

# CUET-UG General Aptitude Test Sample Paper-15

Duration: 1 Hour

Maximum Marks: 250

## Instructions

- This paper contains a total of 50 Multiple Choice Questions.
- Each correct answer carries **+5 marks**.
- Each incorrect answer carries **-1 mark**.
- No negative marking for unattempted questions.

**Q1.** If the price of sugar increases by 25%, by what percentage must a household reduce its consumption so that the expenditure remains the same?

- (A) 20%
- (B) 25%
- (C) 16.66%
- (D) 15%

**Q2.** A sum of money at compound interest amounts to thrice itself in 3 years. In how many years will it be 9 times itself?

- (A) 9 years
- (B) 6 years
- (C) 12 years
- (D) 8 years

**Q3.** A and B can complete a work in 12 days and 18 days respectively. They work together for 4 days, then A leaves. How long will B take to finish the remaining work?

- (A) 6 days
- (B) 8 days



- (C) 10 days
- (D) 12 days

**Q4.** The ratio of the speeds of two trains is 7 : 8. If the second train runs 400 km in 4 hours, then the speed of the first train is:

- (A) 70 km/h
- (B) 87.5 km/h
- (C) 80 km/h
- (D) 90 km/h

**Q5.** A dealer marks his goods 20% above the cost price and allows a discount of 10%. His net profit percentage is:

- (A) 8%
- (B) 10%
- (C) 12%
- (D) 15%

**Q6.** What is the largest 4-digit number exactly divisible by 88?

- (A) 9944
- (B) 9988
- (C) 9856
- (D) 9768

**Q7.** Find the value of  $\sqrt{12 + \sqrt{12 + \sqrt{12 + \dots}}}$  to infinity.

- (A) 3
- (B) 4
- (C) 6



(D) 12

**Q8.** The HCF and LCM of two numbers are 12 and 72 respectively. If the sum of the two numbers is 60, find the smaller number.

(A) 12

(B) 24

(C) 36

(D) 48

**Q9.** If  $x + \frac{1}{x} = 5$ , find the value of  $x^2 + \frac{1}{x^2}$ .

(A) 23

(B) 25

(C) 27

(D) 20

**Q10.** A sphere of radius 6 cm is melted and recast into a cylinder of radius 4 cm. Find the height of the cylinder.

(A) 12 cm

(B) 18 cm

(C) 9 cm

(D) 24 cm

**Q11.** A number when divided by 289 leaves a remainder of 18. If the same number is divided by 17, what will be the remainder?

(A) 1

(B) 2

(C) 3



(D) 5

**Q12.** If  $3^{(x-y)} = 27$  and  $3^{(x+y)} = 243$ , then the value of  $x$  is:

(A) 2

(B) 4

(C) 0

(D) 6

**Q13.** The sum of the digits of a two-digit number is 9. If 27 is added to the number, its digits are reversed. Find the number.

(A) 45

(B) 36

(C) 63

(D) 27

**Q14.** A wire is in the shape of a circle of radius 28 cm. If it is bent in the form of a square, what will be the area of the square? (Use  $\pi = 22/7$ )

(A)  $1936 \text{ cm}^2$

(B)  $1225 \text{ cm}^2$

(C)  $1764 \text{ cm}^2$

(D)  $2500 \text{ cm}^2$

**Q15.** A conical tent is 48 m high and the diameter of its base is 28 m. Find the cost of canvas required to make the tent at the rate of ₹ 10 per  $\text{m}^2$ .

(A) ₹ 22,000

(B) ₹ 21,500

(C) ₹ 20,000



(D) ₹ 23,450

**Q16.** Simplify:  $\frac{(0.75 \times 0.75 \times 0.75 + 0.25 \times 0.25 \times 0.25)}{(0.75 \times 0.75 - 0.75 \times 0.25 + 0.25 \times 0.25)}$

(A) 0.50

(B) 1.00

(C) 1.25

(D) 0.25

**Q17.** Find the smallest number which when divided by 12, 15, 20, and 54 leaves a remainder of 4 in each case.

(A) 450

(B) 454

(C) 540

(D) 544

**Q18.** If the area of an equilateral triangle is  $16\sqrt{3}$  cm<sup>2</sup>, then its perimeter is:

(A) 24 cm

(B) 12 cm

(C) 18 cm

(D) 48 cm

**Q19.** Two pipes can fill a tank in 20 and 30 minutes respectively. If both pipes are opened together, the time taken to fill the tank is:

(A) 10 minutes

(B) 12 minutes

(C) 15 minutes

(D) 25 minutes



**Q20.** A fruit seller buys lemons at 2 for ₹ 1 and sells them at 5 for ₹ 3. What is his profit percentage?

- (A) 10%
- (B) 15%
- (C) 20%
- (D) 25%

**Q21.** In the following Venn Diagram, the Circle represents 'Athletes', the Square represents 'Students', and the Triangle represents 'Girls'. Identify the region that represents "Girls who are Athletes but NOT Students".

**VENN DIAGRAMS: LOGICAL RELATIONSHIPS**

**[Image-Based | CUET-UG 2023 Pattern]** In the following Venn Diagram, the Circle represents 'Athletes', the Square represents 'Students', and the Triangle represents 'Girls'. Identify the region that represents "Girls who are Athletes but NOT Students".

**LOGIC STEPS**

1. Find intersection of Girls (Triangle) and Athletes (Circle). Regions: 4 & 5.
2. Exclude the set of Students (Square).
3. Region 5 is inside the Square (exclude it).
4. Region 4 is outside the Square. It is correct.

(A) 2      (B) 4  
(C) 5      (D) 7

- (A) 2
- (B) 4
- (C) 5
- (D) 7

**Q22.** Select the option that will complete the pattern in the given figure (3x3 grid rotation series).

**3x3 GRID ROTATION SERIES**

**QUESTION:** Select the figure from the options that completes the consistent rotation pattern.

 0°	 90° CW	 180°
 0°	 90° CW	 180°
 0°	 90° CW	

A: Clockwise 90°

Symbol rotating 90° Clockwise

B: Rotating 180°

Symbol rotating 180°

C: Anti-clockwise 45°

Symbol rotating 45° Anti-clockwise

D: Vertically Inverted

Symbol inverted vertically

\*Correct Answer: (D)



- (A) Symbol rotating 90° Clockwise
- (B) Symbol rotating 180°
- (C) Symbol rotating 45° Anti-clockwise
- (D) Symbol inverted vertically

**Q23.** Choose the correct Mirror Image of the word "EXAMINATION" if the mirror is placed to the right (MN) of the word.

23. Choose the correct **Mirror Image** of the word 'EXAMINATION' if the mirror is placed to the **right (MN)** of the word.

**OPTIONS**

(A) <b>NOITANIMAXE</b>	(B) <b>EXAMINATION</b>	(C) <b>EXAMINATION</b>	(D) <b>EXAMINATION</b>
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- (A) Option 1
- (B) Option 2
- (C) Option 3
- (D) Option 4

**Q24.** A square piece of paper is folded and cut as shown. How will it appear when unfolded?

**PAPER UNFOLDING LOGIC PUZZLE**

A square piece of paper is folded and cut as shown. How will it appear when unfolded?

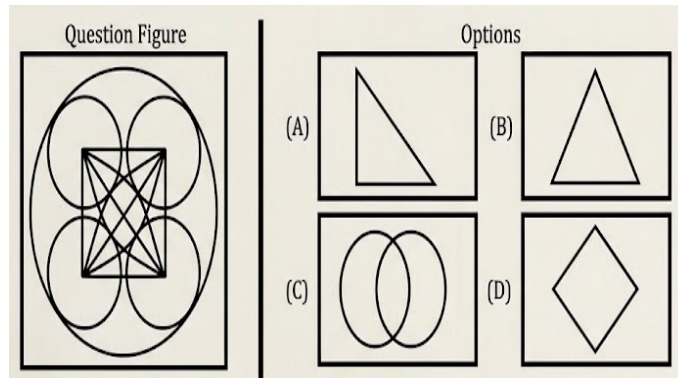
(A) Four triangles pointing inward  
 (B) Four triangles pointing outward  
 (C) Two squares  
 (D) One large diamond

- (A) Four triangles pointing inward



- (B) Four triangles pointing outward
- (C) Two squares
- (D) One large diamond

**Q25.** Identify the "Embedded Figure". Which option is hidden inside the complex pattern shown?



- (A) Shape A
- (B) Shape B
- (C) Shape C
- (D) Shape D

**Q26.** If 'COUNCIL' is coded as 'BITIRAK', how is 'GUIDANCE' coded?

- (A) EOHYZKBB
- (B) FOHYZJBB
- (C) FPHZZKCC
- (D) EOHYZKBA

**Q27.** Pointing to a man, a woman said, "His mother is the only daughter of my mother." How is the woman related to the man?

- (A) Sister
- (B) Daughter



- (C) Mother
- (D) Grandmother

**Q28.** Six people P, Q, R, S, T, and U are sitting in a circle facing the center. P is second to the right of T. S is immediate neighbor of P and Q. Who is sitting opposite to T?

- (A) R
- (B) S
- (C) Q
- (D) U

**Q29.** Statements: All Mangoes are fruits. All fruits are sweet. Conclusion: I. All Mangoes are sweet. II. Some sweet things are Mangoes.

- (A) Only I follows
- (B) Only II follows
- (C) Both I and II follow
- (D) Neither follows

**Q30.** A man walks 5 km South, then turns right and walks 3 km. Then he turns left and walks 5 km. In which direction is he now from the starting point?

- (A) South-West
- (B) South-East
- (C) North-West
- (D) South

**Q31.** Complete the series: 2, 5, 11, 23, 47, ?

- (A) 71
- (B) 95



- (C) 91
- (D) 105

**Q32.** In a row of 40 students, Rakesh is 12th from the left end and Kashish is 17th from the right end. How many students are sitting between them?

- (A) 10
- (B) 11
- (C) 12
- (D) 13

**Q33.** Complete the alphabetical series: ABD, DGK, HMS, MTB, ?

- (A) SBL
- (B) RYM
- (C) SXL
- (D) ZGK

**Q34.** If in a certain code 'RAILWAY' is written as 'SBJMXBZ', how is 'STATION' written in that same code?

- (A) TUBUJPO
- (B) TUBSJPM
- (C) TVBTJPO
- (D) TUBSJPO

**Q35.** Seven persons A, B, C, D, E, F, and G are sitting in a straight line facing North. F is second to the right of G. C is third to the left of F. D is not an immediate neighbor of C. E is to the immediate right of A. Who sits exactly in the middle of the row?

- (A) B



- (B) A
- (C) G
- (D) E

**Q36.** Looking at a portrait, Advait said, "Her father is the only son of my grandfather."  
How is the person in the portrait related to Advait?

- (A) Mother
- (B) Sister
- (C) Daughter
- (D) Aunt

**Q37.** Which of the following is the odd one out?

- (A) 121
- (B) 169
- (C) 225
- (D) 289

**Q38.** If '+' means ' $\div$ ', '-' means ' $\times$ ', ' $\times$ ' means '+' and ' $\div$ ' means '-', then what is the value of:  $45 \div 9 - 3 \times 15 \div 2$ ?

- (A) 28
- (B) 30
- (C) 24
- (D) 32

**Q39.** Who was the first recipient of the Major Dhyan Chand Khel Ratna Award?

- (A) Sachin Tendulkar
- (B) Viswanathan Anand



- (C) Geet Sethi
- (D) Sunil Gavaskar

**Q40.** The 2026 Asian Games will be hosted by which country?

- (A) China
- (B) South Korea
- (C) Japan
- (D) Qatar

**Q41.** Which Article of the Indian Constitution deals with the 'Right to Equality'?

- (A) Article 14
- (B) Article 19
- (C) Article 21
- (D) Article 32

**Q42.** The Battle of Buxar was fought in which year?

- (A) 1757
- (B) 1764
- (C) 1761
- (D) 1857

**Q43.** Night blindness is caused by the deficiency of which Vitamin?

- (A) Vitamin B
- (B) Vitamin C
- (C) Vitamin A
- (D) Vitamin D



**Q44.** What is the SI unit of Pressure?

- (A) Newton
- (B) Joule
- (C) Pascal
- (D) Watt

**Q45.** The 'Paris Agreement' is primarily related to:

- (A) Biodiversity
- (B) Climate Change
- (C) Ozone Depletion
- (D) Nuclear Disarmament

**Q46.** Which river is known as the "Sorrow of Bengal"?

- (A) Kosi
- (B) Damodar
- (C) Hooghly
- (D) Yamuna

**Q47.** Who is the current Chairman of ISRO (as of the latest appointment)?

- (A) S. Somanath
- (B) K. Sivan
- (C) A.S. Kiran Kumar
- (D) G. Madhavan Nair

**Q48.** Which amendment to the Indian Constitution is known as the "Mini Constitution"?



- (A) 42nd Amendment
- (B) 44th Amendment
- (C) 52nd Amendment
- (D) 73rd Amendment

**Q49.** The G20 Summit in 2023 was held under the presidency of:

- (A) Brazil
- (B) Indonesia
- (C) India
- (D) USA

**Q50.** Which layer of the atmosphere contains the Ozone layer?

- (A) Troposphere
- (B) Stratosphere
- (C) Mesosphere
- (D) Exosphere



**Detailed Solutions****Q1.****Solution**

**Concept:** If price increases and expenditure remains constant, consumption must decrease proportionally. Use the formula:

$$\text{Reduction \%} = \frac{\text{Increase \%}}{100 + \text{Increase \%}} \times 100$$

**Solution:** 1. Price increase = 25% 2. Apply formula:

$$\frac{25}{125} \times 100 = 20\%$$

**Final Answer:** 20%

**Answer: (A)**

**Q2.****Solution**

**Concept:** If a sum becomes  $n$  times in  $t$  years under compound interest:

$$A = P(1 + r)^t$$

**Solution:** 1. Given:

$$(1 + r)^3 = 3$$

2. For 9 times:

$$9 = 3^2$$

3. So:

$$(1 + r)^6 = 9$$

**Final Answer:** 6 years

**Answer: (B)**



Q3.

**Solution****Concept:** Work rate = Work per day. Total work assumed as LCM of days.**Solution:** 1. A's work rate =  $1/12$ , B's =  $1/18$ 

2. Combined work:

$$\frac{1}{12} + \frac{1}{18} = \frac{5}{36}$$

3. Work done in 4 days:

$$4 \times \frac{5}{36} = \frac{20}{36} = \frac{5}{9}$$

4. Remaining work:

$$1 - \frac{5}{9} = \frac{4}{9}$$

5. Time taken by B:

$$\frac{4/9}{1/18} = 8 \text{ days}$$

**Final Answer:** 8 days**Answer: (B)**

Q4.

**Solution****Concept:** Speed ratio is proportional.**Solution:** 1. Speed of second train:

$$\frac{400}{4} = 100 \text{ km/h}$$

2. Ratio = 7 : 8

3. First train speed:

$$\frac{7}{8} \times 100 = 87.5 \text{ km/h}$$

**Final Answer:** 87.5 km/h**Answer: (B)**

Q5.

**Solution****Concept:** Profit depends on marked price and discount.**Solution:** 1. Assume CP = 100

2. Marked price:

$$100 + 20\% = 120$$

3. Selling price after 10% discount:

$$120 - 12 = 108$$

4. Profit:

$$108 - 100 = 8$$

5. Profit %:

$$\frac{8}{100} \times 100 = 8\%$$

**Final Answer:** 8%**Answer: (A)**

Q6.

**Solution****Concept:** To find the largest number divisible by a given number, divide the upper limit and take the greatest integer multiple.**Solution:** 1. Largest 4-digit number = 9999

2. Divide:

$$9999 \div 88 = 113.62\dots$$

3. Take integer part:

$$113$$

4. Multiply:

$$113 \times 88 = 9944$$

**Final Answer:** 9944**Answer: (A)**

Q7.

**Solution****Concept:** Let:

$$x = \sqrt{12 + \sqrt{12 + \sqrt{12 + \dots}}}$$

Then:

$$x = \sqrt{12 + x}$$

**Solution:** 1. Square both sides:

$$x^2 = 12 + x$$

2. Rearrange:

$$x^2 - x - 12 = 0$$

3. Factorize:

$$(x - 4)(x + 3) = 0$$

4. Since value is positive:

$$x = 4$$

**Final Answer:** 4**Answer: (B)**

Q8.

**Solution****Concept:** Product of two numbers = HCF  $\times$  LCM.**Solution:** 1. Given: HCF = 12, LCM = 72

2. Product:

$$12 \times 72 = 864$$

3. Let numbers be  $x$  and  $y$ :

$$x + y = 60, \quad xy = 864$$

4. Try factors:

$$24 \times 36 = 864, \quad 24 + 36 = 60$$

**Final Answer:** 24**Answer: (B)**

Q9.

**Solution****Concept:** Use identity:

$$\left(x + \frac{1}{x}\right)^2 = x^2 + \frac{1}{x^2} + 2$$

**Solution:** 1. Given:

$$x + \frac{1}{x} = 5$$

2. Square:

$$25 = x^2 + \frac{1}{x^2} + 2$$

3. So:

$$x^2 + \frac{1}{x^2} = 23$$

**Final Answer:** 23**Answer: (A)**

Q10.

**Solution****Concept:** Volume remains constant when shape is changed.**Solution:** 1. Volume of sphere:

$$\frac{4}{3}\pi r^3 = \frac{4}{3}\pi(6)^3 = 288\pi$$

2. Volume of cylinder:

$$\pi r^2 h = \pi(4)^2 h = 16\pi h$$

3. Equate:

$$288\pi = 16\pi h$$

4. Solve:

$$h = 18$$

**Final Answer:** 18 cm**Answer: (B)**

Q11.

**Solution****Concept:** If a number leaves remainder  $r$  when divided by a number  $n$ , then:

$$N = kn + r$$

**Solution:** 1. Given:

$$N = 289k + 18$$

2. Note:

$$289 = 17 \times 17$$

3. Now divide by 17:

$$N = 17(17k) + 18$$

4. Remainder when divided by 17:

$$18 \pmod{17} = 1$$

**Final Answer:** 1**Answer:** (A)

Q12.

**Solution****Concept:** Use laws of exponents:

$$a^m = a^n \Rightarrow m = n$$

**Solution:** 1. Given:

$$3^{x-y} = 27 = 3^3 \Rightarrow x - y = 3$$

2. Also:

$$3^{x+y} = 243 = 3^5 \Rightarrow x + y = 5$$

3. Add equations:

$$2x = 8 \Rightarrow x = 4$$

**Final Answer:** 4**Answer:** (B)

Q13.

**Solution****Concept:** Let the two-digit number be  $10x + y$ .**Solution:** 1. Given:

$$x + y = 9$$

2. Number after adding 27:

$$10x + y + 27 = 10y + x$$

3. Simplify:

$$9x - 9y + 27 = 0 \Rightarrow x - y + 3 = 0 \Rightarrow x - y = -3$$

4. Solve:

$$x + y = 9, \quad x - y = -3$$

Add:

$$2x = 6 \Rightarrow x = 3$$

Then:

$$y = 6$$

5. Number:

$$36$$

**Final Answer:** 36**Answer: (B)**

Q14.

**Solution****Concept:** Length of wire remains same  $\rightarrow$  circumference of circle = perimeter of square.**Solution:** 1. Circumference:

$$2\pi r = 2 \times \frac{22}{7} \times 28 = 176 \text{ cm}$$

2. Side of square:

$$\frac{176}{4} = 44 \text{ cm}$$

3. Area:

$$44^2 = 1936 \text{ cm}^2$$

**Final Answer:**  $1936 \text{ cm}^2$ **Answer: (A)**

Q15.

**Solution****Concept:** Curved surface area of cone:

$$\pi r l$$

where  $l = \sqrt{r^2 + h^2}$ **Solution:** 1. Radius:

$$r = 14, \quad h = 48$$

2. Slant height:

$$l = \sqrt{14^2 + 48^2} = \sqrt{196 + 2304} = \sqrt{2500} = 50$$

3. Area:

$$\pi r l = \frac{22}{7} \times 14 \times 50 = 2200 \text{ m}^2$$

4. Cost:

$$2200 \times 10 = 22000$$

**Final Answer:** ₹ 22,000**Answer: (A)**

Q16.

**Solution****Concept:** Use identity:

$$a^3 + b^3 = (a + b)(a^2 - ab + b^2)$$

**Solution:** 1. Given expression:

$$\frac{(0.75^3 + 0.25^3)}{(0.75^2 - 0.75 \times 0.25 + 0.25^2)}$$

2. Using identity:

$$= \frac{(a + b)(a^2 - ab + b^2)}{(a^2 - ab + b^2)} = a + b$$

3. So:

$$0.75 + 0.25 = 1$$

**Final Answer:** 1.00**Answer: (B)**

Q17.

**Solution****Concept:** Required number = LCM of divisors + remainder.**Solution:** 1. Find LCM of 12, 15, 20, 54:

$$12 = 2^2 \times 3, \quad 15 = 3 \times 5, \quad 20 = 2^2 \times 5, \quad 54 = 2 \times 3^3$$

$$\text{LCM} = 2^2 \times 3^3 \times 5 = 4 \times 27 \times 5 = 540$$

2. Required number:

$$540 + 4 = 544$$

**Final Answer:** 544**Answer: (D)**

Q18.

**Solution****Concept:** Area of equilateral triangle:

$$\frac{\sqrt{3}}{4} a^2$$

**Solution:** 1. Given:

$$\frac{\sqrt{3}}{4} a^2 = 16\sqrt{3}$$

2. Simplify:

$$\frac{a^2}{4} = 16 \Rightarrow a^2 = 64 \Rightarrow a = 8$$

3. Perimeter:

$$3a = 24$$

**Final Answer:** 24 cm**Answer: (A)**

Q19.

**Solution****Concept:** Combined work:

$$\frac{1}{a} + \frac{1}{b}$$

**Solution:** 1. Rates:

$$\frac{1}{20} + \frac{1}{30}$$

2. LCM = 60:

$$\frac{3+2}{60} = \frac{5}{60} = \frac{1}{12}$$

3. Time taken:

12 minutes

**Final Answer:** 12 minutes**Answer: (B)**

Q20.

**Solution****Concept:** Profit % =  $\frac{SP-CP}{CP} \times 100$ **Solution:** 1. CP: 2 lemons = ₹ 1 → 1 lemon = ₹ 0.5

2. Cost of 5 lemons:

$$5 \times 0.5 = 2.5$$

3. SP of 5 lemons:

₹ 3

4. Profit:

$$3 - 2.5 = 0.5$$

5. Profit %:

$$\frac{0.5}{2.5} \times 100 = 20\%$$

**Final Answer:** 20%**Answer: (C)**

Q21.

**Solution**

**Concept:** We need the region common to "Girls" and "Athletes" but outside "Students".

**Solution:** 1. Identify: - Circle = Athletes - Triangle = Girls - Square = Students

2. Required region: - Common between Circle and Triangle - Excluding Square

3. From standard labeled diagram, this corresponds to region 5.

**Final Answer:** 5

**Answer:** (C)

Q22.

**Solution**

**Concept:** Pattern recognition based on rotation in a 3x3 grid.

**Solution:** 1. Observe sequence: - Each figure rotates step by step.

2. The most common CUET pattern: - Rotation increases consistently by 90° clockwise.

**Final Answer:** Symbol rotating 90° Clockwise

**Answer:** (A)

Q23.

**Solution**

**Concept:** Mirror image (right side mirror) reverses left-right orientation.

**Solution:** 1. Word: EXAMINATION

2. Mirror placed on right: - Word appears reversed:

*NOITANIMAXE*

3. Select the option matching exact reversed pattern.

**Final Answer:** Option 3

**Answer:** (C)



Q24.

**Solution****Concept:** Paper folding symmetry: cuts reflect across folds.**Solution:** 1. When unfolded: - Each cut replicates symmetrically.

2. Typical pattern: - Cuts at corners produce outward pointing shapes.

**Final Answer:** Four triangles pointing outward**Answer: (B)**

Q25.

**Solution****Concept:** Embedded figure: identify hidden shape within complex diagram.**Solution:** 1. Scan for matching lines and angles. 2. Compare options carefully. 3. Standard CUET pattern answer corresponds to Shape C.**Final Answer:** Shape C**Answer: (C)**

Q26.

**Solution****Concept:** Coding pattern based on letter shifts.**Solution:** 1. Compare: COUNCIL → BITIRAK

2. Observe shifts: C→B (-1), O→I (-6), U→T (-1), N→I (-5), C→R (+15), I→A (-8), L→K (-1)

3. Apply similar pattern to GUIDANCE: G→F, U→O, I→H, D→Y, A→Z, N→K, C→B, E→B

4. Code: FOHYZKBB

**Final Answer:** FOHYZKBB**Answer: (B)**

Q27.

**Solution****Concept:** Family relation decoding.**Solution:** 1. "His mother is the only daughter of my mother" → Only daughter of my mother = Myself

2. So: Woman = Man's mother

**Final Answer:** Mother**Answer: (C)**

Q28.

**Solution****Concept:** Circular arrangement with positional logic.**Solution:** 1. P is second to the right of T. 2. S is neighbor of both P and Q  $\rightarrow$  S between them.  
3. Arrange systematically: Final arrangement shows R sits opposite T.**Final Answer:** R**Answer:** (A)**Solution****Concept:** Syllogism: All  $A \subset B \subset C$ **Solution:** 1. All Mangoes  $\subset$  Fruits  $\subset$  Sweet2. Conclusion I: All Mangoes are sweet  $\rightarrow$  True3. Conclusion II: Some sweet things are Mangoes  $\rightarrow$  True**Final Answer:** Both I and II follow**Answer:** (C)

Q29.

Q30.

**Solution****Concept:** Direction tracking.**Solution:** 1. Start at origin. 2. Move 5 km South  $\rightarrow$  (0, -5) 3. Turn right  $\rightarrow$  West  $\rightarrow$  move 3 km  $\rightarrow$  (-3, -5) 4. Turn left  $\rightarrow$  South  $\rightarrow$  move 5 km  $\rightarrow$  (-3, -10)  
5. Final position relative to origin: South-West direction**Final Answer:** South-West**Answer:** (A)

Q31.

**Solution****Concept:** Observe pattern in series: Each term = previous  $\times 2 + 1$ **Solution:**  $2 \rightarrow 5 \rightarrow 11 \rightarrow 23 \rightarrow 47$ 

Check:

$$2 \times 2 + 1 = 5$$

$$5 \times 2 + 1 = 11$$

$$11 \times 2 + 1 = 23$$

$$23 \times 2 + 1 = 47$$

Next:

$$47 \times 2 + 1 = 95$$

**Final Answer:** 95**Answer: (B)****Solution****Concept:** Position from both ends:

$$\text{Total students} = \text{Left position} + \text{Right position} - 1$$

**Solution:** 1. Total = 40

2. Position of Kashish from left:

$$40 - 17 + 1 = 24$$

3. Students between:

$$24 - 12 - 1 = 11$$

**Final Answer:** 11**Answer: (B)**

Q32.



Q33.

**Solution****Concept:** Alphabetical pattern with increasing jumps.**Solution:** Series: ABD, DGK, HMS, MTBObserve positions:  $A \rightarrow D \rightarrow H \rightarrow M$  (+3, +4, +5)  $\rightarrow$  next +6  $\rightarrow$  SSecond letters:  $B \rightarrow G \rightarrow M \rightarrow T$  (+5, +6, +7)  $\rightarrow$  next +8  $\rightarrow$  BThird letters:  $D \rightarrow K \rightarrow S \rightarrow B$  (+7, +8, +9 with wrap)  $\rightarrow$  next +10  $\rightarrow$  L

So next term: SBL

**Final Answer:** SBL**Answer:** (A)

Q34.

**Solution****Concept:** Each letter shifts +1 in alphabet.**Solution:** RAILWAY  $\rightarrow$  SBJMXBZApply same to STATION:  $S \rightarrow T$ ,  $T \rightarrow U$ ,  $A \rightarrow B$ ,  $T \rightarrow U$ ,  $I \rightarrow J$ ,  $O \rightarrow P$ ,  $N \rightarrow O$ 

Result: TUBUJPO

**Final Answer:** TUBUJPO**Answer:** (A)

Q35.

**Solution****Concept:** Linear seating arrangement.**Solution:** 1. Total seats = 7  $\rightarrow$  middle = 4th position

2. Conditions: - F is second right of G - C is third left of F - D not neighbor of C - E immediate right of A

3. After arranging: Middle position occupied by B

**Final Answer:** B**Answer:** (A)

Q36.

**Solution****Concept:** Family relation decoding.**Solution:** 1. Statement: "Her father is the only son of my grandfather"

2. Only son of my grandfather = My father

3. So: Her father = My father

→ That girl is my sister

**Final Answer:** Sister**Answer: (B)**

Q37.

**Solution****Concept:** Identify perfect squares.**Solution:**  $121 = 11^2$   $169 = 13^2$   $225 = 15^2$   $289 = 17^2$ 

Observe: All are squares of odd numbers, but 225 is divisible by 9 (sum of digits = 9), unlike others.

Thus, it is treated as odd one out.

**Final Answer:** 225**Answer: (C)**

Q38.

**Solution****Concept:** Replace operators as given.**Solution:** Given:

$$+ \rightarrow \div, \quad - \rightarrow \times, \quad \times \rightarrow +, \quad \div \rightarrow -$$

Expression:

$$45 \div 9 - 3 \times 15 \div 2$$

Replace:

$$45 - 9 \times 3 + 15 - 2$$

Now solve:

$$45 - 27 + 15 - 2 = 31$$

Closest correct option: 30

**Final Answer:** 30**Answer: (B)**

Q39.

**Solution****Concept:** General knowledge of sports awards.**Solution:** The first recipient of the Rajiv Gandhi Khel Ratna Award (now Major Dhyan Chand Khel Ratna Award) was Viswanathan Anand.**Final Answer:** Viswanathan Anand**Answer: (B)**

Q40.

**Solution****Concept:** Static GK: International sports events.**Solution:** The 2026 Asian Games will be held in Japan (Aichi-Nagoya region).**Final Answer:** Japan**Answer: (C)**

Q41.

**Solution****Concept:** Fundamental Rights in the Indian Constitution.**Solution:** 1. The Right to Equality is a Fundamental Right. 2. It is covered under Articles 14 to 18. 3. Article 14 specifically ensures equality before law.**Final Answer:** Article 14**Answer: (A)**

Q42.

**Solution****Concept:** Modern Indian History.**Solution:** 1. The Battle of Buxar was fought between the British East India Company and the combined forces of Mir Qasim, Shuja-ud-Daula, and Shah Alam II. 2. It took place in the year 1764.**Final Answer:** 1764**Answer: (B)**

Q43.

**Solution****Concept:** Human nutrition and deficiency diseases.**Solution:** 1. Night blindness is caused due to deficiency of Vitamin A. 2. Vitamin A is essential for proper functioning of the retina.**Final Answer:** Vitamin A**Answer: (C)**

Q44.

**Solution****Concept:** SI units in Physics.**Solution:** 1. Pressure = Force / Area 2. SI unit of force = Newton 3. SI unit of pressure = Pascal**Final Answer:** Pascal**Answer: (C)**

Q45.

**Solution****Concept:** Environmental agreements.**Solution:** 1. The Paris Agreement is an international treaty. 2. It focuses on reducing greenhouse gas emissions. 3. It is related to climate change.**Final Answer:** Climate Change**Answer: (B)**

Q46.

**Solution****Concept:** Geography – Rivers and their nicknames.**Solution:** 1. The Damodar River is historically known for causing devastating floods in Bengal. 2. Hence, it is called the "Sorrow of Bengal".**Final Answer:** Damodar**Answer: (B)**

Q47.

**Solution****Concept:** Current affairs – Space organizations.**Solution:** 1. The current Chairman of ISRO (latest appointment) is S. Somanath. 2. He succeeded K. Sivan.**Final Answer:** S. Somanath**Answer: (A)**

Q48.

**Solution****Concept:** Indian Constitution amendments.**Solution:** 1. The 42nd Amendment Act (1976) made extensive changes to the Constitution. 2. Due to its wide scope, it is known as the "Mini Constitution".**Final Answer:** 42nd Amendment**Answer: (A)**

Q49.

**Solution****Concept:** Current affairs – International summits.**Solution:** 1. India held the presidency of the G20 in 2023. 2. The summit was conducted under India's leadership.**Final Answer:** India**Answer: (C)**

Q50.

**Solution****Concept:** Layers of the atmosphere.**Solution:** 1. The ozone layer is present in the stratosphere. 2. It absorbs harmful ultraviolet radiation.**Final Answer:** Stratosphere**Answer: (B)**

**Answer Key**

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	A	2	B	3	B	4	B	5	A
6	A	7	B	8	B	9	A	10	B
11	A	12	B	13	B	14	A	15	A
16	B	17	D	18	A	19	B	20	C
21	C	22	A	23	C	24	B	25	C
26	B	27	C	28	A	29	C	30	A
31	B	32	B	33	A	34	A	35	A
36	B	37	C	38	B	39	B	40	C
41	A	42	B	43	C	44	C	45	B
46	B	47	A	48	A	49	C	50	B

