENGLISH**

Which of the following rules is used to determine the direction of the force on a current-carrying conductor in an electric motor?

A. Ampere's Law

B. Right-Hand Thumb Rule

C. Fleming's Right-Hand Rule

D. Fleming's Left-Hand Rule



Q92 General Science **ENGLISH**

Why is bleaching powder used for disinfecting drinking water?

A. It neutralises the water.

B. It reduces the hardness of water.

C. It provides an acidic medium.

D. It releases chlorine, which kills germs.



Q93 General Science **ENGLISH**

What determines the sex of a child in humans?

A. The fate of the embryo

B. The temperature at which fertilised eggs are placed

C. Environmental cues

D. Genetic constitution



Q94 General Science **ENGLISH**

If a child inherits an Y chromosome from the father, what will be the sex of the child?

A. Hermaphrodite

B. Male



C. Cannot be determined

D. Female



Q95 General Science **ENGLISH**

What is the process by which sodium hydroxide is prepared?

A. Chlor-alkali process ✓

B. Solvay's process

C. Contact process

D. Haber's process

Q96 General Science **ENGLISH**

The magnetic field inside a long, straight solenoid carrying current is _____.

A. zero

B. stronger near the edges

C. uniform and parallel to the axis of the solenoid ✓

D. inversely proportional to the current

Q97 General Science **ENGLISH**

Washing soda ($\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$) is obtained from which compound in the Solvay process?

A. Sodium sulphate

B. Sodium chloride

C. Sodium bicarbonate ✓

D. Sodium hydroxide

Q98 General Science **ENGLISH**

Which of the following is a viral infection that can be transmitted through sexual contact?

A. HIV-AIDS ✓

B. Tuberculosis

C. Gonorrhoea

D. Syphilis

Q99 General Science **ENGLISH**

Which of the following reactions represents the combustion of methane?

A. $\text{CH}_4 + \text{Cl}_2 \rightarrow \text{CH}_3\text{Cl} + \text{HCl}$

B. $\text{CH}_4 + \text{O}_2 \rightarrow \text{CO} + \text{H}_2\text{O}$

C. $\text{CH}_4 + \text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$ ✓

D. $\text{CH}_4 + \text{H}_2\text{O} \rightarrow \text{CO} + \text{H}_2$

Q100 General Science **ENGLISH**

On oxidation, silver changes its colour to _____ and copper changes its colour to _____.

A. grey; blue

B. black; green ✓

C. black; blue

D. grey; green



Mathematics

31 Questions • Answer Key

Q1 Mathematics ENGLISH

If a 1352 m long train crosses a pole in 169 seconds, then find the time (in seconds) taken by the train to cross a 256 m long platform.

A. 195

B. 201

C. 193

D. 205

Q2 Mathematics ENGLISH

A man sold an article for ₹390 by first giving a $d\%$ discount on its marked price, and then another discount having the same nominal value (in ₹). If the marked price of the article is ₹3900, then what is the value of d ?

A. 48

B. 45

C. 50

D. 41

Q3 Mathematics ENGLISH

What is the average of all the natural numbers from 1 to 87?

A. 44.5

B. 43.5

C. 45

D. 44

Q4 Mathematics ENGLISH

Two numbers are in the ratio 7 : 5. If the first number is increased by 14 and the second number is decreased by 5, then the ratio becomes 4 : 2. What is the sum of the original two numbers?

A. 106

B. 96

C. 115

D. 111

Q5 Mathematics ENGLISH

If the interest earned during the 2nd year on a certain sum is ₹9911, and the rate of interest is 10% per annum compounded annually, then the sum is:

A. ₹90100

B. ₹90055

C. ₹90115

D. ₹90080

Q6 Mathematics ENGLISH

A and B complete a work in 17 days. If A alone can do it in 34 days then, B alone can do in _____ (days).

A. 34

B. 35

C. 36

D. 33

Q7 Mathematics ENGLISH

A shopkeeper bought an article for ₹760. At what price (in ₹) should he sell the article to make 30% profit?

A. 988

B. 532

C. 976

D. 1000

Q8 Mathematics ENGLISH

Aman completes his journey in 14 hours. He covers half the distance at 39 km/h and the rest at 45 km/h. What is the length of the journey (in Km)?

A. 592

B. 585

C. 594

D. 591



Q9 Mathematics ENGLISH

A number when increased by 50 %, gives 3030. The number is:

- A. 1010
- B. 4040
- C. 6060
- D. 2020

**Q10 Mathematics** ENGLISH

Find the simple interest (in closest integral ₹) on ₹3000 at 8% per annum rate of interest for the period from 22 February 2024 to 23 April 2024

- A. 38
- B. 40
- C. 39
- D. 41

**Q11 Mathematics** ENGLISH

PN is a secant intersecting a circle at points M and N such that $PN > PM$. A tangent PT is drawn to the circle touching it at T. If $PM = 32$ cm and $PT = 40$ cm, what is the length (in cm) of the chord MN?

- A. 20
- B. 36
- C. 50
- D. 18

**Q12 Mathematics** ENGLISH

Among five people named A, B, C, D and E, each has a certain age. D is four times the age of C. A is two times the age of C. D is five times the age of B. The age of B is 12. If E is thrice the age of A, what is the age of E?

- A. 90
- B. 92
- C. 88
- D. 94

**Q13 Mathematics** ENGLISH

44 men can do a piece of work in 48 days. The number of men required to complete the same work in 8 days is:

- A. 264
- B. 260
- C. 266
- D. 261

**Q14 Mathematics** ENGLISH

The marks scored by 10 students are given below.
14, 15, 16, 17, 10, 17, 19, 13, 14, 14
The mode of the data is:

- A. 17
- B. 15
- C. 14
- D. 16

**Q15 Mathematics** ENGLISH

Write the expanded form of $(6a + 5b + 8c)^2$.

- A. $36a^2 + 25b^2 + 64c^2 + 64ab + 80bc + 96ac$
- B. $36a^2 + 25b^2 + 64c^2 + 60ab + 80bc + 106ac$
- C. $36a^2 + 25b^2 + 64c^2 + 60ab + 80bc + 96ac$
- D. $36a^2 + 25b^2 + 64c^2 + 60ab + 75bc + 96ac$

**Q16 Mathematics** ENGLISH

Sangeeta and Hemlata invest in a business in the ratio 1 : 3. If total profit is Rs. 2568, then what is difference between the profit (in Rs.) of Sangeeta and Hemlata?

- A. 1184
- B. 1334
- C. 1284
- D. 1384



Q17 Mathematics ENGLISH

Write the expanded form of $(5a + 7b + 3c)^2$.

A. $25a^2 + 49b^2 + 9c^2 + 70ab + 42bc + 30ac$ ✓

B. $25a^2 + 49b^2 + 9c^2 + 74ab + 42bc + 30ac$

C. $25a^2 + 49b^2 + 9c^2 + 70ab + 37bc + 30ac$

D. $25a^2 + 49b^2 + 9c^2 + 70ab + 42bc + 40ac$

Q18 Mathematics ENGLISH

The cost of a washing machine is 40% less than the cost of a TV. If the cost of the washing machine increases by 64% and that of the TV decreases by 20%, then what is the change in the total cost of 5 washing machines and 7 TVs?

A. Decrease by 5%

B. Increase by 13%

C. Decrease by 4%

D. Increase by 5.2% ✓

Q19 Mathematics ENGLISH

The average price of three items of furniture is Rs 16845. If their prices are in the ratio 3:5:7, the price of the cheapest item (in Rs) is

A. 10107 ✓

B. 5615

C. 7861

D. 3369

Q20 Mathematics ENGLISH

The length of each of the two equal sides of an isosceles triangle is 89 cm each and the length of its base is 78 cm. The area (in cm^2) of the triangle is:

A. 3139

B. 3134

C. 3102

D. 3120 ✓

Q21 Mathematics ENGLISH

Write the expanded form of $(8a + 5b + 9c)^2$.

A. $64a^2 + 25b^2 + 81c^2 + 80ab + 85bc + 144ac$

B. $64a^2 + 25b^2 + 81c^2 + 80ab + 90bc + 154ac$

C. $64a^2 + 25b^2 + 81c^2 + 84ab + 90bc + 144ac$

D. $64a^2 + 25b^2 + 81c^2 + 80ab + 90bc + 144ac$ ✓

Q22 Mathematics ENGLISH

Evaluate 184^2

A. 33856 ✓

B. 33866

C. 33806

D. 33836

Q23 Mathematics ENGLISH

Evaluate: $16 + 18 \div 6 - 2 \times 3$

A. 12

B. 15

C. 13 ✓

D. 16

Q24 Mathematics ENGLISH

The average marks of a student in six subjects is 94. After re-evaluation in three subjects the marks were changed to 89 from 75, 90 from 82 and 88 from 80. In the remaining subjects, the marks remained unchanged. Find the new average marks.

A. 95

B. 97

C. 98

D. 99 ✓



Q25 Mathematics ENGLISH

Express the value of $35.63 - 47.058 + 10.36 - 24.28 + 5.316 \times 5$ as a vulgar fraction.

A. $1\frac{29}{125}$



B. $2\frac{13}{58}$

C. $1\frac{31}{48}$

D. $1\frac{21}{47}$

Q26 Mathematics ENGLISH

If the radius of a hemisphere is increased by 50%, then find the percentage increase in the volume. (Take $\pi = \frac{22}{7}$)

A. 137.5%

B. 125%



C. 150%

D. 112.5%

Q27 Mathematics ENGLISH

If the mean of the following data is 37, then the value of X is:

xi	20	30	40	85
fi	19	X	13	24

A. 106

B. 107

C. 124



D. 125

Q28 Mathematics ENGLISH

If 214 apples were distributed among Ajay, Amit, and Amar in the ratio $\frac{1}{5} : \frac{1}{7} : \frac{1}{6}$, how many apples did the Amar get?

A. 40

B. 70



C. 100

D. 80



Q29 Mathematics ENGLISH

$\frac{(a^{10} \times b^3 \times c^9)}{(a^9 \times b^6 \times c^9)}$ in simplified form is:

A. $(a^{-1}) \times (b^{-9}) \times (c^{-8})$

B. $(a^{-1}) \times (b^{-3}) \times (c^{-10})$

C. $(a^1) \times (b^{-3}) \times (c^0)$ ✓

D. $(a^1) \times (b^{-9}) \times (c^{-7})$

Q30 Mathematics ENGLISH

By selling an article at $\frac{2}{5}$ of its actual selling price, Manav incurs a loss of 27%. If he sells it at 84% of its actual selling price, then the profit percentage is:

A. 56.9%

B. 52.6%

C. 53.3% ✓

D. 55.5%

Q31 Mathematics ENGLISH

Find the value of $\frac{\cos 35^\circ}{\sin 55^\circ} - \frac{\sin 11^\circ}{\cos 79^\circ} + \cos 28^\circ \operatorname{cosec} 62^\circ + \cos 0^\circ$.

A. 0

B. 2 ✓

C. 1

D. -1



Q32 General Intelligence and Reasoning **ENGLISH**

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:

All ovals are bins. No bin is a car. No bin is a plum.

Conclusions:

(I): No oval is a car.

(II): Some plums are cars.

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

B. Only conclusion (I) follows. ✓

C. Only conclusion (II) follows.

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

Q33 General Intelligence and Reasoning **ENGLISH**

What should come in place of the question mark (?) in the given series based on the English alphabetical order?

VCF PWZ JQT DKN ?

A. EHX

B. XEH ✓

C. XHE

D. EXH

Q34 General Intelligence and Reasoning **ENGLISH**

Select the letter-cluster from among the given options that can replace the question mark (?) in the following series.

OHA MFY KDW IBU ?

A. GZS ✓

B. GSZ

C. SGZ

D. SZG

Q35 General Intelligence and Reasoning **ENGLISH**

Pratap starts from Point A and drives 16 km towards south. He then takes a right turn, drives 13 km, turns right and drives 18 km. He then takes a right turn and drives 18 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° turns only unless specified.)

A. 6 km to the west

B. 3 km to the west

C. 7 km to the west

D. 5 km to the west ✓

Q36 General Intelligence and Reasoning **ENGLISH**

If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '−', then what will be come in place of the question mark (?) in the following equation?

13 D 32 C 36 B 49 A 49 = ?

A. 19

B. 15

C. 18

D. 17 ✓

Q37 General Intelligence and Reasoning **ENGLISH**

Refer to the given number, symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) 7 5 ^ 5 + % 5 6 \$ 2 3 * 6 + 3 & 4 ? \$ # 6 1 2 3 & 6 3 % @ (Right)

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

A. 4

B. 1

C. 3 ✓

D. 2



Q38 General Intelligence and Reasoning **ENGLISH**

What will come in the place of the question mark (?) in the following equation if '+' and '-' are interchanged and '+' and 'x' are interchanged?

$$10 + 52 - 13 \times 4 \div 18 = ?$$

A. 19

B. 26 ☒

C. 22

D. 24

Q39 General Intelligence and Reasoning **ENGLISH**

A question is given, followed by two statements labelled I and II. Identify which of the statements is/are sufficient to answer the question.

A, B, C, D and E are sitting in a straight line facing north. Who sits on the extreme left end?

(I) Exactly 2 people sit between A and E.

(II) Exactly 2 people sit between B and C.

Both Statements I and II put together (and not

A. independently) are sufficient to answer the question.

Data in Statement I alone is sufficient to answer

B. the question, while data in Statement II alone is not.

C. Both Statements I and II put together are not sufficient to answer the question. ☒

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

Q40 General Intelligence and Reasoning **ENGLISH**

L is brother of K. Q is married to N. Z is mother of L. N is daughter of Z. P is wife of K. How is Q related to K?

A. Sister's husband ☒

B. Mother's father

C. Father's brother

D. Brother

Q41 General Intelligence and Reasoning **ENGLISH**

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

(Left) $6 \$ < 8 1^{\wedge} 3 * 2 @ 7 \# 4 \& 5 \% @ 9$ (Right)

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

A. 2 ☒

B. 7

C. 4

D. 5

Q42 General Intelligence and Reasoning **ENGLISH**

In a certain code language, 'PLOT' is coded as '9137' and 'LIFE' is coded as '4872'. What is the code for 'L' in the given code language?

A. 7 ☒

B. 1

C. 4

D. 3

Q43 General Intelligence and Reasoning **ENGLISH**

Select the letter-cluster pair that best represents a similar relationship to the one expressed in the pairs of letter-clusters given below.

OQP : PTO

VWV : WZU

A. HFN : IIM ☒

B. NEO : OHL

C. KND : LQF

D. QEK : RHI

Q44 General Intelligence and Reasoning **ENGLISH**

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 ::?

: DHJ :: BFH : %

A. # = JNP, % = VZB ☒

B. # = JNP, % = WZB

C. # = KNP, % = VZB

D. # = JNP, % = VZO



Q45 General Intelligence and Reasoning **ENGLISH**

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 letter-cluster DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

A. CJSX

B. BIRW

C. JQZF



D. UBKP

Q46 General Intelligence and Reasoning **ENGLISH**

Select the letter-cluster pair that best represents a similar relationship to the one expressed in the pairs of letter-clusters given below.

NGJ : OJE

MHK : NKF

A. XHJ : YKF

B. KNI : LQD



C. JJK : KME

D. LMO : MOJ

Q47 General Intelligence and Reasoning **ENGLISH**

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

18 49 18 45 18 41 18 ?

A. 31

B. 34

C. 37



D. 29

Q48 General Intelligence and Reasoning **ENGLISH**

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

180 131 90 57 32 ?

A. 22

B. 20

C. 17

D. 15

**Q49** General Intelligence and Reasoning **ENGLISH**

A, B, C, D, E and F 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. E lives on an even numbered floor but not 6. The sum of floors on which A and E live is 7. F lives immediately above B. The sum of floors on which E and D live is 3. How many people live between A and D?

A. 1

B. 2

C. 3



D. 4

Q50 General Intelligence and Reasoning **ENGLISH**

L, K, M, N, O and P are sitting around a circular table facing the centre. L sits fourth to the right of O. M sits second to the left of L. N is not the immediate neighbour of M. K sits second to the right of N. How many people are sitting between P and N, when counted from the left of N?

A. None

B. One



C. Two

D. Three

Q51 General Intelligence and Reasoning **ENGLISH**

A, B, C, D, E, F and G live on seven different floors of the same building. The lowermost floor on the building is numbered 1, the floor above it, number 2 and so on, till the topmost floor is numbered 7. C lives on the sixth floor. Only three people live between C and F. A lives on an even numbered floor. D lives on one of the floors below B but immediately above F. E lives on one of the floors above C. Who lives on the lowermost floor?

A. G



B. F

C. E

D. B



Q52 General Intelligence and Reasoning **ENGLISH**

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 letter-cluster pair DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

A. NJ – SO



B. VQ – ZU

C. GB – KF

D. MH – QL

Q53 General Intelligence and Reasoning **ENGLISH**

In a certain code, 'silence gold words' is coded as 'nu mh ke', 'gold is precious' is coded as 'mh bi py' and 'silence is calm' is coded as 'nu py gh'. What is the possible code for 'gold silence' in that language?

A. mh nu



B. nu ke

C. bi ke

D. mh bi

Q54 General Intelligence and Reasoning **ENGLISH**

Select the option in which the numbers share the same relationship as that shared by the given pairs of numbers.

(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.)

18, 111

13, 81

A. 15, 93



B. 19, 114

C. 12, 69

D. 17, 104

Q55 General Intelligence and Reasoning **ENGLISH**

Select the option in which the numbers share the same relationship as that shared by the given pair of numbers.

(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.)

12, 113

15, 140

A. 14, 126

B. 8, 67

C. 17, 136

D. 11, 104

**General Awareness**

25 Questions • Answer Key

Q56 General Awareness **ENGLISH**

Which of the following states is also known as the 'Molassis basin', which is made up of soft unconsolidated deposits?

A. Tripura

B. Assam

C. Mizoram



D. Meghalaya

Q57 General Awareness **ENGLISH**

What was the venue of the 23rd meeting of the Shanghai Cooperation Organisation (SCO) in 2024?

A. Islamabad, Pakistan



B. Dhaka, Bangladesh

C. Sanghai, China

D. New Delhi, India



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Q58 General Awareness **ENGLISH**

Why is the depletion of the ozone layer a concern for humans?

- A. It promotes plant growth.
- B. It leads to increased water pollution.
- C. It protects us from harmful radiation. ✓
- D. It increases soil fertility.

Q59 General Awareness **ENGLISH**

Which of the following categories are NOT a class of consumers?

- A. Carnivores
- B. Herbivores
- C. Parasites
- D. Producers ✓

Q60 General Awareness **ENGLISH**

In May 2024, the Indian Air Force successfully tested its Arogya Maitri Disaster Management Cube in _____.

- A. Pokhran
- B. Agra ✓
- C. Bhuj
- D. Mysuru

Q61 General Awareness **ENGLISH**

What is the name of the Lunar Polar Exploration Mission, a collaboration with Japan's JAXA which was approved by India's National Space Commission in October 2024?

- A. Lupex ✓
- B. Mopex
- C. SpaceX
- D. Moonet

Q62 General Awareness **ENGLISH**

Which of the following Constitution Amendments empowers Parliament to establish common High court for two or more than two States?

- A. 6th Constitutional Amendment Act
- B. 8th Constitutional Amendment Act
- C. 7th Constitutional Amendment Act ✓
- D. 9th Constitutional Amendment Act

Q63 General Awareness **ENGLISH**

Who is the author of 'Fiction as History: The Novel and the City in Modern North India,' published in 2019?

- A. Vasudha Dalmia ✓
- B. Arundhati Roy
- C. Salman Rushdie
- D. Jhumpa Lahiri

Q64 General Awareness **ENGLISH**

Why do non-biodegradable wastes cause environmental problems?

- A. They are toxic to plants only.
- B. They remain in the environment for a long time. ✓
- C. They increase soil fertility.
- D. They can be easily recycled.

Q65 General Awareness **ENGLISH**

The Khilafat committee was formed in Bombay, to defend temporal powers of Khalifa, in _____.

- A. July 1919
- B. June 1919
- C. March 1919 ✓
- D. January 1919



Q66 General Awareness **ENGLISH**

According to the Annual Report 2019-20 of the Ministry of Textiles, India's textile industry contributes what percentage to the industry output, in value terms?

- A. 7%** ✓
- B. 6%
- C. 15%
- D. 18%

Q67 General Awareness **ENGLISH**

Ravi has purchased an aquarium and was surprised to know that regular cleaning of aquariums is essential. Why does it have to be regularly cleaned?

- A. Dead fish and plants may spoil the electric supply of the aquarium.
- B. Dead fish and plants are decomposed by microorganisms and smell bad.
- C. Dead fish and plants may spoil the aeration system of the aquarium.
- D. Dead fish and plants should be disposed of in the soil, not in water.** ✓

Q68 General Awareness **ENGLISH**

Garden is an ecosystem because:

- A. it has both plants, trees and animals like insects, frogs, birds, etc., as biotic components
- B. the living organisms in it interact with each other and are not affected by abiotic components
- C. the living organisms in it interact with each other and are affected by abiotic components** ✓
- D. it has only biotic components like plants, trees and flowers

Q69 General Awareness **ENGLISH**

In which of the following cases did the Supreme Court mention that the Fundamental Right to Primary Education is the Right to Life under Article 21 of the Indian Constitution?

- A. P Sambamurthy vs Union of India
- B. Navtej Singh Johar vs Union of India
- C. Unni Krishnan vs State of Andhra Pradesh** ✓
- D. Shreya Singhal vs Union of India

Q70 General Awareness **ENGLISH**

Manyakheta was the capital of which of following dynasties during the eighth century AD?

- A. Rashtrakuta** ✓
- B. Pratiharas
- C. Chera
- D. Pala

Q71 General Awareness **ENGLISH**

What impact does human activities have on the environment?

- A. They help in waste disposal
- B. Only a positive impact
- C. They contribute to environmental pollution** ✓
- D. No impact

Q72 General Awareness **ENGLISH**

How many seats did the Bhartiya Janata Party win in the Jammu & Kashmir assembly elections held in 2024?

- A. 39
- B. 19
- C. 29** ✓
- D. 49

Q73 General Awareness **ENGLISH**

Rashi wants to make compost for her kitchen garden. She plans to use kitchen wastes. Which set of articles is best suited for her work?

- A. Peels of fruits, leftover vegetables, paper, packing sheets.
- B. Peels of fruits, leftover vegetables, plastic waste, old mobile phone.
- C. Peels of fruits, leftover vegetables, paper, torn cotton clothes.** ✓
- D. Peels of fruits, leftover vegetables, plastic waste, thermocol cups.



Q74 General Awareness **ENGLISH**

Thermocol disposables are being widely used in parties and restaurants. By promoting this practice _____.

- A. we are reducing expenses; disposables are cheap to use
- B. we are increasing the hygiene concern in us
- C. we are making the waste biodegradable
- D. we are increasing non-biodegradable waste ✓

Q75 General Awareness **ENGLISH**

Which of the following is/are responsible for the depletion of the ozone layer in the atmosphere?

- A. Ethane
- B. Hydrofluorocarbons
- C. Methane
- D. Chlorofluorocarbons ✓

Q76 General Awareness **ENGLISH**

Which of the following articles deals with the office of the special officer for Linguistic Minorities?

- A. 350-B ✓
- B. 351-B
- C. 351-A
- D. 350-A

Q77 General Awareness **ENGLISH**

Which of the following teams won the 17th Edition of Indian Premier League?

- A. Kolkata Knight Riders ✓
- B. Delhi Capitals
- C. Mumbai Indians
- D. Chennai Superkings

Q78 General Awareness **ENGLISH**

Mohan went to a cafe and ordered a soft drink. The waiter brought his order in a plastic glass with a plastic straw. Mohan, being environment friendly, is not happy as:

- A. plastic glass and plastic straw is non biodegradable and persists in soil for a long time ✓
- B. a plastic glass and plastic straw does not add to the standard of the cafe
- C. the plastic glass and plastic straw were not of his favourite colour
- D. plastic glass and plastic straw spoils the taste of the drink

Q79 General Awareness **ENGLISH**

What is the primary function of 'viharas' in Buddhist architecture?

- A. To serve as meditation halls
- B. To house relics
- C. To serve as residential places for Buddhist priests ✓
- D. To hold public gatherings



Match the Following:

Column A	Column B
1. Marginal Efficiency of Capital	A. Spending on consumer goods
2. Autonomous Investment	B. Tendency for employment to fluctuate
3. Consumption Function	C. Expected rate of return on investment
4. Paradox of Thrift	D. Investment independent of income
5. Cyclical Unemployment	E. Increased saving reduces total demand

A. 1 - E, 2 - D, 3 - A, 4 - C, 5 - B

B. 1 - B, 2 - D, 3 - A, 4 - E, 5 - C

C. 1 - C, 2 - D, 3 - A, 4 - E, 5 - B



D. 1 - A, 2 - D, 3 - C, 4 - E, 5 - B

General Science

20 Questions • Answer Key

Q81 General Science ENGLISH

An electric motor converts electrical energy into:

A. electron energy

B. magnetic energy

C. mechanical energy



D. nuclear energy

Q82 General Science ENGLISH

Consider a conductor in the plane of the paper with current going from bottom to the top. What will be the direction of the magnetic field lines to the left of the conductor?

A. Perpendicular to the plane of the paper and going in.

B. Opposite to the direction of the current.

C. In the direction of the current.

D. Perpendicular to the plane of the paper and coming out.



Q83 General Science ENGLISH

Which ion reduces at the cathode during electrolysis of fresh brine solution?

A. Na^+

B. OH^-

C. H^+



D. Cl^-

Q84 General Science ENGLISH

Which metal is placed at the top of the reactivity series?

A. Copper

B. Iron

C. Silver

D. Potassium



Q85 General Science **ENGLISH**

Which of the following best describes why ionic compounds like potassium bromide (KBr) do NOT conduct electricity in solid form but do in molten form?

- A. Solid KBr consists of neutral atoms with no free electrons.
- B. Solid KBr has weak ions that do not conduct electricity.
- C. Ionic bonds prevent ion movement in solid KBr. ✓
- D. In molten form, KBr decomposes into gaseous atoms.

Q86 General Science **ENGLISH**

What industrial method is most typically used to produce sodium hydroxide (NaOH)?

- A. Electrolysis of brine ✓
- B. Castner-Kellner process
- C. Contact process
- D. Haber process

Q87 General Science **ENGLISH**

Which of the following options represents the correct Lewis structure for methane (CH₄)?

- A. A carbon atom bonded to two hydrogen atoms with double bonds
- B. A carbon atom bonded to four hydrogen atoms with single bonds ✓
- C. A carbon atom bonded to one hydrogen atom with a double bond
- D. A carbon atom bonded to four hydrogen atoms with triple bonds

Q88 General Science **ENGLISH**

If a conductor follows the Ohm's law, then the graph between current and voltage will be a/an _____.

- A. ellipse
- B. hyperbola
- C. parabola
- D. straight line ✓

Q89 General Science **ENGLISH**

A wire has a resistance of R. If its length is increased by a factor of 8 and its cross-sectional area is decreased by a factor of 4, what is its new resistance (R')?

- A. $R' = 2 R$
- B. $R' = 8 R$
- C. $R' = 32 R$ ✓
- D. $R' = 16 R$

Q90 General Science **ENGLISH**

What is formed when ammonium dichromate is heated?

- A. Chromium oxide and water
- B. Chromium and oxygen
- C. Chromium oxide and nitrogen
- D. Nitrogen, oxygen and chromium oxide ✓

Q91 General Science **ENGLISH**

Combination reaction can be represented as:

- A. $AB + C \rightarrow ABC$ ✓
- B. $ABC \rightarrow AB + C$
- C. $AB + CD \rightarrow AD + CD$
- D. $AB + C \rightarrow CB + A$

Q92 General Science **ENGLISH**

What is the pH value of pure water at 25°C?

- A. 7 ✓
- B. 5
- C. 3
- D. 1

Q93 General Science **ENGLISH**

If a resistor of 15 Ω carries a current of 2.5 A for 12 seconds, the heat produced is ____ joules.

- A. 900
- B. 1125 ✓
- C. 1800
- D. 450



Q94 General Science **ENGLISH**

A conductor has a current of 150 mA flowing through it with a resistance of $0.8\ \Omega$. Find the potential difference across the conductor.

- A. 120 V
- B. 0.12 V
- C. 18.75 V
- D. 5.3 V

**Q95** General Science **ENGLISH**

If a wire is stretched to quadruple its length without changing its area, what will happen to its resistivity?

- A. It remains the same.
- B. It doubles.
- C. It halves.
- D. It quadruples.

**Q96** General Science **ENGLISH**

Which of the following is the correct definition of a homologous series?

- A. A series of compounds having different functional groups
- B. A series of compounds having the same functional group and similar chemical properties
- C. A series of compounds having identical physical properties
- D. A series of compounds with the same molecular mass

**Q97** General Science **ENGLISH**

What do the magnetic field lines around a bar magnet represent?

- A. The gravitational field
- B. The flow of air around the magnet
- C. The direction and strength of the magnetic field
- D. The movement of electrons around the magnet

**Q98** General Science **ENGLISH**

The Fleming's right hand rule is used to find the:

- A. direction of the magnetic field associated with a current carrying conductor
- B. direction of the gravitational field
- C. direction of the current of a current carrying conductor
- D. direction of the motion of the current carrying conductor

**Q99** General Science **ENGLISH**

In a redox reaction, reduction can be described as:

- A. loss of electrons
- B. addition of an electronegative element
- C. addition of oxygen
- D. addition of hydrogen

**Q100** General Science **ENGLISH**

The potential difference, V , across the ends of a given metallic wire in an electric circuit is directly proportional to the current flowing through it, provided its temperature remains the same. This is known as:

- A. Ohm's law
- B. Ampere's law
- C. Newton's law
- D. Resistance law



Mathematics

31 Questions • Answer Key

Q1 Mathematics ENGLISH

If 'M' is the smallest perfect square number, which is exactly divisible by 12, 15 and 18, then find the sum of the digits of the quotient obtained, when M is divided by 25.

A. 9



B. 7

C. 8

D. 6

Q2 Mathematics ENGLISH

Find the simple interest (in closest integral ₹) on ₹3000 at 8% per annum rate of interest for the period from 25 February 2024 to 26 April 2024

A. 39

B. 41

C. 40



D. 38

Q3 Mathematics ENGLISH

Evaluate: $16 + 18 \div 3 - 3 \times 3$

A. 12

B. 13



C. 15

D. 16

Q4 Mathematics ENGLISH

Two taps can fill a cistern in 2 hours and 47 hours respectively. A third tap can empty it in 47 hours. How long (in hours) will it take to fill the empty cistern, if all of them are opened together?

A. 3

B. 5

C. 4

D. 2



Q5 Mathematics ENGLISH

Write the expanded form of $(3a + 5b + 7c)^2$.

A. $9a^2 + 25b^2 + 49c^2 + 34ab + 70bc + 42ac$ B. $9a^2 + 25b^2 + 49c^2 + 30ab + 70bc + 42ac$ C. $9a^2 + 25b^2 + 49c^2 + 30ab + 70bc + 52ac$ D. $9a^2 + 25b^2 + 49c^2 + 30ab + 65bc + 42ac$

Q6 Mathematics ENGLISH

The average age of Mohan and his four friends is 36 years. Mohan is 5 years older than the average age of his four friends. Determine Mohan's age in years.

A. 44

B. 42

C. 40



D. 38

Q7 Mathematics ENGLISH

Which of the following ratio is smallest?

A. 15 : 33

B. 10 : 36



C. 17 : 39

D. 23 : 48

Q8 Mathematics ENGLISH

If at same rate of interest, in 2 years, the simple interest is ₹56 and compound interest is ₹72, then what is the principal (in ₹)?

A. 42

B. 49



C. 53

D. 44



Q9 Mathematics **ENGLISH**

Akshat completes his journey in 10 hours. He covers half the distance at 72 km/h and the rest at 36 km/h. What is the length of the journey (in Km)?

A. 471

B. 473

C. 481

D. 480

**Q10 Mathematics** **ENGLISH**

A number when increased by 50 %, gives 2910. The number is:

A. 3880

B. 970

C. 1940



D. 5820

Q11 Mathematics **ENGLISH**

Write the expanded form of $(4a + 6b + 9c)^2$.

A. $16a^2 + 36b^2 + 81c^2 + 48ab + 108bc + 72ac$



B. $16a^2 + 36b^2 + 81c^2 + 52ab + 108bc + 72ac$

C. $16a^2 + 36b^2 + 81c^2 + 48ab + 103bc + 72ac$

D. $16a^2 + 36b^2 + 81c^2 + 48ab + 108bc + 82ac$

Q12 Mathematics **ENGLISH**

The average price of three items of furniture is Rs 16800. If their prices are in the ratio 3:5:7, the price of the cheapest item (in Rs) is

A. 10080



B. 7840

C. 5600

D. 3360

Q13 Mathematics **ENGLISH**

If 1 is added to each odd digit and 2 is subtracted from each even digit in the number 4835176, what will be the sum of the digits which are second from the left and second from the right?

A. 10

B. 12

C. 14



D. 11

Q14 Mathematics **ENGLISH**

If A's salary is 37 % more than that of B, then how much percent is B's salary less than that of A (correct to 2 decimal places)?

A. 30.86%

B. 27.01%



C. 29.85%

D. 29.04%

Q15 Mathematics **ENGLISH**

A shopkeeper sells an item for ₹287.7 after giving two successive discounts of 86% and 85% on its marked price. Had he not given any discount, he would have earned a profit of 37%. What is the cost price (in ₹) of the item?

A. 10046

B. 10038

C. 10000



D. 9958

Q16 Mathematics **ENGLISH**

A vendor bought lemons at 40 for a rupee. How many must he sell for a rupee to gain 25%?

A. 33

B. 32



C. 36

D. 34



Q17 Mathematics ENGLISH

Find the total time taken by boat to travel upstream and downstream, if the distance travel in each direction (upstream and downstream) is 270km. If speed of boat is 24 km/h and speed of current is 21 km/h.

A. 87 hours

B. 96 hours ✓

C. 106 hours

D. 104 hours

Q18 Mathematics ENGLISH

Write the expanded form of $(3a + 6b + 5c)^2$.

A. $9a^2 + 36b^2 + 25c^2 + 36ab + 55bc + 30ac$ B. $9a^2 + 36b^2 + 25c^2 + 36ab + 60bc + 40ac$ C. $9a^2 + 36b^2 + 25c^2 + 40ab + 60bc + 30ac$ D. $9a^2 + 36b^2 + 25c^2 + 36ab + 60bc + 30ac$ ✓**Q21 Mathematics** ENGLISH

If x is inversely proportional to y, and $y = 7$ when $x = 5$, find the value of x, when $y = 90$.

A. $\frac{7}{19}$ B. $\frac{9}{21}$ C. $\frac{8}{19}$ D. $\frac{7}{18}$ ✓**Q19 Mathematics** ENGLISH

The average price of three items of furniture is Rs 16875. If their prices are in the ratio 3:5:7, the price of the cheapest item (in Rs) is

A. 10125 ✓

B. 7875

C. 5625

D. 3375

Q20 Mathematics ENGLISH

What is the median of the following data?

50, 48, 40, 73, 29, 14, 89, 14, 51, 76, 78

A. 51

B. 49.5

C. 50 ✓

D. 50.5



Q22 Mathematics **ENGLISH**

The mean marks of the following distribution is:

Marks Obtained	No. of Students
83	9
73	5
20	18
82	16

A. 50

B. 57

C. 58



D. 78

Q23 Mathematics **ENGLISH**

A cylindrical rod has an outer curved surface area of 4500 cm^2 . If the length of the rod is 39 cm, then the outer radius (in

cm) of the rod, correct to two places of decimal, is: $\text{Take } \pi = \frac{22}{7}$

A. 20.48

B. 20.93

C. 18.36



D. 18.25

Q24 Mathematics **ENGLISH**

Two pipes can fill a tank in 20 hours and 90 hours, respectively. The time (in hours) required to fill the tank when both pipes are opened simultaneously is:

A. $\frac{183}{8}$

B. $\frac{177}{13}$

C. $\frac{179}{9}$

D. $\frac{180}{11}$



Q25 Mathematics **ENGLISH**

The selling price of 25 books is equal to the cost price of 41 books. Find the loss or gain percentage.

A. 64 % gain



B. $\frac{100}{16}\%$ gain

C. $\frac{100}{16}\%$ loss

D. 64 % loss

Q26 Mathematics **ENGLISH**

Find the value of $2.5 \times 4 + 3.68 \div 4 - 8.46 \times 2 + 7.365 \times 4 + 2.8 \times 3 - 1.675 \times 2$.

A. 28.51



B. 27.21

C. 27.98

D. 28.96

Q27 Mathematics **ENGLISH**

If $\sin\theta = \frac{12}{13}$, then what is the value of $26 \sin\theta - 10 \sec\theta$?

A. 0

B. 1

C. 2

D. -2

**Q28 Mathematics** **ENGLISH**

What is the perimeter of a sector of a circle (in cm) if the radius of the circle is 10.5 cm and the angle subtended at the centre of the circle is 60° ?

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

A. 41

B. 37

C. 43

D. 32



Q29 Mathematics ENGLISH

If x varies inversely as $y^3 - 1$ and is equal to 7 when $y = 2$, find x when $y = 6$.

A. $\frac{50}{216}$

B. $\frac{51}{215}$

C. $\frac{49}{215}$ ✓

D. $\frac{49}{216}$

Q30 Mathematics ENGLISH

$\frac{(a^5 \times b^9 \times c^1)}{(a^6 \times b^3 \times c^8)}$ in simplified form is:

A. $(a^4) \times (b^{-10}) \times (c^1)$

B. $(a^{-10}) \times (b^{-5}) \times (c^{-8})$

C. $(a^{-5}) \times (b^3) \times (c^{-6})$

D. $(a^{-1}) \times (b^6) \times (c^{-7})$ ✓

Q31 Mathematics ENGLISH

If the ratio of four angles of a quadrilateral is $\angle A : \angle B : \angle C : \angle D :: 2 : 3 : 5 : 8$, what is the value of $\angle B$?

A. 60° ✓

B. 90°

C. 40°

D. 50°



Q32 General Intelligence and Reasoning **ENGLISH**

7 is related to 9.8 following a certain logic. Following the same logic, 11 is related to 15.4. To which of the given options is 9 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. 13.8

B. 12.4

C. 12.6 ☒

D. 11.6

Q33 General Intelligence and Reasoning **ENGLISH**

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 and select the most appropriate answer.

Question:

Five friends, P, Q, R, S and T, are sitting around a circular table facing the centre. Who is sitting second to the left of T?

Statements:

(I) S sits second to the right of P. T sits to the immediate left of P.

(II) Only one person sits between Q and R. P sits to the immediate left of R.

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

B. Data in statements I and II together are 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.

Q34 General Intelligence and Reasoning **ENGLISH**

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

29 11 29 15 29 19 29 23 29 ?

A. 31

B. 25

C. 29

D. 27 ☒**Q35** General Intelligence and Reasoning **ENGLISH**

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 letter-cluster pair DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

A. SV-ZF

B. FI-NS ☒

C. VY-CI

D. HK-OU

Q36 General Intelligence and Reasoning **ENGLISH**

Refer to the given number, symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) 2 3 \$ 7 5 & 6 % 3 \$ # 9 @) 7 + 6 ? > ? 4 7 5 \$

(Right)

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

A. 5 ☒

B. 4

C. 6

D. 7



Q37 General Intelligence and Reasoning **ENGLISH**

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

305 251 206 170 143 ?

A. 130

B. 125



C. 120

D. 115

Q38 General Intelligence and Reasoning **ENGLISH**

What should come in place of the question mark (?) in the given series based on the English alphabetical order?

GNK IPM KRO MTQ ?

A. OUS

B. OUR

C. OVR

D. OVS

**Q39** General Intelligence and Reasoning **ENGLISH**

P is the son of Q's brother R. S is the wife of Q and T is the son of S. How is P related to S?

A. Father's brother

B. Brother's son

C. Father's brother's son



D. Father's son

Q40 General Intelligence and Reasoning **ENGLISH**

B, C, D, F and H have different marks. Only one person has scored between B and D. Only three people have scored between H and B. No one has scored between F and B and F's score is more than B's score. How many people have scored less than C?

A. Two

B. Three



C. Four

D. One

Q41 General Intelligence and Reasoning **ENGLISH**

Two sets of numbers are given below. In each set of numbers, certain mathematical operation(s) on the first number result(s) in the second number. Similarly, certain mathematical operation(s) on the second number result(s) in the third number and so on. Which of the given options follows the same set of operations as in the given 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 to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

6-36-46-92; 7-49-59-118

A. 5-25-35-70



B. 4-16-26-62

C. 3-9-29-58

D. 8-64-74-138

Q42 General Intelligence and Reasoning **ENGLISH**

In a certain code language, 'fast and furious' is coded as 'bo li ke', 'quick is furious' is coded as 'ke ra ng' and 'fast but quick' is coded as 'ng li ty'. What is the code for 'furious' in that language?

A. bo

B. ra

C. li

D. ke

**Q43** General Intelligence and Reasoning **ENGLISH**

S, T, U, V, W, X and Y are sitting around a circular table facing the centre. S sits fourth to the left of W. T sits second to the right of S. V is neither the immediate neighbour of T nor S. X sits third to the right of V. Y is not the immediate neighbour of W. How many people are sitting between S and T, when counted from the left of S?

A. Four



B. Three

C. Two

D. One



Q44 General Intelligence and Reasoning ENGLISH

What will come in the place of the question mark (?) in the following equation if '+' and '-' are interchanged and '÷' and '×' are interchanged?

$$51 - 8 \div 2 + 6 \times 2 = ?$$

A. 70

B. 66

C. 64



D. 71

Q45 General Intelligence and Reasoning ENGLISH

Select the letter-cluster pair that best represents a similar relationship to the one expressed in the pairs of letter-clusters given below.

DMO : HPM

LIF : PLD

A. VFP : ZIN



B. RKY : VNV

C. ENZ : IQY

D. NEL : RGJ

Q46 General Intelligence and Reasoning ENGLISH

Three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which is the letter-cluster pair 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. NK - GD

B. RV - KJ



C. TQ - MJ

D. ZW - SP

Q47 General Intelligence and Reasoning ENGLISH

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 ::?

: IBX :: HAW : %

A. # = FYU, % = NDZ

B. # = FYU, % = KDZ



C. # = FUU, % = KDZ

D. # = FYU, % = KDO

Q48 General Intelligence and Reasoning ENGLISH

In a certain code, 'floor door room' is coded as 'bn la mt', 'door chair table' is coded as 'wd bn ka' and 'chair room window' is coded as 'ka bz la'.

All the codes are two-letter code only.

What is room coded as?

A. bz

B. ka

C. la



D. bn

Q49 General Intelligence and Reasoning ENGLISH

In a row of people all facing north, Shakshi is 11th from the left end. Ravi is 12th from the left end. Ravi is exactly between Shakshi and Ron. If Ron is 14th from the right end of the row, how many people are there in the row?

A. 25

B. 26



C. 27

D. 28



Q50 General Intelligence and Reasoning **ENGLISH**

Q, R, S, T, U and V 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. S lives on the third floor. Only two people live between S and U. R lives on one of the floors below U but immediately above Q. Q does not live on the fourth floor. V lives on an odd numbered floor. How many people live between T and Q?

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

Q51 General Intelligence and Reasoning **ENGLISH**

Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only.
(Left) 7 % > 9 2 & 4 < 3 # 8 \$ 5 * 6 ^ # 1 (Right)
If all the symbols are dropped from the series, which of the following will be third from the left?

- A. 2
- B. 4
- C. 3
- D. 8

Q52 General Intelligence and Reasoning **ENGLISH**

Select the option in which the triads share the same relationship as that shared by the given triads.

HAND - ANDH - NDHA
BIRD - IRDB - RDBI

- A. ROSE - OSER - SERO
- B. FROG - ROGF - ROFG
- C. CUBE - CEBU - BUEC
- D. DUCK - CKDU - CUKD

Q53 General Intelligence and Reasoning **ENGLISH**

Keshav starts from Point A and drives 22 km towards the South. He then takes a left turn, drives 24 km, turns left and drives 27 km. He then takes a left turn and drives 25 km. He takes a final left turn, drives 5 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. 3 km to the east
- B. 4 km to the east
- C. 1 km to the east
- D. 2 km to the east

Q54 General Intelligence and Reasoning **ENGLISH**

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

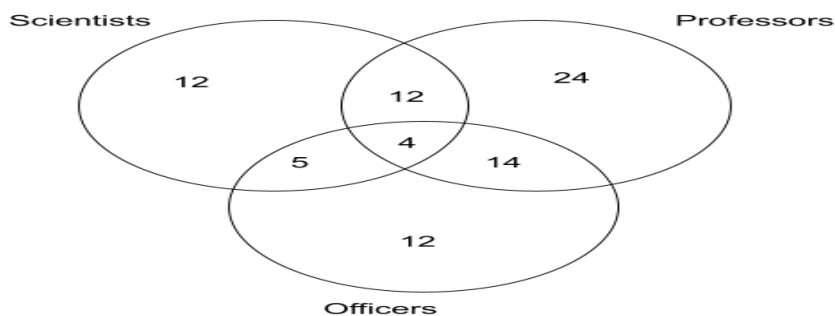
QTW 13, MPS 19, ILO 25, EHK 31, ADG 37, ?

- A. WZC 47
- B. ZZC 43
- C. WGC 43
- D. WZC 43



Q55 General Intelligence and Reasoning **ENGLISH**

Study the given diagram carefully and answer the question that follows. The numbers in different sections indicate the number of persons/objects.



How many such officers exist that are also scientists but not professors?

- A. 12
- B. 16
- C. 4
- D. 5



General Awareness

15 Questions • Answer Key

Q56 General Awareness **ENGLISH**

The Moplah Rebellion of 1921 took place in which of the following regions?

- A. Punjab
- B. Kerala
- C. Assam
- D. Bengal



Q57 General Awareness **ENGLISH**

At which of the following places is the tomb of Sher Shah located?

- A. Lahore
- B. Agra
- C. Sasaram
- D. Patna



Q58 General Awareness **ENGLISH**

What was the venue of the 57th ASEAN Foreign Ministers' Meeting?

- A. Jakarta, Indonesia
- B. Vientiane, Lao People's Democratic Republic
- C. Kuala Lumpur, Malaysia
- D. Naypyidaw, Myanmar



Q59 General Awareness **ENGLISH**

The Great Stupa at Sanchi is an important site in which religion?

- A. Hinduism
- B. Islam
- C. Buddhism
- D. Jainism



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Q60 General Awareness **ENGLISH**

Which of the following are the 6 accounts that have a role in the economic classification of the budget?

- A. Accounts A to F: Transaction in goods, services, and capital
- B. Accounts X to XV: Transaction in current and capital assets
- C. Accounts 1 to 6: Transaction in commodities and services and transfers
- D. Accounts I to VI: Transaction in commodities, revenue, and capital ✓

Q61 General Awareness **ENGLISH**

Which of the following statements is/are correct about the PM Vishwakarma Yojana?

- 1) The PM Vishwakarma Yojana was launched by the Hon'ble Prime Minister on 17 September 2023.
- 2) Scheme aims to provide end-to-end support to artisans and craftspeople who work with their hands and tools.
- 3) The Scheme components include recognition through PM Vishwakarma Certificate and ID Card, Skill Upgradation, Toolkit Incentive, Credit Support, Incentive for Digital Transactions, and Marketing Support.

A. 1, 2 and 3 ✓

B. 2 only

C. 1 only

D. 3 only

Q62 General Awareness **ENGLISH**

Who among the following is the leader of the house in the Lok Sabha?

A. Prime Minister ✓

B. Opposition Leader

C. Lok Sabha Speaker

D. President of India

Q63 General Awareness **ENGLISH**

According to the Citizenship Amendment Act of 2019, individuals who entered India on or before _____ and belong to the Hindu, Sikh, Buddhist, Jain, Parsi or Christian community from Pakistan, Afghanistan or Bangladesh are eligible for citizenship.

A. 31 December 2015

B. 31 December 2016

C. 31 December 2014 ✓

D. 31 December 2017

Q64 General Awareness **ENGLISH**

What is the correct sequence of following mountain ranges of India from north to south?

1. Vindhya Range 2. Aravalli Range 3. Ajanta Range 4. Satpura Range

A. 2, 1, 3, 4

B. 1, 2, 4, 3

C. 2, 1, 4, 3 ✓

D. 1, 2, 3, 4

Q65 General Awareness **ENGLISH**

Where was the Swachh Vayu Diwas celebrated in India to combat air pollution in 2024?

A. Indore

B. Jaipur ✓

C. Chandigarh

D. Bhopal

Q66 General Awareness **ENGLISH**

Which of the following is NOT a private sector company in India?

A. Bajaj Auto Limited

B. Dabur

C. Bharat Heavy Electricals Limited ✓

D. Tata Iron and Steel Company



Q67 General Awareness **ENGLISH**

Which of the following is related to Article 84 of the Constitution?

A. Qualification for membership of Parliament ✓

B. Disqualification for membership

C. Annual Financial Statement

D. Ordinance making Power of President

Q68 General Awareness **ENGLISH**

Who among the following secured a gold medal for India at the Paris Paralympics 2024?

A. Hokato Hotozhe Sema

B. Sachin Khilari

C. Navdeep Singh ✓

D. Pranav Soorma

Q69 General Awareness **ENGLISH**

Who is the author of 'Segar: Autobiography with Paintings,' published in 2013?

A. Jhumpa Lahiri

B. Githa Hariharan

C. Salman Rushdie

D. D Raja Segar ✓

Q70 General Awareness **ENGLISH**

Space Kidz India has launched the ShakthiSAT mission to train _____ girls aged 14-18 from 108 countries in space technology, aiming for a satellite launch under ISRO's Chandrayaan-4 mission in 2026.

A. 5000

B. 10,000

C. 12,000 ✓

D. 7500

General Science

30 Questions • Answer Key

Q71 General Science **ENGLISH**

Covalent molecules have low melting and boiling point because:

A. they have weak intermolecular forces ✓

B. they have strong electrostatic intermolecular forces

C. they have strong bonds within the molecule

D. they are generally gaseous in nature

Q72 General Science **ENGLISH**

Which of the following is the correct formula for the first member of the alkene series?

A. C_2H_4 ✓

B. C_4H_8

C. C_3H_6

D. C_5H_{10}

Q73 General Science **ENGLISH**

Which of the following metals is least likely to corrode in moist air?

A. Magnesium

B. Copper ✓

C. Zinc

D. Iron

Q74 General Science **ENGLISH**

Which of the following is true regarding the bud development process in Hydra?

A. Formation of spore

B. Splitting of cytoplasm

C. Cell divisions at one site ✓

D. Splitting of nucleus



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Q75 General Science **ENGLISH**

What is the thread-like structure in Rhizopus?

- A. Blobs
- B. Sporangia
- C. Spores
- D. Hyphae



Q76 General Science **ENGLISH**

Which of the following best describes a combination reaction?

- A. A reaction where a product releases gas
- B. A compound breaks down into simpler substances
- C. Ions exchange between two compounds
- D. Two elements combine to form a compound



Q77 General Science **ENGLISH**

If two resistors in series are equal, say R each, what is the total resistance?

- A. R
- B. R^2
- C. $R/2$
- D. $2R$



Q78 General Science **ENGLISH**

After fertilisation, the zygote divides multiple times to form which structure within the ovule?

- A. Fruit
- B. Seed
- C. Style
- D. Embryo



Q79 General Science **ENGLISH**

In plants, spore formation is a mode of reproduction that involves the production of spores. Which of the following statements about spore formation is true?

- A. Spores are formed through sexual reproduction in plants.
- B. Spores are produced by non-flowering plants like ferns and mosses, and they grow into new plants.
- C. Spores are a form of vegetative propagation in angiosperms only.
- D. Spores are produced by flowers, and they grow into seeds.



Q80 General Science **ENGLISH**

What is the final product of sexual reproduction in plants?

- A. Flowers
- B. Seeds
- C. Fruits
- D. Leaves



Q81 General Science **ENGLISH**

The knowledge of which two subjects played key role in formulating laws of Inheritance?

- A. Geography and Philosophy
- B. Maths and Science
- C. Philosophy and Science
- D. Maths and History



Q82 General Science **ENGLISH**

What is the role of the stigma in the process of fertilisation?

- A. Developing into a seed
- B. Fusing with the egg cell
- C. Serving as the site where pollen lands
- D. Producing pollen



Q83 General Science **ENGLISH**

Double displacement reactions usually occur in:

- A. gaseous state
- B. solid state
- C. all three states
- D. aqueous solution ✓

Q84 General Science **ENGLISH**

Why does a compass needle get deflected when brought near a bar magnet?

- A. The compass needle is non-magnetic.
- B. The compass needle is a small bar magnet. ✓
- C. The compass needle is made of iron.
- D. The compass needle has electric charge.

Q85 General Science **ENGLISH**

Which of the following is called a motile germ cell?

- A. Female gamete
- B. Male gamete ✓
- C. Embryo
- D. Zygote

Q86 General Science **ENGLISH**

Which of the following helps a developing embryo to expel waste products in case of humans?

- A. Oviduct
- B. Placenta ✓
- C. Ovary
- D. Cervix

Q87 General Science **ENGLISH**

Why might surgical family planning methods be risky if not done correctly?

- A. They can increase fertility.
- B. They may cause hormonal side effects.
- C. They might prevent ovulation.
- D. They can lead to infections or complications. ✓

Q88 General Science **ENGLISH**

In the reaction $\text{MnO}_2 + 4\text{HCl} \rightarrow \text{MnCl}_2 + 2\text{H}_2\text{O} + \text{Cl}_2$, what is being reduced?

- A. Hydrogen (H)
- B. Oxygen (O)
- C. Manganese (Mn) ✓
- D. Chlorine (Cl)

Q89 General Science **ENGLISH**

Which of the following chemical equations is balanced?

- A. $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$ ✓
- B. $\text{H}_2\text{O} + \text{O}_2 \rightarrow \text{H}_2\text{O}_2$
- C. $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$
- D. $\text{H}_2 + 2\text{O}_2 \rightarrow 2\text{H}_2\text{O}$

Q90 General Science **ENGLISH**

When an atom of sodium reacts with an atom of chlorine to form sodium chloride, each sodium atom:

- A. loses one electron ✓
- B. loses one proton
- C. gains one electron
- D. gains one proton

Q91 General Science **ENGLISH**

Resistance is the property of a material that _____.

- A. converts electrical energy to mechanical energy
- B. generates electricity
- C. opposes the flow of current ✓
- D. allows the flow of current

Q92 General Science **ENGLISH**

Which of the following statements is true about the pH of a neutral solution at 25°C?

- A. The pH is greater than 7.
- B. The pH is less than 7.
- C. The pH is not equal to 7.
- D. The pH is equal to 7. ✓



Q93 General Science **ENGLISH**

In the case of a thin lens, how are the centres of curvature typically positioned relative to the optical centre?

- A. They are equidistant from the optical centre.** ✓
- B. They are closer to the edge than to the optical centre.
- C. They coincide with the optical centre.
- D. They are located on the lens surface itself.

Q94 General Science **ENGLISH**

In which of the following scenarios does the focal length of a concave mirror vary?

- A. When placed in water
- B. When placed in air
- C. Focal length does not vary in any media** ✓
- D. When placed in a vacuum

Q95 General Science **ENGLISH**

Which of the following reactions leads to the production of bleaching powder?

- A. $\text{CaO} + \text{H}_2\text{O} \rightarrow \text{Ca(OH)}_2$
- B. $\text{Ca(OH)}_2 + \text{Cl}_2 \rightarrow \text{CaOCl}_2 + \text{H}_2\text{O}$** ✓
- C. $\text{CaCO}_3 + \text{HCl} \rightarrow \text{CaCl}_2 + \text{CO}_2 + \text{H}_2\text{O}$
- D. $\text{Ca(OH)}_2 + \text{CO}_2 \rightarrow \text{CaCO}_3 + \text{H}_2\text{O}$

Q96 General Science **ENGLISH**

The current through a resistor is:

- A. inversely proportional to the resistance** ✓
- B. directly proportional to the resistance
- C. proportional to the square of the resistance
- D. proportional to the square root of the resistance

Q97 General Science **ENGLISH**

In which case will a lens produce a magnification of exactly 1?

- A. When the object is placed between centre of curvature and focal point
- B. When the object is at infinity
- C. When the object is placed at the focal point
- D. When the object is placed at twice the focal length** ✓

Q98 General Science **ENGLISH**

Which of the following factors directly affects the resistance of a conductor?

- A. Power of the conductor
- B. Current through the conductor
- C. Length of the conductor** ✓
- D. Voltage across the conductor

Q99 General Science **ENGLISH**

Which factor does NOT affect the electric power consumed by an electric device?

- A. Frequency of the device** ✓
- B. Resistance of the device
- C. Voltage applied to the device
- D. Current passing through the device

Q100 General Science **ENGLISH**

When light exits a prism, what is the result of its interaction with the prism surfaces?

- A. Light is only absorbed.
- B. Light is only reflected.
- C. Light passes through without any change.
- D. Light is refracted.** ✓



Mathematics

32 Questions • Answer Key

Q1 Mathematics ENGLISH

Mahesh purchased 10 kg of rice at the rate of ₹35 per kg and 38 kg of rice at ₹46 per kg. He sold the mixture at the rate of ₹43.5 per kg. Find his loss (in ₹).

A. 10



B. 5

C. 15

D. 18

Q2 Mathematics ENGLISH

What is the average of all the natural numbers from 1 to 98?

A. 49.5



B. 49

C. 50.5

D. 50

Q3 Mathematics ENGLISH

A vertical stick 11 m long casts a shadow 7 m long on the ground. At the same time, a tower casts a shadow of 35 m long on the ground. The height of the tower is:

A. 52 m

B. 55 m



C. 50 m

D. 60 m

Q4 Mathematics ENGLISH

Two numbers are in the ratio 2 : 4. If the first number is increased by 4 and the second number is decreased by 14, then the ratio becomes 8 : 5. What is the sum of the original two numbers?

A. 36



B. 41

C. 24

D. 38

Q5 Mathematics ENGLISH

Shalini travels a distance of 138 km with speed of 46 km/h and 438 km with 73 km/h by her car. Find the average speed (in km/h) of Shalini.

A. 68

B. 70

C. 56

D. 64



Q6 Mathematics ENGLISH

Which of the following ratio is smallest?

A. 28 : 39

B. 22 : 47

C. 21 : 49

D. 20 : 51



Q7 Mathematics ENGLISH

Among five people named A, B, C, D and E, each has a certain age. C is thrice the age of D. The age of A is 6. D is half the age of E. B is twice the age of A. If E is four times the age of B, what is the age of C?

A. 75

B. 70

C. 76

D. 72



Q8 Mathematics ENGLISH

A man sold an article for ₹330 by first giving a d% discount on its marked price, and then another discount having the same nominal value (in ₹). If the marked price of the article is ₹1320, then what is the value of d?

A. 37.5



B. 36.9

C. 41.1

D. 38.4



Q9 Mathematics ENGLISH

If 2 is added to each odd digit and 1 is subtracted from each even digit in the number 2687531, then how many digits will appear more than once in the new number thus formed?

A. Four

B. Three

C. Two ✓

D. One

Q10 Mathematics ENGLISH

Write the expanded form of $(6a + 8b + 3c)^2$.

A. $36a^2 + 64b^2 + 9c^2 + 96ab + 48bc + 36ac$ ✓B. $36a^2 + 64b^2 + 9c^2 + 96ab + 43bc + 36ac$ C. $36a^2 + 64b^2 + 9c^2 + 96ab + 48bc + 46ac$ D. $36a^2 + 64b^2 + 9c^2 + 100ab + 48bc + 36ac$ **Q11 Mathematics** ENGLISH

₹4800 were divided among P, Q and R, such that 6 times of P = 3 times of Q = 8 times of R. Find the share of R.

A. ₹1034

B. ₹815

C. ₹1068

D. ₹960 ✓

Q12 Mathematics ENGLISH

Five bells toll together initially and then continue to toll at time intervals of 4, 8, 12, 16 and 20 seconds respectively. If they start tolling simultaneously at 12:00 p.m., then find how many times they will toll together between 12:00 p.m. to 3:00 p.m.

A. 54

B. 42

C. 62

D. 46 ✓

Q13 Mathematics ENGLISH

What is the average of all the natural numbers from 1 to 59?

A. 31

B. 30.5

C. 30 ✓

D. 29.5

Q14 Mathematics ENGLISH

Write the expanded form of $(7a + 9b + 4c)^2$.

A. $49a^2 + 81b^2 + 16c^2 + 130ab + 72bc + 56ac$ B. $49a^2 + 81b^2 + 16c^2 + 126ab + 72bc + 56ac$ ✓C. $49a^2 + 81b^2 + 16c^2 + 126ab + 67bc + 56ac$ D. $49a^2 + 81b^2 + 16c^2 + 126ab + 72bc + 66ac$ **Q15 Mathematics** ENGLISH

Two taps can fill a cistern in 2 hours and 45 hours respectively. A third tap can empty it in 45 hours. How long (in hours) will it take to fill the empty cistern, if all of them are opened together?

A. 3

B. 5

C. 4

D. 2 ✓

Q16 Mathematics ENGLISH

A man walks to a viewpoint and returns to the starting point by his car maintaining constant speed and thus takes a total time of 3 hours 15 minutes. He would have gained 3 hours by driving both ways. How long would it have taken for him to walk both ways with same walking speed?

A. 7 hours 30 minutes

B. 6 hours 15 minutes ✓

C. 5 hours 15 minutes

D. 6 hours 45 minutes



Q17 Mathematics ENGLISH

Evaluate: $32 \div 12 \times 3 - 3 \times 4$

A. -5

B. -2

C. -4



D. -1

Q18 Mathematics ENGLISH

A number when increased by 50 %, gives 2760. The number is:

A. 3680

B. 920

C. 1840



D. 5520

Q19 Mathematics ENGLISH

Evaluate: $16 + 16 \div 4 - 3 \times 4$

A. 11

B. 8



C. 7

D. 10

Q20 Mathematics ENGLISH

If at same rate of interest, in 2 years, the simple interest is ₹56 and compound interest is ₹64, then what is the principal (in ₹)?

A. 93

B. 91

C. 98



D. 102

Q21 Mathematics ENGLISH

A and B can do a piece of work in 8 days and 37 days, respectively. The number of days [Correct to one decimal place] required to complete the work if both A and B work together is:

A. 7.1

B. 10.7

C. 6.5



D. 7.7

Q22 Mathematics ENGLISH

Write the expanded form of $(5a + 6b + 8c)^2$.

A. $25a^2 + 36b^2 + 64c^2 + 64ab + 96bc + 80ac$

B. $25a^2 + 36b^2 + 64c^2 + 60ab + 96bc + 90ac$

C. $25a^2 + 36b^2 + 64c^2 + 60ab + 91bc + 80ac$

D. $25a^2 + 36b^2 + 64c^2 + 60ab + 96bc + 80ac$

**Q23 Mathematics ENGLISH**

The median of 7, 18, 22, 12, 14, 7, 23, 16 and 3 is:

A. 18

B. 14



C. 22

D. 7

Q24 Mathematics ENGLISH

A man spends 76% of his monthly salary (in ₹) on the rent of his house. If every month he also spends ₹813 on his conveyance and ₹2508 on his grocery and saves the remaining ₹687, his monthly salary (in ₹) is:

A. 16617

B. 16700



C. 16621

D. 16611

Q25 Mathematics ENGLISH

If the area of a trapezium is 80 cm^2 and the parallel sides are 13.5 and 6.5 cm, then the distance between them (in cm) is ____.

A. 12

B. 8



C. 9

D. 10



Q26 Mathematics ENGLISH

The average score of a cricketer in 20 matches is 40 runs. If his highest score in a match was 78 runs, what is the average of his scores in the remaining 19 matches?

A. 36

B. 34

C. 38



D. 40

Q27 Mathematics ENGLISH

Find the simple interest (in closest integral ₹) on ₹4000 at 5.25% per annum rate of interest for the period from 11 February 2024 to 12 April 2024

A. 35



B. 36

C. 33

D. 34

Q28 Mathematics ENGLISH

Find the arithmetic mean of the following data (correct to two places of decimals).

Class-interval	5-15	15-25	25-35	35-45	45-55	55-65
Frequency	12	18	8	14	16	8

A. 22.38

B. 33.68



C. 43.72

D. 39.45

Q29 Mathematics ENGLISH

The diameters of two concentric circles are 34 cm and 50 cm. A straight line, CAPF, intersects the larger circle at points C and F and intersects the smaller circle at points A and P. If $AP = 16$ cm, find the length of CF.

A. 40 cm



B. 50 cm

C. 30 cm

D. 34 cm

Q30 Mathematics ENGLISH

The volume (in cm^3) of a wire of diameter 56 cm and length 3 m is:

$$\text{take } \pi = \frac{22}{7}$$

A. 740200

B. 739700

C. 739200



D. 739400



Q31 Mathematics **ENGLISH**

If $\frac{3x}{1 + \frac{1}{1 + \frac{x}{1-x}}} = 12$, then find the value of 'x'.

A. 1.4

B. 1.8

C. 1.6

D. 1.2

Q32 Mathematics **ENGLISH**

The selling price of 30 books is equal to the cost price of 45 books. Find the loss or gain percentage.

A. 50 % gain

B. $\frac{100}{15}\%$ gain

C. 50 % loss

D. $\frac{100}{15}\%$ loss

General Intelligence and Reasoning

23 Questions • Answer Key

Q33 General Intelligence and Reasoning **ENGLISH**

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 ::?

: RXT :: FLH : %

A. # = OGT, % = IKH

B. # = GHT, % = INY

C. # = OUQ, % = IOK

D. # = OUP, % = KIU

Q34 General Intelligence and Reasoning **ENGLISH**

Anmol starts from Point A and drives 23 km towards the west. He then takes a right turn, drives 27 km, turns right and drives 29 km. He then takes a right turn and drives 32 km. He takes a final right turn, drives 6 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. 4 km to the north

B. 6 km to the north

C. 5 km to the north

D. 3 km to the north



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Q35 General Intelligence and Reasoning **ENGLISH**

Three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which is the letter-cluster pair 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. OF - NG



B. CT - AU

C. SJ - QK

D. HY - FZ

Q36 General Intelligence and Reasoning **ENGLISH**

In a certain code language,

'A + B' means 'A is the son of B',

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

'A × B' means 'A is the wife of B' and

'A % B' means 'A is the father of B'.

How is S related to H if 'S × D + F % G - H'?

A. Daughter

B. Brother's daughter

C. Wife

D. Brother's wife

**Q37** General Intelligence and Reasoning **ENGLISH**

What will come in the place of the question mark (?) in the following equation, if '+' and '-' are interchanged and '×' and '÷' are interchanged?

$$26 + 43 - 32 \times 23 \div 46 = ?$$

A. 45

B. 47



C. 49

D. 48

Q38 General Intelligence and Reasoning **ENGLISH**

In a certain code language, 'batter ball six' is coded as 'lo ka di', 'bowler ball wicket' is coded as 'ka mi th' and 'batter cricket bowler' is coded as 'lo th qy'. What is the possible code for 'cricket ball' in that language?

A. ka th

B. ka qy



C. th lo

D. qy lo

Q39 General Intelligence and Reasoning **ENGLISH**

In a row of 38 students facing north, Sunil is 20th from the left end. If Harsh is 10th to the right of Sunil, what is Harsh's position from the right end of the row?

A. 6th

B. 7th

C. 8th

D. 9th

**Q40** General Intelligence and Reasoning **ENGLISH**

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

19 30 52 96 184 ?

A. 360



B. 362

C. 361

D. 359

Q41 General Intelligence and Reasoning **ENGLISH**

Select the option in which the triads share the same relationship as that shared by the given triads.

JINX - JXIN - JNXI

COZY - CYOZ - CZYO

A. EVIL - EIVL - ELIV

B. FAIR - FARI - FIAR

C. DRUG - DGUR - DUGR

D. JAWS - JSAW - JWSA



Q42 General Intelligence and Reasoning **ENGLISH**

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:

All plums are lamps. Some lamps are ants. All ants are meats.

Conclusions:

(I): All meats are lamps.

(II): Some meats are plums.

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

B. Only conclusion (I) follows.

C. Only conclusion (II) follows.

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

Q43 General Intelligence and Reasoning **ENGLISH**

Two sets of numbers are given below. In each set of numbers, certain mathematical operation(s) on the first number result(s) in the second number. Similarly, certain mathematical operation(s) on the second number result(s) in the third number and so on. Which of the given options follows the same set of operations as in the given 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 to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

8-24-72-216; 6-18-54-162

A. 9-27-81-343

B. 7-21-63-189 ✓

C. 11-33-99-287

D. 12-36-108-216

Q44 General Intelligence and Reasoning **ENGLISH**

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

(Example- 6970 – First digit = 6, second digit = 9, third digit = 7 and fourth digit=0)

2314 7651 3245 9072 8062

How many numbers are there wherein the sum of first and second digits is equal to the sum of third and fourth digits?

A. Three ✓

B. Two

C. Four

D. One

Q45 General Intelligence and Reasoning **ENGLISH**

18 is related to 62 following a certain logic. Following the same logic, 22 is related to 78. To which of the given options is 15 related to, 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. 45

B. 50 ✓

C. 55

D. 60



Q46 General Intelligence and Reasoning **ENGLISH**

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 and select the most appropriate answer.

Question:

Five trees, S, M, N, O and A, are of different heights. Which among them is the tallest tree?

Statements:

- (I) N is taller than A. A is taller than M.
(II) S is taller than M. S is shorter than O.

- 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 are sufficient to answer the question.
- D. Data in statements I and II together are not sufficient to answer the question. ✓

Q47 General Intelligence and Reasoning **ENGLISH**

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

NTZ 14, KQW 23, HNT 32, EKQ 41, BHN 50, ?

- A. YEK 58
- B. ZEK 59
- C. YKK 59
- D. YEK 59 ✓

Q48 General Intelligence and Reasoning **ENGLISH**

Seven boxes, R, S, T, U, X, Y and Z, are kept one over the other but not necessarily in the same order. Only T is kept above X. Only Z is kept between X and Y. Only U is kept below R. How many boxes are kept between S and U?

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

Q49 General Intelligence and Reasoning **ENGLISH**

In a certain code, 'air water land' is coded as 'dy ph mt', 'fire land ice' is coded as 'lp ph st', and 'water fire grass' is coded as 'st bq dy'. What is the code for 'land' in that language?

(Note: All the codes are two letter coded only.)

- A. st
- B. dy
- C. mt
- D. ph ✓

Q50 General Intelligence and Reasoning **ENGLISH**

Seven people, B, D, E, F, P, Q and R, are sitting in a row, facing north. No one sits to the left of E. Only four people sit between E and R. Only three people sit to the right of D. F sits to the immediate left of B. P is not an immediate neighbour of D.

Who sits third to the left of P?

- A. R
- B. B
- C. D ✓
- D. F

Q51 General Intelligence and Reasoning **ENGLISH**

Refer to the following number, symbol series and answer the question. Counting to be done from left to right only.

(Left) € \$ 7 1 5 * 9 % 2 £ 5 \$ 6 £ € 8 8 4 6 £ % 8 (Right)

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

- A. 5
- B. 3
- C. 4 ✓
- D. 6



Q52 General Intelligence and Reasoning **ENGLISH**

Three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which is the letter-cluster pair 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. LO - KN

B. FD - LK



C. FI - EH

D. QT - PS

Q53 General Intelligence and Reasoning **ENGLISH**

Select the term from among the given options that can replace the question mark (?) in the following series.

PKI 23, MHF 31, JEC 47, GBZ 79, DYW 143, ?

A. AVT 270

B. AVT 271



C. AYT 271

D. UVT 271

Q54 General Intelligence and Reasoning **ENGLISH**

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 ::?

: ZWP :: FCV : %

A. # = VSL, % = JGO

B. # = VSL, % = JGZ



C. # = USL, % = JGZ

D. # = VSU, % = JGZ

Q55 General Intelligence and Reasoning **ENGLISH**

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

136 117 122 103 108 89 ?

A. 108

B. 94



C. 70

D. 84

General Awareness

15 Questions • Answer Key

Q56 General Awareness **ENGLISH**

Which of the following is NOT an essential qualification for being elected as the President?

A. Citizen of India

B. Completion of 35 years

C. Qualified for election as a member of the House of the People

D. Highly educated

**Q57** General Awareness **ENGLISH**

Which of the following received the top honour in the Best Urban Local Body category at the 5th National Water Awards for its innovative water conservation initiatives?

A. Bhopal, Madhya Pradesh

B. Surat, Gujarat



C. Indore, Madhya Pradesh

D. Pune, Maharashtra

Q58 General Awareness **ENGLISH**

The National Health Authority (NHA) and _____ signed a Memorandum of Understanding (MoU) on 11th September. The partnership aims to revolutionise artificial intelligence in health research with an innovative data platform.

A. IIT Kharagpur

B. IIT Delhi

C. IIT Kanpur



D. IIT Madras

Q59 General Awareness **ENGLISH**

Which of the following was the venue of the 46th session of the UNESCO World Heritage Committee?

A. New Delhi, India



B. New York, United States

C. Paris, France

D. Dubai, United Arab Emirates



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Q60 General Awareness **ENGLISH**

One of the famous Kali temples in India, Kalighat, is located in which of the following Indian states?

A. West Bengal



B. Odisha

C. Assam

D. Maharastra

Q61 General Awareness **ENGLISH**

Who is the author of "Postcolonial Elements in Amitav Ghosh's 'The Shadow Lines,'" published in 2018?

A. Arundhati Roy

B. Nivedhaa Nivi



C. Amitav Ghosh

D. Salman Rushdie

Q62 General Awareness **ENGLISH**

Which of the following statements is INCORRECT?

A. Amit Shah assumed charge as Union Home Minister and Minister of Cooperation in June 2024.

B. Om Birla is elected as the Speaker of the 18th Lok Sabha.

C. Narendra Modi took oath as the Prime Minister of India in June 2024.

D. Sonia Gandhi became the Leader of Opposition in the 18th Lok Sabha.



Q63 General Awareness **ENGLISH**

Which Indian cricketer was appointed as the brand ambassador for MotoGP in India in July 2024?

A. Rohit Sharma

B. Shikhar Dhawan



C. Virat Kohli

D. Jasprit Bumrah

Q64 General Awareness **ENGLISH**

The concepts no double jeopardy, no self incrimination and no ex post facto are mentioned under ____ of the Indian Constitution.

A. Article 20



B. Article 23

C. Article 19

D. Article 21

Q65 General Awareness **ENGLISH**

Which of the following is the National Waterway 2 in India?

A. Kakinada canal (Kakinada to Rajahmundry)

B. Brahmaputra river



C. West Coast canal and Champakara and Udyogmandal canals

D. East Coast canal and Matai river

Q66 General Awareness **ENGLISH**

What was the name of the movement started in 1927 in Maharashtra, led by Dr. BR Ambedkar to access public resources such as water bodies, temples and schools?

A. Shahada Movement

B. Bombay Peasants Revolt

C. Mahad Satyagraha



D. Kheda Satyagraha

Q67 General Awareness **ENGLISH**

Who among the following was the first attorney General of Independent India?

A. MC Setalvad



B. SV Gupta

C. Niren de

D. Soli Sorabjee



Q68 General Awareness **ENGLISH**

Quwwat-al-Islam mosque is located in which of the following cities?

A. New Delhi



B. Sikar

C. Hyderabad

D. Ajmer

Q69 General Awareness **ENGLISH**

Which of the following is an example of a natural monopoly?

A. Apple store in Delhi

B. Railways



C. Malls

D. Bookshop

Q70 General Awareness **ENGLISH**

Which of the following rivers is ephemeral?

A. Beas

B. Chambal

C. Yamuna

D. Luni



General Science

30 Questions • Answer Key

Q71 General Science **ENGLISH**

Samples of four metals A, B, C and D were taken and added to a solution individually. The results obtained have been listed as follows.

- A can displace B from its solution
- B can displace D from its solution
- C can displace D from its solution
- C can displace A from its solution

Which is the most reactive metal?

A. D

B. C



C. A

D. B

Q72 General Science **ENGLISH**

The pattern of the magnetic field lines of a solenoid is similar to that of a:

A. ring magnet

B. bar magnet



C. horseshoe magnet

D. button magnet

Q73 General Science **ENGLISH**

When several resistors are joined in series, the equivalent resistance of the combination is:

A. greater than the sum of the individual resistances

B. equal to the product of the individual resistances

C. equal to the sum of the individual resistances



D. less than the sum of the individual resistances

Q74 General Science **ENGLISH**

What is the role of the ovary in the process of fertilisation in plants?

A. To produce pollen

B. To produce the egg cell



C. To store the male gametes

D. To provide nutrients to the pollen grains



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Q75 General Science **ENGLISH**

Mendel had selected garden pea for certain favourable reasons. Which of the following is NOT a reason for his choice required for his experiments?

- A. They have easily observable traits.
- B. They can be self-pollinated and cross-pollinated.
- C. They have a long generation time. ✓
- D. They produce many offsprings.

Q76 General Science **ENGLISH**

Which combination of factors would result in the lowest resistance for a conductor?

- A. Short length and large cross-sectional area ✓
- B. Short length and small cross-sectional area
- C. Long length and small cross-sectional area
- D. Long length and large cross-sectional area

Q77 General Science **ENGLISH**

Seeds that are dispersed by animals often:

- A. have hooks or edible flesh ✓
- B. have wings or parachutes
- C. can float easily in water
- D. are very small and light weight

Q78 General Science **ENGLISH**

In the process of vegetative propagation, which part of the plant is used in grafting?

- A. Leaf
- B. Stem ✓
- C. Root
- D. Seed

Q79 General Science **ENGLISH**

How do hormonal contraceptives prevent pregnancy?

- A. By creating a physical barrier
- B. By increasing sperm production
- C. By blocking the fallopian tubes
- D. By changing the hormonal balance to prevent egg release ✓

Q80 General Science **ENGLISH**

In the reaction: $\text{Zn} + \text{CuSO}_4 \rightarrow \text{ZnSO}_4 + \text{Cu}$, what happens to zinc?

- A. Zinc is oxidised. ✓
- B. Zinc does not change.
- C. Zinc loses electrons.
- D. Zinc is reduced.

Q81 General Science **ENGLISH**

In which process multicellular organisms break into smaller pieces upon maturation?

- A. Sporulation
- B. Fission
- C. Regeneration
- D. Fragmentation ✓

Q82 General Science **ENGLISH**

Which of the following describes the relationship between the aperture of a lens and its radius of curvature in the context of thin lenses?

- A. The aperture equals the radius of curvature.
- B. The aperture is much larger than the radius of curvature.
- C. The aperture is independent of the radius of curvature.
- D. The aperture is much smaller than the radius of curvature. ✓

Q83 General Science **ENGLISH**

The balanced equation which shows the decomposition of hydrogen peroxide is:

- A. $2\text{H}_2\text{O}_2 \rightarrow 2\text{H}_2\text{O} + \text{O}_2$ ✓
- B. $2\text{HO}_2 \rightarrow 2\text{HO} + \text{O}_2$
- C. $\text{H}_2\text{O}_2 \rightarrow 2\text{H}_2\text{O} + \text{O}_2$
- D. $\text{H}_2\text{O}_2 \rightarrow \text{H}_2\text{O} + \text{O}_2$



Q84 General Science **ENGLISH**

What is formed when sodium sulfate reacts with barium chloride in a double displacement reaction?

- A. Sodium chloride and barium hydroxide
- B. Sodium hydroxide and barium chloride
- C. Sodium sulfate and barium chloride
- D. Sodium chloride and barium sulfate ✓

Q85 General Science **ENGLISH**

A piece of zinc is placed in three different solutions: lead nitrate, aluminium sulphate and silver nitrate. Which solution(s) will zinc be able to displace the metal from its solution?

- A. Aluminium sulphate and silver nitrate
- B. Lead nitrate and aluminium sulphate
- C. Lead nitrate and silver nitrate ✓
- D. Only silver nitrate

Q86 General Science **ENGLISH**

Which of the following statements is true for a balanced chemical equation?

- A. The total mass of molecules is unequal on both sides.
- B. The total number of moles is the same on both sides.
- C. The total number of atoms of each element is the same on both sides. ✓
- D. The total number of molecules is the same on both sides.

Q87 General Science **ENGLISH**

Pollen grains are transferred to which part of pistil?

- A. Style
- B. Ovule
- C. Stigma ✓
- D. Ovary

Q88 General Science **ENGLISH**

Which of the following best describes a common industrial use of washing soda?

- A. Cement production
- B. Fertiliser manufacturing
- C. Vinegar production
- D. Glass manufacturing ✓

Q89 General Science **ENGLISH**

Why are danger signals typically red in colour?

- A. Red light is more reflective than other colours.
- B. Red light has a longer wavelength and is scattered the least, making it visible from a distance. ✓
- C. Red light is easier to produce artificially.
- D. The colour red is aesthetically pleasing.

Q90 General Science **ENGLISH**

Which of the following statements is NOT a reason for the versatile nature of carbon?

- A. Carbon has tetravalency
- B. Carbon can form single, double, and triple bonds
- C. Carbon can form ionic bonds with itself ✓
- D. Carbon exhibits catenation

Q91 General Science **ENGLISH**

An object is placed 12 cm in front of a convex mirror with a focal length of 8 cm. What is the image distance (v)?

- A. -20 cm
- B. -4.8 cm
- C. +20 cm
- D. +4.8 cm ✓



Q92 General Science **ENGLISH**

Suppose a gardener wants to plant pea which should be of the dwarf varieties. What do you suggest for the choice of the parent plant seeds by the gardener?

- A. Any kind of seed can be used.
- B. All seeds should be of mixed varieties.
- C. All seeds should be of tall varieties.
- D. All seeds should be of dwarf varieties. ✓

Q93 General Science **ENGLISH**

An electric fan is connected to a 220 V generator. The current is 0.50 A. What is the power used by the fan?

- A. 440 Watt
- B. 11 Watt
- C. 220 Watt
- D. 110 Watt ✓

Q94 General Science **ENGLISH**

Which of the following statements is true about the physical properties of compounds in a homologous series?

- A. Their physical properties do not change.
- B. Their boiling points decrease as the number of carbon atoms increase.
- C. They have a regular change in melting and boiling points. ✓
- D. They have identical melting and boiling points.

Q95 General Science **ENGLISH**

What are the two versions of a gene controlling a trait called?

- A. Chromosomes
- B. Proteins
- C. Alleles ✓
- D. Mutations

Q96 General Science **ENGLISH**

20 ml of NaOH is neutralised by 10 ml of HNO_3 . How much NaOH will be required to neutralise 15 ml of HNO_3 ?

- A. 25 ml
- B. 30 ml ✓
- C. 20 ml
- D. 40 ml

Q97 General Science **ENGLISH**

The first fundamental factor for evolution is:

- A. genetic variation ✓
- B. healthy offsprings
- C. competition among individuals
- D. cell division for growth

Q98 General Science **ENGLISH**

If an image is formed by a spherical mirror with a magnification of +1, which of the following statements is true?

- A. The image is real and equal in size to the object.
- B. The image is real and twice the size of the object.
- C. The image is virtual and equal in size to the object. ✓
- D. The image is virtual and half the size of the object.

Q99 General Science **ENGLISH**

Which of these is NOT a property of magnetic field lines?

- A. They travel from south to north inside the magnet.
- B. They never intersect.
- C. They repel each other. ✓
- D. They are continuous closed loops.



Q100 General Science **ENGLISH**

Equipment such as geysers and air conditioners, compared to light bulbs and fans, require:

- A. less power
- B. less voltage
- C. higher voltage
- D. higher power



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Mathematics

30 Questions • Answer Key

Q1 Mathematics

નીચેની પદાવલીનું સાદું રૂપ આપો.

$$(\sin A + \operatorname{cosec} A)^2 + (\cos A - \sec A)^2 + 3$$

A. $\tan^2 A + \cot^2 A$

B. $1 + \tan^2 A + \cot^2 A$

C. $6 + \tan^2 A + \cot^2 A$ ✓

D. $3 + \tan^2 A + \cot^2 A$

Q2 Mathematics

જો કોઈ સંખ્યામાં 50% વડે વધારો કરવામાં આવે, તો તે 2790 થાય છે. તે સંખ્યા શોધો:

A. 3720

B. 1860 ✓

C. 5580

D. 930

Q3 Mathematics

જો A અને B વચ્ચેનું અંતર 1253 Km છે. A થી, ચમન 93 km/h ની ઝડપે B તરફ જાય છે અને 95 km/h ની ઝડપે A પર પાછો ફરે છે. ચમનની સરેરાશ ઝડપ શોધો. (બે દશાંશ સ્થાન સુધી પૂર્ણાંકિત)

A. 94.47 km/h

B. 103.98 km/h

C. 93.99 km/h ✓

D. 90.46 km/h

Q4 Mathematics

બે નળ અનુક્રમે 2 કલાક અને 53 કલાકમાં એક કુંડ ભરી શકે છે. ત્રીજો નળ તેને 53 કલાકમાં ખાલી કરી શકે છે. જો તે બધા એકસાથે ખોલવામાં આવે તો ખાલી કુંડને ભરવામાં કેટલો સમય (કલાકમાં) લાગશે?

A. 4

B. 5

C. 3

D. 2 ✓

Q5 Mathematics

શાલિની તેની કાર દ્વારા 54 km/h ઝડપે 270 km ની અને 30 km/h ની ઝડપે 300 km ની મુસાફરી કરે છે. શાલિનીની સરેરાશ ઝડપ (km/h માં) શોધો.

A. 44

B. 43

C. 47

D. 38 ✓

Q6 Mathematics

35 પુરુષો 48 દિવસમાં એક કામ કરી શકે છે. 21 દિવસમાં સમાન કાર્ય પૂર્ણ કરવા માટે જરૂરી પુરુષોની સંખ્યા છે:

A. 80 ✓

B. 72

C. 77

D. 79

Q7 Mathematics

બે લોકોની ઉંમરમાં 24 વર્ષનો તફાવત છે. જો 6 વર્ષ પહેલાં, બેમાંથી મોટાની ઉંમર નાના કરતાં ચાર ગણી હતી, તો તેમની હાલની (વર્તમાન) ઉંમર શોધો.

A. 14 અને 38 વર્ષ ✓

B. 12 અને 36 વર્ષ

C. 15 અને 39 વર્ષ

D. 16 અને 40 વર્ષ

Q8 Mathematics

નીચેનામાંથી કયો ગુણોત્તર સૌથી નાનો છે?

A. 19 : 60 ✓

B. 18 : 42

C. 15 : 47

D. 29 : 55



Q9 Mathematics

ચાર ક્રમિક એકી સંખ્યાઓની સરેરાશ 36 છે. આ સંખ્યાઓમાંથી સૌથી મોટી સંખ્યા કઈ છે?

A. 37

B. 43

C. 41

D. 39 ✓

Q10 Mathematics

એક છ-અંકની સંખ્યાને 91 વડે ભાગી શકાય છે. જો આ સંખ્યામાં 143 ઉમેરવામાં આવે, તો પરિણામી સંખ્યા નીચેનામાંથી કઈ સંખ્યા વડે ભાગી શકાશે?

A. 11

B. 7

C. 13 ✓

D. 91

Q11 Mathematics

એક જમણા ગોળાકાર શંકુના પાયાની ત્રિજ્યા 21 m છે અને તેની વક્ર સપાટીનું ક્ષેત્રફળ 1914 m^2 છે. શંકુનું ક્ષેત્રફળ (m^3 માં) શોધો.

A. 10250

B. 9240 ✓

C. 8549

D. 9549

Q12 Mathematics

1 થી 95 સુધીની તમામ પ્રાકૃતિક સંખ્યાઓની સરેરાશ કેટલી છે?

A. 48.5

B. 49

C. 48 ✓

D. 47.5

Q13 Mathematics

એક દુકાનદાર યાદીમાં એક પંખાની કિંમત તેની પડતર કિંમત કરતાં 25% વધારે લખે છે અને તેની યાદી કિંમત પર 10% ડિસ્કાઉન્ટ આપે છે. જો તે ₹117 નફો કમાય, તો પંખાની યાદી કિંમત (₹ માં) કેટલી છે?

A. 896

B. 1308

C. 1170 ✓

D. 1346

Q14 Mathematics

અમિતે ₹35 પ્રતિ કિલોના દરે 10 કિલો ચોખા અને ₹39 પ્રતિ કિલોના દરે 44 કિલો ચોખા ખરીદ્યા. તેણે ₹42 પ્રતિ કિલોના ભાવે મિશ્રણ વેચ્યું. તેની ખોટ (₹ માં) શોધો.

A. 16

B. 3

C. 8 ✓

D. 13

Q15 Mathematics

જો ચોક્કસ રકમ પર બીજા વર્ષ દરમિયાન મેળવેલ વ્યાજ ₹3726 હોય અને વ્યાજનો દર 15% પ્રતિ વર્ષ હોય જે દર વર્ષે ચક્રવૃદ્ધિ થાય છે, તો તે રકમ છે:

A. ₹20835

B. ₹21600 ✓

C. ₹21185

D. ₹20885

Q16 Mathematics

ફર્નિચરની ત્રણ વસ્તુઓની સરેરાશ કિંમત Rs.16440 છે. જો તેમની કિંમતો 3:5:7ના ગુણોત્તરમાં હોય, તો સૌથી સસ્તી વસ્તુની કિંમત (Rs.માં) છે.

A. 5480

B. 9864 ✓

C. 3288

D. 7672

Q17 Mathematics

રામ અને રમેશની ઉંમરનો સરવાળો 48 વર્ષનો છે. ચાર વર્ષ પહેલાં રામની ઉંમર રમેશની ઉંમર કરતાં ત્રણ ગણી હતી. હવેથી પાંચ વર્ષ પછી રમેશની ઉંમર કેટલી હશે?

A. 18 વર્ષ

B. 19 વર્ષ ✓

C. 14 વર્ષ

D. 21 વર્ષ



Q18 Mathematics **ENGLISH**

Find the HCF of 84, 126 and 210.

A. 70

B. 14

C. 21

D. 42

Q19 Mathematics

1927માં એક નગરની વસ્તી 232300 હતી. જો તેની વસ્તી ક્રમિક બે દાયકામાં દરેક દાયકામાં 30% વડે વધી હોય, તો 1947માં નગરની વસ્તી હતી:

A. 392583

B. 392592

C. 392585

D. 392587

Q20 Mathematics

એક વિસ્તારના 10 પરિવારોમાં બાળકોની સંખ્યા 2, 1, 3, 4, 2, 3, 5, 1, 1, 3 છે.

કુટુંબ દીઠ બાળકોની સંખ્યા છે:

A. 2.5

B. 2.8

C. 2.4

D. 3

Q21 Mathematics

5 ફેબ્રુઆરી 2024 થી 6 એપ્રિલ 2024 સુધીના સમયગાળા માટે ₹4000 પર 5.25% વાર્ષિક વ્યાજ દરે સાદું વ્યાજ (નજીકના પૂર્ણાંક, ₹ માં) શોધો

A. 35

B. 34

C. 36

D. 33

Q22 Mathematics

250 અને 450 ની વચ્ચેની 8, 12 અને 18 વડે નિશેષ ભાગી શકાય એવી સંખ્યાઓનો સરવાળો કેટલો છે?

A. 936

B. 1080

C. 1152

D. 1008

Q23 Mathematics

જો $A:B = 1:3$, $B:C = 4:3$ અને $C:D = 6:7$ હોય, તો $A:B:C:D$ છે

A. 6:24:18:21

B. 8:24:18:21

C. 8:24:16:21

D. 8:22:18:21

Q24 Mathematics

એક વ્યક્તિએ પ્રથમ તેની ચિહ્નિત કિંમત પર $d\%$ ડિસ્કાઉન્ટ આપીને એક વસ્તુને ₹533 માં વેચી અને પછી સમાન સંખ્યાયિક કિંમત (₹માં) ધરાવતું બીજું ડિસ્કાઉન્ટ આપ્યું. જો તે વસ્તુની ચિહ્નિત કિંમત ₹1025 હોય, તો d ની કિંમત કેટલી છે?

A. 29

B. 22

C. 24

D. 21



Q25 Mathematics

જો નીચેના આંકડાનો મધ્યક 40 હોય, તો X નું મૂલ્ય છે:

xi	10	25	70	85
fi	21	X	22	35

A. 112

B. 107

C. 120

D. 134

Q26 Mathematics

માની લો કે O એક ત્રિકોણ PQR નું અંતઃકેન્દ્ર છે અને S એ બાજુ QR પર એક બિંદુ છે એ રીતે કે OS $\perp$ QR છે. જો QOS = 15 હોય, તો PQR = ?

A. 130°

B. 75°

C. 65°

D. 150°

Q27 Mathematics

આપેલ રેખીય સમીકરણ પદ્ધતિનો ઉકેલ શોધો.

$$x + y + z = 6, 2x - y + 3z = 14, -x + 2y - z = -2$$

A. $x = \frac{4}{3}, y = \frac{-4}{3}, z = 5$

B. $x = \frac{-5}{3}, y = \frac{5}{3}, z = -6$

C. $x = \frac{5}{3}, y = \frac{-5}{3}, z = 6$

D. $x = \frac{-4}{3}, y = \frac{4}{3}, z = 6$

Q28 Mathematics

જો x એ y ના વ્યસ્ત પ્રમાણમાં હોય, અને y = 6 હોય, જ્યારે x = 7 હોય, તો x ની કિંમત શોધો, જ્યારે y = 64 હોય.

A. $\frac{23}{35}$

B. $\frac{22}{33}$

C. $\frac{21}{32}$

D. $\frac{21}{33}$



Q29 Mathematics

$8.25 \times 6 - 3.14 \times 7 + 2.758 \text{ of } 2.5 - 4.365 \times 5$ નું મૂલ્ય શોધો.

A. 12.59



B. 11.82

C. 12.97

D. 11.05

Q30 Mathematics

બે સમરૂપ ત્રિકોણની બે અનુરૂપ બાજુઓની લંબાઈનો ગુણોત્તર 17 : 13 છે. ઉલ્લેખિત ક્રમમાં આ બે ત્રિકોણના ક્ષેત્રફળનો ગુણોત્તર ____ છે:

A. 289 : 169

B. $17\sqrt{17} : 13$

C. 17 : 13

D. 290 : 170

General Intelligence and Reasoning

25 Questions • Answer Key

Q31 General Intelligence and Reasoning

આપેલ શ્રેણીમાં પ્રશ્ન ચિહ્ન (?) ની જગ્યાએ શું આવવું જોઈએ?
78 79 83 92 108 ?

A. 134

B. 132

C. 135

D. 133

**Q32 General Intelligence and Reasoning**

અંગ્રેજી મૂળાક્ષરોના ક્રમના આધારે આપેલ શ્રેણીમાં પ્રશ્ન ચિહ્ન (?) ની જગ્યાએ શું આવવું જોઈએ?

TUR FGD RSP DEB ?

A. PNQ

B. NQP

C. NPQ

D. PQN

**Q33 General Intelligence and Reasoning**

D, E, F, K, L, M અને N ની દરેકની પરીક્ષા અઠવાડિયાના અલગ-અલગ દિવસે હોય છે, જે સોમવારથી શરૂ થાય છે અને તે જ અઠવાડિયાના રવિવારે સમાપ્ત થાય છે.
N ની પરીક્ષા ગુરુવારે હોય છે. N ની બે દિવસ પહેલાં L ની પરીક્ષા છે. F અને L વચ્ચે માત્ર ચાર લોકોની પરીક્ષા છે. L પછીના કોઈક એક દિવસે M ની પરીક્ષા છે. D ની પરીક્ષા E ના તુરંત પહેલાંના દિવસે છે.
E અને M વચ્ચે કેટલા લોકોની પરીક્ષા છે?

A. એક

B. બે



C. ચાર

D. ત્રણ

Q34 General Intelligence and Reasoning

જો 'A' નો અર્થ '÷', 'B' નો અર્થ 'x', 'C' નો અર્થ '+' અને 'D' નો અર્થ '-' હોય, તો નીચેના સમીકરણમાં પ્રશ્ન ચિહ્ન (?) ની જગ્યાએ શું આવશે?

30 C 48 D 36 B 50 A 20 = ?

A. -10

B. -14

C. -11

D. -12



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Q35 General Intelligence and Reasoning

GJBF અંગ્રેજી મૂળાક્ષરોના ક્રમના આધારે ચોક્કસ રીતે ILDH સાથે સંબંધિત છે. તે જ રીતે, JMEI એ LOGK સાથે સંબંધિત છે. સમાન તર્કને અનુસરીને નીચેનામાંથી કયા વિકલ્પ સાથે MPHL સંબંધિત છે?

A. RONJ

B. ROJN

C. ORNJ

D. ORJN

**Q36 General Intelligence and Reasoning**

આ પ્રશ્ન નીચે આપેલ પાંચ, ચાર-અંકની સંખ્યાઓ પર આધારિત છે.

(ડાબે) 5479 3126 6785 9254 1630 (જમણે)

(ઉદાહરણ: 697 – પ્રથમ અંક = 6, બીજો અંક = 9 અને ત્રીજો અંક = 7)

નોંધ: તમામ કામગીરી ડાબેથી જમણે કરવાની છે.

જો બીજી- સૌથી મોટી સંખ્યાનો ચોથો અંક સૌથી નાની સંખ્યાના ત્રીજા અંકમાં ઉમેરવામાં આવે તો પરિણામ શું આવશે?

A. 12

B. 10

C. 14

D. 8

**Q37 General Intelligence and Reasoning**

જો 'x' નો અર્થ 'સરવાળો', '+' નો અર્થ 'બાદબાકી', '-' નો અર્થ 'ભાગાકાર' અને '÷' નો અર્થ 'ગુણાકાર' થતો હોય, તો નીચેના સમીકરણમાં પ્રશ્ન ચિહ્ન (?) ની જગ્યાએ શું આવશે?

$$14 + 1 \div 7 \times 32 - 8 = ?$$

A. 12

B. 11

C. 14

D. 13

**Q38 General Intelligence and Reasoning**

આપેલ શ્રેણીમાં પ્રશ્ન ચિહ્ન (?) ની જગ્યાએ શું આવવું જોઈએ?

160 151 141 130 118 ?

A. 105

B. 101

C. 95

D. 91

**Q39 General Intelligence and Reasoning**

ઉત્તર તરફ મુખ કરીને 25 વિદ્યાર્થીઓની હરોળમાં, મનોજ જમણા છેડેથી 15મા ક્રમે છે. જો હરીશ મનોજની ડાબી બાજુએ 10મો છે, તો હરોળના ડાબા છેડેથી હરીશનું સ્થાન કયું છે?

A. 1જું



B. 2જું

C. 3જું

D. 4થું

Q40 General Intelligence and Reasoning

અંગ્રેજી મૂળાક્ષર ક્રમ પર આધારિત, આપેલ શ્રેણીમાં પ્રશ્ન ચિહ્ન (?) ની જગ્યાએ શું આવવું જોઈએ?

FMK HOM JQO LSQ ?

A. NUR

B. NUS



C. NVS

D. NVR

Q41 General Intelligence and Reasoning

અંગ્રેજી મૂળાક્ષર ક્રમના આધારે, નીચેના ચારમાંથી ત્રણ અક્ષર-સમૂહ ચોક્કસ રીતે એકસરખા છે અને આમ એક જૂથ બનાવે છે. કયો અક્ષર-સમૂહ તે જૂથ સાથે સંબંધિત નથી?

(નોંધ: વિસંગત વિકલ્પ એ વ્યંજનો/ સ્વરોની સંખ્યા પર અથવા અક્ષર-સમૂહમાં તેમના સ્થાન (સ્થિતિ) પર આધારિત નથી.)

A. KSVA

B. CKNS

C. ENPU



D. HPSX

Q42 General Intelligence and Reasoning

P, Q, R, S, T અને U એક વર્તુળાકાર મેજની ફરતે તેના કેન્દ્ર તરફ મુખ કરીને બેસેલ છે. U એ T ની ડાબી બાજુએ ત્રીજા સ્થાને બેસેલ છે. R એ Q ની જમણી બાજુએ બીજા સ્થાને બેસેલ છે. Q એ T નો નિકટતમ પડોશી નથી. P એ Rનો નિકટતમ પડોશી નથી. તો Qની ડાબી બાજુથી ત્રીજા સ્થાને કોણ બેસેલ છે?

A. P

B. T

C. S



D. U



Q43 General Intelligence and Reasoning

એક ચોક્કસ સાંકેતિક ભાષામાં,
'hat tie watch' ને 'zm ph mt' તરીકે સંકેતવામાં આવે છે,
'belt bow tie' ને 'la oe zm' તરીકે સંકેતવામાં આવે છે,
'bow watch clip' ને 'oe mt dy' તરીકે સંકેતવામાં આવે છે,
તે ભાષામાં 'hat' માટેનો સંકેત શું છે? (નોંધ: બધા સંકેતો માત્ર બે-અક્ષરોના સંકેત છે.)

A. ph



B. mt

C. zm

D. oe

Q44 General Intelligence and Reasoning

P એ Q ની બહેન R ની પુત્રી છે. S એ Q ની પત્ની છે અને T એ S નો પુત્ર છે. P એ T સાથે કઈ રીતે સંબંધિત છે?

A. બહેનની પુત્રી

B. પિતાની પુત્રી

C. પિતાની માતા

D. પિતાની બહેનની પુત્રી

**Q45 General Intelligence and Reasoning**

નીચે આપેલ સંખ્યા, પ્રતીક શ્રેણીનો સંદર્ભ લો અને તેની નીચે આપેલા પ્રશ્નનો જવાબ આપો. ગણતરી માત્ર ડાબેથી જમણે કરવાની રહેશે.

(ડાબી બાજુ) 3 8 9 5 £ 6 3 @ 3 % @ 7 * 1 # 2 6 9 2 7 & £
(જમણી બાજુ)

એવા કેટલા પ્રતીક છે જે પ્રત્યેકની તરત પહેલા એક સંખ્યા અને તરત પછી પણ એક સંખ્યા આવે છે?

A. 6

B. 5

C. 3

D. 4

**Q46 General Intelligence and Reasoning**

નીચેનામાંથી કયા અક્ષર-સમૂહોને # અને % ના સ્થાને મૂકવું જોઈએ જેથી ::
ની ડાબી બાજુએ આવેલ અક્ષર-સમૂહ જોડી વચ્ચે અનુસરવામાં આવતી પેટર્ન અને સંબંધ એ :: ની જમણી બાજુએ આવેલ અક્ષર-સમૂહ જોડી વચ્ચે અનુસરવામાં આવતી પેટર્ન અને સંબંધના સમાન હોય?

: DGJ :: EHK : %

A. # = MZC, % = LOR

B. # = WZC, % = LOR



C. # = WZC, % = LOP

D. # = WXC, % = LOR

Q47 General Intelligence and Reasoning

એક પ્રશ્ન આપવામાં આવ્યો છે, જેના પછી I અને II થી ક્રમાંકિત બે વિધાનો આપ્યા છે. પ્રશ્નનો જવાબ આપવા માટે કયું વિધાન પૂરતું છે/ કયા વિધાનો પૂરતા છે તે ઓળખો.

Q. A, B, C, D અને E ઉત્તર તરફ મુખ કરીને સીધી હરોળમાં બેઠા છે. છેક ડાબા છેડે કોણ બેસે છે?

(I) A એ E ની જમણી બાજુએ ચોથા સ્થાને બેસે છે.

(II) B અને C ની વચ્ચે બરાબર 1 વ્યક્તિ બેસે છે.

A. I અને II આ બંને વિધાનો એકસાથે મળીને પ્રશ્નનો જવાબ આપવા માટે પૂરતા નથી.

એકલા વિધાન II માંની માહિતી પ્રશ્નનો જવાબ આપવા માટે પૂરતી છે,
B. જ્યારે કે વિધાન I માંની માહિતી એકલી પ્રશ્નનો જવાબ આપવા માટે પૂરતી નથી.

એકલા વિધાન I માંની માહિતી પ્રશ્નનો જવાબ આપવા માટે પૂરતી છે, જ્યારે કે વિધાન II માંની માહિતી એકલી પ્રશ્નનો જવાબ આપવા માટે પૂરતી નથી.



D. I અને II આ બંને વિધાનો એકસાથે મળીને (અને સ્વતંત્ર રીતે નહીં) પ્રશ્નનો જવાબ આપવા માટે પૂરતા છે.

Q48 General Intelligence and Reasoning

KL91 ચોક્કસ રીતે CD66 સાથે સંબંધિત છે. એ જ રીતે, MN81 એ EF56 સાથે સંબંધિત છે. સમાન તર્કને અનુસરીને, OP71 નીચેનામાંથી કોની સાથે સંબંધિત છે?

A. HG56

B. GH46



C. HG46

D. GH56



Q49 General Intelligence and Reasoning

એક ચોક્કસ તર્કને અનુસરીને 15 એ 35 સાથે સંબંધિત છે. તે જ સમાન તર્કને અનુસરીને, 21 એ 49 સાથે સંબંધિત છે. સમાન તર્કને અનુસરીને, આપેલા વિકલ્પોમાંથી કયા વિકલ્પ સાથે 27 સંબંધિત છે?

(નોંધ: સંખ્યાઓને તેમના ઘટક અંકોમાં પાડ્યા વિના, આખી સંખ્યા પર ગાણિતિક કામગીરી કરવી જોઈએ. ઉદાહરણ તરીકે 13 લઈએ - 13 માં સરવાળો/ બાદબાકી/ ગુણાકાર જેવી કામગીરીઓ આખી સંખ્યા 13 પર કરી શકાય છે. સંખ્યા 13 ને 1 અને 3 માં જૂદી પાડીને પછી 1 અને 3 પર ગાણિતિક કામગીરી કરવાની મંજૂરી નથી.)

A. 63



B. 69

C. 65

D. 51

Q50 General Intelligence and Reasoning

B, C, E, F અને H દરેક અલગ અલગ ઊંચાઈ ધરાવે છે. B એ C કરતાં ઊંચો છે. માત્ર E એ F કરતાં નીચો છે. H એ B કરતાં ઊંચો છે. કેટલા લોકો C કરતાં ઊંચા છે?

A. બે



B. ત્રણ

C. એક

D. ચાર

Q51 General Intelligence and Reasoning

અંગ્રેજી મૂળાક્ષરોના ક્રમના આધારે, નીચેની ચારમાંથી ત્રણ અક્ષર-સમૂહ જોડી અમુક ચોક્કસ રીતે એકસરખી છે અને આમ એક જૂથ બનાવે છે. કઈ અક્ષર-સમૂહ જોડી તે જૂથ સાથે સંબંધિત નથી?

(નોંધ: વિસંગત વિકલ્પ એ વ્યંજનો/ સ્વરોની સંખ્યા પર અથવા અક્ષર-સમૂહમાં તેમના સ્થાન (સ્થિતિ) પર આધારિત નથી.)

A. MO – RT

B. JL – OQ

C. VW – XZ



D. DF – IK

Q52 General Intelligence and Reasoning

એક ચોક્કસ સાંકેતિક ભાષામાં,
'red blue green' ને 'dy ph mt' તરીકે સંકેતવામાં આવે છે,
'blue violet black' ને 'lp ph st' તરીકે સંકેતવામાં આવે છે અને
'black red white' ને 'st bq dy' તરીકે સંકેતવામાં આવે છે.
બધા સંકેતો માત્ર બે અક્ષરના છે.
'white' ને કેવી રીતે સંકેતવામાં આવશે?

A. dy

B. st

C. ph

D. bq

**Q53 General Intelligence and Reasoning**

નીચે સંખ્યાઓના બે ગણ આપેલા છે. સંખ્યાઓના દરેક ગણમાં, પ્રથમ સંખ્યા પર અમુક ગાણિતિક ક્રિયાઓ કરીને બીજી સંખ્યા મેળવવામાં આવી છે. એજ રીતે બીજી સંખ્યા પર અમુક ગાણિતિક ક્રિયાઓ કરીને ત્રીજી સંખ્યા મેળવવામાં આવી છે અને આ રીતે આગળ પણ મળનારી સંખ્યાઓ પર ક્રિયાઓ કરવામાં આવે છે. આપેલ વિકલ્પોમાંથી કયો વિકલ્પ આ ગણો પર કરેલી સમાન ક્રિયાઓનું અનુસરણ કરે છે?

(નોંધ: સંખ્યાઓને તેમના ઘટક અંકોમાં જૂદી પાડ્યા વિના, આખી સંખ્યા પર ગાણિતિક કામગીરી કરવી જોઈએ. ઉદાહરણ તરીકે સંખ્યા 13 લઈએ - 13 માં સરવાળો/ બાદબાકી/ ગુણાકાર જેવી કામગીરીઓ આખી સંખ્યા 13 પર કરી શકાય છે. સંખ્યા 13 ને 1 અને 3 માં જૂદી પાડીને પછી 1 અને 3 પર ગાણિતિક કામગીરી કરવાની મંજૂરી નથી.)

12-60-120-130; 14-70-140-150

A. 16-80-160-170



B. 13-65-130-120

C. 11-55-110-130

D. 15-75-150-140



Q54 General Intelligence and Reasoning **ENGLISH**

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:

All waters are liquids.
All liquids are juices.
All juices are fruits.

Conclusions:

(I) All waters are fruits.
(II) Some fruits are liquids.

- A. Only conclusion (I) follows.
B. Both conclusions (I) and (II) follow. ✓
C. Neither conclusion (I) nor (II) follows.
D. Only conclusion (II) follows.

Q55 General Intelligence and Reasoning

મનુર બિંદુ A થી વાહન ચલાવવાનું શરૂ કરે છે અને પૂર્વ તરફ 12 km ચલાવે છે. પછી જમણો વળાંક લે છે, 11 km ચલાવે છે, જમણો વળે છે અને 13 km ચલાવે છે. પછી તે જમણો વળાંક લે છે અને 17 km ચલાવે છે. છેલ્લે તે જમણો વળાંક લે છે, 1 km ચલાવે છે અને બિંદુ P પર રોકાય છે. બિંદુ A પર ફરીથી પહોંચવા માટે તેણે કેટલું દૂર (સૌથી ઓછું અંતર) અને કઈ દિશામાં વાહન ચલાવવું જોઈએ? (જ્યાં સુધી ઉલ્લેખિત ન હોય ત્યાં સુધી તમામ વળાંક ફક્ત 90 ડિગ્રી વળાંક છે)

- A. 5 km દક્ષિણ તરફ
B. 2 km દક્ષિણ તરફ
C. 6 km દક્ષિણ તરફ ✓
D. 3 km દક્ષિણ તરફ

General Awareness

16 Questions • Answer Key

Q56 General Awareness

કપિલ પરમારે પેરાલિમ્પિક ગેમ્સ 2024 માં કઈ રમતમાં ભારતનો અત્યાર સુધીનો પ્રથમ મેડલ મેળવીને ઇતિહાસ રચ્યો?

- A. ટેબલ ટેનિસ
B. શૂટિંગ
C. ફ્રેન્સીંગ
D. જુડો ✓

Q57 General Awareness

જ્યારે વરસાદી પાણીનું pH 5.6 ની નીચે આવે છે, ત્યારે તેને સામાન્ય રીતે _____ તરીકે સંદર્ભવામાં આવે છે.

- A. સખત પાણી (hard water)
B. મિનરલ/ ખનીજ વર્ષા (mineral rain)
C. એસીડ વર્ષા (acid rain) ✓
D. અલ્કાઈન વર્ષા (alkaline rain)

Q58 General Awareness

કેન્દ્રિય બેંક દ્વારા વ્યાપારી બેંકોના અનામત જરૂરિયાત ગુણોત્તરમાં વધારો કરવાનું પ્રાથમિક કારણ શું છે?

- A. અર્થતંત્રમાં નાણાં પુરવઠામાં ઘટાડો કરવો ✓
B. અર્થતંત્રમાં નાણાં પુરવઠો વધારવા માટે
C. વ્યાપારી બેંકોની નફાકારકતામાં ઘટાડો કરવો
D. બેંકોને વધુ ધિરાણ આપવા માટે પ્રોત્સાહિત કરવા

Q59 General Awareness

નીચેના બાયોસ્ફિયર રિઝર્વ (જૈવમંડળ આરક્ષિત ક્ષેત્રો)ને તેમના સંબંધિત રાજ્યો સાથે જોડી યોગ્ય રીતે મેળવો .

બાયોસ્ફિયર રિઝર્વ રાજ્યો
1. નોકરેક a. મેઘાલય
2. પન્ના b. મધ્ય પ્રદેશ
3. માનસ c. આસામ

- A. 1-c, 2-b, 3-a
B. 1-b, 2-a, 3-c
C. 1-a, 2-c, 3-b
D. 1-a, 2-b, 3-c ✓



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Q60 General Awareness

ભારતના રાષ્ટ્રપતિ દ્વારા રાજ્યસભાના કેટલા સભ્યો નામાંકિત કરવામાં આવે છે?

A. 15

B. 8

C. 12



D. 10

Q61 General Awareness **ENGLISH**

Which of the following rights is NOT part of the Right to Life under Article 21 of the Indian Constitution?

A. Right to Property



B. Right to Free Legal Aid

C. Right to Privacy

D. Right to Livelihood

Q62 General Awareness

શાસ્ત્રીય ભારતીય નવલકથા 'ચંદ્રકાંતા' મૂળ કઈ ભાષામાં લખવામાં આવી હતી?

A. બંગાળી

B. હિન્દી



C. તમિલ

D. ઉર્દુ

Q63 General Awareness

ક્વોડ લીડર્સ સમિટ (Quad Leaders' Summit)ના સંદર્ભમાં, નીચેનામાંથી કયું વિધાન સાચું છે?

- 1) 2024 માં વિલ્મિંગ્ટન (US) માં ક્વોડ લીડર્સ સમિટ યોજાઈ હતી.
- 2) વર્ષ 2024 માં જૂથ (grouping)ની રચનાને 22 વર્ષ પૂરા થાય છે.
- 3) ભારત 2025 માં ક્વોડ લીડર્સ સમિટનું આયોજન કરશે.

A. માત્ર 1

B. માત્ર 2 અને 3

C. માત્ર 1 અને 2

D. માત્ર 1 અને 3



Q64 General Awareness

વાર્ષિક નાણાકીય નિવેદન 2024-25 વિશે નીચેનામાંથી કયું નિવેદન ખોટું છે?

- 1) બજેટ 2024-25 ચાર જાતિઓ પર ધ્યાન કેન્દ્રિત કરશે.
- 2) દેશભરમાં 1 કરોડ ખેડૂતોને આગામી 2 વર્ષમાં પ્રમાણપત્ર અને બ્રાન્ડિંગ દ્વારા સમર્થિત કુદરતી ખેતીમાં શામેલ કરવામાં આવશે.
- 3) 20,000 જરૂરિયાત-આધારિત બાયો-ઉત્પાદક સામગ્રી સંસાધન કેન્દ્રોની સ્થાપના કરવામાં આવશે.
- 4) 1,000 ઔદ્યોગિક તાલીમ સંસ્થાઓને પરિણામલક્ષી અભિગમ સહિતની 'હબ એન્ડ સ્પોક' ગોઠવણોમાં વધુ અધ્યતન કરવામાં આવશે.

A. માત્ર 1

B. માત્ર 2

C. માત્ર 3



D. માત્ર 4

Q65 General Awareness

નૃત્ય મહોત્સવ સિવાય 'મમલ્લાપુરમ' ના મુખ્ય આકર્ષણોમાંથી એક શું છે?

A. આધુનિક આર્ટ ગેલેરીઓ

B. મંદિરોની સ્થાપત્ય સુંદરતા



C. વન્યજીવ અભયારણ્યો

D. સ્થાનિક હસ્તકલા

Q66 General Awareness

દિલ્હી સલ્તનતમાં, 'ઈક્તા' ધારક, જેણે તેના 'ઈક્તા'ના વહીવટી વડા તરીકે પણ કામ કર્યું હતું, તેને _____ તરીકે નિયુક્ત કરવામાં આવ્યા હતા.

A. વઝીર

B. મુક્તિ



C. એરિઝ

D. કાઝી

Q67 General Awareness

ઓગસ્ટ 2008માં ભારત સરકાર દ્વારા શિપિંગ કોર્પોરેશન ઓફ ઈન્ડિયા (SCI)ને કયો દરજ્જો આપવામાં આવ્યો હતો?

A. મહારત્ન

B. દશરત્ન

C. નવરત્ન



D. મિનીરત્ન



Q68 General Awareness

ભારતીય બંધારણની નીચેની કયું અનુચ્છેદ જણાવે છે કે રાષ્ટ્રીય રાજધાની ક્ષેત્ર માટે વિધાનસભા હશે અને આવી વિધાનસભામાં બેઠકો રાષ્ટ્રીય રાજધાની ક્ષેત્રના પ્રાદેશિક મતવિસ્તારમાંથી સીધી ચૂંટણી દ્વારા પસંદ કરાયેલા સભ્યો દ્વારા ભરવામાં આવશે?

A. અનુચ્છેદ 239 AA



B. અનુચ્છેદ 239 B

C. અનુચ્છેદ 239A

D. અનુચ્છેદ 239 AB

Q69 General Awareness **ENGLISH**

Which of the following Ministries launched the electric mobility promotion scheme in March 2024 to provide short term support to Electric Vehicles?

A. Ministry of Corporate Affairs

B. Ministry of Road Transport and Highways

C. Ministry of Heavy Industries



D. Ministry of Environment, Forest and Climate Change

Q70 General Awareness

હિન્દુસ્તાન સોશયલિસ્ટ રિપબ્લિકન એસોસિએશન (HSRA) ની સ્થાપના 1928માં નીચેનામાંથી કયા શહેરમાં થઈ હતી?

A. દિલ્હી



B. પૂના

C. કલકત્તા

D. લાહોર

Q71 General Awareness

કયા IITના વિદ્યાર્થીઓ અને પ્રોફેસરોએ જૂન 2024માં નવીન અગ્નિ બયાવ ડ્રોન વિકસાવ્યું છે?

A. IIT મંડી

B. IIT ધારવાડ



C. IIT મદ્રાસ

D. IIT દિલ્હી

General Science

29 Questions • Answer Key

Q72 General Science

જો વોલ્ટેજને અચળ રાખીને પરિપથમાં અવરોધને વધારવામાં આવે, તો વિદ્યુતપ્રવાહ _____.

A. વધશે

B. ઘટશે



C. બમણો થશે

D. અચળ રહેશે

Q73 General Science

પુરુષોમાં ગર્ભનિરોધક માટેની શસ્ત્રક્રિયા પ્રક્રિયાઓમાં, જો નીચેનામાંથી કયું અવરોધિત કરવામાં આવે, તો એ શુક્રાણુ સ્થાનાંતરણ અટકાવે છે?

A. અંડાશય

B. વીર્યનલિકા



C. વૃષણ

D. ગર્ભાશયની નળી

Q74 General Science

જ્યારે ધાતુ અને સલ્ફ્યુરિક એસિડ એકબીજા સાથે પ્રક્રિયા કરે છે, ત્યારે ધાતુ હાઈડ્રોજનને વિસ્થાપિત કરે છે, જે સક્રિયતા શ્રેણીમાં ઉચ્ચતર હોય છે. તે ધાતુને ઓળખો જેના માટે હાઈડ્રોજન વાયુનું પરપોટા (bubbling) સૌથી ઝડપી હશે.

A. લોહ (Iron)

B. ઝિંક (Zinc)

C. એલ્યુમિનિયમ

D. મેગ્નેશિયમ

**Q75 General Science**

રાઈઝોપસ જેવી ફૂગમાં એક વિશેષ પ્રજનન સંરચના, જે કે અંકુરિત થઈને એક નવો જીવ બનાવે છે, તેને _____ કહેવામાં આવે છે.

A. બીજાણુઓ (Spores)



B. પરાગાશય (Anthers)

C. પરાગ (Pollens)

D. આંતરકલિકા (Gemmules)



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Q76 General Science

એક ગજિયા ચુંબક (bar magnet)ની ચુંબકીય ક્ષેત્ર રેખાઓને _____ નો ઉપયોગ કરીને દોરી શકાતી નથી.

- A. એક ચુંબકીય હોકાયંત્ર
- B. લોખંડના ભૂકા
- C. લાકડાના કણો ✓
- D. અન્ય ગજિયા ચુંબક

Q77 General Science ENGLISH

What are the number of chromosomes in a human male germ cell?

- A. 23 Chromosomes ✓
- B. 46 Chromosomes
- C. 46 pairs of Chromosomes
- D. 23 pairs of Chromosomes

Q78 General Science

યાંત્રિક ગર્ભનિરોધક પદ્ધતિનો ઉપયોગ કરીને નીચેનામાંથી કયા રોગને અટકાવી શકાય છે?

- A. ક્ષય (ટી.બી.)
- B. મેલેરિયા
- C. એડ્સ ✓
- D. ટાઈફોઈડ

Q79 General Science

મેન્ડેલે વટાણાના છોડમાં ફૂલનો રંગ અને બીજનો આકાર જેવા લક્ષણોનો અભ્યાસ કર્યો. આ લક્ષણોને કહેવામાં આવે છે:

- A. મુખ્ય લાક્ષણિકતાઓ (dominant characteristics)
- B. સંતાન એકમો (progeny units)
- C. આનુવંશિક કોડ (genetic codes)
- D. દૃશ્યમાન લક્ષણો (visible characters) ✓

Q80 General Science ENGLISH

What is the molecular formula of washing soda?

- A. NaCl
- B. NaHCO₃
- C. Na₂CO₃
- D. Na₂CO₃·10H₂O ✓

Q81 General Science

જો કોઈ વસ્તુને વક્રતાના કેન્દ્ર (C)ની પાર અંતર્ગોળ અરીસાની સામે મૂકવામાં આવે, તો રચાયેલી છબી (ઇમેજ)_____ હશે.

- A. વાસ્તવિક, ઊંઘી અને વિસ્તૃત
- B. વાસ્તવિક, ઊંઘી અને નાની ✓
- C. આભાસી, સીધી અને નાની
- D. આભાસી, સીધી અને વિસ્તૃત

Q82 General Science ENGLISH

A double displacement reaction typically involves the exchange of:

- A. ions ✓
- B. protons
- C. electrons
- D. neutrons

Q83 General Science

220-V તાર કે લાઈન પર 5 Aને વહન કરવા માટે જરૂરી 176-Ω અવરોધકોની સંખ્યા (સમાંતર ક્રમમાં) એ _____ છે.

- A. 8
- B. 16
- C. 2
- D. 4 ✓

Q84 General Science ENGLISH

What is the result when sodium chloride and silver nitrate are mixed in a double displacement reaction?

- A. Formation of a precipitate ✓
- B. Formation of a salt
- C. Formation of a gas
- D. Formation of water

Q85 General Science

સંતુલિત રાસાયણિક સમીકરણ માટે નીચેનામાંથી કયું સાચું છે?

- A. નીપજોમાં પ્રક્રિયકો કરતાં વધુ પરમાણુઓ હોય છે.
- B. પ્રક્રિયકોનું દળ હંમેશા નીપજોના દળ કરતા વધારે હોય છે.
- C. દરેક તત્વ માટે પરમાણુઓની કુલ સંખ્યા સમીકરણની બંને બાજુઓ પર સરખી હોય છે. ✓
- D. દરેક બાજુએ અણુઓની સંખ્યા હંમેશા સમાન હોય છે.



Q86 General Science

ગર્ભનિરોધકની અવરોધ પદ્ધતિ (barrier method) હોવા ઉપરાંત, કોન્ડોમ નીચેનામાંથી કયા હેતુને પૂર્ણ કરે છે?

- A. ત્વચાથી ત્વચાના સંપર્ક દ્વારા ફેલાતા રોગોને અટકાવે છે.
- B. જાતીય ઈચ્છા (sexual desire)ને ઘટાડે છે.
- C. ગોનોરિયા જેવા STD (જાતીય રોગો)ના પ્રસારણમાં મદદ કરે છે.
- D. ગોનોરિયા જેવા STD (જાતીય રોગો)ના સંક્રમણને અટકાવે છે. ✓

Q87 General Science ENGLISH

Which electrical appliance helps preserve food by maintaining low temperatures?

- A. Electric kettle
- B. Toaster
- C. Microwave
- D. Refrigerator ✓

Q88 General Science

જો પાણીનો વક્રીભવનાંક 1.33 હોય, તો પાણીમાં પ્રકાશની ગતિ આશરે_____ હોય છે.

- A. 5×10^8 m/s
- B. 26×10^8 m/s ✓
- C. 4×10^8 m/s
- D. 3×10^8 m/s

Q89 General Science ENGLISH

What is the pH of a solution containing significant concentrations of H^+ ions?

- A. Greater than 7
- B. Less than 7 ✓
- C. Cannot be determined
- D. 7

Q90 General Science

નીચેનામાંથી કયું વિધાન વક્રીભવનાંક સંબંધિત સાચું છે?

- A. કાચનો વક્રીભવનાંક 1 કરતા વધારે હોય છે.
- B. આપેલ માધ્યમનો વક્રીભવનાંક પ્રકાશની તરંગલંબાઈથી સ્વતંત્ર હોય છે.
- C. વક્રીભવનાંક ફક્ત શૂન્યાવકાશમાં પ્રકાશની ગતિ પર આધાર રાખે છે.
- D. પાણીનો વક્રીભવનાંક હંમેશા 1 કરતા વધારે હોય છે. ✓

Q91 General Science ENGLISH

Which of the following statements is correct regarding magnets?

- A. A magnet can have either north or south pole.
- B. A magnet can attract an electron.
- C. A magnet is a dipole with north and south poles. ✓
- D. A magnet produces magnetic as well as electric fields.

Q92 General Science

તમામ બહુકોષીય સજીવોનું શા માટે વિખંડન (fragmentation) દ્વારા પ્રજનન થતું નથી એનું નીચેનામાંથી કયું એ પ્રાથમિક કારણ છે?

- A. તેમાં પેશીઓ અને અંગોમાં સંગઠિત થયેલા વિશિષ્ટ કોષો (specialised cells) હોય છે. ✓
- B. તેઓ એકકોષીય હોય છે.
- C. તેમના કોષો શીથીલ રીતે (loosely) ગોઠવાયેલા હોય છે.
- D. તેમાં કોષોની ગોઠવણી યાદચ્છિક હોય છે.

Q93 General Science

નીચેનામાંથી કયું વિધાન દ્વિવિસ્થાપન પ્રક્રિયામાં શું થાય છે તેનું શ્રેષ્ઠ વર્ણન કરે છે?

- A. બે સંયોજનોમાંના આયનો સ્થાનો બદલીને બે નવા સંયોજનો બનાવે છે. ✓
- B. બે તત્ત્વો જોડાઈને એક નવું સંયોજન રચે છે.
- C. સંયોજન સાદા પદાર્થોમાં વિઘટિત થાય છે.
- D. પરમાણુઓ વચ્ચે ઈલેક્ટ્રોન્સ સ્થાનાંતરિત થાય છે.

Q94 General Science

નીચેનામાંથી કઈ સમાનધર્મી શ્રેણી (homologous series) નથી?

- A. CH_4 , C_2H_6 , C_3H_8 , C_4H_{10}
- B. C_2H_4 , C_2H_6 , C_3H_6 , C_4H_8 ✓
- C. C_3H_7OH , C_4H_9OH , C_5H_{11OH} , C_6H_{11OH}
- D. C_2H_2 , C_2H_4 , C_3H_6 , C_4H_8

Q95 General Science

ફલન (fertilisation) પછી નીચેનામાંથી કયું એ ફળ સ્વરૂપે વિકસે છે?

- A. પરાગવાહિની (style)
- B. પરાગાશય (anther)
- C. પરાગાસન (stigma)
- D. બીજાશય (ovary) ✓



Q96 General Science

અલિંગી પ્રજનન (asexual reproduction) વિશે નીચેનામાંથી કયું સાચું છે?

- A. તેના માટે ફલન (fertilisation)ની જરૂર હોય છે.
- B. તેના માટે જટિલ (complex) પ્રજનન અંગોની જરૂર હોય છે.
- C. તેમાં બે પ્રજનક જીવો (parent organisms)નો સમાવેશ થાય છે.
- D. તેના પરિણામે સંતાન જનીન સંદર્ભે જનકના સમસ્વરૂપી (identical) હોય છે. ✓

Q97 General Science **ENGLISH**

A wire of given material having length L and area of cross-section A has a resistance of $4\ \Omega$. The resistance of another wire of the same material having length $L/2$ will be:

- A. $1\ \Omega$
- B. $8\ \Omega$
- C. $4\ \Omega$
- D. $2\ \Omega$ ✓

Q98 General Science

બેકિંગ પાવડર અને બેકિંગ સોડા વચ્ચે શું તફાવત હોય છે?

- A. બેકિંગ પાવડર એ બેકિંગ સોડા અને ટાર્ટરિક એસિડનું મિશ્રણ છે. ✓
- B. બેકિંગ સોડા બેકિંગ પાવડર અને ટાર્ટરિક એસિડનું મિશ્રણ છે.
- C. બેકિંગ પાવડર બેકિંગ સોડા અને હાઈડ્રોક્લોરિક એસિડનું મિશ્રણ છે.
- D. બેકિંગ સોડા એ બેકિંગ પાવડર અને હાઈડ્રોક્લોરિક એસિડનું મિશ્રણ છે.

Q99 General Science

એઇડ્સ (AIDS) વિશે નીચેનામાંથી કયું વિધાન ખોટું છે?

- A. સુરક્ષિત રીતે જાતીય સંબંધો બાંધવા દ્વારા એડ્સને થતો અટકાવી શકાય છે.
- B. AIDS HIV વાયરસને કારણે થાય છે.
- C. એઇડ્સ મચ્છરના કરડવાથી ફેલાય છે. ✓
- D. એઇડ્સ શરીરની રોગપ્રતિકારક શક્તિને અસર કરે છે.

Q100 General Science

અંતર્ગોળ અરીસા માટે, વક્રતાનું કેન્દ્ર અરીસાની તુલનામાં ક્યાં સ્થિત હોય છે?

- A. અરીસાની સપાટી પર
- B. અરીસા પાછળ
- C. અરીસા સામે ✓
- D. અરીસાના કેન્દ્રબિંદુ પર



Mathematics

30 Questions • Answer Key

Q1 Mathematics ENGLISH

A car rental company rents small cars at \$50 per day and large cars at \$80 per day. If a total of 13 cars were rented for \$920 in one day, how many large cars were rented?

A. 9



B. 4

C. 11

D. 6

Q2 Mathematics ENGLISH

A and B can do a piece of work in 4 days and 46 days, respectively. The number of days [Correct to one decimal place] required to complete the work if both A and B work together is:

A. 5.5

B. 6.9

C. 6.8

D. 3.6



Q3 Mathematics ENGLISH

The population of a town in 1974 was 222900. If its population increased in two successive decades by 50% in each decade, the population of the town in 1994 was:

A. 501525



B. 501526

C. 501521

D. 501520

Q4 Mathematics ENGLISH

If the distance between A and B is 1089 Km. From A, Vishal goes to B with speed 104 km/h and return to A with the speed 125 km/h. Find the average speed of Vishal.(rounded off to two decimal place)

A. 117.44 km/h

B. 111.79 km/h

C. 120.89 km/h

D. 113.54 km/h



Q5 Mathematics ENGLISH

Evaluate: $32 \div 12 \times 3 - 2 \times 4$

A. 2

B. 3

C. -1

D. 0



Q6 Mathematics ENGLISH

The average age of 40 boys in a class is 18 years. One boy, aged 26 years left the class, and two new boys joined the class. If the average age of all boys now in the class remains 18 years, then find the average age of the two newcomers.

A. 24 years

B. 20 years

C. 22 years



D. 21 years

Q7 Mathematics ENGLISH

A number when increased by 50 %, gives 3120. The number is:

A. 1040

B. 6240

C. 2080



D. 4160

Q8 Mathematics ENGLISH

Find the cost (in ₹) of digging a cuboidal pit 9 m long, 5 m broad and 4 m deep at the rate of ₹20 per m^3 .

A. 3,900

B. 3,800

C. 3,700

D. 3,600



Q9 Mathematics ENGLISH

What is the median of the following data?

17, 54, 51, 64, 13, 39, 23, 40, 78, 66, 96

A. 52

B. 51



C. 51.5

D. 50.5

Q10 Mathematics ENGLISH

The LCM of two numbers is seven times of their HCF. If the product of two numbers is 448, then find the difference between LCM and HCF.

A. 48



B. 30

C. 54

D. 42

Q11 Mathematics ENGLISH

A man sold an article for ₹687 by first giving a d% discount on its marked price, and then another discount having the same nominal value (in ₹). If the marked price of the article is ₹1145, then what is the value of d?

A. 19

B. 23

C. 20



D. 16

Q12 Mathematics ENGLISH

What is the average of all the natural numbers from 1 to 97?

A. 50

B. 49



C. 49.5

D. 48.5

Q13 Mathematics ENGLISH

Suman invested a sum of ₹3500 at 20% per annum compound interest, compounded annually. If she received an amount of ₹6048 after n years, the value of n is:

A. 4

B. 2

C. 3



D. 2.6

Q14 Mathematics ENGLISH

A trader lost 10% by selling a shirt for ₹840. He will gain x%' by selling it for ₹1540, the value of x is:

A. 75

B. 65



C. 55

D. 80

Q15 Mathematics ENGLISH

Anamika travels a distance of 183 km with speed of 61 km/h and 225 km with 45 km/h by her car. Find the average speed (in km/h) of Anamika.

A. 56

B. 54

C. 59

D. 51

**Q16 Mathematics** ENGLISH

Among five people named A, B, C, D and E, each has a certain age. C is twice the age of A. A is three times the age of D. D is one fifth the age of B. The age of B is 45. If E is equal the age of C, what is the age of E?

A. 58

B. 54



C. 56

D. 52



Q17 Mathematics ENGLISH

Pooja and Ritu invest in a business in the ratio 4 : 1. If total profit is Rs. 1480, then what is difference between the profit (in Rs.) of Pooja and Ritu?

A. 988

B. 938

C. 888 ✓

D. 788

Q18 Mathematics ENGLISH

₹3300 were divided among P, Q and R, such that 4 times of P = 7 times of Q = 2 times of R. Find the share of R.

A. ₹2046

B. ₹1848 ✓

C. ₹2028

D. ₹2024

Q19 Mathematics ENGLISH

The average price of three items of furniture is Rs 15765. If their prices are in the ratio 3:5:7, the price of the costliest item (in Rs) is

A. 5255

B. 3153

C. 22071 ✓

D. 7357

Q22 Mathematics ENGLISH

A trader claims to sell rice at a profit of 74%, but also dishonestly uses a weight which is 9% less than what is mentioned on it. Find the total percentage of profit earned by the trader. (Round the answer to the nearest whole number.)

A. 91% ✓

B. 89%

C. 87%

D. 94%

Q20 Mathematics ENGLISH

Find the simple interest (in closest integral ₹) on ₹4000 at 5.25% per annum rate of interest for the period from 3 February 2024 to 4 April 2024

A. 34

B. 35 ✓

C. 33

D. 36

Q21 Mathematics ENGLISH

Two taps can fill a cistern in 2 hours and 46 hours respectively. A third tap can empty it in 46 hours. How long (in hours) will it take to fill the empty cistern, if all of them are opened together?

A. 2 ✓

B. 3

C. 4

D. 5



Q23 Mathematics **ENGLISH**

If x is inversely proportional to y , and $y = 5$ when $x = 2$, find the value of x , when $y = 41$.

A. $\frac{11}{42}$

B. $\frac{10}{41}$ ✓

C. $\frac{10}{42}$

D. $\frac{12}{44}$

Q24 Mathematics **ENGLISH**

What is the mean of the following distribution?

Marks	13	23	51	61	96
No. of Students	51	34	62	87	17

A. 46 ✓

B. 37

C. 34

D. 72

Q25 Mathematics **ENGLISH**

Find the value of $1.356 + 4.25 \times 8 - 3.562 \times 6 + 7.5 \times 4$.

A. 43.012

B. 42.237

C. 41.625

D. 43.984 ✓

Q26 Mathematics **ENGLISH**

What is the difference between the hypotenuse and the base of an isosceles right triangle that has an area of 392 m^2 (use $\sqrt{2} = 1.4$)?

A. 12.4 m

B. 11.2 m ✓

C. 11.9 m

D. 10.9 m



Q27 Mathematics **ENGLISH**

The solution of the system of the given linear equations is:

$$2x + 3y - z = 5, x - 2y + 4z = -2, 3x + y + 2z = 7$$

A. $x = \frac{-44}{7}, y = \frac{27}{7}, z = -4$

B. $x = \frac{44}{7}, y = \frac{-27}{7}, z = -4$ ✓

C. $x = \frac{44}{7}, y = \frac{-27}{7}, z = -8$

D. $x = \frac{-44}{7}, y = \frac{-27}{7}, z = 4$

Q28 Mathematics **ENGLISH**

The angle of elevation of a tower from a point which is at a distance of 44 m from it's foot is 60° . Find the height of the tower. (use $\sqrt{3} = 1.73$)

A. 48 m

B. 56.37 m

C. 68 m

D. 76.12 m ✓

Q29 Mathematics **ENGLISH**

If two parallel lines are cut by a transversal, and one pair of the corresponding angles formed are $(x + 30)^\circ$ and $(2x - 10)^\circ$, then find the value of x.

A. 35

B. 45

C. 40 ✓

D. 30

Q30 Mathematics **ENGLISH**

AB and CD are parallel straight lines and HI is the transversal intersecting AB at E and CD at F. G is a point between the lines AB and CD but not on HI, such that $m\angle EGF = 65^\circ$. If $\frac{2}{5} \times m\angle BEG = \frac{3}{5} \times m\angle DFG$, and $m\angle DFG = \frac{1}{3} \times m\angle DFE$, what is the measure of $\angle FEG$?

A. 63° ✓

B. 52°

C. 62°

D. 69°



Q31 General Intelligence and Reasoning **ENGLISH**

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 and select the most appropriate answer.

Question:

Five boxes, V, W, X, Y and Z, have different weights. Which box among them is the second heaviest?

Statements:

(I) Y is heavier than W. Only three boxes are lighter than Z.

(II) X is heavier than W. X is heavier than V.

Data in statement I alone is sufficient to

A. answer the question while data in statement II is not. ✓

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

C. Data in statements I and II together are sufficient to answer the question.

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

Q32 General Intelligence and Reasoning **ENGLISH**

In a certain code language,

'actor singer dancer' is coded as 'ma ph st',

'dancer doctor engineer' is coded as 'cd le ma' and

'engineer actor cricketer' is coded as 'st bq cd'.

(All the codes are two-letter codes only.)

What is the code for 'actor' in that language?

A. st ✓

B. ma

C. cd

D. bq

Q33 General Intelligence and Reasoning **ENGLISH**

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 letter-cluster pair DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

A. CM-JL

B. LV-TU ✓

C. OY-VX

D. GQ-NP

Q34 General Intelligence and Reasoning **ENGLISH**

Based on the English 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 one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

A. SWV

B. DGF ✓

C. OSR

D. HLK

Q35 General Intelligence and Reasoning **ENGLISH**

Select the letter-cluster pair that best represents a similar relationship to the one expressed in the pairs of letter-clusters given below.

WJT : ZNO

KAK : NEF

A. NKH : QOC ✓

B. LBL : OEG

C. MTK : PXG

D. TFV : WJR



Q36 General Intelligence and Reasoning **ENGLISH**

Mayank starts from Point A and drives 18 km towards east. He then takes a right turn, drives 19 km, turns right and drives 21 km. He then takes a right turn and drives 25 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° turns only unless specified.)

A. 5 km to the south

B. 6 km to the south

C. 8 km to the south

D. 4 km to the south

Q37 General Intelligence and Reasoning **ENGLISH**

Select the letter-cluster from among the given options that can replace the question mark (?) in the following series.

CYU XTP SOK NJF ?

A. ERT

B. EAI

C. IEA

D. IAI

Q38 General Intelligence and Reasoning **ENGLISH**

In a certain code, 'copy book pencil' is coded as 'fd rl sg', 'pencil crayon eraser' is coded as 'bz xw rl', and 'crayon copy pen' is coded as 'xw sg xo'. What is the code for 'book' in that language?

(Note: All the codes are two letter coded only.)

A. rl

B. xo

C. sg

D. fd

Q39 General Intelligence and Reasoning **ENGLISH**

What will come in the place of the question mark (?) in the following equation if '÷' and '-' are interchanged and '+' and '×' are interchanged?

$$17 + 9 - 3 \times 3 \div 7 = ?$$

A. 49

B. 40

C. 43

D. 47

Q40 General Intelligence and Reasoning **ENGLISH**

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: All hens are juices. Some juices are nests. All pins are nests.

Conclusions:

(I): Some pins are hens.

(II): Some pins are juices

A. Only conclusion (II) follows.

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

C. Only conclusion (I) follows.

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

Q41 General Intelligence and Reasoning **ENGLISH**

What will come in the place of the question mark (?) in the following equation, if '+' and '-' are interchanged and '×' and '÷' are interchanged?

$$11 + 37 - 5 \times 40 \div 24 = ?$$

A. -23

B. -25

C. -21

D. -22



Q42 General Intelligence and Reasoning **ENGLISH**

What should come in place of the question mark (?) in the given series based on the English alphabetical order?

FDW LJC RPI XVO ?

- A. BUD
- B. DUB
- C. BDU
- D. DBU

**Q43** General Intelligence and Reasoning **ENGLISH**

Two sets of numbers are given below. In each set of numbers, certain mathematical operation(s) on the first number result(s) in the second number. Similarly, certain mathematical operation(s) on the second number result(s) in the third number and so on. Which of the given options follows the same set of operations as in the given 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 to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

6-18-72-102; 8-20-80-110

- A. 7-19-76-106
- B. 11-22-88-116
- C. 4-16-64-84
- D. 9-21-84-94

**Q44** General Intelligence and Reasoning **ENGLISH**

YT21 is related to TO19 in a certain way based on the English alphabetical order. In the same way, PL17 is related to KG15. To which of the following is KF13 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. FA11
- B. FO11
- C. AE11
- D. FT17

**Q45** General Intelligence and Reasoning **ENGLISH**

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 ::?

: GJM :: FIL : %

- A. # = XAD, % = ORU
- B. # = XAD, % = ORP
- C. # = XAD, % = MRU
- D. # = YAD, % = ORU

**Q46** General Intelligence and Reasoning **ENGLISH**

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

68 76 86 98 112 ?

- A. 122
- B. 125
- C. 128
- D. 132



Q47 General Intelligence and Reasoning **ENGLISH**

A, B, C, D, E and F 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 is numbered 6.

Only four people live between D and F. C lives on an even numbered floor but not on floor number 2. E lives immediately below A but above D.

How many people live below B?

A. Four



B. Three

C. One

D. Two

Q48 General Intelligence and Reasoning **ENGLISH**

O, P, Q, R, S and T are sitting around a circular table facing the centre. P sits second to the left of T. Q is the immediate neighbour of P and R. S is not the immediate neighbour of R. Who sits to the immediate left of R?

A. S

B. Q

C. O



D. T

Q49 General Intelligence and Reasoning **ENGLISH**

Select the option in which the numbers share the same relationship as that shared by the given pairs of numbers.

(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.)

185, 113

170, 98

A. 165, 103

B. 112, 50

C. 146, 74



D. 136, 62

Q50 General Intelligence and Reasoning **ENGLISH**

Refer to the given number, symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) 6 # 1 * 8 & 7 & 5 4 Ω 3 % 9 6 @ 2 \$ 9 £ 3 (Right)

How many such symbols are there each of which is immediately preceded by an odd number but NOT immediately followed by an even number?

A. One



B. Two

C. Three

D. Four

Q51 General Intelligence and Reasoning **ENGLISH**

In a certain code language,

'A + B' means 'A is the son of B',

'A – B' means 'A is the brother of B',

'A × B' means 'A is the wife of B' and

'A ÷ B' means 'A is the father of B'.

How is S related to H if 'S – D + F ÷ G × H'?

A. Brother

B. Father

C. Wife's Brother



D. Wife's Father

Q52 General Intelligence and Reasoning **ENGLISH**

Seven boxes, I, J, K, L, W, X and Y, are kept one over the other but not necessarily in the same order. Only K is kept above L. Only two boxes are kept between W and J. Only L is kept below I. J is not kept immediately below Y. How many boxes are kept between X and L?

A. Two



B. Four

C. Three

D. One



Q53 General Intelligence and Reasoning **ENGLISH**

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

86 78 64 56 42 34 ?

A. 20



B. 22

C. 26

D. 28

Q54 General Intelligence and Reasoning **ENGLISH**

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

(Left) 2 @ 4 + = 3 1 # 3 @ \$ 9 8 * 9 4 2 8 7 6 5 (Right)

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

A. One

B. Four

C. Three



D. Two

Q55 General Intelligence and Reasoning **ENGLISH**

$\frac{(a^9 \times b^3 \times c^6)}{(a^{10} \times b^6 \times c^3)}$ in simplified form is:

A. $(a^{-1}) \times (b^{-3}) \times (c^3)$



B. $(a^1) \times (b^1) \times (c^5)$

C. $(a^{-7}) \times (b^{-9}) \times (c^4)$

D. $(a^1) \times (b^6) \times (c^{-9})$

General Awareness

16 Questions • Answer Key

Q56 General Awareness **ENGLISH**

NATO will establish a new land command in _____ near the Russian border in 2025 to oversee northern European land operations during potential conflicts.

A. Kyrgyzstan

B. Ukraine

C. Turkmenistan

D. Finland



Q57 General Awareness **ENGLISH**

India has reduced the windfall tax on crude oil to ₹ _____ per metric tonne from ₹4,600, effective 17 August 2024.

A. 2,600

B. 1,800

C. 2,100



D. 3,600

Q58 General Awareness **ENGLISH**

The Indian Constitution guarantees Fundamental Rights to its citizens under which of the following Articles?

A. Only Articles 14 to 32

B. Only Articles 15 to 35

C. Only Articles 12 to 35



D. Only Articles 12 to 30

Q59 General Awareness **ENGLISH**

The pH of acid rain is:

A. more than 7

B. more than 5.6 but less than 7

C. less than 5.6



D. equal to 7



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Q60 General Awareness **ENGLISH**

In which year was 'Heirloom Treasures: The Cultural Tapestry of India: A Compilation of Selected Articles from India Beckons: Volume 1,' by Arunima Hoskote, published?

A. 2021

B. 2018

C. 2020



D. 2019

Q61 General Awareness **ENGLISH**

Which of the following waterways is located on the Tapi river?

A. NW-10

B. NW-100



C. NW-91

D. NW-1

Q62 General Awareness **ENGLISH**

What is the name of the famous temple complex in Tamil Nadu, known for its Dravidian architecture and 1,000-pillar hall?

A. Meenakshi Temple



B. Brihadeeswarar Temple

C. Kanchipuram Temple

D. Jagannath Temple

Q63 General Awareness **ENGLISH**

Which Article of the Indian Constitution permits the Supreme Court to review its judgement or order?

A. Article 135

B. Article 137



C. Article 132

D. Article 138

Q64 General Awareness **ENGLISH**

At which of the following points does each firm employ labour?

Each firm employs labour up to the point where
A. the marginal revenue product of labour minus the wage rate.

Each firm employs labour up to the point
B. where the marginal revenue product of labour equals the wage rate.



Each firm employs labour up to the point where
C. the marginal cost of labour equals the wage rate.

Each firm employs labour up to the point where
D. the marginal revenue product of labour multiplies the wage rate.

Q65 General Awareness **ENGLISH**

What was the venue of the 13th Ministerial Conference of the World Trade Organization in 2024?

A. New Delhi, India

B. Abu Dhabi, United Arab Emirates



C. London, England

D. Paris, France

Q66 General Awareness **ENGLISH**

Which of the following statements are correct with respect to Arunachal Himalaya?

Statement 1: These extend from the east of the Bhutan Himalayas up to the Diphu pass in the east.

Statement 2: The general direction of the mountain range is from southwest to northeast.

Statement 3: Some of the important mountain peaks of the region are K2 and Annapurna.

Statement 4: These ranges are dissected by fast-flowing rivers from the north to the south, forming deep gorges.

A. Statements 1, 2 and 3 are correct.

B. Only statements 2 and 3 are correct.

C. Statements 1, 2 and 4 are correct.



D. Statements 2, 3 and 4 are correct.



Q67 General Awareness **ENGLISH**

Which team clinched the Irani Cup title for the season 2024-25?

A. Mumbai



B. Rest of India

C. Karnataka

D. Railways

Q68 General Awareness **ENGLISH**

The first President of the Indian National Congress was _____.

A. Gopal Krishna Gokhale

B. Ras Behari Bose

C. Dada Bhai Naoroji

D. Womesh Chandra Banerjee



Q69 General Awareness **ENGLISH**

Who among the following was the ruler of Gujarat when Humayun attacked the kingdom in 1532?

A. Bahadur Shah



B. Muzaffar Shah II

C. Sikandar Shah

D. Zafar Khan Muzaffar

Q70 General Awareness **ENGLISH**

In which of the following cases did the Supreme Court of India enunciate the 'Doctrine of Basic Structure'?

A. Golaknath case

B. AK Gopalan case

C. Keshvanand Bharti case



D. Menka Gandhi case

Q71 General Awareness **ENGLISH**

What is the name (acronym) of the software developed by ISRO, through its Vikram Sarabhai Space Centre (VSSC), a Computational Fluid Dynamics (CFD) tool aimed at facilitating aerodynamic design and analysis for aerospace vehicles?

A. PraYoGa

B. PraVaHa



C. PraViNa

D. PraNaMa

General Science

29 Questions • Answer Key

Q72 General Science **ENGLISH**

As the concentration of hydronium ions increases, the pH value _____.

A. increases

B. decreases



C. decreases and then increases

D. remains the same

Q73 General Science **ENGLISH**

Oxidation of metals in the presence of acids or moisture is called:

A. neutralisation

B. corrosion



C. rancidity

D. rusting

Q74 General Science **ENGLISH**

Leishmania reproduces by:

A. binary fission in two equal halves

B. binary fission in only vertical planes

C. binary fission in any plane

D. binary fission in a definite plane



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Q75 General Science **ENGLISH**

If the resistance of a conductor is doubled while the current remains the same, how will the heat produced per unit time change?

- A. It will double.** ✓
- B. It will quadruple.
- C. It will be halved.
- D. It will remain the same.

Q76 General Science **ENGLISH**

Yeast reproduces through which asexual mode of reproduction?

- A. Fusion
- B. Vegetative propagation
- C. Fission
- D. Budding** ✓

Q77 General Science **ENGLISH**

What is the role of chlorine gas in the preparation of bleaching powder?

- A. It is used as a catalyst for the reaction.
- B. It is used to neutralise calcium hydroxide.
- C. It reacts with water to produce hydrogen peroxide.
- D. It reacts with dry slaked lime to form bleaching powder.** ✓

Q78 General Science **ENGLISH**

Contraception is one of the main goals of which health care programme?

- A. Indradhanush Immunisation Programme
- B. Reproductive Health Programme** ✓
- C. Pulse Polio Programme
- D. Mental Health Programme

Q79 General Science **ENGLISH**

When Plaster of Paris is mixed with water, it undergoes which of the following changes?

- A. It dissolves completely.
- B. It loses all its water molecules.
- C. It produces a gas.
- D. It changes to gypsum.** ✓

Q80 General Science **ENGLISH**

What is the unit of electric power commonly used to measure household energy consumption?

- A. Watts
- B. Kilowatt-hours** ✓
- C. Joules
- D. Amperes

Q81 General Science **ENGLISH**

Which of the following steps is the first step in balancing a chemical equation?

- A. Writing the skeleton equation** ✓
- B. Balancing hydrogen atoms
- C. Adding coefficients randomly
- D. Balancing oxygen atoms

Q82 General Science **ENGLISH**

Which of the following factors is primarily responsible for survival of species?

- A. Niche
- B. Temperature
- C. Mutation
- D. Variations** ✓



Q83 General Science **ENGLISH**

Which of the following is correct with regard to resistances in a series circuit?

- A. Total resistance is equal to the product of all resistances.
- B. Total resistance is less than any individual resistance.
- C. Total resistance is equal to the sum of all individual resistances. ✓
- D. Total resistance is inversely proportional to each resistance.

Q84 General Science **ENGLISH**

Which of the following is an example of a decomposition reaction that occurs due to the application of electric current?

- A. Heating calcium carbonate
- B. Electrolysis of water ✓
- C. Decomposition of potassium permanganate by heat
- D. Decomposition of sodium bicarbonate by heat

Q85 General Science **ENGLISH**

Which of the following is NOT a method of pollination?

- A. Water pollination
- B. Self-pollination
- C. Wind pollination
- D. Asexual pollination ✓

Q86 General Science **ENGLISH**

Which part of the Bryophyllum plant develops new plants via vegetative propagation?

- A. Roots
- B. Flowers
- C. Leaves ✓
- D. Stems

Q87 General Science **ENGLISH**

How can you experimentally determine the focal length of a concave mirror?

- A. Measure the diameter of the mirror.
- B. Measure the distance between the pole and the centre of curvature.
- C. Measure the angle of reflection.
- D. Measure the distance between the mirror and the image of a distant object formed by it. ✓

Q88 General Science **ENGLISH**

A tube like structure grows down from the pollen grain to the style and reaches the ovule. This pollen tube is responsible for:

- A. carrying the male germ cell to the female germ cell in the ovary ✓
- B. carrying oxygen to the female germ cell in the ovary
- C. carrying nutrition to the female germ cell in the ovary
- D. carrying carbon dioxide to the female germ cell in the ovary

Q89 General Science **ENGLISH**

A homologous series is a group of organic compounds that have:

- A. the same molecular formula
- B. the same structural formula
- C. the same functional group but differ by a CH_2 group ✓
- D. no relation to each other

Q90 General Science **ENGLISH**

Which of the following options is INCORRECT with relation to the given statement?

The magnetic field lines of a bar magnet may be drawn using:

- A. another bar magnet
- B. a magnetic compass
- C. wood particles ✓
- D. iron filings



Q91 General Science **ENGLISH**

What happens when zinc (Zn) reacts with hydrochloric acid (HCl)?

- A. Hydrogen is oxidised.
- B. Zinc is reduced.
- C. Zinc is oxidised. ✓
- D. Both Zinc and Hydrogen are oxidised.

Q92 General Science **ENGLISH**

Which of the following materials will have the least resistance at room temperature?

- A. Aluminum
- B. Copper ✓
- C. Nichrome
- D. Iron

Q93 General Science **ENGLISH**

What is the purpose of using devices like Copper-T in family planning?

- A. To alter hormonal levels in women
- B. To block sperm transfer in males
- C. To prevent fertilised eggs from implanting in the uterus ✓
- D. To act as a physical barrier to sperm

Q94 General Science **ENGLISH**

What is the angle formed between two lateral faces of a triangular glass prism called?

- A. Angle of the prism ✓
- B. Angle of incidence
- C. Angle of deviation
- D. Angle of refraction

Q95 General Science **ENGLISH**

Where does the image form when an object is positioned at the centre of curvature of a concave mirror?

- A. At the pole
- B. At the focal point
- C. At infinity
- D. At the centre of curvature ✓

Q96 General Science **ENGLISH**

When an aqueous solution of potassium iodide reacts with lead nitrate, what type of product is formed?

- A. Lead iodide (precipitate) ✓
- B. Lead nitrate
- C. Lead chloride
- D. Sodium nitrate

Q97 General Science **ENGLISH**

In a convex mirror, the principal focus is located ____.

- A. at the centre of curvature
- B. behind the mirror ✓
- C. in front of the mirror
- D. at the pole of the mirror

Q98 General Science **ENGLISH**

The measure of how much a material resists the flow of charges is known as:

- A. resistivity ✓
- B. power generated
- C. current
- D. potential difference

Q99 General Science **ENGLISH**

Which scientist(s) established the laws of Inheritance?

- A. Thomas Hunt Morgan
- B. Charles Darwin
- C. Gregor Johann Mendel ✓
- D. Watson and Crick



Q100 General Science **ENGLISH**

Rose flower pollen has reached Sunflower stigma through pollination. The pollen will be rejected by the stigma because:

- A. pollen was of rose flower
- B. pollen has nothing to do with stigma
- C. pollen was not of sunflower ☒
- D. stigma has nothing to do with pollen

Blackbook



Mathematics

30 Questions • Answer Key

Q1 Mathematics

(5a + 4b + 9c)² નું વિસ્તૃત રૂપ આપો:

A. $25a^2 + 16b^2 + 81c^2 + 40ab + 67bc + 90ac$

B. $25a^2 + 16b^2 + 81c^2 + 40ab + 72bc + 100ac$

C. $25a^2 + 16b^2 + 81c^2 + 44ab + 72bc + 90ac$

D. $25a^2 + 16b^2 + 81c^2 + 40ab + 72bc + 90ac$

Q2 Mathematics

₹5400 ને P, Q અને R ની વચ્ચે વહેંચવામાં આવ્યા હતા, જેમ કે P ના 6 ગણા = Q ના 3 ગણા = R ના 8 ગણા. R નો હિસ્સો શોધો.

A. ₹1235

B. ₹947

C. ₹1080

D. ₹1245

Q3 Mathematics

જો કોઈ સંખ્યામાં 50% વડે વધારો કરવામાં આવે, તો તે 2850 થાય છે. તે સંખ્યા શોધો:

A. 950

B. 3800

C. 5700

D. 1900

Q4 Mathematics

સાક્ષીએ ₹8900 રૂપિયા 10% વાર્ષિક ચક્રવૃદ્ધિ વ્યાજ દરે રોકાણ કર્યા, જેમાં વ્યાજ વાર્ષિક રીતે ચક્રવૃદ્ધિ પામે છે. જો તેને n વર્ષ પછી ₹10769 ની રકમ મળતી હોય, તો n નું મૂલ્ય _____ છે:

A. 2

B. 1.60000002384186

C. 3

D. 2.4

Q5 Mathematics

નીચેના આંકડાનો મધ્યક શું છે?

78, 33, 59, 56, 61, 36, 48, 42, 97, 57, 62

A. 57

B. 57.5

C. 56.5

D. 58

Q6 Mathematics

એક વર્ગમાં કેટલાક વિદ્યાર્થીઓના સરેરાશ ગુણ 75 છે. જ્યારે પાંચ વિદ્યાર્થીઓનો સમાવેશ કરવામાં આવે છે, ત્યારે સરેરાશ 78 થાય છે અને તે પાંચ વિદ્યાર્થીઓના ગુણ 80, 85, 89, 81 અને 82 છે. વિદ્યાર્થીઓની કુલ સંખ્યા શોધો.

A. 10

B. 9

C. 6

D. 8

Q7 Mathematics

ફર્નિચરની ત્રણ વસ્તુઓની સરેરાશ કિંમત Rs.16455 છે. જો તેમની કિંમતો 3:5:7ના ગુણોત્તરમાં હોય, તો સૌથી સસ્તી વસ્તુની કિંમત (Rs.માં) કેટલી છે?

A. 5485

B. 9873

C. 3291

D. 7679

Q8 Mathematics

ચાર-અંકની સૌથી નાની સંખ્યા કઈ છે જેને 12, 16 અને 20 વડે ભાગવાથી શેષ 9 મળે છે?

A. 1017

B. 1049

C. 1209

D. 1217



Q9 Mathematics

મૂલ્યાંકન કરો: $33 \div 9 \times 3 - 2 \times 4$

A. 2

B. 5

C. 6

D. 3

**Q10 Mathematics**

એક દુકાનદાર એક વસ્તુની ચિહ્નિત કિંમત પર 58% અને 80% ના બે કમિક ડિસ્કાઉન્ટ આપ્યા પછી તેને ₹770.7 માં વેચે છે. જો તેણે કોઈ ડિસ્કાઉન્ટ ન આપ્યું હોત, તો તેણે 25% નફો મેળવ્યો હોત. તે વસ્તુની પડતર કિંમત (₹ માં) કેટલી છે?

A. 7315

B. 7340



C. 7322

D. 7353

Q11 Mathematics

28 cm અને 20 cm ત્રિજ્યાવાળા બે વર્તુળોના કેન્દ્રો 50 cm ના અંતરે છે. તિર્યક સામાન્ય સ્પર્શકની લંબાઈ (cm માં) કેટલી છે?

A. 16

B. 15

C. 13

D. 14

**Q12 Mathematics**

એક વોશિંગ મશીનની કિંમત એક ટીવીની કિંમત કરતાં 25% ઓછી છે. જો વોશિંગ મશીનની કિંમત 82% વડે વધે અને ટીવીની કિંમત 16% વડે ઘટી જાય, તો 8 વોશિંગ મશીન અને 9 ટીવીની કુલ કિંમતમાં શું ફેરફાર હશે?

A. 20% વડે વધારો થશે

B. 24% વડે ઘટાડો થશે

C. 21% વડે ઘટાડો થશે

D. 23.2% વડે વધારો થશે

**Q13 Mathematics**

જો P અને 100નું ગુણોત્તર મધ્યક 50 હોય, તો P ની કિંમત શોધો.

A. 22

B. 28

C. 24

D. 25

**Q14 Mathematics**

$(6a + 2b + 7c)^2$ નું વિસ્તૃત રૂપ આપો.

A. $36a^2 + 4b^2 + 49c^2 + 28ab + 28bc + 84ac$ B. $36a^2 + 4b^2 + 49c^2 + 24ab + 28bc + 94ac$ C. $36a^2 + 4b^2 + 49c^2 + 24ab + 28bc + 84ac$ D. $36a^2 + 4b^2 + 49c^2 + 24ab + 23bc + 84ac$ **Q15 Mathematics**

A અને B એક કાર્ય 18 દિવસમાં પૂર્ણ કરે છે. જો A એકલો તે કામ 54 દિવસમાં કરી શકે છે, તો B એકલો _____ (દિવસો)માં કરી શકે છે.

A. 28

B. 26

C. 27



D. 29

Q16 Mathematics

બે સંખ્યાઓ 62 અને 217 ના ગુ.સા.અ અને લ.સા.અ વચ્ચેનો ગુણોત્તર 1 : 14 છે.તો લ.સા.અ શોધો.

A. 402

B. 439

C. 430

D. 434

**Q17 Mathematics**

એક માણસ ચાલતો એક વ્યુપોઈન્ટ સુધી જાય છે અને કારમાં ઝડપ અચળ રાખતા તે પ્રારંભિક બિંદુ પર પાછો ફરે છે અને આમ કુલ 6 કલાક 45 મિનિટનો સમય લે છે. જો તે બંને તરફ કારમાં આવ-જા કરત તો 2 કલાક બચી જાત. ચાલવાની ઝડપ સમાન રાખીને તેને બંને તરફ ચાલવામાં કેટલો સમય લાગશે?

A. 9 કલાક 15 મિનિટ

B. 8 કલાક 30 મિનિટ

C. 8 કલાક 45 મિનિટ



D. 7 કલાક 45 મિનિટ



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Q18 Mathematics

હિમાની તેની કાર દ્વારા 32 km/h ઝડપે 352 km ની અને 30 km/h ની ઝડપે 330 km ની મુસાફરી કરે છે. હિમાની સરેરાશ ઝડપ (km માં) શોધો.

A. 26

B. 21

C. 31



D. 39

Q19 Mathematics

14 ફેબ્રુઆરી 2024 થી 15 એપ્રિલ 2024 સુધીના સમયગાળા માટે ₹4000 પર 5.25% વાર્ષિક વ્યાજ દરે સાદું વ્યાજ (નજીકના પૂર્ણાંક, ₹ માં) શોધો

A. 35



B. 34

C. 36

D. 33

Q20 Mathematics

$(9a + 6b + 4c)^2$ નું વિસ્તૃત રૂપ આપો.

A. $81a^2 + 36b^2 + 16c^2 + 108ab + 48bc + 72ac$ B. $81a^2 + 36b^2 + 16c^2 + 108ab + 43bc + 72ac$ C. $81a^2 + 36b^2 + 16c^2 + 112ab + 48bc + 72ac$ D. $81a^2 + 36b^2 + 16c^2 + 108ab + 48bc + 82ac$ **Q21 Mathematics**

એક વેપારીએ ₹850માં શર્ટ વેચવાથી 10% ખોટ ગઈ. તે તેને ₹1360માં વેચીને x% 'મેળવશે', તો x નું મૂલ્ય છે:

A. 34

B. 54

C. 59

D. 44

**Q22 Mathematics**

8 સંખ્યાઓનો સરવાળો 336 છે. તેમની સરેરાશ સંખ્યા શોધો.

A. 41

B. 40

C. 43

D. 42

**Q23 Mathematics**

બે સંખ્યાઓ 5 : 8 ના ગુણોત્તરમાં છે. જો પ્રથમ સંખ્યા 13 વડે વધારવામાં આવે અને બીજી સંખ્યા 6 વડે ઘટાડવામાં, તો ગુણોત્તર 4 : 6 બને છે. મૂળ બે સંખ્યાઓનો સરવાળો કેટલો છે?

A. 681

B. 663



C. 665

D. 650

Q24 Mathematics

જો નીચેના આંકડાનો મધ્યક 61 હોય, તો x નું મૂલ્ય _____ છે:

xi	55	60	70	95
fi	48	X	31	23

A. 799

B. 773



C. 790

D. 796



Q25 Mathematics

$$(a^1 \times b^7 \times c^7)$$

$(a^1 \times b^2 \times c^{10})$ નું સાદુંરૂપ છે:

A. $(a^{-8}) \times (b^{-5}) \times (c^{-9})$

B. $(a^2) \times (b^4) \times (c^{-5})$

C. $(a^0) \times (b^5) \times (c^{-3})$ ✓

D. $(a^4) \times (b^2) \times (c^2)$

Q26 Mathematics

એક શંકુની વક્ર સપાટીનું ક્ષેત્રફળ 5544 cm^2 છે અને તેની ત્રિજ્યા 168 cm છે. તો સપાટીનું કુલ પૃષ્ઠફળ (cm^2) કેટલું છે? ($\pi = \frac{22}{7}$ નો ઉપયોગ કરો)

A. 27,720 ✓

B. 23,550

C. 25,530

D. 27,270

Q27 Mathematics

એક વસ્તુને તેની મૂળ કિંમતના $\frac{5}{14}$ ભાવે વેચતાં, હિતેશને 20% ખોટ જાય છે. જો તે તેની મૂળ કિંમતના 80% ભાવે વેચે, તો નફાની ટકાવારી કેટલી છે?

A. 79.2% ✓

B. 80.7%

C. 81.9%

D. 81.2%

Q28 Mathematics

જો $A = 7.5^\circ$ હોય, તો $\left(12.8 \times \frac{1}{\sqrt{3}} \cot 4A + 7.2 \tan 6A\right)$ નું મૂલ્ય શોધો?

A. 12

B. 20 ✓

C. 8

D. 10



Q29 Mathematics

$\triangle PQR$ અને $\triangle XYZ$ માં, $PQ = 5\text{ cm}$, $QR = 6\text{ cm}$, $PR = 7\text{ cm}$, $XY = 5\text{ cm}$, $YZ = 6\text{ cm}$ અને $XZ = 7\text{ cm}$ છે. તો નીચેનામાંથી કયું સાચું છે?

- A. $\triangle PQR \cong \triangle YXZ$
- B. $\triangle PRQ \cong \triangle XYZ$
- C. $\triangle QPR \cong \triangle XYZ$
- D. $\triangle PQR \cong \triangle XYZ$ ✓

Q30 Mathematics

બે પાઈપો અનુક્રમે 34 કલાક અને 94 કલાકમાં એક ટાંકીને ભરી શકે છે. જ્યારે બંને પાઈપો એકસાથે ખોલવામાં આવે ત્યારે ટાંકી ભરવા માટે જરૂરી સમય (કલાકમાં) છે:

A. $\frac{797}{29}$

B. $\frac{799}{32}$ ✓

C. $\frac{796}{30}$

D. $\frac{798}{31}$

General Intelligence and Reasoning

25 Questions • Answer Key

Q31 General Intelligence and Reasoning

જો કોઈ સંખ્યા 8436152 માં દરેક એકી અંકમાં 1 ઉમેરવામાં આવે અને દરેક બેકી અંકમાંથી 1 બાદ કરવામાં આવે, તો પછી આ રીતે બનેલી સંખ્યામાં ડાબી બાજુથી છેલ્લા અને પહેલા અંકો વચ્ચે તફાવત શું હશે?

- A. 5
- B. 4
- C. 6 ✓
- D. 3

Q32 General Intelligence and Reasoning

તે અક્ષર-સમૂહ જોડી પસંદ કરો જે નીચે આપેલા અક્ષર-સમૂહની જોડીમાં વ્યક્ત કરાયેલ સમાન સંબંધને શ્રેષ્ઠ રીતે રજૂ કરે છે.

NCG : SFF

SQO : XTN

- A. QHX : VKV
- B. REV : WHW
- C. IUD : NXA
- D. MKY : RNX ✓

Q33 General Intelligence and Reasoning

નીચે સંખ્યાઓના બે ગણ આપેલા છે. સંખ્યાઓના દરેક ગણમાં, પ્રથમ સંખ્યા પર અમુક ગાણિતિક ક્રિયાઓ કરીને બીજી સંખ્યા મેળવવામાં આવી છે. એજ રીતે બીજી સંખ્યા પર અમુક ગાણિતિક ક્રિયાઓ કરીને ત્રીજી સંખ્યા મેળવવામાં આવી છે અને આ રીતે આગળ પણ મળનારી સંખ્યાઓ પર ક્રિયાઓ કરવામાં આવે છે. આપેલ વિકલ્પોમાંથી કયો વિકલ્પ આ ગણો પર કરેલી સમાન ક્રિયાઓનું અનુસરણ કરે છે?

(નોંધ: સંખ્યાઓને તેમના ઘટક અંકોમાં જૂદી પાડ્યા વિના, આખી સંખ્યાઓ પર ગાણિતિક કામગીરી કરવી જોઈએ. ઉદાહરણ તરીકે 13 લઈએ - 13 માં સરવાળો/ બાદબાકી/ ગુણાકાર જેવી કામગીરીઓ આખી સંખ્યા 13 પર કરી શકાય છે. સંખ્યા 13 ને 1 અને 3 માં જૂદી પાડીને પછી 1 અને 3 પર ગાણિતિક કામગીરી કરવાની મંજૂરી નથી.)

19-57-114-134; 21-63-126-146

- A. 17-51-102-112
- B. 18-54-108-118
- C. 20-60-120-180
- D. 16-48-96-116 ✓



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Q34 General Intelligence and Reasoning

A, B, C, D, E, F અને G એક વર્તુળાકાર મેજની ફરતે તેના કેન્દ્ર તરફ મુખ કરીને બેસેલ છે. B એ Fની જમણી બાજુએ ત્રીજા સ્થાને બેસેલ છે. D એ Bની ડાબી બાજુએ ચોથા સ્થાને બેસેલ છે. C એ B કે D બંનેમાંથી કોઈનો નિકટતમ પડોશી નથી. A એ Cની જમણી બાજુએ ત્રીજા સ્થાને બેસેલ છે. E એ Dનો નિકટતમ પડોશી નથી. Eની ડાબી બાજુથી ગણવામાં આવે ત્યારે E અને Gની વચ્ચે કેટલા લોકો બેસેલ છે?

A. કોઈ નહિ

B. એક

C. બે

D. ત્રણ

Q35 General Intelligence and Reasoning

B એ A ના પિતા છે. C એ A નો ભાઈ છે. D એ C ની પત્ની છે અને E એ D નો પુત્ર છે. B એ E સાથે કઈ રીતે સંબંધિત છે?

A. પિતાના પિતા

B. પિતાનો ભાઈ

C. પિતા

D. ભાઈ

Q36 General Intelligence and Reasoning

P, Q, R, S, T, U અને V માં દરેકની સોમવારથી શરૂ કરતાં રવિવારે સમાપ્ત થાય તેમ એક જ અઠવાડિયાના અલગ-અલગ દિવસે પરીક્ષા છે. Qની પરીક્ષા શનિવારે છે. Uની પછી માત્ર ચાર લોકોની પરીક્ષા છે. Rની પરીક્ષા Tની તરત પહેલાં છે પરંતુ સોમવારે નથી. Sની પરીક્ષા P પછી, પણ Uની પહેલાં છે. R અને Vની વચ્ચે કેટલા લોકોની પરીક્ષા છે?

A. ત્રણ

B. બે

C. ચાર

D. પાંચ

Q37 General Intelligence and Reasoning

જો '+' અને '-' ને એકબીજા સાથે અદલા બદલી કરવામાં આવે અને 'x' અને '÷' ને પણ એકબીજા સાથે અદલા બદલી કરવામાં આવે, તો નીચેના સમીકરણમાં પ્રશ્ન ચિહ્ન (?) ની જગ્યાએ શું આવશે?

$$34 \div 33 \times 22 + 19 - 40 = ?$$

A. 73

B. 70

C. 72

D. 74

Q38 General Intelligence and Reasoning

B, C, E, F અને H દરેક અલગ અલગ ઊંચાઈ ધરાવે છે. B એ C કરતાં ઊંચો છે પણ H કરતાં નીચો છે. H એ E કરતાં ઊંચો છે પણ F કરતાં નીચો છે. E એ C કરતાં ઊંચો છે પણ B કરતાં નીચો છે. કેટલા લોકો B કરતા નીચા છે?

A. બે

B. એક

C. ચાર

D. ત્રણ

Q39 General Intelligence and Reasoning

તપન બિંદુ A થી વાહન ચલાવવાનું શરૂ કરે છે અને દક્ષિણ તરફ 8 km ડ્રાઇવ કરે છે. તે પછી જમણો વળાંક લે છે, 5 km ડ્રાઇવ કરે છે, જમણો વળે છે અને 12 km ડ્રાઇવ કરે છે. તે પછી તે જમણો વળાંક લે છે અને 9 km ડ્રાઇવ કરે છે. છેલ્લે તે જમણો વળાંક લે છે, 4 km ડ્રાઇવ કરે છે અને બિંદુ P પર રોકાય છે. બિંદુ A પર ફરીથી પહોંચવા માટે તેણે કેટલું દૂર (સૌથી ઓછું અંતર) અને કઈ દિશામાં વાહન ચલાવવું જોઈએ? (જ્યાં સુધી ઉલ્લેખિત ન હોય ત્યાં સુધી તમામ વળાંક ફક્ત 90 ડિગ્રી વળાંક છે)

A. 6 km પશ્ચિમ તરફ

B. 7 km પશ્ચિમ તરફ

C. 5 km પશ્ચિમ તરફ

D. 4 km પશ્ચિમ તરફ

Q40 General Intelligence and Reasoning

નીચેનામાંથી કયો અક્ષર-સંખ્યા સમૂહ આપેલ શ્રેણીને તાર્કિક રીતે પૂર્ણ કરવા માટે પ્રશ્ન ચિહ્ન (?) ની જગ્યાએ આવશે?

FIS38, RUE70, DGQ102, PSC134, ?

A. BEO166

B. BOE166

C. BOQ166

D. BOW165

Q41 General Intelligence and Reasoning

નીચેનામાંથી કયું અક્ષર-સંખ્યા સમૂહ આપેલ શ્રેણીને તાર્કિક રીતે પૂર્ણ કરવા માટે પ્રશ્ન ચિહ્ન (?) ની જગ્યાએ આવશે?

JCF25, KDG34, LEH43, MFI52, ?

A. NGI60

B. NGI61

C. NGJ61

D. NGJ60



Q42 General Intelligence and Reasoning

એક ચોક્કસ સાંકેતિક ભાષામાં,
'fan light door' ને 'dy ph mt' તરીકે સંકેતવામાં આવે છે,
'door window mat' ને 'lp ph st' તરીકે સંકેતવામાં આવે છે,
'mat fan glass' ને 'st bq dy' તરીકે સંકેતવામાં આવે છે,
તે ભાષામાં 'fan' માટેનો સંકેત કયો છે? (નોંધ: બધા સંકેત માત્ર બે-અક્ષરોના સંકેત છે.)

A. mt

B. bq

C. ph

D. dy

**Q43 General Intelligence and Reasoning**

અંગ્રેજી મૂળાક્ષર ક્રમના આધારે, નીચેના ચારમાંથી ત્રણ અક્ષર-સમૂહ ચોક્કસ રીતે એકસરખા છે અને આમ એક જૂથ બનાવે છે. કયો અક્ષર-સમૂહ તે જૂથ સાથે સંબંધિત નથી?

(નોંધ: વિસંગત વિકલ્પ એ વ્યંજનો/સ્વરોની સંખ્યા પર અથવા અક્ષર-સમૂહમાં તેમના સ્થાન (સ્થિતિ) પર આધારિત નથી.)

A. GKTY

B. WAIO



C. OSBG

D. MQZE

Q44 General Intelligence and Reasoning

એક ચોક્કસ સાંકેતિક ભાષામાં, 'guns and roses' ને 'li mh ca' તરીકે સંકેતવામાં આવે છે, 'for the roses' ને 'mh bo ph' તરીકે સંકેતવામાં આવે છે અને 'guns for colours' ને 'ca bo qu' તરીકે સંકેતવામાં આવે છે. તો તે જ ભાષામાં 'roses' માટેનો સંકેત કયો છે?

A. li

B. mh



C. ca

D. bo

Q45 General Intelligence and Reasoning

નીચે આપેલ સંખ્યા, પ્રતીક શ્રેણીનો સંદર્ભ લો અને તેની નીચે આપેલા પ્રશ્નનો જવાબ આપો. ગણતરી માત્ર ડાબેથી જમણે કરવાની રહેશે.

(ડાબી બાજુ) 9 8 & & © € % 8 \$ 9 8 2 # 5 2 7 7 1 5 £ € %
(જમણી બાજુ)

એવી કેટલી સંખ્યા છે જે પ્રત્યેકની તરત પહેલા એક પ્રતીક અને તરત પછી પણ એક પ્રતીક આવે છે?

A. 2

B. 3

C. 1



D. 0

Q46 General Intelligence and Reasoning

RUON એ અંગ્રેજી મૂળાક્ષરના ક્રમના આધારે ચોક્કસ રીતે VYSR સાથે સંબંધિત છે. એ જ રીતે, HKED એ LOIH સાથે સંબંધિત છે. આ જ તર્કને અનુસરીને, આપેલા વિકલ્પોમાંથી કયા વિકલ્પ સાથે TWQP સંબંધિત છે?

A. AXUT

B. XAUT



C. AXTU

D. XATU

Q47 General Intelligence and Reasoning

એક પ્રશ્ન આપવામાં આવ્યો છે, જેના પછી I અને II થી ક્રમાંકિત બે વિધાનો આપ્યા છે. પ્રશ્નનો જવાબ આપવા માટે કયું વિધાન પૂરતું છે/ કયા વિધાનો પૂરતા છે તે ઓળખો.

પાંચ લોકો, A, B, C, D અને E, એ દરેકનું વજન અલગ-અલગ છે. સૌથી ભારે કોણ છે?

(I) A એ C કરતાં ભારે છે પરંતુ D કરતાં હલકો છે.

(II) B એ સૌથી ભારે નથી અને E એ સૌથી હલકો નથી.

એકલા વિધાન II માંની માહિતી પ્રશ્નનો જવાબ આપવા માટે પૂરતી છે,

A. જ્યારે કે વિધાન I માંની માહિતી એકલી પ્રશ્નનો જવાબ આપવા માટે પૂરતી નથી.

એકલા વિધાન I માંની માહિતી પ્રશ્નનો જવાબ આપવા માટે પૂરતી છે,

B. જ્યારે કે વિધાન II માંની માહિતી એકલી પ્રશ્નનો જવાબ આપવા માટે પૂરતી નથી.

C. I અને II આ બંને વિધાનો એકસાથે મળીને પ્રશ્નનો જવાબ આપવા માટે પૂરતા નથી.



D. I અને II આ બંને વિધાનો એકસાથે મળીને (અને સ્વતંત્ર રીતે નહીં) પ્રશ્નનો જવાબ આપવા માટે પૂરતા છે.



Blackbook Vocabulary — Now in the App!

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Q48 General Intelligence and Reasoning

આ પ્રશ્ન નીચે આપેલ પાંચ, ત્રણ-અંકની સંખ્યાઓ પર આધારિત છે.

(ડાબે) 473 987 324 529 648 (જમણે)

(ઉદાહરણ: 697 – પ્રથમ અંક = 6, બીજો અંક = 9 અને ત્રીજો અંક = 7)

નોંધ: તમામ કામગીરી ડાબેથી જમણે કરવાની છે.

જો આ બધી સંખ્યાઓને ચડતા ક્રમમાં ગોઠવવામાં આવે તો કેટલી સંખ્યાઓની સ્થિતિ યથાવત રહેશે?

A. બે

B. એક

C. ત્રણ

D. કોઈ પણ નહીં

Q49 General Intelligence and Reasoning

અંગ્રેજી મૂળાક્ષરોના ક્રમના આધારે, નીચેની ચારમાંથી ત્રણ અક્ષર-સમૂહ જોડી અમુક ચોક્કસ રીતે એકસરખી છે અને આમ એક જૂથ બનાવે છે. કઈ અક્ષર-સમૂહ જોડી તે જૂથ સાથે સંબંધિત નથી?

A. TR – XV

B. EC – HF

C. MK – PN

D. IG – LJ

Q50 General Intelligence and Reasoning

આપેલ શ્રેણીમાં પ્રશ્ન ચિહ્ન (?) ની જગ્યાએ શું આવવું જોઈએ?
18 24 34 40 50 ?

A. 56

B. 58

C. 55

D. 57

Q51 General Intelligence and Reasoning

આપેલ વિકલ્પોમાંથી એવો પદ પસંદ કરો જે નીચેની શ્રેણીમાં પ્રશ્ન ચિહ્ન (?) ને બદલી શકે.

64 61.7 59.4 57.1 ? 52.5

A. 54.8

B. 53.1

C. 55.4

D. 56.7

Q52 General Intelligence and Reasoning

સાત બોક્સ, E, F, G, H, T, U અને V, એક બીજા પર રાખવામાં આવે છે, પરંતુ તે જ ક્રમમાં રાખવામાં આવ્યા હોય એ જરૂરી નથી. E ની નીચે ફક્ત બે બોક્સ રાખવામાં આવ્યા છે. માત્ર એક બોક્સ T ઉપર રાખવામાં આવે છે. માત્ર એક બોક્સ T અને U વચ્ચે રાખવામાં આવે છે. G ને F ની તરત નીચે રાખવામાં આવે છે. V ને H નીચેના કોઈ એક સ્થાને રાખવામાં આવે છે. H અને F વચ્ચે કેટલા બોક્સ રાખવામાં આવે છે?

A. ચાર

B. ત્રણ

C. બે

D. એક

Q53 General Intelligence and Reasoning

નીચેનામાંથી કયા અક્ષર-સમૂહોને # અને % ના સ્થાને મૂકવું જોઈએ જેથી :: ની ડાબી બાજુએ આવેલ અક્ષર-સમૂહ જોડી વચ્ચે અનુસરવામાં આવતી પેટર્ન અને સંબંધ એ :: ની જમણી બાજુએ આવેલ અક્ષર-સમૂહ જોડી વચ્ચે અનુસરવામાં આવતી પેટર્ન અને સંબંધના સમાન હોય?

: GOK :: HPL : %

A. # = EMI, % = JRM

B. # = EMI, % = JSN

C. # = EMI, % = JRN

D. # = EMJ, % = JRN

Q54 General Intelligence and Reasoning

એવો વિકલ્પ પસંદ કરો જેમાં સંખ્યાઓ એવી જ રીતે પરસ્પર સંબંધિત છે, જે રીતે અહીં આપેલ જોડી સંબંધિત છે.

(નોંધ: સંખ્યાઓને તેમના ઘટક અંકોમાં જૂદી પાડ્યા વિના, આખી સંખ્યાઓ પર ગાણિતિક કામગીરી કરવી જોઈએ. ઉદાહરણ તરીકે 13 લઈએ - 13 માં સરવાળો/ બાદબાકી/ ગુણાકાર જેવી કામગીરીઓ આખી સંખ્યા 13 પર કરી શકાય છે. સંખ્યા 13 ને 1 અને 3 માં જૂદી પાડીને પછી 1 અને 3 પર ગાણિતિક કામગીરી કરવાની મંજૂરી નથી.)

96, 12

184, 23

A. 130, 16

B. 144, 18

C. 156, 19

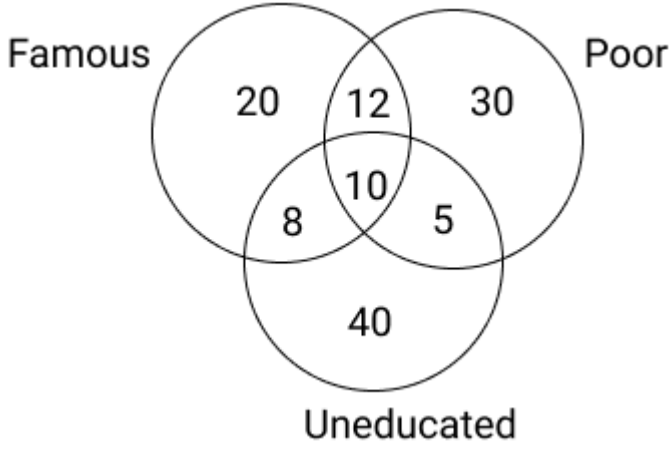
D. 180, 20



Q55 General Intelligence and Reasoning **ENGLISH**

Study the given diagram carefully and answer the questions. The numbers in different sections indicate the number of persons. How many persons are both poor and uneducated but not famous ?

(NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.)



A. 12

B. 30

C. 5

D. 8

General Awareness

26 Questions • Answer Key

Q56 General Awareness

નીચેનામાંથી કયું જૈવિક પ્રક્રિયાઓ દ્વારા વિઘટીત કરી શકાય છે?

A. દૂધના પેકેટ

B. પ્લાસ્ટિક બોટલ

C. એલ્યુમિનિયમ ફોઇલ

D. શાકભાજીની છાલ



Q57 General Awareness

જો નિવસન તંત્રમાંથી વિઘટકો (decomposers) ગેરહાજર હોય તો મૃત છોડ અને પ્રાણીઓનું શું થશે?

A. તેઓ ઉત્પાદકો બનશે.

B. તેઓ ઝડપથી માટીમાં ફેરવાઈ જશે.

C. વિઘટન થયા વિના એવા જ રહેશે, અને જમીનમાં પૌષ્ટિક તત્વની કુદરતી ભરપાઈ રોકાઈ જશે.



D. તેમને ઉપભોક્તાઓ દ્વારા ખાવામાં આવશે.

Q58 General Awareness

કયા વર્ષમાં ઓઝોનનું પ્રમાણ વાતાવરણમાં ઝડપથી ઘટવાનું શરૂ થયું?

A. 1950

B. 1960

C. 1970

D. 1980



Q59 General Awareness

નીચેનામાંથી કયો અનુચ્છેદ રાષ્ટ્રપતિને કેન્દ્રશાસિત પ્રદેશોની શાંતિ, પ્રગતિ અને સારી સરકાર માટે નિયમો બનાવવાની સત્તા આપે છે?

A. અનુચ્છેદ 240



B. અનુચ્છેદ 243

C. અનુચ્છેદ 239

D. અનુચ્છેદ 244



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Q60 General Awareness

નીચેનામાંથી કોણે 1917માં મહિલા ભારતીય સંઘની શરૂઆત કરી હતી?

- A. ઉષા મહેતા
- B. સરોજીની નાયડુ
- C. એની બિસેન્ટ ✓
- D. મેડમ ભીખાજી કામા

Q61 General Awareness

નીચેનામાંથી કયા પદાર્થને પર્યાવરણમાં કુદરતી રીતે વિઘટન (degrade) થવામાં સૌથી વધુ સમય લાગશે?

- A. પૂંઠાના ખોખા
- B. ચામડું ✓
- C. પાંદડા
- D. કાગળ

Q62 General Awareness

ગંદાપાણીનું યોગ્ય વ્યવસ્થાપન કે સારવાર (sewage treatment) લાગુ કરવાથી નીચેનામાંથી શાને ઘટાડી શકાય?

- A. વાયુ પ્રદૂષણ
- B. જળ પ્રદૂષણ ✓
- C. ધ્વનિ પ્રદૂષણ
- D. માટીનું પ્રદૂષણ

Q63 General Awareness

નિવસન તંત્રમાં લીલા છોડ અને અમુક ચોક્કસ જીવાણુઓ (બેક્ટેરિયા) શું ભૂમિકા ભજવે છે?

- A. પરોપજીવી (Parasites)
- B. ઉપભોક્તા
- C. વિઘટનકર્તા (Decomposers)
- D. ઉત્પાદકો ✓

Q64 General Awareness

ઇસરોના કયા મિશન માટે ઇન્ટરનેશનલ એસ્ટ્રોનોટિકલ ફેડરેશન (IAF) એ ઇસરોને વર્લ્ડ સ્પેસ એવોર્ડ એનાયત કર્યો છે?

- A. આદિત્ય-L1
- B. ચંદ્રયાન-3 ✓
- C. શુક્ર(વિનસ) મિશન
- D. ચંદ્રયાન-2

Q65 General Awareness

ઓગસ્ટ 2024 માં જુનિયર પુરુષોની હોકી ટીમના નવા મુખી કોય તરીકે કોની નિમણૂક કરવામાં આવી.

- A. પી.આર. શ્રીજેશ ✓
- B. શંકર લક્ષ્મણ
- C. હરમનપ્રીત સિંહ
- D. પૃથ્વીપાલ સિંહ

Q66 General Awareness

ઈન્ડિયન રિમોટ સેન્સિંગ સેટેલાઈટ સિસ્ટમ (IRS) ની સ્થાપના ક્યારે કરવામાં આવી હતી?

- A. 1988 ✓
- B. 1983
- C. 1972
- D. 1959

Q67 General Awareness

પ્રખ્યાત નવલકથા 'મિડનાઈટ્સ ચિલ્ડ્રન(Midnight's Children)' ના લેખક કોણ છે?

- A. ખુશવંત સિંહ
- B. સલમાન રશ્દી ✓
- C. શશિ થરૂર
- D. રસ્કિન બોન્ડ

Q68 General Awareness

થાર રણની આબોહવાને _____ તરીકે શ્રેષ્ઠ રીતે વર્ણવવામાં આવે છે.

- A. શુષ્ક ✓
- B. ઉષ્ણકટિબંધીય વરસાદી જંગલ
- C. ભેજયુક્ત ઉપઉષ્ણકટિબંધીય
- D. સમશીતોષ્ણ

Q69 General Awareness

ભારતીય બંધારણનો અનુચ્છેદ 51 A (b) જણાવે છે કે _____ ને પ્રેરિત કરતા ઉમદા આદર્શોને વળગવું (માણવું) અને તેનું પાલન કરવું એ નાગરિકોની એક ફરજ છે.

- A. ભારતના રીતિરિવાજો અને પરંપરાઓ
- B. વૈશ્વિક મૂલ્યો અને સિદ્ધાંતો
- C. સ્વતંત્રતા માટેની રાષ્ટ્રીય લડત ✓
- D. વિવિધ પક્ષોના રાજનીતિક વિચારો



Q70 General Awareness

સમગ્ર વિશ્વમાં ઉપયોગ હેતુ CFC મુક્ત રેફ્રિજરેટર્સનું ઉત્પાદન કરવાનું કારણ શું છે?

- A. CFC શીતલન (રેફ્રિજરેશન)ને એક અઘરી પ્રક્રિયા બનાવે છે.
- B. CFC રેફ્રિજરેશન ઉદ્યોગ માટે હેન્ડલ કરવું મુશ્કેલ છે.
- C. CFC રેફ્રિજરેટર્સમાં વાપરવા માટે સસ્તું છે.
- D. CFC એ કૃત્રિમ રસાયણ છે જે ઓઝોન સ્તરને ક્ષીણ (અવક્ષય) કરે છે. ✓

Q71 General Awareness

દિલ્હી સલ્તનતના પ્રથમ શાસક કોણ હતા.

- A. અલાઉદ્દીન ખિલજી
- B. કુતુબ-ઉદ-દીન ઐબક ✓
- C. બાલબન
- D. ઇલ્તુત્મિશ

Q72 General Awareness

માટી અને પાણીની ઈકોસિસ્ટમ પર એસિડ વરસાદની અસરોને સમજવા માટે pH નું નિરીક્ષણ શા માટે મહત્વપૂર્ણ છે?

- A. એસિડ વરસાદ જમીન અને પાણીની ઈકોસિસ્ટમને અસર કરતું નથી.
- B. એસિડ વરસાદ pH ઘટાડે છે, જળચર જીવન અને જમીનના પોષક તત્વોની ઉપલબ્ધતાને નુકસાન પહોંચાડે છે. ✓
- C. એસિડ વરસાદ જમીન અને જળાશયોના pH માં વધારો કરે છે.
- D. એસિડ વરસાદ માત્ર પાણીને ખાટા બનાવે છે.

Q73 General Awareness

વાતાવરણમાં ઓઝોનના ઘટાડા માટે કયા કૃત્રિમ રસાયણો જવાબદાર છે?

- A. નાઇટ્રોજન ઓક્સાઇડ
- B. મિથેન
- C. ક્લોરોફ્લોરોકાર્બન (CFCs) ✓
- D. કાર્બન ડાયોક્સાઇડ

Q74 General Awareness

જૈવિક પ્રક્રિયાઓ દ્વારા વિઘટીત થતા પદાર્થો માટે કયો શબ્દ વાપરી શકાય છે?

- A. બાયોડિગ્રેડેબલ (Biodegradable) ✓
- B. રિસાયકલેબલ (Recyclable)
- C. નોન-બાયોડિગ્રેડેબલ (Non-biodegradable)
- D. કમ્પોસ્ટેબલ (Compostable)

Q75 General Awareness

નીચેનામાંથી કયું/ કયા વિધાન/ વિધાનો સાચું/ સાચા છે?

- 1) નારી શક્તિ વંદન અધિનિયમ 2023 માં રજૂ કરવામાં આવ્યો હતો.
- 2) નારી શક્તિ વંદન અધિનિયમ એ સંસદ, વિધાનસભાઓ અને દિલ્હી વિધાનસભામાં મહિલાઓ માટે 33% અનામત બેઠકો (reserved seats) સુનિશ્ચિત કરે છે.
- 3) નારી શક્તિ વંદન અધિનિયમ માત્ર 10 વર્ષ માટે જ અમલમાં રહેશે.

- A. માત્ર 1
- B. 1 અને 2
- C. 2 અને 3 ✓
- D. 1 અને 3

Q76 General Awareness

જુલાઈ 2024 માં ઉત્તર એટલાન્ટિક સંધિ સંગઠન (NATO) શિખર સંમેલનનું સ્થળ કયું હતું?

- A. વોશિંગ્ટન, ડી. સી., યુનાઇટેડ સ્ટેટ્સ ✓
- B. ન્યૂ યૉર્ક, યુનાઇટેડ સ્ટેટ્સ
- C. લંડન, ઈંગ્લેન્ડ
- D. પેરિસ, ફ્રાન્સ

Q77 General Awareness

મીનાક્ષી અમ્માન મંદિર કઈ સ્થાપત્ય શૈલી માટે જાણીતું છે?

- A. ઇન્ડો-સારાસેનિક
- B. દ્રવિડિયન ✓
- C. રોમન
- D. ગોથિક

Q78 General Awareness

1956 માં રાજ્ય પુનર્ગઠન અધિનિયમ પસાર થયા પછી નીચેનામાંથી કેટલા કેન્દ્રશાસિત પ્રદેશો બનાવવામાં આવ્યા છે?

- A. 6 ✓
- B. 5
- C. 4
- D. 7



Q79 General Awareness

કાગળના કપની કઈ વિશેષતા તેને આપણા પર્યાવરણ માટે પ્લાસ્ટિક કપ કરતાં વધુ સારી બનાવે છે?

- A. બિન-બાયોડિગ્રેડેબલ
- B. બાયોડિગ્રેડેબલ કે જૈવિકવિઘટન થાય તેવા હોય છે ✓
- C. ડિસ્પોઝેબલ કે વાપરીને ફેંકી દેવા માટેના હોય છે
- D. ડીસ્પોઝેબલ હોતા નથી

Q80 General Awareness

બંગાળની ખાડીમાંથી ભારતમાં ટ્રાટકેલા ચક્રવાતને કયા દેશે 'દાના' નામ આપ્યું?

- A. માલદીવ
- B. સંયુક્ત આરબ અમીરાત
- C. ઓમાન
- D. સાઉદી અરેબિયા ✓

Q81 General Awareness

નીચેનામાંથી કયા ભાવ નિર્ધારણ અભિગમ સાથે કોઈ ઉત્પાદનની કિંમત તેની સીમાંત કિંમત જેટલી હોય છે?

- A. મૂલ્ય ભેદભાવ
- B. માર્ક-અપ મૂલ્યનિર્ધારણ
- C. કારક મૂલ્યનિર્ધારણ
- D. સીમાંત અર્થ ભાવ નિર્ધારણ ✓

General Science

19 Questions • Answer Key

Q82 General Science

વિદ્યુત મોટરમાં ચુંબકીય ક્ષેત્રમાં મૂકેલા વાહક પર બળ કઈ દિશામાં કાર્ય કરે છે?

- A. ચુંબકીય ક્ષેત્ર સાથે
- B. ચુંબકીય ક્ષેત્રની વિરુદ્ધ
- C. પ્રવાહ અને ચુંબકીય ક્ષેત્ર બંને માટે લંબરૂપ ✓
- D. પ્રવાહની દિશામાં

Q83 General Science

$\text{CuO} + \text{H}_2 \rightarrow \text{Cu} + \text{H}_2\text{O}$ પ્રક્રિયામાં, રિડ્યુસ (અપચયિત) થતો પદાર્થ એ _____ છે.

- A. Cu
- B. H_2
- C. CuO ✓
- D. H_2O

Q84 General Science

નીચેનામાંથી કઈ પ્રક્રિયા એ અવક્ષેપન પ્રક્રિયા (precipitation reaction)નું ઉદાહરણ છે?

- A. $\text{NaCl} + \text{AgNO}_3 \rightarrow \text{NaNO}_3 + \text{AgCl}$ ✓
- B. $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$
- C. $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$
- D. $\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$

Q85 General Science

પ્રાયોગિક પરિણામો અનુસાર, ચુંબકીય ક્ષેત્રમાં પ્રવાહ વહન કરનાર વાહક પર બળની તીવ્રતા ક્યારે સૌથી વધુ બને છે?

- A. જ્યારે પ્રવાહ ચુંબકીય ક્ષેત્ર પર લંબ હોય છે ✓
- B. જ્યારે પ્રવાહ ચુંબકીય ક્ષેત્રની વિરુદ્ધ હોય છે
- C. જ્યારે પ્રવાહ ચુંબકીય ક્ષેત્રમાં કોઈપણ ખૂણા પર વહે છે
- D. જ્યારે પ્રવાહ ચુંબકીય ક્ષેત્રની સમાંતર હોય છે



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Q86 General Science

જો 6 Ω , 3 Ω અને 2 Ω ના ત્રણ અવરોધકો સમાંતર શ્રેણીમાં જોડાયેલા હોય, તો કુલ સમકક્ષ અવરોધ (equivalent resistance) _____ છે.

A. 11 Ω B. 2 Ω C. 1 Ω ✓D. 0.5 Ω **Q87 General Science**

ફ્લેમિંગના જમણા હાથનો નિયમ _____ ના કિસ્સામાં લાગુ પડે છે.

A. વિદ્યુત કિટલી (electric kettles)

B. ફ્યુઝ તાર (fuse wires)

C. વિદ્યુત મોટર્સ

D. વિદ્યુત જનરેટર્સ ✓

Q88 General Science

આપેલ અવરોધક માટે નીચેનામાંથી કયું, પાવર અપવ્યય (dissipation)માં સૌથી વધુ વધારો કરશે?

A. અવરોધક ફરતેના વોલ્ટેજને બમણું કરવું ✓

B. અવરોધ બમણો કરવો

C. અવરોધ અડધો કરવો

D. અવરોધક મારફતે વહેતા વિદ્યુતપ્રવાહને અડધો કરવો

Q89 General Science

જો કોઈ પદાર્થનું pH 11 હોય, તો નીચેનામાંથી કયું વિધાન સાચું છે?

A. તે તટસ્થ છે અને લિટમસનો રંગ બદલાતો નથી.

B. તે એસિડિક છે અને ભૂરા (blue) લિટમસ પેપરને લાલ કરી શકે છે.

C. તે એસિડિક છે અને લિટમસ પેપરનો રંગ બદલતો નથી.

D. તે બેઈઝિક છે અને લાલ લિટમસ પેપરને ભૂરું (blue) કરી શકે છે. ✓

Q90 General Science

એક વાહક તાર માટે વિદ્યુતસ્થિતિમાન તફાવત વિરુદ્ધ વિદ્યુતપ્રવાહનો આલેખ એક સીધી રેખા હોય છે. આ રેખાનો ઢાળ (slope) આપણને શું આપે છે?

A. તારમાંથી વહેતો વિદ્યુતપ્રવાહ

B. સમગ્ર તાર પરનો વોલ્ટેજ

C. તારમાં ઈલેક્ટ્રોનોની સંખ્યા

D. તારનો અવરોધ ✓

Q91 General Science

આયર્ન ફિલિંગ્સ એટલે કે લોઢાના ટુકડા શા માટે ગળિયા ચુંબકની આસપાસ એક વિશિષ્ટ ઢબ કે પેટર્નમાં ગોઠવાઈ જાય છે?

A. કારણ કે તેઓ ભારે છે

B. ઈલેક્ટ્રિક ચાર્જને કારણે

C. ચુંબકીય ક્ષેત્રને કારણે ✓

D. ગુરુત્વાકર્ષણ બળને કારણે

Q92 General Science

મોટાભાગના વાહકોના તાપમાનમાં વધારો થતાં તેમના અવરોધ પર શું અસર થાય છે?

A. તે વધે છે. ✓

B. તે ઘટે છે.

C. તે સમાન રહે છે.

D. તે શૂન્ય થાય છે.

Q93 General Science

નીચેનામાંથી કયું સંયોજન અવક્ષેપ પેદા કરશે?

A. $\text{NaOH} + \text{Na}_2\text{SO}_4$ B. $\text{NaOH} + \text{FeCl}_3$ ✓C. $\text{NaOH} + \text{NaCl}$ D. $\text{NaCl} + \text{KNO}_3$ **Q94 General Science**

જો વાયર-આકારના અવરોધની લંબાઈ બમણી કરવામાં આવે તો, પ્રતિરોધકતા:

A. અડધી થાય છે

B. બમણી થાય છે

C. એમની એમ સમાન રહે છે ✓

D. ચારગણી થાય છે

Q95 General Science

એક દ્રાવણનું pH 12 છે. તો આ દ્રાવણમાં કયા આયનની સાંદ્રતા વધારે છે?

A. ફક્ત OH^- ✓B. H^+ અને OH^- બંને સમાન છેC. વધુ સંખ્યા S^{2-} આયનો અને વધુ Cl^{-1} D. ફક્ત H^+ 

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Q96 General Science

એસિડના એસિડિક (આમ્લીય) ગુણધર્મો માટે કયો આયન (ion) જવાબદાર છે?

A. H^+ B. Cl^- C. OH^- D. Na^+ **Q97 General Science**

એક તાંબાના તારનો અવરોધ $10\ \Omega$ છે. જો તેને સમાન સામગ્રી અને લંબાઈ ધરાવતા એવા એક અન્ય તારથી બદલવામાં આવે, જેનું આડ છેદ (ક્રોસ-સેક્શનલ) ક્ષેત્રફળ એ તેનાથી બમણું હોય, તો તેનો અવરોધ શોધો.

A. $5\ \Omega$ B. $20\ \Omega$ C. $10\ \Omega$ D. $2.5\ \Omega$ **Q98 General Science**

નીચેનામાંથી કયું સંયોગીકરણ પ્રક્રિયાને રજૂ (નિરૂપિત) કરે છે?

A. $NaCl + AgNO_3 \rightarrow AgCl + NaNO_3$ B. $CaO + H_2O \rightarrow Ca(OH)_2$ C. $CaCO_3 \rightarrow CaO + CO_2$ D. $2KClO_3 \rightarrow 2KCl + 3O_2$ **Q99 General Science**

જ્યારે લેડ નાઈટ્રેટને ગરમ કરવામાં આવે છે, ત્યારે તે વિઘટન પામીને લેડ મોનોક્સાઇડ (PbO), નાઈટ્રોજન ડાયોક્સાઇડ (NO_2), અને ઓક્સિજન (O_2) બનાવે છે. પ્રક્રિયા દરમિયાન દેખાતો બ્રાઉન (ચોકલેટી) વાયુ _____ છે.

A. લેડ મોનોક્સાઇડ (PbO)

B. નાઈટ્રિક ઓક્સાઇડ (NO)

C. નાઈટ્રોજન ડાયોક્સાઇડ (NO_2)D. ઓક્સિજન (O_2)**Q100 General Science**

જ્યારે બે તત્વો સંયોજન બનાવવા માટે પ્રતિક્રિયા કરે છે, ત્યારે એને આમ વર્ગીકૃત કરાય છે:

A. વિસ્થાપન (displacement)

B. દ્વિ-વિસ્થાપન (double displacement)

C. વિઘટન (decomposition)

D. સંયોગીકરણ (combination)



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Mathematics

30 Questions • Answer Key

Q1 Mathematics ENGLISH

The average price of three items of furniture is Rs 16830. If their prices are in the ratio 3:5:7, the price of the cheapest item (in Rs) is

A. 10098



B. 3366

C. 7854

D. 5610

Q2 Mathematics ENGLISH

The current ages of A and B add up to 36 years. Four years ago, the age of A was three times than that of B. What is the current age of A?

A. 30 years

B. 35 years

C. 20 years

D. 25 years



Q3 Mathematics ENGLISH

A man sold an article for ₹360 by first giving a d% discount on its marked price, and then another discount having the same nominal value (in ₹). If the marked price of the article is ₹2250, then what is the value of d?

A. 38

B. 42



C. 41

D. 45

Q4 Mathematics ENGLISH

The sirens of three companies sound together initially and then continue to sound at intervals of 12 minutes, 16 minutes, and 20 minutes, respectively. Over a period of 16 hours and 12 minutes from the time they first sound together, how many times will they sound simultaneously?

A. 3 times

B. 4 times

C. 6 times

D. 5 times



Q5 Mathematics ENGLISH

If a 3210 m long train crosses a pole in 107 seconds, then find the time (in seconds) taken by the train to cross a 150 m long platform.

A. 110

B. 106

C. 114

D. 112



Q6 Mathematics ENGLISH

The greatest common divisor (GCD) and least common multiple (LCM) of two numbers are 12 and 480, respectively, and the numbers are in the ratio of 5 : 8. Find the difference between the two numbers.

A. 36



B. 12

C. 42

D. 24

Q7 Mathematics ENGLISH

Twelve years ago, the age of Reena's mother was three times the age of Reena. Two years hence, the mother's age will be 2 times the age of Reena. Find the ratio of the present ages of Reena and her mother.

A. 5 : 9

B. 27 : 13

C. 13 : 27



D. 9 : 11

Q8 Mathematics ENGLISH

The average price of three items of furniture is Rs 16890. If their prices are in the ratio 3:5:7, the price of the cheapest item (in Rs) is

A. 5630

B. 3378

C. 7882

D. 10134



Q9 Mathematics ENGLISH

If the average of 9 numbers is 17 and one number is removed, the average of the remaining 8 numbers becomes 15. What is the value of the removed number?

A. 33



B. 37

C. 35

D. 39

Q10 Mathematics ENGLISH

If the distance between A and B is 530 Km. From A, Namit goes to B with speed 37 km/h and return to A with the speed 77 km/h. Find the average speed of Namit.(rounded off to two decimal place)

A. 44.54 km/h

B. 46.51 km/h

C. 44.47 km/h

D. 49.98 km/h

**Q11 Mathematics** ENGLISH

A and B can do a piece of work in 2 days and 42 days, respectively. The number of days [Correct to one decimal place] required to complete the work if both A and B work together is:

A. 3.3

B. 1.3

C. 5.1

D. 1.9

**Q12 Mathematics** ENGLISH

If the mean proportional of P and 125 is 100, then find the value of P.

A. 82

B. 80



C. 77

D. 79

Q13 Mathematics ENGLISH

Find the simple interest (in closest integral ₹) on ₹4000 at 5.25% per annum rate of interest for the period from 4 February 2024 to 5 April 2024

A. 35



B. 34

C. 33

D. 36

Q14 Mathematics ENGLISH

If at same rate of interest, in 2 years, the simple interest is ₹56 and compound interest is ₹58, then what is the principal (in ₹)?

A. 396

B. 392



C. 385

D. 387

Q15 Mathematics ENGLISH

A number when increased by 50 %, gives 2880. The number is:

A. 5760

B. 960

C. 1920



D. 3840

Q16 Mathematics ENGLISH

If A's salary is 72 % more than that of B, then how much percent is B's salary less than that of A (correct to 2 decimal places)?

A. 45.3%

B. 41.86%



C. 44.19%

D. 44.24%



Q17 Mathematics ENGLISH

The age of some students is given in years as 22, 23, 26, 28, 24, 29, 23, 27, 25 and 21. The median age (in years) of the students is:

A. 23.5

B. 24

C. 24.5 ✓

D. 25

Q18 Mathematics ENGLISH

The marks scored by 10 students are given below.

18, 13, 14, 18, 14, 17, 15, 11, 13, 18

The mode of the data is:

A. 14

B. 11

C. 18 ✓

D. 13

Q19 Mathematics ENGLISH

Two taps can fill a cistern in 2 hours and 51 hours respectively. A third tap can empty it in 51 hours. How long (in hours) will it take to fill the empty cistern, if all of them are opened together?

A. 5

B. 2 ✓

C. 3

D. 4

Q20 Mathematics ENGLISH

The larger of two supplementary angles is 22° more than the smaller. The smaller angle (in degree) is:

A. 86

B. 88

C. 79 ✓

D. 84

Q21 Mathematics ENGLISH

Find the value of $\sin^2 63^\circ + \sin^2 27^\circ + \cos^2 17^\circ + \cos^2 73^\circ + \cos^2 90^\circ$.

A. 0

B. 2 ✓

C. -1

D. 1

Q22 Mathematics ENGLISH

A, B and C invest sum in the ratio 76 : 37 : 52 respectively. If they earned total profit of ₹3850 at the end of year, then what is the difference between share of B and C?

A. ₹360

B. ₹305

C. ₹350 ✓

D. ₹203

Q23 Mathematics ENGLISH

A shopkeeper bought an article for ₹740. At what price (in ₹) should he sell the article to make 30% profit?

A. 518

B. 950

C. 962 ✓

D. 974



Q24 Mathematics **ENGLISH**

The total surface area of a solid hemisphere is 191 cm^2 . Its radius (in cm) is: $\text{Take } \pi = \frac{22}{7}$

A. $\sqrt{\frac{1347}{66}}$

B. $\sqrt{\frac{1347}{132}}$

C. $\sqrt{\frac{1337}{66}}$ ✓

D. $\sqrt{\frac{1345}{66}}$

Q25 Mathematics **ENGLISH**

$\frac{(a^4 \times b^3 \times c^4)}{(a^9 \times b^4 \times c^8)}$ in simplified form is:

A. $(a^7) \times (b^8) \times (c^{-9})$

B. $(a^{-9}) \times (b^{-2}) \times (c^{-2})$

C. $(a^7) \times (b^9) \times (c^8)$

D. $(a^{-5}) \times (b^{-1}) \times (c^{-4})$ ✓

Q26 Mathematics **ENGLISH**

If 546 apples were distributed among Neeraj, Vidya, and Mohan in the ratio $\frac{1}{6} : \frac{1}{2} : \frac{1}{3}$, how many apples did the Mohan get?

A. 182 ✓

B. 202

C. 172

D. 192



Q27 Mathematics **ENGLISH**

Solve the following linear equation.

$$2x - y + z = 8, x + y - z = 10, x + y + 2z = 12$$

A. $x = 6, y = \frac{14}{3}, z = \frac{2}{3}$



B. $x = \frac{-1}{3}, y = 6, z = \frac{14}{3}$

C. $x = -6, y = \frac{-14}{3}, z = \frac{1}{3}$

D. $x = \frac{2}{3}, y = -6, z = \frac{14}{3}$

Q28 Mathematics **ENGLISH**

In $\triangle ABC$, $DE \parallel AC$, where D and E are the points on sides AB and BC, respectively.

If $BD = 8$ cm and $AD = 7$ cm, then what is the ratio of the area of $\triangle BDE$ to the trapezium ADEC?

A. 65:162

B. 64:161



C. 162:65

D. 161:64

Q29 Mathematics **ENGLISH**

Find the value of $2.\overline{38} \div 0.\overline{54}$.

A. $5\frac{26}{51}$

B. $6\frac{29}{57}$

C. $4\frac{19}{49}$



D. $3\frac{17}{21}$

Q30 Mathematics **ENGLISH**

A trader claims to sell flour at a profit of 35%, but also dishonestly uses a weight which is 16% less than what is mentioned on it. Find the total percentage of profit earned by the trader. (Round the answer to the nearest whole number.)

A. 63%

B. 60%

C. 56%

D. 61%



Q31 General Intelligence and Reasoning **ENGLISH**

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 ::?

: UOK :: HBX : %

A. # = TJF, % = MGC

B. # = PJF, % = NGC

C. # = PJF, % = MGO

D. # = PJF, % = MGC

**Q32** General Intelligence and Reasoning **ENGLISH**

119 is related to 205 following a certain logic. Following the same logic, 145 is related to 231. To which of the given options is 132 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. 228

B. 215

C. 221

D. 218

**Q33** General Intelligence and Reasoning **ENGLISH**

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 letter-cluster pair DOES NOT belong to that group?

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

A. GM – DJ

B. EK – BH

C. QW – NT

D. TY – PU

**Q34** General Intelligence and Reasoning **ENGLISH**

Seven people, B, D, E, F, P, Q and R, are sitting in a row, facing north. Only three people sit between R and E. F sits to the immediate left of E. No one sits to the right of B. Only two people sit between B and F. P sits to the immediate right of Q.

How many people sit between D and P?

A. Two



B. Four

C. Three

D. One

Q35 General Intelligence and Reasoning **ENGLISH**

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

4 24 120 480 ? 2880

A. 1440



B. 1080

C. 1220

D. 1360

Q36 General Intelligence and Reasoning **ENGLISH**

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

(Left) 5 # * 7 9 % 2 & 1 > 6 @ 3 ^ 4 \$ > 8 (Right)

How many such number are there which are immediately preceded by a number and also immediately followed by another number?

A. 0



B. 1

C. 2

D. 3



Q37 General Intelligence and Reasoning **ENGLISH**

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

29 38 51 68 89 ?

A. 115

B. 114



C. 113

D. 116

Q38 General Intelligence and Reasoning **ENGLISH**

Seven boxes, A, B, C, D, X, Y and Z, 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 C and B. Only three boxes are kept between C and Y. Y is kept at some place above B. Z is kept immediately below Y. A is kept at one of the places above X. D is not kept immediately above or below C. Which box is kept at the lowermost position?

A. B

B. C

C. X



D. Z

Q39 General Intelligence and Reasoning **ENGLISH**

B, C, E, F and H have different heights. Only C is taller than B. E is taller than H. Only two people have heights between F and C. How many people have heights between H and B?

A. Two



B. Three

C. Four

D. One

Q40 General Intelligence and Reasoning **ENGLISH**

Pankaj starts from Point A and drives 12 km towards east. He then takes a left turn, drives 18 km, turns left and drives 19 km. He then takes a left turn and drives 21 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. 4 km to the north

B. 1 km to the north

C. 5 km to the north

D. 3 km to the north

**Q41** General Intelligence and Reasoning **ENGLISH**

A question is given, followed by two statements labelled I and II. Identify which of the statements is/are sufficient to answer the question.

A, B, C, D and E are sitting in a straight line facing north. Who sits on the extreme left end?

(I) D sits second to the right of C.

(II) Exactly two people sit between B and D.

A. Both Statements I and II put together are not sufficient to answer the question.



B. Both Statements I and II put together (and not independently) 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.

Q42 General Intelligence and Reasoning **ENGLISH**

Refer to the given number, symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) \$ 7 & 4 2 & % 4 6 @ 8 Ω 9 # 6 * £ 5 = 2 (Right)

How many such symbols are there each of which is immediately preceded by an odd number and immediately followed by an even number?

A. One

B. Four

C. Two

D. Three



Q43 General Intelligence and Reasoning ENGLISH

G, H, I, J, K, L and M live on seven 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 7. H lives on an even numbered floor but not on the second floor. Only three people live between H and M. J lives on one of the floors below H but immediately above M. G lives on one of floors below J. Only three people live between G and K. L lives on one of the floors above J but below I. Who lives on the fifth floor?

A. L

B. H

C. K



D. M

Q44 General Intelligence and Reasoning ENGLISH

In a certain code language,
'pillow blanket bed' is coded as 'ma ph st',
'bed window door' is coded as 'cd le ma' and
'door pillow wall' is coded as 'st bq cd'.
(All the codes are two-letter codes only.)
What is the code for 'wall' in that language?

A. st

B. cd

C. bq



D. le

Q45 General Intelligence and Reasoning ENGLISH

What should come in place of the question mark (?) in the given series based on the English alphabetical order?

GUY ZNR SGK LZD ?

A. EWS

B. ESW



C. SWE

D. SEW

Q46 General Intelligence and Reasoning ENGLISH

Which two numbers should be interchanged to make the following equation correct?

$$58 + (36 \times 4) \div 3 + 6 \times 8 - 12 = 86$$

(Note: Interchange should be done of the entire number and not individual digits of a given number.)

A. 12 and 8

B. 36 and 12



C. 3 and 6

D. 4 and 3

Q47 General Intelligence and Reasoning ENGLISH

In a certain code language,
'mountains hills rocks' is coded as 'dy ph mt',
'rocks valleys rivers' is coded as 'lp ph st' and
'rivers mountains forests' is coded as 'st bq dy'.
(All the codes are two-letter codes only.)
What is the code for 'valleys' in that language?

A. lp



B. st

C. ph

D. dy

Q48 General Intelligence and Reasoning ENGLISH

In a certain code language,
'A + B means 'A is the son of B',
'A - B means 'A is the brother of B',
'A × B means 'A is the wife of B' and
'A ÷ B means 'A is the father of B'.

How is S related to H if 'S + D × F ÷ G - H'?

A. Brother



B. Husband

C. Son

D. Father



Q49 General Intelligence and Reasoning **ENGLISH**

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.

PMN : RPI

VHS : XKN

A. TIH : VMC

B. NFF : PIA

C. PTV : RWR

D. JPQ : LSM

Q50 General Intelligence and Reasoning **ENGLISH**

Select the letter-cluster from among the given options that can replace the question mark (?) in the following series.

GEC BZX WUS RPN ?

A. MKJ

B. MJK

C. MIK

D. MKI

Q51 General Intelligence and Reasoning **ENGLISH**

5 is related to 26 following a certain logic. Following the same logic, 12 is related to 145. To which of the following is 13 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. 172

B. 170

C. 162

D. 168

Q52 General Intelligence and Reasoning **ENGLISH**

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 letter-cluster pair DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

A. HF-AU

B. VS-OI

C. FC-YS

D. SP-LF

Q53 General Intelligence and Reasoning **ENGLISH**

If 1 is added to each odd digit and 2 is subtracted from each even digit in the number 7381564, how many digits will appear more than once in the new number thus formed?

A. One

B. Two

C. None

D. Three

Q54 General Intelligence and Reasoning **ENGLISH**

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 :: ?

: NJR :: OKS : %

A. # = LHO, % = QMU

B. # = LHP, % = QNU

C. # = LHP, % = QMU

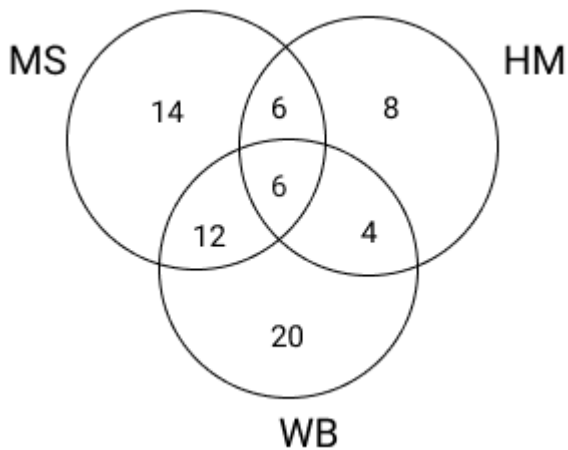
D. # = LHP, % = QMV



Q55 General Intelligence and Reasoning **ENGLISH**

Study the given diagram carefully and answer the question that follows. The numbers in different sections indicate the number of persons who own the given brands of car. How many person own both MS and WB but not HM?

(NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.)



A. 18

B. 12



C. 8

D. 34

General Awareness

15 Questions • Answer Key

Q56 General Awareness **ENGLISH**

In the month of July in India, at what latitude is the Inter-Tropical Convergence Zone typically situated?

A. Near the equator

B. Between 5°N and 10°N

C. Around 20°N-25°N



D. South of the equator

Q57 General Awareness **ENGLISH**

Which state hosted the 61st edition of the Indian National Chess Championship in 2024?

A. Tamil Nadu

B. Karnataka

C. Haryana



D. Himachal Pradesh

Q58 General Awareness **ENGLISH**

Which of the following Constitutional amendments inserts the Special officer for linguistic minorities, who is known as the Commissioner for Linguistic Minorities in India (CLM), to investigate all the matters relating to the safeguards provided for the linguistic minorities in India under the Constitution and report to the President?

A. 10th Constitutional Amendment Act, 1960

B. 7th Constitutional Amendment Act, 1956



C. 2nd Constitutional Amendment Act, 1952

D. 11th Constitutional Amendment Act, 1965

Q59 General Awareness **ENGLISH**

Which major Indian port has become the first to operate under a Public-Private Partnership (PPP) model?

A. Mundra Port

B. Paradip Port

C. New Mangaluru Port

D. Jawaharlal Nehru Port



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Q60 General Awareness **ENGLISH**

Where did Dr. Jitendra Singh, Union Minister of State for Science and Technology, inaugurate India's first Demonstration Facility for Biopolymers in October 2024?

- A. Hyderabad
- B. Pune
- C. Chennai
- D. Bhopal

Q61 General Awareness **ENGLISH**

Which of the following statements is correct about equilibrium?

- A. Equilibrium is the situation where there is less tendency for change.
- B. Equilibrium is the situation where there is a tendency for change.
- C. Equilibrium is the situation where there is no tendency for any change.
- D. Equilibrium is the situation where there is more tendency for change.

Q62 General Awareness **ENGLISH**

Which of the following articles deals with elections to the House of the People and to the legislative assemblies of state to be on the basis of adult suffrage?

- A. 352
- B. 326
- C. 318
- D. 340

Q63 General Awareness **ENGLISH**

Mahatma Gandhi started his famous 'Salt march' accompanied by _____ of his trusted volunteers.

- A. 78
- B. 94
- C. 51
- D. 39

Q64 General Awareness **ENGLISH**

Who launched 'Create in India Challenge-Season One' in New Delhi on 22 August 2024, the run-up to the World Audio Visual and Entertainment Summit?

- A. Ashwini Vaishnaw
- B. Narendra Modi
- C. Nitin Gadkari
- D. Amit Shah

Q65 General Awareness **ENGLISH**

Which of the following dynasties did NOT participate in tripartite struggle over Kannauj?

- A. The Rashtrakutas
- B. The Gurjara-Pratiharas
- C. The Cholas
- D. The Palas

Q66 General Awareness **ENGLISH**

The Citizenship Amendment Act was enacted in 2019 and was operationalised after the rules for it were notified by the Ministry of Home Affairs on _____.

- A. 11 March 2020
- B. 11 March 2022
- C. 11 March 2024
- D. 11 March 2023

Q67 General Awareness **ENGLISH**

Which city of India organised the World Sustainable Development Summit 2024?

- A. Jaipur
- B. New Delhi
- C. Mumbai
- D. Hyderabad



Q68 General Awareness **ENGLISH**

What was the venue of G20 Agriculture Ministerial Meeting in 2024?

- A. Paris, France
- B. Ottawa, Canada
- C. Cuiaba, Brazil
- D. Brussels, Belgium



Q69 General Awareness **ENGLISH**

In the context of Buddhist architecture, what is a 'chaitya'?

- A. A type of stupa
- B. A residential space for monks
- C. A decorative column
- D. A hall for prayer and assembly



Q70 General Awareness **ENGLISH**

In which year was 'Indian Culture: A Compendium of Indian History, Culture and Heritage' published?

- A. 2023
- B. 2020
- C. 2021
- D. 2022



General Science

30 Questions • Answer Key

Q71 General Science **ENGLISH**

Washing soda is represented by $\text{Na}_2\text{CO}_3 \cdot x\text{H}_2\text{O}$. The value of 'x' is equal to:

- A. 6
- B. 8
- C. 10
- D. 2



Q73 General Science **ENGLISH**

Which of the following modes of asexual reproduction is used by unicellular organisms exclusively?

- A. Fragmentation
- B. Regeneration
- C. Sporulation
- D. Binary fission



Q72 General Science **ENGLISH**

What does the thumb represent in Fleming's Right-Hand Rule?

- A. Direction of motion
- B. Direction of induced current
- C. Direction of voltage
- D. Direction of magnetic field



Q74 General Science **ENGLISH**

People having acidity problems are treated with antacids that contain which of the following?

- A. Milk of magnesia
- B. Quick lime
- C. Hydrochloric acid
- D. Lime water



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Q75 General Science **ENGLISH**

Baking soda, commonly used in households, is also known by its chemical name:

- A. sodium carbonate
- B. magnesium hydroxide
- C. sodium bicarbonate ✓
- D. calcium carbonate

Q76 General Science **ENGLISH**

When a solution contains an equal number of H^+ and OH^- ions, then the pH of the solution is:

- A. $pH > 12$
- B. $pH < 3$
- C. $pH > 3$ but < 5
- D. $pH = 7$ ✓

Q77 General Science **ENGLISH**

Which of the following devices operates based on the heating effect of electric current?

- A. Electric motor
- B. Electric iron ✓
- C. Generator
- D. Transformer

Q78 General Science **ENGLISH**

A concave mirror can form a real, inverted and magnified image when the object is placed _____.

- A. between the focus and the centre of curvature ✓
- B. at the pole
- C. between the pole and the focus
- D. beyond the centre of curvature

Q79 General Science **ENGLISH**

The magnetic field inside a solenoid:

- A. varies with distance from the edge
- B. is the same at all points ✓
- C. is zero at the centre
- D. is maximum at the centre and minimum at the edge

Q80 General Science **ENGLISH**

Consider a pencil dipped in water in a glass beaker. If the water is replaced by kerosene or turpentine, will the pencil appear displaced to the same extent?

- A. No, the displacement will vary.
- B. No, the pencil will appear straight. ✓
- C. Yes, the displacement will be the same.
- D. Yes, it will be more displaced than in water.

Q81 General Science **ENGLISH**

What is the shape of the magnetic field lines inside a solenoid?

- A. Straight and parallel ✓
- B. Randomly oriented
- C. Circular
- D. Elliptical

Q82 General Science **ENGLISH**

In Amoeba, the splitting during fission can occur _____.

- A. only along a fixed plane
- B. in a definite orientation related to a structure
- C. only in one specific plane
- D. in any plane ✓

Q83 General Science **ENGLISH**

Which process ensures half the amount of DNA in reproductive cells as compared to non-reproductive cells?

- A. Meiosis ✓
- B. Cytokinesis
- C. Amitosis
- D. Mitosis



Q84 General Science **ENGLISH**

Which of the following metals will displace copper from copper sulfate solution?

- A. Platinum
- B. Silver
- C. Iron
- D. Gold



Q85 General Science **ENGLISH**

Why do stars appear to twinkle when viewed from the Earth?

- A. Diffraction by clouds
- B. Scattering by particles
- C. Reflection in the atmosphere
- D. Refraction in the Earth's atmosphere



Q86 General Science **ENGLISH**

Which law of refraction states that light bends due to a change in speed when passing from one medium to another?

- A. Huygens' principle
- B. Law of reflection
- C. Fermat's principle
- D. Snell's law



Q87 General Science **ENGLISH**

What is the process of fusion of the male and female gametes called in plants?

- A. Fertilisation
- B. Propagation
- C. Germination
- D. Pollination



Q88 General Science **ENGLISH**

Why is asexual reproduction advantageous for single-celled organisms?

- A. It allows rapid reproduction in favourable conditions.
- B. It prevents overcrowding.
- C. It requires a mate.
- D. It increases genetic variability.



Q89 General Science **ENGLISH**

Which of the following is an example of regeneration in plants?

- A. Binary fission in bacteria
- B. Reproduction in humans
- C. Growth of a new plant from a cutting
- D. Budding in hydra



Q90 General Science **ENGLISH**

Which among the following organisms reproduce by regeneration method?

- A. Bryophyllum
- B. Rhizopus
- C. Yeast
- D. Planaria



Q91 General Science **ENGLISH**

Why is variation in plants important for their survival and evolution?

- A. It ensures that all plants produce identical offspring.
- B. It allows plants to adapt to changing environmental conditions.
- C. It reduces competition among plants.
- D. It helps plants to grow taller and stronger.



Q92 General Science **ENGLISH**

When sodium carbonate (Na_2CO_3) is dissolved in water, the resulting solution becomes:

- A. neutral
- B. highly reactive with sodium chloride
- C. acidic
- D. basic** ✓

Q93 General Science **ENGLISH**

In a series circuit, if one of the resistors is removed or broken, the current in the circuit will _____.

- A. stay the same
- B. become zero** ✓
- C. decrease
- D. increase

Q94 General Science **ENGLISH**

Which reactants are used to prepare bleaching powder?

- A. Calcium hydroxide and hydrochloric acid
- B. Chlorine and water
- C. Chlorine gas and dry calcium hydroxide** ✓
- D. Lime and sulphuric acid

Q95 General Science **ENGLISH**

What is the general form of a combination reaction?

- A. $A \rightarrow B + C$
- B. $AB \rightarrow A + B$
- C. $A + B \rightarrow AB$** ✓
- D. $AB + CD \rightarrow AC + BD$

Q100 General Science **ENGLISH**

What is the resistivity (ρ) of a material?

- A. A measure of how strongly a material opposes the flow of electric current** ✓
- B. The same as its resistance
- C. The amount of current a material can carry
- D. The product of voltage and current

Q96 General Science **ENGLISH**

The product of the reaction between ethanol and acetic acid is:

- A. acetate
- B. ester** ✓
- C. ethanal
- D. methanol

Q97 General Science **ENGLISH**

A solution has a pH of 8. If it is diluted with an equal volume of water, what will happen to its pH?

- A. The pH will remain the same.
- B. The pH will increase.
- C. It will become neutral.** ✓
- D. The pH will decrease.

Q98 General Science **ENGLISH**

What are the units of inheritance, which Mendel referred to as 'factors,' now called?

- A. Genes** ✓
- B. Traits
- C. Chromosomes
- D. DNA

Q99 General Science **ENGLISH**

According to Mendel, which trait appeared in F1 progeny on crossing tall pea plants with short pea plants?

- A. Medium
- B. Tall** ✓
- C. Short
- D. Dwarf



Mathematics

30 Questions • Answer Key

Q1 Mathematics ENGLISH

Find the total time taken by boat to travel upstream and downstream, if the distance travel in each direction (upstream and downstream) is 495km. If speed of boat is 32 km/h and speed of current is 23 km/h.

A. 56 hours

B. 64 hours ✓

C. 72 hours

D. 62 hours

Q2 Mathematics ENGLISH

Simplify the given expression.

 $(1 + \cos A)(\operatorname{cosec} A - \cot A)$ A. $\tan A$ B. $\operatorname{cosec} A$ C. $\sec A$ D. $\sin A$ ✓

Q3 Mathematics ENGLISH

9 men can do a piece of work in 21 days. The number of men required to complete the same work in 3 days is:

A. 62

B. 64

C. 63 ✓

D. 67

Q4 Mathematics ENGLISH

A man sold an article for ₹481 by first giving a $d\%$ discount on its marked price, and then another discount having the same nominal value (in ₹). If the marked price of the article is ₹1924, then what is the value of d ?

A. 42.5

B. 32

C. 37.5 ✓

D. 33

Q5 Mathematics ENGLISH

What is the average of all the natural numbers from 1 to 94?

A. 48

B. 47.5 ✓

C. 47

D. 48.5

Q6 Mathematics ENGLISH

The average price of three items of furniture is Rs 16860. If their prices are in the ratio 3:5:7, the price of the cheapest item (in Rs) is

A. 10116 ✓

B. 3372

C. 7868

D. 5620

Q7 Mathematics ENGLISH

Which of the following is NOT a property of a regular polygon?

A. All sides are of equal length.

B. Angles at the centre by all sides are equal.

C. The angle made by each side at the centre is 90° , if it is a regular polygon with four sides.D. The angle made by each side at the centre is 60° , if it is a regular polygon with eight sides. ✓

Q8 Mathematics ENGLISH

The average of seven consecutive odd numbers is 41. What is the smallest of these numbers?

A. 37

B. 33

C. 35 ✓

D. 39



Q9 Mathematics ENGLISH

A theater sold 500 tickets to a concert. The tickets for adults cost \$20 each, and the tickets for children cost \$12 each. If the total revenue was \$8,000, how many adult tickets were sold?

A. 300

B. 350

C. 250 ✓

D. 200

Q10 Mathematics ENGLISH

A trader lost 10% by selling a shirt for ₹850. He will gain $x\%$ by selling it for ₹1530, the value of x is:

A. 72

B. 62 ✓

C. 52

D. 77

Q11 Mathematics ENGLISH

Find the simple interest (in closest integral ₹) on ₹3000 at 8% per annum rate of interest for the period from 23 February 2024 to 24 April 2024

A. 39

B. 38

C. 40 ✓

D. 41

Q12 Mathematics ENGLISH

A company earns a profit (in ₹) that is distributed among the company's three partners in the ratio of 4 : 12 : 5. If the difference between the smallest and the largest shares is ₹20208, the total profit (in ₹) of the company is:

A. 53097

B. 53096

C. 53060

D. 53046 ✓

Q13 Mathematics ENGLISH

When 268 is added to $6K8$, the result is $9P6$. What is the least possible value of K and P for which $9P6$ is divisible by 3?

A. $K=4$; $P=6$ B. $K=6$; $P=9$ C. $K=0$; $P=3$ D. $K=3$; $P=0$ ✓**Q14 Mathematics** ENGLISH

A cube of side 5 cm is cut into smaller cubes of side 1 cm. What is the ratio of the total surface area of the larger cube and the sum of the total surfaces of all the smaller cubes?

A. 1 : 5 ✓

B. 2 : 3

C. 1 : 3

D. 2 : 5

Q15 Mathematics ENGLISH

If A's salary is 31 % more than that of B, then how much percent is B's salary less than that of A (correct to 2 decimal places)?

A. 21.53%

B. 23.66% ✓

C. 27.46%

D. 21.74%

Q16 Mathematics ENGLISH

A man walks to a viewpoint and returns to the starting point by his car maintaining constant speed and thus takes a total time of 9 hours 15 minutes. He would have gained 2 hours by driving both ways. How long would it have taken for him to walk both ways with same walking speed?

A. 11 hours 15 minutes ✓

B. 10 hours 15 minutes

C. 11 hours 45 minutes

D. 12 hours 30 minutes



Q17 Mathematics ENGLISH

Evaluate: $33 \div 9 \times 3 - 2 \times 3$

A. 4

B. 7

C. 8

D. 5

**Q18 Mathematics** ENGLISH

A number when increased by 50 %, gives 2970. The number is:

A. 3960

B. 990

C. 5940

D. 1980

**Q19 Mathematics** ENGLISH

The ratio of numbers of girls and boys participating in sports of a school is 1 : 5. If the number of girls is 239, determine the number of boys participating in the sports.

A. 1225

B. 1215

C. 1195



D. 1170

Q20 Mathematics ENGLISH

A milk man has 80 litres milk in one container and 68 litres milk in another container. Find the maximum capacity of a container, which can measure milk of either container exact number of times.

A. 2 litres

B. 4 litres



C. 6 litres

D. 5 litres

Q21 Mathematics ENGLISH

A pipe can fill a tank in 18 hours. Another pipe can empty the filled tank in 21 hours. If both the pipes are opened simultaneously, then the time (in hours) in which the tank will be filled is:

A. 127

B. 128

C. 126



D. 129

Q22 Mathematics ENGLISH

If the interest earned during the 2nd year on a certain sum is ₹4719, and the rate of interest is 10% per annum compounded annually, then the sum is:

A. ₹42045

B. ₹42445

C. ₹42900



D. ₹41905

Q23 Mathematics ENGLISH

If 330 persons can complete the construction of a shopping complex in 50 days, how many persons are required to complete the same work in 30 days?

A. 198

B. 450

C. 550



D. 505



Q24 Mathematics **ENGLISH**

AC is a chord of a circle. If X and Y are the two points, on the circumference of the circle, lying on the same side of the chord AC such that $\angle AXC = 58^\circ$, then what is the measure of $2\angle AYC$?

A. 116°



B. 120°

C. 58°

D. 60°

Q25 Mathematics **ENGLISH**

By selling an article at $\frac{2}{5}$ of its actual selling price, Ramesh incurs a loss of 16%. If he sells it at 86% of its actual selling price, then the profit percentage is:

A. 83.4%

B. 80.6%



C. 82.6%

D. 81.8%

Q26 Mathematics **ENGLISH**

The mean marks of the following distribution is:

Marks Obtained	No. of Students
28	8
12	12
57	18
85	13

A. 43

B. 53

C. 39

D. 49

**Q27 Mathematics** **ENGLISH**

Radha thinks of a number and subtracts $6\frac{3}{5}$ from it. She multiplies the result by 10. Now the result obtained is four times the same number she thought. Find the number.

A. 14

B. 11



C. 13

D. 12



Q28 Mathematics ENGLISH

Find the mean of the following frequency distribution.

x	5	6	15	9	8
f	10	5	8	10	9

A. $9\frac{13}{21}$

B. $8\frac{13}{21}$ ✓

C. $7\frac{13}{21}$

D. $6\frac{13}{21}$

Q29 Mathematics ENGLISH

Ram takes 2 hours more than Ravi to walk 20 km. If Ram doubles his speed, then he is ahead of Ravi by one hour 20 minutes. Find the speed of Ravi (in km/hr).

A. $3\frac{2}{7}$

B. $4\frac{2}{7}$ ✓

C. 4

D. 3

Q30 Mathematics ENGLISH

Find the value of $0.\overline{36} + 0.\overline{723}$.

A. $1\frac{41}{495}$

B. $1\frac{31}{330}$

C. $1\frac{89}{990}$ ✓

D. $1\frac{26}{33}$



Q31 General Intelligence and Reasoning **ENGLISH**

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

HKN 7, CFI 13, XAD 19, SVY 25, NQT 31, ?

A. ILO 37



B. ILO 36

C. JLO 37

D. ILP 37

Q32 General Intelligence and Reasoning **ENGLISH**

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 letter-cluster DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

A. IEB

B. UQN

C. NJG

D. ZWU

**Q33** General Intelligence and Reasoning **ENGLISH**

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

34 34 46 46 58 58 70 70 ?

A. 84

B. 88

C. 90

D. 82

**Q34** General Intelligence and Reasoning **ENGLISH**

Tarun ranked 21st from the top and 12th from the bottom in his class. How many students are there in his class?

A. 31

B. 32



C. 33

D. 34

Q35 General Intelligence and Reasoning **ENGLISH**

What should come in place of the question mark (?) in the given series based on the English alphabetical order?

HFC JHE LJG NLI ?

A. PNK



B. PML

C. PMK

D. PNL

Q36 General Intelligence and Reasoning **ENGLISH**

If 1 is added to each odd digit and 2 is subtracted from each even digit in the number 1534876, what will be the sum of the digits which are third from the left and third from the right?

A. 8

B. 6

C. 14

D. 10

**Q37** General Intelligence and Reasoning **ENGLISH**

Two sets of numbers are given below. In each set of numbers, certain mathematical operation(s) on the first number results in the second number. Similarly, certain mathematical operation(s) on the second number results in the third number and so on. Which of the given options follows the same set of operations as in the given 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 to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

4 - 8 - 16 - 32; 1 - 2 - 4 - 8

A. 12 - 24 - 28 - 56

B. 6 - 12 - 24 - 28

C. 3 - 6 - 12 - 20

D. 5 - 10 - 20 - 40



Q38 General Intelligence and Reasoning **ENGLISH**

Below are given two sets of numbers. In each set of numbers, a certain mathematical operation on first number results in the second number. Similarly, certain mathematical operation on second number results in the third number and so on. Which of the given options follows the same set of operations as in question?

(NOTE – A two/three digit number cannot be broken into individual digits for operations e.g. if 37 is followed by 10, the operation cannot be 3+7 as a two digit number cannot be broken into individual digits)

2 – 14 – 44 – 88 ; 5 – 35 – 65 – 130

A. 7 – 49 – 79 – 158

B. 11 – 121 – 152 – 162

C. 13 – 39 – 122 – 142

D. 14 – 64 – 94 – 144

Q39 General Intelligence and Reasoning **ENGLISH**

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 ::?

: WZB :: BEG : %

A. # = EHJ, % = TWY

B. # = FHJ, % = TWY

C. # = EMJ, % = TWY

D. # = EHJ, % = TWI

Q40 General Intelligence and Reasoning

HINDI - no English version saved

निम्नलिखित संख्या एवं प्रतीक श्रृंखला का संदर्भ लें और उसके बाद आने वाले प्रश्न का उत्तर दें। गिनती केवल बाएं से दाएं की जानी चाहिए।

(बाएं) * 5 2 # # 2 2 7 & % 2 \$ & 1 3 \$ % \$ 5 4 \$ \$ (दाएं)

ऐसी कितनी संख्याएँ हैं जिनमें से प्रत्येक के ठीक पहले एक संख्या है और ठीक बाद में भी एक संख्या है?

A. 2

B. 3

C. 0

D. 1

Q41 General Intelligence and Reasoning **ENGLISH**

Rakesh starts from Point A and drives 21 km towards the west. He then takes a left turn, drives 23 km, turns left and drives 27 km. He then takes a left turn and drives 28 km. He takes a final left turn, drives 6 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. 5 km to the south

B. 4 km to the south

C. 2 km to the south

D. 3 km to the south

Q42 General Intelligence and Reasoning **ENGLISH**

In a certain code,

'butter milk ghee' is coded as 'dy la mt',

'biscuit ghee salad' is coded as 'bz qp la' and

'salad butter egg' is coded as 'st bz dy'.

All the codes are two-letter codes only.

What is ghee coded as?

A. qp

B. bz

C. la

D. mt

Q43 General Intelligence and Reasoning **ENGLISH**

A question is given, followed by two statements labelled I and II. Identify which of the statements is/are sufficient to answer the question.

A, B, C, D and E are sitting in a straight line facing North. Who sits on the extreme right end?

(I) Exactly three people sit between B and C.

(II) A sits immediately to the left of B.

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

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

C. Both Statements I and II put together are not sufficient to answer the question.

D. Both Statements I and II put together (and not independently) are sufficient to answer the question.



Q44 General Intelligence and Reasoning **ENGLISH**

B, C, E, F and H have different heights. F is taller than E but shorter than B. E is taller than H. C is taller than H. More than two people are taller than C. How many people are taller than H?

A. One

B. Four



C. Three

D. Two

Q45 General Intelligence and Reasoning **ENGLISH**

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 letter-cluster DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

A. RXAE



B. NTWB

C. AGJO

D. SYBG

Q46 General Intelligence and Reasoning **ENGLISH**

Select the letter-cluster pair that best represents a similar relationship to the one expressed in the pairs of letter-clusters given below.

UQY : WUV

MDW : OHT

A. NUM : PYK

B. LHR : NKO

C. SOU : USR



D. WTQ : YXO

Q47 General Intelligence and Reasoning **ENGLISH**

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

85 94 108 127 151 ?

A. 170

B. 175

C. 180



D. 185

Q48 General Intelligence and Reasoning **ENGLISH**

In a certain code language,

'A + B' means 'A is the son of B',

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

'A × B' means 'A is the wife of B' and

'A ÷ B' means 'A is the father of B'.

How is S related to H if 'S - D × F + G ÷ H'?

A. Wife's father

B. Brother's wife's father

C. Brother's wife's brother



D. Wife's brother

Q49 General Intelligence and Reasoning **ENGLISH**

Select the letter-cluster pair that best represents a similar relationship to the one expressed in the pairs of letter-clusters given below.

GHO : LGM

HIN : MHL

A. NCL : SBJ



B. ORK : OQM

C. MIH : MHE

D. JJS : JIR

Q50 General Intelligence and Reasoning **ENGLISH**

In a certain code language,

'pen pencil eraser' is coded as 'qp fq pw',

'pencil crayon box' is coded as 'bz er qp' and

'box pen board' is coded as 'er bq fg'.

(All the codes are two-letter coded only.)

What is the code for 'pencil' in that language?

A. bz

B. er

C. qp



D. fq



Q51 General Intelligence and Reasoning ENGLISH

If 'P' stands for '×', 'Q' stands for '÷', 'R' stands for '−' and 'S' stands for '+', what will come in place of the question mark (?) in the following equation?

$$35\ S\ 49\ R\ 6\ P\ 3\ P\ 2\ S\ (72\ Q\ 4) = ?$$

A. 50

B. 66



C. 84

D. 98

Q52 General Intelligence and Reasoning ENGLISH

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 P. Only three people have exams before T. Q has the exam immediately after V but before U. S does not have the exam on Monday. How many people have exams between Q and R?

A. One

B. Three

C. Four



D. Two

Q53 General Intelligence and Reasoning ENGLISH

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

(Left) $3 \ \& \ ^5 \ 7 \ \# \ 9 \ \% \ 8 \ * \ 4 \ < \ 1 \ \$ \ 2 \ @ \ * \ 6$ (Right)

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

A. 5



B. 4

C. 3

D. 2

Q54 General Intelligence and Reasoning ENGLISH

Seven people, W, X, Y, Z, E, F and G, are sitting in a row, facing north. Only two people sit to the right of Y. Only two people sit between Y and F. Only two people sit between E and W. W sits to the immediate left of Y. Z sits to the immediate right of X.

Who sits at the third position from the left end of the row?

A. Y

B. G



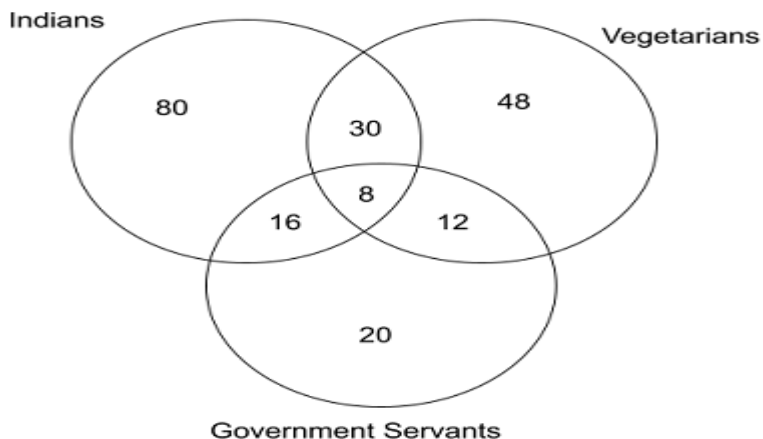
C. Z

D. W



Q55 General Intelligence and Reasoning **ENGLISH**

Study the given diagram carefully and answer the question that follows. The numbers in different sections indicate the number of persons.



How many such government servants are there who are Indians but not vegetarians?

A. 12

B. 16



C. 30

D. 8

General Awareness

15 Questions • Answer Key

Q56 General Awareness **ENGLISH**

Hangul, also known as Kashmir Stag, can be found in _____.

A. Chandoli

B. Campbell Bay

C. Dudhwa

D. Dachigam



Q57 General Awareness **ENGLISH**

The Indigo Rebellion took place in _____ during 1859-1860.

A. Bengal



B. Bombay

C. Punjab

D. Madras

Q58 General Awareness **ENGLISH**

The Indian Space Research Organisation (ISRO) celebrated its 55th foundation day on 15 August 2024 by launching which of the following satellites?

A. EOS-04

B. EOS-06

C. EOS-08



D. EOS-07

Q59 General Awareness **ENGLISH**

Which of the following states has the highest density of railway network as of 2019-20?

A. West Bengal

B. Punjab

C. Odisha

D. Uttar Pradesh



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Q60 General Awareness **ENGLISH**

The Pala King of Bengal, Dharamapala was defeated by which of the following Rashtrakuta kings?

- A. Govinda III
- B. Krishna I
- C. Dhruva Dharavarsha ✓
- D. Indra III

Q61 General Awareness **ENGLISH**

Which of the following is NOT a function of the Prime Minister in India?

- A. Power to recommend for dissolution of the Parliament
- B. Formation of the Council of Ministers
- C. Appointment of Supreme Court judges ✓
- D. Removal of Ministers

Q62 General Awareness **ENGLISH**

Article 24 of the Indian Constitution prohibits the employment of children below the age of ____ years in any factory, mine or other hazardous activities.

- A. 18
- B. 14 ✓
- C. 16
- D. 12

Q63 General Awareness **ENGLISH**

Which UNESCO World Heritage Site is a cave complex with stunning paintings and sculptures, located in Maharashtra?

- A. Elephanta Caves
- B. Bhimbetka Caves
- C. Badami Caves
- D. Ajanta Caves ✓

Q64 General Awareness **ENGLISH**

Which of the following kinds of demand exists in the monopolistic competition for the product of an individual firm?

- A. Perfectly inelastic
- B. Relatively inelastic
- C. Relatively elastic ✓
- D. Perfectly elastic

Q65 General Awareness **ENGLISH**

What was the venue of the 19th annual meeting of the Secretaries of the Security Councils of the Shanghai Cooperation Organization (SCO)?

- A. Kathmandu, Nepal
- B. Astana, Kazakhstan ✓
- C. New Delhi, India
- D. Dhaka, Bangladesh

Q66 General Awareness **ENGLISH**

Chiang Mai city, the most polluted city in the world as of March 2024, is located in which country?

- A. China
- B. Vietnam
- C. Thailand ✓
- D. Japan

Q67 General Awareness **ENGLISH**

Who made history by becoming the oldest Indian to swim across the English Channel in August 2024?

- A. Suyash Jadhav
- B. Srihari Nataraj
- C. Virdhawal Khade
- D. Siddhartha Agarwal ✓



Q68 General Awareness **ENGLISH**

According to clause (2) of Article 239A, any law created by the Parliament for Puducherry shall NOT be considered an amendment to the Constitution for the purposes of which Article?

A. Article 370

B. Article 368



C. Article 371

D. Article 356

Q69 General Awareness **ENGLISH**

In which year was 'Reflections on Mughal Art & Culture' published?

A. 2019

B. 2022

C. 2020

D. 2021

**Q70** General Awareness **ENGLISH**

Who among the following was appointed as the Union Minister of Panchayati Raj in June 2024?

A. Shivraj Singh Chouhan

B. Piyush Goyal

C. Rajiv Ranjan Singh



D. Jagat Prakash Nadda

General Science

30 Questions • Answer Key

Q71 General Science **ENGLISH**

A gardener wants to grow potato plants. He had put a potato with buds (eyes) in the soil. He succeeded to get a new potato plant because:

A. there was no animal to eat the potato buds

B. vegetative propagation is by buds (eyes)



C. potatoes can be grown by root cuttings

D. there are no other plant species in that area

Q72 General Science **ENGLISH**

An object is placed at 30 cm from a convex mirror with a focal length of 15 cm. Calculate the image distance (v) using the mirror formula.

A. -10 cm

B. 10 cm



C. -15 cm

D. 15 cm

Q73 General Science **ENGLISH**

Nita is pregnant, but loves to eat junk food. Her doctor advised her to eat salads and fruits. The reason for this advice is:

A. junk food is tasty, but leads to obesity

B. the mother's blood has no role in the growth of a baby

C. junk food is costly in comparison to salad and fruits

D. the nutrients in the mother's blood nourishes the growing baby

**Q74** General Science **ENGLISH**

An electric fan becomes warm if used continuously for longer time. This happens due to:

A. the high temperature during the summer

B. the slow rotation of the fan

C. the fast rotation of the fan

D. heating effect of the current flowing through the fan



Q75 General Science **ENGLISH**

An electric refrigerator rated 400 W operates 8 hours/day. What is the cost of the energy to operate it for 30 days at ₹3.00 per kW h?

- A. ₹36
- B. ₹400
- C. ₹288
- D. ₹9.6

Q76 General Science **ENGLISH**

What happens when sodium hydroxide reacts with copper (II) sulfate solution?

- A. Sodium sulfate is formed.
- B. Copper(II) hydroxide precipitates.
- C. Copper metal is deposited.
- D. No reaction occurs.

Q77 General Science **ENGLISH**

When washing soda is exposed to hot atmosphere for a long time, it:

- A. gains heat from the Sun and becomes dry
- B. loses water molecules but remains in crystal form
- C. loses water molecules and becomes powdery
- D. gains water molecules and dissolves in them

Q78 General Science **ENGLISH**

What unique feature do the sex chromosomes in humans have compared to other chromosomes?

- A. They are not always a perfect pair in males.
- B. They are always perfectly paired.
- C. They are the largest chromosomes in the body.
- D. They are identical in males and females.

Q79 General Science **ENGLISH**

The genetic constitution of a child getting an X bearing sperm from the father will be:

- A. 44+XY
- B. 46+XY
- C. 44+XX
- D. 46+XX

Q80 General Science **ENGLISH**

What is the term for the band of colours produced when light is dispersed?

- A. Spectrum
- B. Refraction
- C. Reflection
- D. Absorption

Q81 General Science **ENGLISH**

Who was the scientist credited with the discovery of electromagnetic induction?

- A. Nikola Tesla
- B. Michael Faraday
- C. Thomas Edison
- D. Isaac Newton

Q82 General Science **ENGLISH**

Which of the following is a safety device used to prevent excessive current from flowing in electrical circuits?

- A. Capacitor
- B. Resistor
- C. Transformer
- D. Fuse

Q83 General Science **ENGLISH**

Which of the following bacterial infections is considered a sexually transmitted disease (STD)?

- A. Typhoid
- B. Tuberculosis
- C. Pneumonia
- D. Gonorrhoea

Q84 General Science **ENGLISH**

Which of the following plants propagates through runners?

- A. Jasmine
- B. Strawberry
- C. Rose
- D. Potato



Q85 General Science **ENGLISH**

Which of the following is the female germ cell in plants?

- A. Cells outside the ovule
- B. Cell opposite to egg cell in an ovule
- C. Cells in the centre of ovule
- D. Egg cell**

Q86 General Science **ENGLISH**

What type of image does a concave lens form when an object is placed at infinity?

- A. Virtual, erect and point sized**
- B. Virtual, erect and larger
- C. Real, inverted and same size
- D. Real, erect and point sized

Q87 General Science **ENGLISH**

The reactants that are used for the production of bleaching powder are:

- A. $\text{CaOH} + \text{Cl}_2$
- B. $\text{CaO} + \text{Cl}$
- C. $\text{Ca(OH)}_2 + \text{Cl}_2$**
- D. $\text{CaO} + \text{Cl}_2$

Q88 General Science **ENGLISH**

An unsaturated carbohydrate that has a double bond is:

- A. C_3H_4
- B. C_3H_6**
- C. C_3H_8
- D. C_2H_2

Q89 General Science **ENGLISH**

In a displacement reaction, if a more reactive metal displaces a less reactive metal from its salt solution, what is the result?

- A. The less reactive metal is displaced and solidifies
- B. Formation of an insoluble salt**
- C. The less reactive metal is displaced and the more reactive metal becomes a part of the compound
- D. The more reactive metal remains unchanged

Q90 General Science **ENGLISH**

When sodium sulphate solution is added to barium chloride solution, precipitate of _____ is formed.

- A. barium hydrogen sulphate
- B. barium sulphate**
- C. sodium hydrogen sulphate
- D. sodium chloride

Q91 General Science **ENGLISH**

Neutralisation reaction is a type of:

- A. combination reaction
- B. displacement reaction
- C. decomposition reaction
- D. double displacement reaction**

Q92 General Science **ENGLISH**

What does Family Planning aim at?

- A. Population growth
- B. Preventing all pregnancies by recommending abortion
- C. Population control**
- D. Increasing pollution

Q93 General Science **ENGLISH**

The chemical name for 'Plaster of Paris' is:

- A. calcium chloride hexahydrate
- B. calcium sulphate dihydrate
- C. calcium chloride semihydrate
- D. calcium sulphate hemihydrate**

Q94 General Science **ENGLISH**

The front face of a circular loop of a wire is the North Pole; the direction of current in this face of the loop will be:

- A. towards north
- B. clockwise
- C. anti-clockwise**
- D. towards south



Q95 General Science **ENGLISH**

Which of the following is an example of exothermic combination reaction?

A. Quick lime dissolved in water



B. Photosynthesis

C. Ammonium chloride dissolved in water

D. Respiration

Q96 General Science **ENGLISH**

A rose plant with white flowers was planted in soil by stem cutting without any grafting. The new plant produced similar white flowers. What does it indicate?

A. White flowers look good so gardeners plant such roses.

B. Stem cutting is a type of asexual reproduction, so there was no variation.



C. White flowers are the only type of variety available in rose.

D. Stem cutting is a type of sexual reproduction, so there was no variation.

Q97 General Science **ENGLISH**

When hydrogen gas is passed through heated black copper (II) oxide, it:

A. oxidises to form bluish copper solution

B. oxidises to form brownish copper metal

C. reduces to form bluish copper solution

D. reduces to form brownish copper metal



Q98 General Science **ENGLISH**

Which of the following is NOT true about fragmentation?

A. It involves breaking of the organism into parts.

B. It is a form of sexual reproduction.



C. Each fragment can grow into a complete individual.

D. It requires the organism to be multicellular.

Q99 General Science **ENGLISH**

A lens has _____ principal foci.

A. 3

B. 1

C. 2



D. 4

Q100 General Science **ENGLISH**

Fleming's Left-Hand Rule is used to determine _____.

A. the magnitude of the force on a current-carrying conductor

B. the strength of the magnetic field

C. the direction of force on a current-carrying conductor



D. the amount of current flowing through the conductor

