

# Focus CGL 2026



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1. A is three times as efficient as a worker than B, which allows A to complete a job in 60 days less than B. If they work together, they can finish the job in:

A 18

B 22.5

C 24

D 26

### Solution

- Efficiency ratio of A : B = 3 : 1, so Time ratio A : B = 1 : 3.
- Difference in time ratio = 3 - 1 = 2 units.
- 2 units = 60 days  $\Rightarrow$  1 unit = 30 days (A's time) and 3 units = 90 days (B's time).
- Time taken together =  $(30 \times 90) \div (30 + 90) = 2700 \div 120 = 22.5$  days.

2. Select the most appropriate **ANTONYM** of the given word.

### Obsequious

A Evasive

B Proud

C Assertive

D Submissive

### Solution

- Obsequious means excessively polite or overly submissive to please someone.
- The opposite meaning would be someone who is bold, confident, and not submissive.
- So, the most appropriate antonym is: Assertive.

3. Choose the correct spelling for a word meaning “a very large number”.

**A** Myriad

**B** Mirriad

**C** Myriod

**D** Miriad

### Solution

- The correct spelling for a word meaning “a very large number” is 'Myriad'.
- Myriad refers to a countless or extremely great number.
- For Example: The sky was filled with a myriad of stars.
- Therefore, the correct answer is 'Myriad'.

**4. Rearrange the following sentences to form a coherent paragraph:**

- 1. A key strategy is to diversify energy sources, transitioning from fossil fuels to renewable alternatives like solar, wind, and geothermal power.**
- 2. To mitigate the worst effects of climate change, the global community must drastically reduce its reliance on carbon-intensive energy production.**
- 3. This shift not only decreases greenhouse gas emissions but also improves air quality and creates new economic opportunities.**
- 4. Additionally, policies that promote energy efficiency in buildings and transportation can further lower overall energy consumption.**

**A** 2, 1, 3, 4

**B** 1, 2, 3, 4

**C** 4, 1, 2, 3

**D** 2, 3, 1, 4

### **Solution**

- The given sentences need to be arranged in a sequence that forms a coherent paragraph. The correct sequence is 2, 1, 3, 4.

- Sentence 2 introduces the main idea of reducing reliance on carbon-intensive energy production to combat climate change.
- Sentence 1 explains a key strategy for achieving this goal: transitioning to renewable energy sources.
- Sentence 3 elaborates on the benefits of this transition, such as decreased greenhouse gas emissions, improved air quality, and economic opportunities.
- Sentence 4 concludes by highlighting additional policy measures to lower energy consumption through energy efficiency.

5. What is the value of  $(\frac{7}{8} \times 2.4) \div 0.6$ ?

**A** 3.5

**B** 2.5

**C** 3.2

**D** 2.8

### Solution

- Apply the BODMAS rule by solving the bracket first:  $(\frac{7}{8} \times 2.4)$
- Simplify the multiplication:  $2.4 \div 8 = 0.3$ , so  $7 \times 0.3 = 2.1$
- Now perform the division:  $2.1 \div 0.6$
- Since both numbers have one decimal place, remove the decimals directly:  $21 \div 6 = 3.5$ .

**6. Which of the following equals 10?**

**A**  $(\sqrt{7} + \sqrt{3})^2 - 2\sqrt{21}$

**B**  $(\sqrt{5} + \sqrt{5})^2$

**C**  $(\sqrt{2} + \sqrt{3})^2 + 2\sqrt{6}$

**D**  $(\sqrt{11} + \sqrt{5})^2 - 2\sqrt{55}$

**Solution**

- We know the algebraic identity:  $(a + b)^2 = a^2 + b^2 + 2ab$ .
- Rearranging it gives a direct shortcut:  $(a + b)^2 - 2ab = a^2 + b^2$ .
- Checking the first expression where  $a = \sqrt{7}$  and  $b = \sqrt{3}$ , the term  $2ab$  is exactly  $2\sqrt{21}$ .

$$\Rightarrow (\sqrt{7} + \sqrt{3})^2 - 2\sqrt{21} = (\sqrt{7})^2 + (\sqrt{3})^2 = 7 + 3 = 10.$$

7. If  $a : b = 5 : 3$ , then find  $(6a + 2b) : (6a - 2b)$ .

**A** 3:2

**B** 2:3

**C** 5:3

**D** 3:5

### Solution

- Since the given expression is homogeneous (same degree for variables), we can directly substitute the ratio values.
- Substitute  $a = 5$  and  $b = 3$  in the given expression  $(6a + 2b) : (6a - 2b)$ .

$$\Rightarrow (6 \times 5 + 2 \times 3) : (6 \times 5 - 2 \times 3)$$

$$\Rightarrow (30 + 6) : (30 - 6)$$

$$\Rightarrow 36 : 24 = 3 : 2.$$

8. A and B invest ₹50,000 and ₹70,000 respectively in a business. After 1 year, the total profit is distributed including simple interest at 10% per annum on the capital of each partner. If the total profit including interest is ₹18,000, what is A's share of the profit?

A ₹7,000

**B ₹7,500**

C ₹8,000

D ₹8,500

### Solution

- Total Capital =  $50,000 + 70,000 = 1,20,000$ .
- Total Interest to be paid =  $10\%$  of  $1,20,000 = ₹12,000$ .
- Remaining profit to be shared =  $18,000 - 12,000 = ₹6,000$ .
- Capital ratio A : B =  $5 : 7 \rightarrow$  A's profit share =  $(5 \div 12) \times 6,000 = ₹2,500$ .
- A's total share = Interest ( $5,000$ ) + Profit ( $2,500$ ) =  $₹7,500$ .

9. What is the average of all numbers between 1000 and 1300 that are divisible by 25?

**A** 1150

**B** 1200

**C** 1575

**D** 1500

### Solution

- Numbers divisible by 25 form an Arithmetic Progression (AP) since the gap between consecutive numbers is constant (25).
- For any sequence in an AP, the average is simply the mean of the first and the last terms.
- The first multiple of 25 strictly after 1000 is 1025, and the last multiple strictly before 1300 is 1275.
- $\text{Average} = (\text{First Term} + \text{Last Term}) \div 2$
- $\text{Average} = (1025 + 1275) \div 2 = 2300 \div 2 = 1150.$

10. There are 5 consecutive even numbers  $X_1, X_2, X_3, X_4, X_5$  and 4 consecutive odd numbers  $Y_1, Y_2, Y_3, Y_4$ . The average of the even numbers is 5 more than the average of the odd numbers. If the sum of the even numbers is 30 more than the sum of the odd numbers, find the average of the odd numbers.

A 3

B 4

C 5

D 6

### Solution

- Let the average of the 4 consecutive odd numbers be  $A$ .
- Average of the 5 consecutive even numbers =  $A + 5$
- Given: Sum of even numbers – Sum of odd numbers = 30

$$\Rightarrow 5 \times (A + 5) - 4 \times A = 30$$

$$\Rightarrow 5A + 25 - 4A = 30 \Rightarrow A = 5.$$

**11. Evaluate:****80% of 350 - 37( $\frac{1}{2}$ )% of 160 + 11% of 500****A** 225**B** 250**C** 275**D** 300**Solution**

- Convert standard percentages directly into fractions:  $80\% = \frac{4}{5}$  and  $37.5\% = \frac{3}{8}$ .
- Expression =  $(\frac{4}{5} \times 350) - (\frac{3}{8} \times 160) + (11\% \times 500)$
- Expression =  $(4 \times 70) - (3 \times 20) + (11 \times 5) = 280 - 60 + 55 = 275$ .

12. Aman needed ₹30,000 for a start-up and split the sum between two private lenders under simple-interest terms: Lender A charges 9 % p.a. (simple interest) Lender B charges 6 % p.a. (simple interest) Aman kept both loans exactly 4 years and then made a single lump-sum payment that settled only the accumulated interest, which came to ₹9,600. After preparing his books of account, Aman discovered that he interchanged the principal amounts taken from the two lenders, his four-year interest outgo would have been ₹1,200 less than what he actually paid. How much of the original ₹30,000 did Aman borrow at 9 % p.a. from Lender A?

**A** ₹10,000

**B** ₹8,000

**C** ₹7,000

**D** ₹20,000

### Solution

- Actual SI =  $9600 - 1200 = \text{Rs. } 8400$
- Total interest paid in 1 year =  $8400 \div 4 = ₹2100$ .
- Overall average rate of interest =  $(2100 \div 30000) \times 100 = 7\%$ .

- Using the Alligation method, the ratio of principals at 9% and 6% =  $(7 - 6) : (9 - 7) = 1 : 2$ .
- Amount borrowed from Lender A (at 9%) =  $30000 \times [1 \div (2 + 1)] = ₹10,000$ .

13. A garment shop sells a shirt for ₹ A, incurring a loss of 5%. During an end-of-season sale, they mark up the same shirt to ₹ 1.2A. At the sale, they provide a flat discount of 10% on this marked price. What will be the percentage profit or loss for the garment shop on that shirt during the sale?

A 4.6% Profit

B 2.6% Loss

C 2.6% Profit

D 4.6% Loss

### Solution

- Let the initial selling price (A) be ₹ 95 to simplify calculations.
- Since there is a 5% loss on A, the Cost Price (CP) = 100.
- New Marked Price (MP) during the sale =  $1.2 \times 95 = 114$ .
- New Selling Price (SP) after a flat 10% discount =  $114 \times 0.9 = 102.6$ .
- Profit = New SP – CP =  $102.6 - 100 = 2.6 \Rightarrow$  Profit % = 2.6%.

14. A shopkeeper marked an item 50% above its cost price. He then offered two successive discounts of 10% and 20% to a customer. If he made a profit of ₹80, at what price did he sell the item to that customer?

A ₹2000

B ₹2500

C ₹1080

D ₹1000

### Solution

- Let Cost Price (CP) = 100%, then Marked Price (MP) = 150%.
- Equivalent discount for 10% and 20% =  $10 + 20 - (10 \times 20) \div 100 = 28\%$ .
- Selling Price (SP) =  $150\% \times (100 - 28) \div 100 = 150\% \times 0.72 = 108\%$ .
- Profit =  $SP - CP = 108\% - 100\% = 8\%$ .
- Given  $8\% = ₹80 \Rightarrow 1\% = ₹10 \Rightarrow SP (108\%) = 108 \times 10 = ₹1080$ .

15. A shopkeeper has two types of pulses: one costing ₹60/kg and the other costing ₹90/kg. He mixes them in a specific ratio and sells the mixture at ₹84/kg, thereby earning a 20% profit. In what ratio did he mix the two types of pulses?

A 1:3

**B 2:1**

C 3:2

D 4:1

### Solution

- Mean Cost Price (CP) =  $SP \times [100 \div (100 + \text{Profit}\%)] = 84 \times (100 \div 120) = ₹70/\text{kg}$ .
- By applying the rule of alligation on the Cost Prices:
- Ratio =  $(\text{CP of Type 2} - \text{Mean CP}) : (\text{Mean CP} - \text{CP of Type 1})$
- Ratio =  $(90 - 70) : (70 - 60)$
- Ratio =  $20 : 10 = 2 : 1$ .

16. A cyclist has to cover a distance of 80 km. After cycling for 4 hours and 48 minutes, he finds that he has completed  $\frac{4}{5}$  th of the total distance. What is his speed in km/h?

A 15.45 km/h

B 16 km/h

C 13.33 km/h

D 10 km/h

### Solution

- Distance covered =  $80 \times \left(\frac{4}{5}\right) = 64$  km.
- Time = 4 hrs 48 mins =  $4 + (48 \div 60) = \frac{24}{5}$  hours.
- Speed = Distance  $\div$  Time =  $64 \times \left(\frac{5}{24}\right) = 13.33$  km/h.

17. Sarah invested amounts in three different schemes M, N, and O at simple interest rates of 10% p.a., 12% p.a., and 15% p.a. respectively. If the total interest accrued in one year was ₹2282 and the amount invested in Scheme O was 180% of the amount invested in Scheme M and 250% of the amount invested in Scheme N, what was the amount invested in Scheme N?

A ₹3000

B ₹3200

C ₹3600

D ₹4000

### Solution

- From the given condition,  $O = 1.8M$  and  $O = 2.5N$ .
- Investment ratio  $M : N : O = (1 \div 1.8) : (1 \div 2.5) : 1 = 25 : 18 : 45$ .
- Let the investments be 25 units, 18 units, and 45 units.
- Total Simple Interest =  $(25 \times 10\%) + (18 \times 12\%) + (45 \times 15\%) = 2.5 + 2.16 + 6.75 = 11.41$  units.
- Since  $11.41$  units = ₹2282,  $1$  unit =  $2282 \div 11.41 = ₹200$ .
- Amount in Scheme N =  $18$  units =  $18 \times 200 = ₹3600$ .



18. A vertical pole of height  $H$  stands on the ground. From a point  $P$  on the ground, the angle of elevation of the top of the pole is  $60^\circ$ . From a different point  $Q$ , located 10 meters away from point  $P$  (directly along the line extending from the base of the pole), the angle of elevation to the top of the pole is  $30^\circ$ . What is the height of the pole?

**A**  $5\sqrt{3}\text{m}$

**B**  $10\sqrt{3}\text{m}$

**C** 10 m

**D** 20 m

### Solution

- When the angle of elevation changes from  $\beta$  to  $\alpha$  over a distance  $d$ , the height  $H$  is found using:  $d = H \times (\cot \beta - \cot \alpha)$ .

- Here  $d = 10$  m,  $\alpha = 60^\circ$  and  $\beta = 30^\circ$ :

$$10 = H \times (\cot 30^\circ - \cot 60^\circ)$$

- $10 = H \times \left(\sqrt{3} - \frac{1}{\sqrt{3}}\right) \Rightarrow 10 = H \times \left(\frac{2}{\sqrt{3}}\right)$

- $H = 5\sqrt{3}$  m.

19. A right circular cone has radius of 7 cm and a height of 24 cm. A sphere is placed inside the cone such that it touches the base and the slanted surface of the cone. Find the radius of this inscribed sphere.

**A** 5.25 cm

**B** 4.86 cm

**C** 3.82 cm

**D** 6.24 cm

### Solution

- The radius ( $r$ ) of a sphere inscribed in a right circular cone of base radius  $R$ , height  $H$ , and slant height  $L$  is given directly by the formula:

- $r = (R \times H) \div (R + L)$

- $L = \sqrt{R^2 + H^2} = \sqrt{7^2 + 24^2} = \sqrt{625} = 25 \text{ cm}$

$$\Rightarrow r = (7 \times 24) \div (7 + 25) = 168 \div 32$$

$$\Rightarrow r = 5.25 \text{ cm.}$$

20. If the perimeter of a regular octagon is 80 cm, what is the side length?

**A** 10 cm

**B** 8 cm

**C** 12 cm

**D** 6 cm

### Solution

- A regular octagon has 8 equal sides.
- Side length = Total Perimeter  $\div$  Number of sides
- Side length =  $80 \div 8 = 10$  cm.

21. A circular wheel is divided into 8 equal sectors. If the area of one sector is  $45 \text{ cm}^2$ , what is the radius of the wheel?

A 8.6 cm

B 6.5 cm

C 10.7 cm

D 7.5 cm

### Solution

- Total area of the wheel = Area of 1 sector  $\times$  Number of sectors
- Total area =  $45 \times 8 = 360 \text{ cm}^2$
- Area of a circle =  $\pi r^2 = 360$

$$\Rightarrow r^2 = 360 \times (7 \div 22) = 114.54$$

$$\Rightarrow r = \sqrt{114.54} \approx 10.7 \text{ cm.}$$

22. If the lateral surface area of a prism is  $240 \text{ cm}^2$  and height is  $8 \text{ cm}$ , what is the perimeter of the base?

**A** 30 cm

**B** 24 cm

**C** 36 cm

**D** 40 cm

### Solution

- The Lateral Surface Area (LSA) of any regular prism is directly proportional to its base perimeter and height.
- Base Perimeter =  $\text{LSA} \div \text{Height}$
- Base Perimeter =  $240 \div 8 = 30 \text{ cm}$ .

23. Solve system:  $y = 2x + 1$  and  $y = -x + 4$

**A** (1, 3)

**B** (2, 5)

**C** (3, 7)

**D** (0, 1)

### Solution

- Since both expressions are equal to  $y$ , equate them directly:

$$2x + 1 = -x + 4$$

$$3x = 3 \Rightarrow x = 1$$

- Substitute  $x = 1$  back into the second equation:

$$y = -1 + 4 = 3.$$

24. Simplify:

$$\sqrt{98} - \sqrt{32} + \sqrt{50}$$

A  $7\sqrt{2}$

B  $6\sqrt{2}$

C  $5\sqrt{2}$

D  $8\sqrt{2}$

### Solution

- Convert each surd into its simplest form by extracting perfect square factors.
- $\sqrt{98} = 7\sqrt{2} \mid \sqrt{32} = 4\sqrt{2} \mid \sqrt{50} = 5\sqrt{2}$
- Expression =  $7\sqrt{2} - 4\sqrt{2} + 5\sqrt{2} = 8\sqrt{2}$ .

25. If two circles are touching internally how many common tangents do they have?

A 0

B 1

C 2

D 3

### Solution

- When two circles touch each other internally, they share exactly one point of contact.
- A common tangent is a straight line that touches both circles without crossing inside them.
- Since one circle is inside the other, any line touching the smaller circle elsewhere will cut through the larger circle.
- Thus, a tangent can only be drawn exactly at their single shared point of contact.

26. Two chords, AB and CD, are equal in length and are at a distance of 10 cm from the center of a circle. If the radius is 26 cm, what is the length of AB?

A 12 cm

B 24 cm

C 36 cm

D 48 cm

### Solution

- The perpendicular from the center bisects the chord, forming a right-angled triangle with the radius.
- Half of the chord length =  $\sqrt{(\text{Radius}^2 - \text{Distance}^2)}$
- Half chord =  $\sqrt{(26^2 - 10^2)} = \sqrt{(676 - 100)} = \sqrt{576} = 24$  cm.
- Total length of chord AB =  $2 \times 24 = 48$  cm.

27. A sector of a circle with radius 6 cm has a central angle of  $60^\circ$ . What is the area of the corresponding segment?

A  $(3\pi - 9\sqrt{3})$  sq. cm

**B  $(6\pi - 9\sqrt{3})$  sq. cm**

C  $(6\pi - 18\sqrt{3})$  sq. cm

D  $(12\pi - 18\sqrt{3})$  sq. cm

### Solution

- Area of a segment =  $r^2 \times [(\pi\theta \div 360^\circ) - (\sin\theta \div 2)]$

$$\Rightarrow \text{Area} = 6^2 \times [(\pi \times 60^\circ \div 360^\circ) - (\sin 60^\circ \div 2)]$$

$$\Rightarrow \text{Area} = 36 \times [(\pi \div 6) - (\sqrt{3} \div 4)]$$

$$\Rightarrow \text{Area} = (6\pi - 9\sqrt{3}) \text{ sq. cm.}$$

28. Express 0.121212... as a fraction.

**A**  $\frac{4}{33}$

**B**  $\frac{5}{33}$

**C**  $\frac{7}{33}$

**D**  $\frac{12}{33}$

### Solution

- To convert a pure recurring decimal to a fraction, write the repeating digits over the same number of 9s.
- Here, the repeating sequence is 12, which has two digits.
- Fraction =  $\frac{12}{99}$
- Simplifying by dividing both numerator and denominator by 3 gives  $\frac{4}{33}$ .

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

**PRT, OQS, NPR, ?**

**A** GAS

**B** MJS

**C** GHA

**D** MOQ

### Solution

- The logic followed here is: Alphabet position - 1

- Here,

$$N - 1 = M$$

$$P - 1 = O$$

$$R - 1 = Q$$

- So, 'MOQ' will replace the question mark in the given series.

30. Which is the 2nd last word in the sentence "Technology is advancing very rapidly"?

A is

B rapidly

C very

D advancing

### Solution

- Words in order:

1. Technology

2. is

3. advancing

4. very

5. rapidly

- The 2nd last word is very.

31. Choose the address that is exactly the same as the one given below.

**B-104, Orchid Meadows, Bannerghatta Road, Bengaluru, Karnataka  
- 560076**

**A**

B-104, Orchid Meadows, Bannerghatta Road, Bengaluru, Karnataka - 560077

**B**

**B-104, Orchid Meadows, Bannerghatta Road, Bengaluru, Karnataka -  
560076**

**C**

B-104, Orchid Meadows, Bannerghatta Road, Bengaluru, Karnataka - 560078

**D**

B-104, Orchid Meadows, Bannerghatta Road, Bengaluru, Karnataka - 560079

### **Solution**

- Option A) B-104, Orchid Meadows, Bannerghatta Road, Bengaluru, Karnataka - 560077 → Incorrect
- Option B) B-104, Orchid Meadows, Bannerghatta Road, Bengaluru, Karnataka - 560076 → Correct
- Option C) B-104, Orchid Meadows, Bannerghatta Road, Bengaluru, Karnataka - 560078 → Incorrect
- Option D) B-104, Orchid Meadows, Bannerghatta Road, Bengaluru, Karnataka - 560079 → Incorrect



32. Which of the following alternatives will replace the question mark?

Alpha, Beta, Gamma, Delta, ?

A Sigma

B Zeta

C Epsilon

D Theta

### Solution

- These are names of Greek letters in order:

1. Alpha
2. Beta
3. Gamma
4. Delta
5. Epsilon

- Hence, the missing term is Epsilon.

33. Which of the following alternative will fill the blanks?

pq\_st\_qr\_tp\_rst

**A** r, p, s, q

**B** p, s, q, r

**C** p, q, s, r

**D** r, p, q, s

### Solution

- Option A) r, p, s, q  $\rightarrow$  pq r st p qr s tp q rst  $\rightarrow$  (It follows the pattern of: pqrst - pqrst - pqrst)
- Option B) p, s, q, r  $\rightarrow$  pq p st s qr q tp r rst  $\rightarrow$  (It doesn't follow any pattern)
- Option C) p, q, s, r  $\rightarrow$  pq p st q qr s tp r rst  $\rightarrow$  (It doesn't follow any pattern)
- Option D) r, p, q, s  $\rightarrow$  pq r st p qr q tp s rst  $\rightarrow$  (It doesn't follow any pattern)

34. A says, "My mother's husband's only son is B." How is A related to B? (A and B are not the same)

**A** Sister

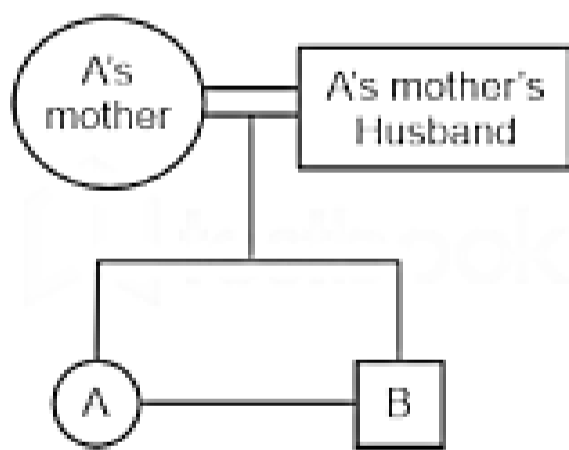
**B** Wife

**C** Father

**D** Son

### Solution

- Given: A says, "My mother's husband's only son is B."



- So, A is the sister of B.

35. A is B's mother. C is B's father. How is C related to A?

**A** Husband

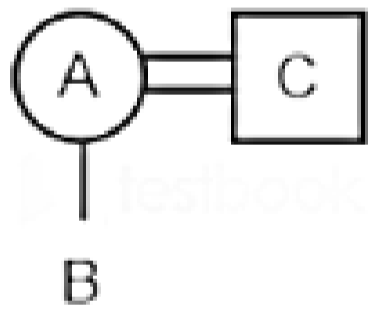
**B** Cousin

**C** Son

**D** Brother

### Solution

- Family tree:



- So, C is the husband of A.

36. What comes next:

1, 4, 27, 256, ?

A 625

B 2195

C 312

D 3125

### Solution

- Observe the pattern:

$$1 = 1^1$$

$$4 = 2^2$$

$$27 = 3^3$$

$$256 = 4^4$$

- Next term =  $5^5 = 3125$

**37. Find the odd one out:**

**A**  $6 @ 2 = 16$

**B**  $7 @ 1 = 14$

**C**  $7 @ 3 = 20$

**D**  $4 @ 4 = 16$

**Solution**

- A)  $6 @ 2 = 16 \rightarrow (6 + 2) \times 2 = 8 \times 2 = 16$
- B)  $7 @ 1 = 14 \rightarrow (7 + 1) \times 2 = 8 \times 2 = 16$  (Given 14)
- C)  $7 @ 3 = 20 \rightarrow (7 + 3) \times 2 = 10 \times 2 = 20$
- D)  $4 @ 4 = 16 \rightarrow (4 + 4) \times 2 = 8 \times 2 = 16$
- Only 'Option B' does not follow the pattern.

**38. Instruction: Identify the assumptions that must hold for the statement to be valid, then choose the correct option.**

**Statement: Despite increasing consumer interest, electric vehicles are still significantly more expensive than gasoline-powered vehicles, and subsidies are essential to boost their adoption.**

**Assumptions:**

**I. The price difference is a major barrier to widespread adoption of electric vehicles.**

**II. Subsidies can make electric vehicles affordable for consumers.**

**III. The adoption of electric vehicles will significantly reduce carbon emissions.**

**A Only I and II are implicit**

**B Only II and III are implicit**

**C All are implicit**

**D Only I is implicit**

**Solution**

- Assumption I: The price difference is a major barrier to widespread adoption of electric vehicles.

→ Yes. The statement links high cost with low adoption, so this must be assumed.

- Assumption II: Subsidies can make electric vehicles affordable for consumers.

→ Yes. If subsidies are essential to boost adoption, it assumes they reduce the affordability barrier.

- Assumption III: The adoption of electric vehicles will significantly reduce carbon emissions.

→ No. The statement talks about cost and adoption, not environmental impact.

39. Read the following statement carefully and identify the conclusion that follows.

**Statement:** The school library is open from 9 AM to 5 PM.

**Conclusions:**

**I. Students can borrow books after 5 PM.**

**II. The library is not accessible before 9 AM.**

**A** Only Conclusion I follows

**B** Only Conclusion II follows

**C** Both I and II follow

**D** Neither I nor II follows

### **Solution**

- Conclusion I: Students can borrow books after 5 PM.  
→ This does not follow. The library closes at 5 PM.
- Conclusion II: The library is not accessible before 9 AM.  
→ This follows. Since it opens at 9 AM, it is not accessible before that time.

40. Each of the letters in the word **DEVELOPMENT** is arranged in alphabetical order. How many letters are there in the English alphabetical series between the letter that is third from the left and the one that is fourth from the right in the new letter-cluster formed?

**A** 7

**B** 8

**C** 6

**D** 9

### Solution

- Given Word: DEVELOPMENT
- Arrange letters in alphabetical order:  
D, E, E, E, L, M, N, O, P, T, V
- Third from the left = E
- Fourth from the right = O
- Letters between E and O in English alphabetical series:  
F, G, H, I, J, K, L, M, N
- Total letters = 9



41. Choose the correct option to complete the series.

**Create :: Destroy :: Build : ?**

**A** Design

**B** Construct

**C** Ruin

**D** Develop

### Solution

- Create : Destroy :: Build : ?

Create and Destroy are opposites.

- Similarly, the opposite of Build is Ruin.

42. In each of the following questions, a specific alphabetical pattern is applied to the first word to obtain the second word. Apply the same pattern to the third word and find the correct answer from the given alternatives.

**CIQY : DJRZ :: AGOW : ?**

**A** BJPX

**B** BHPX

**C** BHPU

**D** BJRZ

### Solution

- The logic followed here: Alphabet position + 1

- Now,

$$A + 1 = B$$

$$G + 1 = H$$

$$O + 1 = P$$

$$W + 1 = X$$

- Hence, the correct option is 'Option B'.

43. Find the person that does not fit in the series:

**Bhagat Singh, Sardar Vallabhbhai Patel, Mahatma Gandhi, C. V. Raman, Subhash Chandra Bose**

**A** C. V. Raman

**B** Subhash Chandra Bose

**C** Sardar Vallabhbhai Patel

**D** Mahatma Gandhi

### Solution

- Bhagat Singh → Freedom fighter
- Sardar Vallabhbhai Patel → Freedom fighter
- Mahatma Gandhi → Freedom fighter
- Subhash Chandra Bose → Freedom fighter
- C. V. Raman → Scientist (Nobel Prize winner), not a freedom fighter.
- Therefore, the person who does not fit in the series is C. V. Raman.

44. In each of the following questions, a pair of letters is related to a numerical fraction based on their positions in the English alphabet. Determine the logic behind the relationship and apply the same rule to the second pair to find the missing value.

$$\text{JG} : \frac{100}{49} :: \text{TB} : ?$$

**A**  $\frac{400}{5}$

**B**  $\frac{650}{4}$

**C**  $\frac{400}{4}$

**D**  $\frac{709}{45}$

### Solution

- Here,

$$\text{JG} : \frac{100}{49}$$

- Alphabetical positions:

$$\text{J} = 10$$

$$\text{G} = 7$$

- Logic:

$$(10 \times 10) \div (7 \times 7) = \frac{100}{49}$$

- Now, for TB:

$$T = 20$$

$$B = 2$$

$$(20 \times 20) \div (2 \times 2) = \frac{400}{4}$$

45. Arrange the following words in dictionary order and choose the second word:

A Gold

B Gone

C Golf

D Good

### Solution

- Dictionary Order:

1. Gold
2. Golf
3. Gone
4. Good

- The second word is Golf.

46. In a certain code, FOLDER is written as GMLECR. Using the same pattern, how is MARKET written?

**A** NYRLCT

**B** OZRLCT

**C** NYTLCR

**D** NYRCLT

### Solution

- FOLDER is written as GMLECR:

F	O	L	D	E	R
6	15	12	4	5	18
↓ +1	↓ -2	↓	↓ +1	↓ -2	↓
G	M	L	E	C	R
7	13	12	5	3	18

- Similarly, MARKET is written as:

M	A	R	K	E	T
13	1	18	11	5	20
↓ +1	↓ -2	↓	↓ +1	↓ -2	↓
N	Y	R	L	C	T
14	25	18	12	3	20

- Hence, "Option A" is the correct answer.

47. Find the odd one out from the given alternatives:

A Bharatnatyam

B Kathak

C Odissi

D **Kalbelia**

### Solution

- Bharatnatyam → Classical dance
- Kathak → Classical dance
- Odissi → Classical dance
- Kalbelia → Folk dance
- Kalbelia is a folk dance, while the others are classical dances.

48. **Instruction:** In a certain code language, Greek letters are used to represent English letters in a consistent manner. Based on the given coded words, determine the correct English decoding of the target sequence using the same letter-to-letter substitution pattern. If  $\varphi \alpha \nu \tau \alpha \sigma$  is coded as FANTASY,  $\lambda \alpha \beta \epsilon \lambda$  is coded as LABEL.

**Question:** Then what does  $\lambda \varphi \alpha \nu \tau \alpha$  represent?

**A** LFANTA

**B** LFANTY

**C** LFANTE

**D** LFANTS

### Solution

- The logic is followed:

$\varphi \alpha \nu \tau \alpha \sigma \rightarrow$  FANTASY

$\lambda \alpha \beta \epsilon \lambda \rightarrow$  LABEL

- Letter Mapping:

$\varphi \rightarrow$  F

$\alpha \rightarrow$  A

$$\nu \rightarrow N$$

$$\tau \rightarrow T$$

$$\sigma \rightarrow SY$$

$$\lambda \rightarrow L$$

$$\beta \rightarrow B$$

$$\varepsilon \rightarrow E$$

- Now decode:  $\lambda \varphi \alpha \nu \tau \alpha$

$$\lambda \rightarrow L$$

$$\varphi \rightarrow F$$

$$\alpha \rightarrow A$$

$$\nu \rightarrow N$$

$$\tau \rightarrow T$$

$$\alpha \rightarrow A$$

- So,  $\lambda \varphi \alpha \nu \tau \alpha \rightarrow LFANTA$

49. If  $5 * 2 = 35$ ,  $4 * 3 = 28$ , then what is  $6 * 4$ ?

A 42

B 48

C 54

D 60

### Solution

- Given:

$$5 * 2 = 35$$

$$4 * 3 = 28$$

$$5 \times (5 + 2) = 5 \times 7 = 35$$

$$4 \times (4 + 3) = 4 \times 7 = 28$$

- Rule:  $a * b = a \times (a + b)$

- Now,

$$6 * 4 = 6 \times (6 + 4)$$

$$= 6 \times 10$$

$$= 60$$



50. What is the value of Middle if Left = 12, Right = 24, and Middle is average of both?

A 15

B 22

C 20

D 18

### Solution

- Given:

$$\text{Left} = 12$$

$$\text{Right} = 24$$

- Middle is the average of both.

- $\text{Average} = (12 + 24) \div 2$

$$= 36 \div 2$$

$$= 18$$

51. If the given symbols mean:

'+' means 'divided by'

'-' means 'multiplied by'

'×' means 'minus'

'÷' means 'plus'

Then, find the value of the following expressions:  $48 \times 8 \div 12 + 4 - 7 = ?$

A 16

B 37

C 51

D 61

### Solution

- Given:  $48 \times 8 \div 12 + 4 - 7 = ?$

$$48 \times 8 \div 12 + 4 - 7 = ?$$

$$\Rightarrow 48 - 8 + 12 \div 4 \times 7 = ?$$

$$\Rightarrow 48 - 8 + 12 \div 4 \times 7 = ?$$

$$\Rightarrow 48 - 8 + 3 \times 7 = ?$$

$$\Rightarrow 48 + 21 - 8 = ?$$

$$\Rightarrow 69 - 8 = ?$$

$$\Rightarrow 61 = ?$$

52. If ' $\times$ ' means '-', '-' means '+', '/' means ' $\times$ ', and '+' means ' $\div$ ', which equation is correct?

**A**  $18 - 6 + 3 \times 2 = 27$

**B**  $36 / 6 - 3 + 2 \times 1 = 20$

**C**  $16 / 2 + 4 - 1 \times 3 = 6$

**D**  $12 \times 4 - 2 + 1 = 19$

### Solution

- Given Symbol Meanings:

$$\times \rightarrow -$$

$$- \rightarrow +$$

$$/ \rightarrow \times$$

$$+ \rightarrow \div$$

- Option C:  $16 / 2 + 4 - 1 \times 3$

Replace symbols:

$$16 \times 2 \div 4 + 1 - 3$$

$$16 \times 2 = 32$$

$$32 \div 4 = 8$$

$$8 + 1 - 3 = 6$$

$$= 6$$

53. In a pet shop, there are only parrots and rabbits. Total heads = 40, and total legs = 100. How many parrots are there?

A 20

B 35

C 30

D 25

### Solution

- The logic followed here:

Number of parrots = P (2 legs each)

Number of rabbits = R (4 legs each)

- Given:

$$P + R = 40 \text{ (Total heads)}$$
$$2P + 4R = 100 \text{ (Total legs)}$$

- Divide second equation by 2:

$$P + 2R = 50$$

- Now subtract first equation:

$$(P + 2R) - (P + R) = 50 - 40$$

$$R = 10$$

- So,

$$P + 10 = 40$$

$$P = 30$$

- Number of parrots = 30

54. **What do the carved wheels on the Konark Sun Temple represent?**

**A** Planets

**B** Weapons

**C** Festivals

**D** Time divisions

### **Solution**

- The Konark Sun Temple is a 13th-century architectural marvel located in Odisha, India, dedicated to the Sun God, Surya.
- The temple is renowned for its chariot-like structure with 12 intricately carved wheels, each wheel symbolizing the 12 months of the year, representing divisions of time.
- Each wheel has 8 spokes, which further denote the division of a day into 8 equal parts (praharas), symbolizing the passage of time.
- The wheels also serve as a sundial, with their shadows indicating the time of the day with remarkable precision.
- The carvings on the wheels showcase the advanced understanding of astronomy and time management that existed during ancient India.

55. **What is the name of the festival celebrated simultaneously by unmarried tribal girls during the Karam celebrations in Jharkhand and eastern India?**

**A** Jawa

**B** Madai

**C** Karma

**D** Sohrai

### **Solution**

- Jawa is a festival celebrated during the Karam festivities in Jharkhand and eastern India, primarily by unmarried tribal girls.
- The celebration involves the worship of germinated grains, symbolizing fertility, prosperity, and the life cycle.
- This festival is deeply rooted in tribal culture and traditions, where young girls pray for the well-being of their families and good fortune.
- Jawa is an integral part of Karam Puja, which marks the beginning of agricultural activities and honors nature.
- It showcases the rich cultural heritage of tribal communities and their connection to nature and agriculture.

56. Which of the following best describes traditional Rajasthani music?

A Focuses only on temple rituals

B Uses electric sounds as the base

C Tied to nature, life, and stories

D Known only for classical ragas

### Solution

- Traditional Rajasthani music is deeply connected to the region's nature, daily life, and folklore, reflecting its cultural richness and heritage.
- It revolves around the themes of love, valor, devotion, and the natural beauty of Rajasthan, often inspired by the desert landscape.
- The music is primarily folk in nature, featuring instruments like the dholak, sarangi, and khartal, which produce earthy, melodious sounds.
- Rajasthani music often incorporates storytelling, where singers narrate tales of local heroes, legends, and deities through soulful melodies.
- The traditional music has been preserved and passed down orally through generations, primarily by communities like the Manganiyars and Langas.



57. Which of the following actions is not allowed for a player in handball?

**A** Pulling or punching the ball out of an opponent's hands

**B** Blocking the ball with the torso above the knees

**C** Dribbling the ball before making a pass

**D** Intercepting the ball mid-air using both hands

### Solution

- In handball, players are prohibited from pulling, punching, or forcibly removing the ball from an opponent's hands, as it is considered a foul under the rules of the game.
- The sport emphasizes fair play and clean defense, where players must focus on intercepting the ball or blocking shots without aggressive physical contact.
- Using excessive force or unfair actions, such as punching the ball out of an opponent's hands, can lead to penalties, warnings, or even disqualification depending on the severity.
- The International Handball Federation (IHF) guidelines explicitly prohibit such actions to ensure the safety of players and maintain the integrity of the game.

58. **What was the function of the Board of Control established by Pitt's India Act?**

**A** To manage only military operations in India.

**B** To regulate trade between India and China.

**C** To control civil and military affairs in British India.

**D** To oversee taxation and local revenue.

### **Solution**

- Pitt's India Act of 1784 established a dual system of governance by creating the Board of Control to oversee political affairs and the Court of Directors for commercial operations.
- The Board of Control was tasked with controlling civil and military administration in British India to ensure proper supervision and accountability.
- This arrangement aimed to eliminate the inefficiency and corruption associated with the East India Company's management of Indian territories.
- The Board of Control consisted of six members, including the British cabinet ministers, and was headed by the Secretary of State for India.

- The Act marked the beginning of increased British government involvement in Indian administration, centralizing power to ensure better governance.

59. **Who won India's first Olympic medals at the 1900 Paris Games by securing silver in 200m sprint and 200m hurdles?**

**A** Milkha Singh

**B** Dhyan Chand

**C** K.D. Jadhav

**D** Norman Pritchard

### **Solution**

- Norman Pritchard was the first athlete from India to win an Olympic medal at the 1900 Paris Games.
- He won two silver medals in athletics: one in the 200m sprint and the other in the 200m hurdles.
- Pritchard is recognized as the first Asian-born athlete to win an Olympic medal.
- He competed under the British Indian flag since India was under British rule during that time.
- Norman Pritchard was also a professional actor in Hollywood, where he was known as Norman Trevor.

60. Match the following Taekwon-Do Korean terms with their correct English meanings:

Which of the following is the correct pairing?

Column A (Korean Term)	B (English Meaning)
1. Tae	A. Discipline or way
2. Kwon	B. To strike with the hand
3. Do	C. To strike with the feet
4. Dojang	D. Training Hall or place of practice

**A** 1-B, 2-C, 3-A, 4-D

**B** 1-C, 2-B, 3-A, 4-D

**C** 1-A, 2-D, 3-B, 4-C

**D** 1-D, 2-A, 3-C, 4-B

### Solution

- Tae (1-C): The Korean term "Tae" refers to striking or kicking with the feet, emphasizing the art of foot techniques in Taekwon-Do.
- Kwon (2-B): "Kwon" signifies striking or punching with the hand, highlighting hand techniques in the martial art.

- Do (3-A): "Do" translates to the "way" or "discipline," representing the philosophical and ethical aspects of Taekwon-Do.
- Dojang (4-D): "Dojang" refers to the training hall or place where martial arts practice is conducted.
- This pairing represents the fundamental terminologies of Taekwon-Do, a Korean martial art that combines self-defense techniques, discipline, and physical fitness.

61. **The Trilateral Highway Project aims to enhance connectivity between India and which two Southeast Asian countries?**

**A** Bangladesh and Bhutan

**B** Nepal and Bangladesh

**C** Myanmar and Thailand

**D** Nepal and Bhutan

### **Solution**

- The Trilateral Highway Project is a strategic initiative aimed at enhancing connectivity between India, Myanmar, and Thailand.
- This highway spans approximately 1,360 km, connecting Moreh in Manipur, India, to Mae Sot in Thailand via Myanmar.
- It facilitates trade, cultural exchange, and economic cooperation between India and Southeast Asian nations as part of India's "Act East Policy."
- The project is jointly developed by India, Myanmar, and Thailand to improve transportation infrastructure in the region.
- India has invested significantly in road construction in Myanmar under this project, including the Kalewa-Yagyi section and upgrading 69 bridges along the route.

62. Which of the following best describes the theme of the book **Why Bharat Matters?**

**A** India's economic and cultural importance

**B** Fictional rural story and moral values

**C** Ancient mythology of India and festival

**D** Biography of Mahatma Gandhi

### Solution

- Why Bharat Matters emphasizes the pivotal role of India in global economic, cultural, and political spheres.
- The book highlights India's economic growth trajectory, focusing on its rising significance in international trade and commerce.
- It explores India's cultural heritage and diversity, showcasing how its traditions, languages, and philosophies have influenced the world.
- The narrative delves into India's strategic geopolitical position, illustrating its importance in global diplomacy and regional stability.
- The book also underscores India's contributions to technology, education, and sustainable development, reinforcing its status as a global powerhouse.

63. In which Indian city is the prestigious Subroto Cup inter-school football tournament conducted every year?

A Hyderabad

B Lucknow

C New Delhi

D Mumbai

### Solution

- The Subroto Cup is an annual inter-school football tournament held in New Delhi, India, named after Air Marshal Subroto Mukerjee, the founding father of the Indian Air Force.
- It was first organized in 1960 and has since become one of the most prestigious football tournaments for school-level teams in India.
- The competition is organized by the Indian Air Force in collaboration with the Ministry of Youth Affairs and Sports and the Subroto Mukerjee Sports Education Society.
- It features participation from schools across India and abroad, making it an international event.
- The tournament is held in various age categories, primarily under-14 and under-17 for boys and under-17 for girls.

64. Which Indian political leader was conferred Namibia's highest civilian award during his first state visit to the country?

A Ram Nath Kovind

B S. Jaishankar

C **Narendra Modi**

D Amit Shah

### Solution

- Prime Minister Narendra Modi was conferred with Namibia's highest civilian honor, the Order of the Most Ancient Welwitschia Mirabilis, during his state visit to the country.
- This prestigious award was presented to PM Modi in recognition of his efforts to strengthen bilateral relations between India and Namibia.
- The visit marked a significant step in fostering diplomatic, economic, and cultural ties between the two nations.
- Namibia and India share a historical bond, with India playing a pivotal role in supporting Namibia's independence movement.
- During the visit, discussions were held on key areas of cooperation, including trade, energy, technology, and wildlife conservation, particularly the translocation of cheetahs from Namibia to India.



65. **The Lohit River is a tributary of which of the following major Himalayan rivers?**

**A** Ganga

**B** Yamuna

**C** Indus

**D** Brahmaputra

### **Solution**

- The Lohit River is a major tributary of the Brahmaputra River in the northeastern region of India.
- It originates in the eastern Tibet region, from the Zayal Chu (Zayu Chu) river near the Indo-China border, and flows through Arunachal Pradesh before joining the Brahmaputra in Assam.
- The Lohit River is known for its swift flow and turbulent waters as it traverses through mountainous terrain.
- After entering India, the river flows through the districts of Anjaw and Lohit in Arunachal Pradesh, making the region fertile and supporting agriculture.
- The confluence of the Lohit River with the Brahmaputra takes place near the town of Sadia in Assam.

66. **The Laser Retroreflector Array (LRA) onboard Chandrayaan-3 was supplied by which space agency?**

**A** JAXA

**B** ROSCOSMOS

**C** NASA

**D** ESA

### **Solution**

- The Laser Retroreflector Array (LRA) onboard Chandrayaan-3 was supplied by NASA (National Aeronautics and Space Administration).
- The LRA is a scientific instrument designed to reflect laser beams sent from Earth, enabling accurate measurement of the distance between the Earth and the Moon.
- The retroreflector technology helps in enhancing lunar science by enabling precise orbital studies and laser ranging experiments.
- NASA often collaborates with international space agencies, such as ISRO, to contribute scientific payloads for space exploration missions.
- The inclusion of the LRA strengthens global cooperation in space exploration and contributes to the success of Chandrayaan-3's

scientific objectives.

67. Which of the following is the correct sequence of blood flow through heart chambers?

**A** Right atrium → Right ventricle → Left atrium → Left ventricle

**B** Left atrium → Left ventricle → Right atrium → Right ventricle

**C** Right ventricle → Right atrium → Left ventricle → Left atrium

**D** Left ventricle → Left atrium → Right ventricle → Right atrium

### Solution

- The sequence of blood flow through the heart chambers is: Right atrium → Right ventricle → Left atrium → Left ventricle.
- Deoxygenated blood from the body enters the right atrium via the superior and inferior vena cava.
- The blood then flows into the right ventricle, which pumps it to the lungs through the pulmonary artery for oxygenation.
- Oxygenated blood from the lungs returns to the left atrium via the pulmonary veins.
- Finally, the blood enters the left ventricle, which pumps it to the rest of the body through the aorta.

68. Which of the following statements is/are correct?

1. If a State law on a Concurrent List subject is reserved for the President and receives assent, it overrides the existing Union law on the same subject in that state.
2. Parliament can later nullify such a State law by passing another law on the same subject.

A Only 1

B Only 2

**C Both 1 and 2**

D Neither 1 nor 2

### Solution

- Statement 1: When a State law on a subject from the Concurrent List is reserved for the President and receives his/her assent, it overrides the Union law on the same subject within that particular State. This provision is mentioned under Article 254(2) of the Indian Constitution.
- Statement 2: Parliament retains the power to nullify such a State law by passing another law on the same subject. This ensures the supremacy of Parliament as per Article 254(1) of the Constitution.

- The Concurrent List allows both the Union and State legislatures to make laws on certain subjects. However, in case of conflict between State and Union laws, Union law usually prevails unless the State law is specifically reserved for Presidential assent.
- Presidential assent under Article 254(2) enables State laws to have precedence over Union laws within the State, but this is not absolute. Parliament retains overriding powers to enact a law to nullify or supersede the State law.
- This mechanism ensures a balance between centralization and decentralization within India's federal structure, promoting cooperation between the Union and State governments.

69. What change occurs when sound passes from air into water?

**A** Frequency remains unchanged, but wavelength varies

**B** Speed decreases while frequency increases

**C** Both frequency and wavelength decrease

**D** Frequency increases while wavelength stays constant

### Solution

- When sound passes from air to water, its frequency remains unchanged because the frequency of a wave is determined by its source and does not depend on the medium.
- The speed of sound increases significantly in water compared to air due to the higher density and elasticity of water.
- The wavelength of the sound wave changes because wavelength is directly proportional to the speed of sound in the medium (wavelength = speed/frequency).
- In water, due to the increased speed of sound, the wavelength becomes longer compared to its value in air.
- This phenomenon adheres to the principle of wave mechanics, where the product of frequency and wavelength equals the speed of the wave.

**70. The concept of Uniform Civil Code is a part of which category of principles in the Indian Constitution?**

**A** Fundamental Rights

**B** Preamble objectives

**C** Directive Principles of State Policy

**D** Fundamental Duties

### **Solution**

- The concept of the Uniform Civil Code (UCC) is enshrined in Article 44 of the Indian Constitution under the Directive Principles of State Policy (DPSP).
- Article 44 directs the State to strive to secure a UCC for all citizens throughout the territory of India to ensure uniformity in personal laws.
- The UCC aims to replace personal laws based on the scriptures and customs of each major religious community in India with a common set governing every citizen.
- The DPSPs, including the provision for UCC, are non-justiciable in nature, meaning they are not enforceable by the courts but aim to guide the State in policymaking.

- The objective of the UCC is to promote national integration and gender equality by ensuring that personal laws do not discriminate based on religion or gender.

71. The slogan "Har Khet Ko Pani" belongs to:

A Paramparagat Krishi Vikas Yojana

B Rashtriya Krishi Vikas Yojana

**C Pradhan Mantri Krishi Sinchayee Yojana**

D Pradhan Mantri Fasal Bima Yojana

### Solution

- The slogan "Har Khet Ko Pani" is associated with the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), launched by the Government of India in 2015.
- The scheme aims to enhance irrigation coverage and improve water use efficiency in agriculture across the country.
- PMKSY focuses on providing water to every farm ("Har Khet Ko Pani") and improving on-farm water management to minimize wastage.
- The program integrates multiple schemes such as Accelerated Irrigation Benefit Programme (AIBP), Watershed Development, and On-Farm Water Management.
- The scheme is implemented by the Ministry of Jal Shakti, Ministry of Agriculture, and Ministry of Rural Development.

- It addresses critical issues like rainwater harvesting, groundwater recharge, and the adoption of sustainable water conservation practices.

72. **Read the below statements marked as Assertion (A) and Reason (R).  
Mark the correct options:**

**Assertion (A): Delhi frequently records the highest AQI levels among Indian cities.**

**Reason (R): It lies in a low-lying basin surrounded by the Himalayas.**

**A Both A and R are true, and R is the correct explanation of A**

**B Both A and R are true but R is not the correct explanation of A.**

**C A is true but R is false.**

**D A is false but R is true.**

### **Solution**

- Delhi frequently records the highest Air Quality Index (AQI) levels among Indian cities due to severe air pollution caused by vehicular emissions, industrial pollutants, burning of crop stubble, and construction dust.
- The city's geographical location contributes significantly to its poor air quality as it lies in a low-lying basin surrounded by the Himalayas, which traps pollutants and prevents their dispersal.
- Delhi's air pollution worsens during the winter months due to temperature inversion, where cold air near the ground traps

pollutants and prevents their upward movement.

- The Himalayas act as a barrier, preventing the movement of polluted air masses away from the region, resulting in stagnation of pollutants over Delhi.
- Local factors such as population density, unregulated industrial activities, and lack of green cover further exacerbate the air quality crisis in Delhi.

73. Which of the following sets of locations in India is known for having significant coral reef ecosystems?

A Bay of Bengal coast and deltas

B Deep-sea trenches in the Indian Ocean

**C Gulf of Kutch, Gulf of Mannar, Lakshadweep, and Andaman & Nicobar Islands**

D East coast of India near major river mouths

### Solution

- Coral reefs in India are primarily found in tropical and subtropical regions and are biodiversity hotspots that support a wide range of marine life.
- The major coral reef ecosystems in India are located in the Gulf of Kutch (western India), Gulf of Mannar (southeastern India), the Lakshadweep Islands, and the Andaman & Nicobar Islands.
- The Gulf of Mannar hosts fringing reefs and supports one of the richest marine biodiversity hotspots in India.
- The Lakshadweep Islands are known for their atolls and coral lagoons, which provide habitat for various marine species.
- The Andaman & Nicobar Islands support fringing and barrier reefs, contributing significantly to India's coral reef biodiversity.



74. **Read the statements carefully and select the correct option:**

**Assertion (A): Production of inorganic chemicals in India is centered in only northern states.**

**Reason (R): Sulphuric acid and soda ash are crucial chemicals in the production of fertilizers, detergents, and glass.**

**A** Both A and R are true, and R is the correct explanation of A

**B** Both A and R are true, but R is not the correct explanation of A

**C** A is true, but R is false

**D** A is false, but R is true

### **Solution**

- Assertion (A) is false: The production of inorganic chemicals in India is not centered only in northern states. It is distributed across various regions including Gujarat, Maharashtra, Tamil Nadu, and Andhra Pradesh, which are major hubs for chemical industries.
- Reason (R) is true: Sulphuric acid and soda ash are indeed crucial chemicals used in the production of fertilizers, detergents, and glass.
- Sulphuric acid is widely used in the manufacturing of fertilizers such as phosphate fertilizers. It is also utilized in petroleum refining and wastewater processing.

- Soda ash, also known as sodium carbonate, is a key ingredient in the production of glass, detergents, and other industrial products. India is a significant producer of soda ash, with Gujarat being a major contributor.
- Regions such as Gujarat and Maharashtra play a prominent role in inorganic chemical production due to favorable industrial infrastructure and proximity to raw materials.

75. Which of the following statements is/are correct?

1. Panthi steps encode teachings from Guru Ghasidas's Amritvani.

2. Masks representing Satpurush are worn in high ritual versions.

**A** Only 1

**B** Only 2

**C** 1 and 2 both

**D** Neither 1 nor 2

### Solution

- Panthi dance is a prominent folk dance form of the Satnami community in Chhattisgarh.
- The steps and movements of Panthi dance are deeply rooted in the teachings and philosophy of Guru Ghasidas, the founder of the Satnami sect.
- Guru Ghasidas's teachings, encapsulated in his holy scripture known as Amritvani, are the primary inspiration for Panthi dance.
- The dance reflects the spiritual message of equality, truth, and devotion as emphasized by Guru Ghasidas, making it a significant cultural and religious expression for the community.



76. Which Article defines State and Union Territories for the purposes of the Constitution?

**A** Article 1

**B** Article 3

**C** Article 239

**D** Article 240

### Solution

- Article 1 of the Indian Constitution defines India as a "Union of States."
- It specifies that India shall be divided into states and union territories for administrative purposes.
- Article 1 establishes the territorial composition of India, including states, union territories, and any other territories that may be acquired.
- The inclusion of terms like "Union of States" emphasizes the indestructible nature of the Indian Union.
- This Article is crucial for understanding the territorial framework of the nation as per constitutional provisions.

77. Consider the following statements:

1. Delegated legislation is made by administrative authorities.
2. It cannot be challenged in a court of law.

Which of the above statements is/are correct?

A Only 1

B Only 2

C Both 1 and 2

D Neither 1 nor 2

### Solution

- Delegated legislation refers to laws made by an administrative authority under powers delegated to it by the legislature.
- It is typically used to fill in the details of legislation that the primary law enacted by the legislature cannot cover comprehensively.
- Administrative authorities, such as government ministers or departments, are empowered to make rules, regulations, or orders under this framework.
- Delegated legislation allows for flexibility and expertise in lawmaking, especially in technical areas where detailed knowledge is required.

- While delegated legislation is legal, its validity may be challenged in a court of law if it exceeds the powers given by the parent act or violates constitutional provisions.

78. **What is the most likely reason for temperature increase in the thermosphere during solar storms?**

**A** Molecular friction

**B** Cloud condensation

**C** Convection currents

**D** **UV and X-ray absorption**

### **Solution**

- The thermosphere is the layer of Earth's atmosphere where solar activity has a significant impact on temperature.
- During solar storms, the Sun emits high-energy ultraviolet (UV) and X-ray radiation, which is absorbed by the thermosphere, causing the temperature to rise significantly.
- This absorption of UV and X-ray radiation excites the molecules and atoms present, leading to increased kinetic energy and thus higher temperatures.
- Solar storms also produce charged particles, which interact with Earth's magnetic field and contribute to heating effects in the thermosphere.
- Temperatures in the thermosphere can reach several thousand degrees Celsius during intense solar activity due to this radiation

absorption.

79. Select the most appropriate synonym of the given word:  
**IMPLACABLE**

**A** Soft

**B** Unyielding

**C** Flexible

**D** Gentle

### Solution

- The word "implacable" means something that cannot be pacified, appeased, or changed; it refers to someone or something that is relentless or stubbornly unyielding.
- Example: The implacable enemy refused to negotiate, making peace talks impossible.
- Unyielding refers to someone or something that is firm, rigid, and not easily changed or influenced, often synonymous with implacable.
- Example: Her unyielding determination to succeed inspired everyone around her.
- Hence, we can infer that the synonym of 'implacable' is 'unyielding'.

80. Select the most appropriate antonym of the given word.

**Soporific**

**A** Stimulating

**B** Drowsy

**C** Sleep-inducing

**D** Sedative

### Solution

- The word "Soporific" means something that tends to induce drowsiness or sleep.
- Example: The professor's lecture was so soporific that many students struggled to stay awake.
- "Stimulating" refers to something that arouses excitement, interest, or activity, often having an invigorating effect.
- Example: The stimulating conversation kept everyone engaged well past midnight.
- Hence, we can infer that the opposite of 'soporific' is 'stimulating'.

**81. Choose the correct meaning of idiom:****Tooth and nail**

**A** With full force or vigour

**B** Without planning

**C** Secretly and quietly

**D** Half-heartedly

**Solution**

- The idiom "Tooth and nail" means to fight or work with full force and determination, often in a very intense or vigorous manner.
- Example: The students fought tooth and nail to get their demands heard by the administration.
- Explanation: The phrase symbolizes the use of all available resources (teeth and nails) to achieve a goal or to defend oneself.
- Example: She defended her position tooth and nail against her opponents.

**82. Choose the correct meaning of idiom:****Steal a march on**

**A** Surrender unexpectedly

**B** Gain an advantage by acting before others do

**C** Betray one's allies

**D** Escape punishment

**Solution**

- The idiom "Steal a march on" means to gain an advantage over someone, especially by acting before them.
- Example: By announcing the product early, the company managed to steal a march on its competitors.
- Correct Meaning: "Gain an advantage by acting before others do".
- Example: The candidate stole a march on her rivals by launching her election campaign well in advance.

83. Spot the correct spelling of an autism-linked speech echo.

A Echolallia

**B Echolalia**

C Echollalia

D Echolaliah

### Solution

- The correct spelling is 'Echolalia'.
- Echolalia is a term used to describe the repetition of phrases, words, or sounds that an individual hears. It is often associated with autism or other developmental disorders.
- This behavior is common in language development among children but can also persist in certain neurodevelopmental conditions.

84. Choose the correct one-word substitution for: 'A person who opposes official policy'.

A Activist

B Agitator

C Dissident

D Atheist

### Solution

- The word "Dissident" refers to a person who opposes official policy, especially that of an authoritarian state.
- Example: The dissident was arrested for speaking out against the government's policies.
- Explanation: A dissident is someone who challenges or disagrees with a prevailing set of beliefs, rules, or policies.
- Example: Dissidents often face significant persecution in authoritarian regimes for their opposing views.

85. Choose the correct one-word substitute for: 'Excessive self-importance or over-confidence.'

A Prudence

B Humility

C Arrogance

D Modesty

### Solution

- The word "Arrogance" refers to an attitude of excessive self-importance, over-confidence, or a sense of superiority.
- Example: His arrogance made it difficult for others to work with him, as he always dismissed their ideas.
- "Excessive self-importance or over-confidence" is the definition of arrogance. People with arrogance often underestimate others' capabilities.
- Example: The manager's arrogance led to a lack of communication in the team.

**86. Choose the right collocation:**

The article offers a \_\_\_\_\_ critique of contemporary educational paradigms.

**A** thorough going

**B** through-going

**C** thorough-go

**D** go-through

**Solution**

- The phrase "thorough going" is a correct collocation and is used to describe something that is done thoroughly or comprehensively.
- It is commonly used in formal contexts, such as academic or critical writing, to emphasize the depth or completeness of an analysis or critique.
- Complete Sentence: "The article offers a thorough going critique of contemporary educational paradigms."

**87. Select the correct option:**

**The discovery, \_\_\_\_\_ was unexpected, altered the trajectory of the entire study.**

**A** that

**B** which

**C** what

**D** whose

**Solution**

- The word "which" is used to introduce a non-restrictive clause that provides additional information about the discovery.
- In this sentence, the clause "which was unexpected" adds context without altering the fundamental meaning of the sentence.
- Complete Sentence: "The discovery, which was unexpected, altered the trajectory of the entire study."

88. Find the part of the sentence that contains an error:

**Not only does the report fail to address the structural gaps, (1)/ but also it overlooks the more pressing issue (2)/ of community exclusion which, according to activists, (3)/ have been systematically ignored for years. (4)**

A (1)

B (2)

C (3)

**D (4)**

### Solution

- The error lies in part 4 of the sentence.
- The subject of the clause is "community exclusion," which is singular. Therefore, the verb used should also be singular.
- The verb "have" in part 4 is incorrect and should be replaced with "has."
- The corrected sentence ensures subject-verb agreement.
- Correct Sentence: "Not only does the report fail to address the structural gaps, but also it overlooks the more pressing issue of community exclusion which, according to activists, has been systematically ignored for years."



89. **Change the following from active to passive:**

**Did the analysts anticipate the sudden market downturn?**

**A** Was the sudden market downturn anticipated from the analysts?

**B** Had the sudden market downturn been anticipated by the analysts?

**C** Was the sudden market downturn anticipated by the analysts?

**D** Is the sudden market downturn being anticipated by the analysts?

## Solution

- **Passive voice structure:** The object of the active voice sentence becomes the subject of the passive voice sentence.
- **In the active voice, the sentence is:** "Did the analysts anticipate the sudden market downturn?"
- **To convert to passive voice:** Place the object "the sudden market downturn" at the beginning.
- **Change the active verb form "did anticipate" to "was anticipated" (past simple passive).**
- **Add the preposition "by" followed by the original subject "the analysts."**
- **Correct Sentence:** "Was the sudden market downturn anticipated by the analysts?"

90. Select the sentence containing the homonym of the highlighted word:

The monk carried a carved *crozier* into the sanctuary.

**A** The florist added white croziers to the bouquet.

**B** The bishop's crozier gleamed under the candlelight.

**C** The museum displayed a gilded 14th-century crozier.

**D** The abbot's ceremonial crozier was stolen.

### Solution

- The word "crozier" refers to a ceremonial staff carried by high-ranking members of the clergy, such as bishops or abbots.
- Example: The bishop's crozier was adorned with intricate designs and gold embellishments.
- The word "crozier" in Option A is used as a homonym and refers to a type of fern plant with curled fronds that resemble a shepherd's crook.
- Example: The florist added white croziers to the bouquet to enhance its beauty.

91. **Convert the sentence provided below from its passive voice structure to an active voice structure:**

**The ministers were being briefed about the situation by the intelligence officers.**

**A** The intelligence officers briefed the ministers about the situation.

**B** The intelligence officers had briefed the ministers.

**C** The ministers were briefed by the intelligence officers.

**D** The intelligence officers were briefing the ministers.

### **Solution**

- **Passive voice structure:** In the passive voice, the subject receives the action, while in the active voice, the subject performs the action.
- **Original sentence in passive voice:** "The ministers were being briefed about the situation by the intelligence officers."
- **To convert it to active voice,** make the doer of the action ("the intelligence officers") the subject of the sentence.
- **The correct active voice sentence is:** "The intelligence officers were briefing the ministers about the situation."
- **This retains the meaning and tense of the original sentence.**
- **Correct Sentence:** "The intelligence officers were briefing the ministers."



92. Choose the most suitable option to replace the highlighted part of the sentence:

**He is going to abroad** for higher studies.

**A** is going abroad

**B** goes to abroad

**C** is going to the abroad

**D** is going for abroad

### Solution

- The phrase "is going abroad" is grammatically correct and does not require the preposition "to" before "abroad."
- The word "abroad" itself conveys the idea of traveling to a foreign country, so no additional prepositions are needed.
- Complete Sentence: "He is going abroad for higher studies."

93. Choose the most suitable option to replace the highlighted part of the sentence:

*She avoids to go to crowded places.*

A avoids to going to

B avoids from going

C avoids going to crowded places

D is avoiding to go to crowded place

### Solution

- The verb "avoids" is followed by a gerund (verb + ing) when describing an action that is being avoided.
- The phrase "going to crowded places" is grammatically correct and conveys the intended meaning clearly.
- Complete Sentence: "She avoids going to crowded places."

## 94. Comprehension:

Read the following passage and answer the questions based on the passage:

Art, in its manifold forms— visual, performative, literary, and auditory—constitutes a domain that transcends utilitarian function and enters the realm of the symbolic, the affective, and the transformative. Its significance within society cannot be reduced to decoration or diversion; rather, it operates as a mode of critical reflection, a vessel of collective memory, and a catalyst for socio-cultural evolution. At its core, art interrogates the contours of reality by reframing perception. Whether through the destabilizing surrealism of a Dali canvas or the dissonant harmonies of avant-garde music, art dislodges the observer from complacency and compels re-engagement with the world. It is in this function that art becomes not only an aesthetic but an epistemological act— challenging dominant paradigms and opening discursive space for marginalized narratives. Historically, art has served as an archive of civilizations, encoding within its mediums the aspirations, anxieties, and ideologies of its epoch. From the sacred iconography of temple frescoes to the protest murals adorning urban decay, art becomes a text through which power, resistance, and identity are simultaneously contested and constituted. This historical embeddedness renders art indispensable to understanding not only what a society creates but what it values and fears. In modern democracies, the role of art assumes a distinctly political dimension. Art enables dissent when speech is suppressed, and engenders empathy where rational argument fails. Satire, documentary film, and performance art often articulate the unspeakable, using metaphor and allusion to subvert censure. Yet this potential also renders art vulnerable—to censorship, commodification, and ideological co-option. When stripped of autonomy, art may devolve into propaganda or elitist ornamentation—devoid of critical function. The sociological function of art extends to its capacity to cultivate communal belonging and individual introspection simultaneously. Participatory forms of art—street theatre, public installations, folk traditions—dissolve the binaries of creator and audience, democratizing aesthetic engagement. Meanwhile, solitary encounters with a painting or a poem can occasion personal revelation, catharsis, or ethical inquiry. However, in the algorithmic age, where virality and visibility often dictate cultural value, art faces unprecedented commodification. The aesthetic is frequently reduced to a spectacle optimized for consumption, divorced from nuance, complexity, or transgression. The challenge, therefore, is to preserve the sanctity of artistic integrity in the face of market and media pressures that threaten to flatten it into banality. Ultimately, the role of art in

society is neither static nor monolithic. It is a dialectical force—at once reflective and projective, disruptive and redemptive. To safeguard art is to safeguard the capacity of humanity to feel, to question, and to reimagine.

A. **What is implied by describing art as an "epistemological act" in the passage?**

A Art is an emotional expression.

B Art is a method of acquiring and challenging knowledge structures.

C Art serves as mere historical documentation.

D Art reflects state-sponsored ideologies.

### Solution

- The passage defines art as an "epistemological act" because it "interrogates the contours of reality" and "challenges dominant paradigms."
- Epistemology is the study of knowledge; the text suggests art isn't just about beauty (aesthetics) but about how we perceive and know the world.
- By "dislodging the observer from complacency," art forces a "re-engagement with the world," which facilitates acquiring new perspectives and questioning established "knowledge structures."

**B. The phrase "commodification of art" in the passage most nearly refers to:**

**A** Art being preserved in national archives.

**B** Art being transformed into a consumer product stripped of its critical power.

**C** Art being used exclusively for educational purposes.

**D** Art becoming a tool for political awareness.

### **Solution**

- The passage discusses the risk of art facing "unprecedented commodification" in the algorithmic age, where value is dictated by "virality and visibility."
- It defines this process as the aesthetic being "reduced to a spectacle optimized for consumption," which results in art being "divorced from nuance, complexity, or transgression."
- When art is commodified, the author suggests it loses its "critical function" and becomes flattened into "banality," serving the market rather than challenging society.

**C. According to the passage, how does art function in politically repressive environments?**

**A** It reinforces state propaganda through images.

**B** It loses its relevance.

**C** It channels dissent and expresses unspeakable truths.

**D** It remains confined to academic circles.

### **Solution**

- The passage highlights that in situations where speech is suppressed, art becomes a powerful medium to express dissent and challenge authority.
- Forms such as satire, documentary films, and performance art help communicate ideas that may otherwise remain unspeakable or censored.
- Artists often employ metaphor, symbolism, and allusion to indirectly criticize political systems and question dominant power structures.
- Thus, art acts as a vehicle for resistance and social commentary, enabling suppressed voices and marginalized perspectives to be heard.

**D. Which of the following best explains the dialectical nature of art as per the last paragraph?**

**A** Art is always destructive and marginal.

**B** Art evolves through opposing forces of creation and criticism.

**C** Art functions only within elite institutions.

**D** Art is limited to reflecting the past.

### Solution

- The passage concludes by defining art as a "dialectical force," a term that implies progress through the tension of opposing qualities.
- The author specifies these dualities as being "at once reflective and projective, disruptive and redemptive."
- This suggests that art does not serve a single, static purpose; instead, it exists in a state of constant evolution between looking back (reflective) and forward (projective), and between challenging norms (disruptive) and providing meaning (redemptive).

**E. What is the closest meaning of the word "banality" as used in the sentence: "\_\_\_\_\_ threaten to flatten it into banality"?**

**A** Brutality

**B** Vitality

**C** Triviality

**D** Versatility

### Solution

- In the context of the passage, "banality" refers to something that is unoriginal, boring, or lacking in depth and complexity.
- The author argues that market and media pressures "flatten" art, stripping it of its "nuance, complexity, or transgression," which makes it trivial or common.
- "Triviality" is the state of being unimportant or lacking in seriousness/depth, which perfectly mirrors the author's concern that art might become a mere "spectacle optimized for consumption."

95. Select the correct option for the Direct Speech conversion of the sentence below.

**The zoologist warned that the island's carrying capacity might be exceeded should invasive species proliferate unchecked.**

**A**

The zoologist said, "The island's carrying capacity will be exceeded if invasive species proliferate unchecked."

**B**

The zoologist said, "Should invasive species have proliferated unchecked, the island's carrying capacity would be exceeded."

**C**

**The zoologist said, "The island's carrying capacity might be exceeded should invasive species proliferate unchecked."**

**D**

The zoologist said, "If invasive species proliferated unchecked, the carrying capacity had been exceeded."

## Solution

### Key Conversions:

- "Might be exceeded should invasive species proliferate unchecked" becomes "might be exceeded should invasive species proliferate unchecked".
- The verb "might" remains unchanged as it is appropriate for the hypothetical nature of the statement.

- Maintains the conditional clause "should invasive species proliferate unchecked."

### **Reporting verb:**

- Indirect: "warned"
- Converted to: "said," keeping the context of the warning intact.

### **Punctuation and Format:**

- Direct speech is enclosed in quotation marks.
- Starts with a capital letter "The" and ends with a period inside the quotation marks.
- Reporting clause is followed by the quoted speech, separated by a comma.
- Correct Sentence: "The zoologist said, "The island's carrying capacity might be exceeded should invasive species proliferate unchecked."

96. A sentence is provided in direct speech. From the four given options, choose the one that most accurately conveys the sentence in its corresponding indirect speech.

**He said, "I bought a new laptop."**

**A** He said that he had bought a new laptop.

**B** He said that he buys a new laptop.

**C** He said that he was buying a new laptop.

**D** He said that he has bought a new laptop.

### **Solution**

#### **Key Conversions:**

- "I bought" becomes "he had bought".
- The pronoun "I" is changed to "he" to match the third person in indirect speech.
- The verb "bought" (past tense) is converted to "had bought" to represent past perfect tense in indirect speech.

#### **Reporting verb:**

- The reporting verb "said" remains unchanged.

#### **Punctuation and Format:**

- Quotation marks enclosing the direct speech are removed.
- The sentence is restructured to follow indirect speech rules.
- Correct Sentence: "He said that he had bought a new laptop."



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