

SNAP 2013 Question Paper with Solutions

Time Allowed :2 Hours	Maximum Marks :180	Total Questions :150
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General Instructions

Read the following instructions very carefully and strictly follow them:

1. SNAP Test will be conducted in objective mode in 30 cities across the country and the time allotted for it will be 120 minutes.
2. The exam is divided in four sections
3. A total of 150 questions spread across three sections of 40 questions each, and one section of 30 questions.
4. There is a **negative marking** of $\frac{1}{4}$ **mark** for each incorrect answer.
5. The test follows an MCQ format wherein each question lists 4 options out of which a student has to select the right answer.

Quantitative Aptitude

Q1. Average of five numbers is 61. If the average of first and third number is 69 and the average of second and fourth number is 69, what is the fifth number?

- (A) 31
- (B) 29
- (C) 25
- (D) 35

Correct Answer: (B) 29

Solution:

Step 1: Represent the numbers.

Let the five numbers be a, b, c, d, e .

We know that the average of these five numbers is 61. Hence, their sum is:

$$a + b + c + d + e = 61 \times 5 = 305.$$

Step 2: Use the condition on the first and third numbers.

The average of the first and third numbers is given as 69. Thus:

$$\frac{a + c}{2} = 69 \Rightarrow a + c = 138.$$

Step 3: Use the condition on the second and fourth numbers.

The average of the second and fourth numbers is also given as 69. Thus:

$$\frac{b + d}{2} = 69 \Rightarrow b + d = 138.$$

Step 4: Substitute values into the total sum.

From Step 2 and Step 3:

$$a + c = 138, \quad b + d = 138.$$

Therefore:

$$a + b + c + d + e = (a + c) + (b + d) + e = 138 + 138 + e = 276 + e.$$

But from Step 1, this sum is 305. Hence:

$$276 + e = 305 \Rightarrow e = 305 - 276 = 29.$$

Quick Tip

When solving average problems, always convert averages into sum equations. Then, combine the given conditions systematically to isolate the unknown value.

Q2. Kajal spends 55% of her monthly income on grocery, clothes and education in the ratio of 4 : 2 : 5 respectively. If the amount spent on clothes is Rs. 5540, what is Kajal's monthly income?

- (A) Rs. 55,400
- (B) Rs. 54,500
- (C) Rs. 55,450
- (D) Rs. 55,650

Correct Answer: (A) Rs. 55,400

Solution:**Step 1: Represent the spending ratio.**

Kajal spends 55% of her monthly income on three categories: Grocery : Clothes : Education = 4 : 2 : 5.

This ratio adds up to:

$$4 + 2 + 5 = 11 \text{ parts.}$$

Step 2: Express in terms of total income.

Let Kajal's monthly income be M . Then 55% of M is distributed in 11 parts.

So, each part is:

$$\frac{55}{100}M \div 11 = \frac{55M}{1100} = \frac{M}{20}.$$

Step 3: Find the value of clothes share.

The clothes portion corresponds to 2 parts. Hence:

$$\text{Clothes} = 2 \times \frac{M}{20} = \frac{M}{10}.$$

It is given that:

$$\frac{M}{10} = 5540 \Rightarrow M = 5540 \times 10 = 55,400.$$

Quick Tip

In ratio-based spending problems, always reduce to “one part” by dividing the given percentage amount by the total ratio sum. Then multiply the required ratio part to find the desired share.

Q3. The simple interest accrued on a sum of certain principal in 8 years at the rate of 13% per year is Rs. 6500. What would be the compound interest accrued on that principal at the rate of 8% per year in 2 years?

- (A) Rs. 1040
- (B) Rs. 1020
- (C) Rs. 1060
- (D) Rs. 1200

Correct Answer: (A) Rs. 1040

Solution:

Step 1: Use the simple interest formula to find the principal.

The formula for simple interest (SI) is:

$$SI = \frac{P \times R \times T}{100},$$

where P = principal, R = rate, T = time.

Given:

$$SI = 6500, \quad R = 13\%, \quad T = 8 \text{ years.}$$

So:

$$6500 = \frac{P \times 13 \times 8}{100} = \frac{104P}{100} = \frac{26P}{25}.$$

Thus:

$$P = \frac{6500 \times 25}{26} = 6250.$$

Step 2: Use the compound interest formula.

The compound interest (CI) for 2 years at 8% is given by:

$$CI = P \left(\left(1 + \frac{R}{100} \right)^T - 1 \right).$$

Substituting values:

$$CI = 6250 \left(\left(1 + \frac{8}{100} \right)^2 - 1 \right).$$

$$CI = 6250 \left((1.08)^2 - 1 \right) = 6250 (1.1664 - 1).$$

$$CI = 6250 \times 0.1664 = 1040.$$

Quick Tip

In interest problems, first use simple interest to find the principal, then apply compound interest formulas. Always handle percentages carefully and expand powers step by step.

Q4. 8 men and 4 women together can complete a piece of work in 6 days. The work done by a man in one day is double the work done by a woman in one day. If 8 men and 4 women started working and after 2 days 4 men left and 4 new women joined, in how many more days will the work be completed?

- (A) 5 days
- (B) 8 days
- (C) 6 days
- (D) 4 days

Correct Answer: (A) 5 days

Solution:

Step 1: Set unit rates.

Let the work done by a woman in one day be w . Then a man's one-day work $= 2w$.

Step 2: Find total work.

Rate of 8 men and 4 women $= 8(2w) + 4(w) = 16w + 4w = 20w$.

They finish the job in 6 days \Rightarrow Total work

$$W = 20w \times 6 = 120w.$$

Step 3: Work done in first 2 days.

Same group for 2 days does

$$20w \times 2 = 40w.$$

Remaining work $= 120w - 40w = 80w$.

Step 4: New group's rate and time required.

After the change: 4 men left \Rightarrow men $= 4$; 4 women joined \Rightarrow women $= 8$.

New daily rate $= 4(2w) + 8(w) = 8w + 8w = 16w$.

Time to finish remaining $80w$:

$$\frac{80w}{16w} = 5 \text{ days.}$$

Quick Tip

Convert "man is double a woman" into rates, compute total work from an initial complete-time clue, subtract the work already done, and then use the new rate to get the remaining time.

Q5. The cost of fencing a circular plot at the rate of Rs. 15 per m is Rs. 3300. What will be the cost of flooring the plot at the rate of Rs. 100 per sq m?

- (A) Rs. 385000
- (B) Rs. 220000
- (C) Rs. 350000
- (D) Cannot be determined

Correct Answer: (A) Rs. 385000

Solution:

Step 1: Find the circumference.

Fencing cost = Rs. 3300, rate = Rs. 15 per meter.

Hence circumference of the circular plot is:

$$\frac{3300}{15} = 220 \text{ m.}$$

Step 2: Relating circumference to radius.

Circumference = $2\pi r = 220$.

So,

$$r = \frac{220}{2\pi} = \frac{220}{2 \times \frac{22}{7}} = \frac{220 \times 7}{44} = 35 \text{ m.}$$

Step 3: Find the area of the circular plot.

$$\text{Area} = \pi r^2 = \frac{22}{7} \times 35 \times 35 = 3850 \text{ m}^2.$$

Step 4: Cost of flooring.

Rate = Rs. 100 per sq m.

So cost = $3850 \times 100 = 385000$.

Quick Tip

In fencing problems, first compute circumference from total cost, then radius, then area. Flooring cost is always based on area, not perimeter.

Q6. In an examination, Raman scored 25 marks less than Rohit. Rohit scored 45 more marks than Sonia. Rohan scored 75 marks which is 10 more than Sonia. Ravi's score is 50 less than maximum marks of the test. What approximate percentage of marks did Ravi score in the examination, if he gets 34 marks more than Raman?

- (A) 90
- (B) 70
- (C) 80
- (D) 60

Correct Answer: (B) 70

Solution:

Step 1: Express Sonia's marks.

Rohan scored 75 marks which is 10 more than Sonia.

So Sonia's marks = $75 - 10 = 65$.

Step 2: Express Rohit's marks.

Rohit scored 45 more than Sonia.

So Rohit's marks = $65 + 45 = 110$.

Step 3: Express Raman's marks.

Raman scored 25 less than Rohit.

So Raman's marks = $110 - 25 = 85$.

Step 4: Express Ravi's marks.

Ravi scored 34 more than Raman.

So Ravi's marks = $85 + 34 = 119$.

Step 5: Find maximum marks.

Ravi's score is 50 less than maximum marks.

So maximum marks = $119 + 50 = 169$.

Step 6: Calculate percentage.

Percentage scored by Ravi:

$$\frac{119}{169} \times 100 \approx 70.41\% \approx 70\%.$$

Quick Tip

Always convert relative differences into equations step by step. Once all scores are expressed, use the condition relating to maximum marks to compute the required percentage.

Q7. An aeroplane flies with an average speed of 756 km/h. A helicopter takes 48 h to cover twice the distance covered by aeroplane in 9 h. How much distance will the helicopter cover in 18 h? (Assuming that flights are non-stop and moving with uniform speed.)

- (A) 5010 km
- (B) 4875 km
- (C) 5760 km
- (D) 5103 km

Correct Answer: (D) 5103 km

Solution:

Step 1: Distance covered by aeroplane in 9 h

$$\text{Speed of aeroplane} = 756 \text{ km/h}$$

$$\text{Distance in 9 h} = 756 \times 9 = 6804 \text{ km}$$

Step 2: Distance covered by helicopter in 48 h

Helicopter covers $2 \times 6804 = 13608$ km in 48 h.

Step 3: Speed of helicopter

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}} = \frac{13608}{48} = 283.5 \text{ km/h}$$

Step 4: Distance covered by helicopter in 18 h

$$\text{Distance} = 283.5 \times 18 = 5103 \text{ km}$$

5103 km

Quick Tip

Always find the speed of the second vehicle by relating its journey to the known distance of the first vehicle. Once speed is calculated, use the basic formula $\text{Distance} = \text{Speed} \times \text{Time}$.

Q8. Average weight of 19 men is 74 kgs, and the average weight of 38 women is 63 kgs. What is the average weight (rounded off to the nearest integer) of all the men and the women together?

- (A) 59 kg
- (B) 65 kg
- (C) 69 kg
- (D) 67 kg

Correct Answer: (D) 67 kg

Solution:

Step 1: Calculate the total weight of men

$$\text{Average weight of men} = 74 \text{ kg, Number of men} = 19$$

$$\text{Total weight of men} = 74 \times 19 = 1406 \text{ kg}$$

Step 2: Calculate the total weight of women

$$\text{Average weight of women} = 63 \text{ kg, Number of women} = 38$$

$$\text{Total weight of women} = 63 \times 38 = 2394 \text{ kg}$$

Step 3: Total weight of all persons

$$\text{Total weight} = 1406 + 2394 = 3800 \text{ kg}$$

Step 4: Total number of persons

$$\text{Total persons} = 19 + 38 = 57$$

Step 5: Average weight of all persons

$$\text{Average} = \frac{3800}{57} \approx 66.67 \text{ kg}$$

Step 6: Rounding off

$$\text{Average rounded to nearest integer} = 67 \text{ kg}$$

67 kg

Quick Tip

When combining averages of different groups, always compute the **weighted average** using total weights and total numbers, instead of simply averaging the two averages.

Q9. Mr Giridhar spends 50% of his monthly income on household items and out of the remaining he spends 50% on transport, 25% on entertainment, 10% on sports and the remaining amount of Rs. 900 is saved. What is Mr Giridhar's monthly income?

- (A) Rs. 6000
- (B) Rs. 12000
- (C) Rs. 9000
- (D) Cannot be determined

Correct Answer: (B) Rs. 12000

Solution:

Step 1: Let monthly income = x

He spends 50% on household items:

$$\text{Household expenditure} = \frac{50}{100} \times x = \frac{x}{2}$$

Step 2: Remaining income after household expenses

$$\text{Remaining} = x - \frac{x}{2} = \frac{x}{2}$$

Step 3: Distribution of the remaining half income Out of this remaining $\frac{x}{2}$:

- 50% on transport = $\frac{1}{2} \times \frac{x}{2} = \frac{x}{4}$
- 25% on entertainment = $\frac{1}{4} \times \frac{x}{2} = \frac{x}{8}$
- 10% on sports = $\frac{1}{10} \times \frac{x}{2} = \frac{x}{20}$
- Remaining = savings = Rs. 900

Step 4: Express savings in terms of x

Fraction spent on transport, entertainment, sports = $\frac{1}{2} + \frac{1}{4} + \frac{1}{10} = \frac{5}{10} + \frac{2.5}{10} + \frac{1}{10} = \frac{8.5}{10} = \frac{17}{20}$

So, leftover fraction of the remaining income:

$$1 - \frac{17}{20} = \frac{3}{20}$$

Thus, savings = $\frac{3}{20} \times \frac{x}{2} = \frac{3x}{40}$

Step 5: Solve for x

$$\frac{3x}{40} = 900 \Rightarrow 3x = 36000 \Rightarrow x = 12000$$

Rs. 12000

Quick Tip

When a problem involves step-wise spending, always reduce the income in stages and then apply percentage distributions on the remaining amount, not on the original income.

Q10. A and B together can complete a task in 20 days. B and C together can complete the same task in 30 days. A and C together can complete the same task in 40 days. What is the respective ratio of the number of days taken by A when completing the same task alone to the number of days taken by C when completing the same task alone?

- (A) 2 : 5
- (B) 2 : 7
- (C) 3 : 7
- (D) 1 : 5

Correct Answer: (D) 1 : 5

Solution:

Step 1: Set up rates. Let A, B, C have daily work rates a, b, c (work per day). Then

$$a + b = \frac{1}{20}, \quad b + c = \frac{1}{30}, \quad a + c = \frac{1}{40}.$$

Step 2: Find the sum $a + b + c$.

$$(a + b) + (b + c) + (a + c) = \frac{1}{20} + \frac{1}{30} + \frac{1}{40} \Rightarrow 2(a + b + c) = \frac{13}{120} \Rightarrow a + b + c = \frac{13}{240}.$$

Step 3: Solve for a and c .

$$a = (a + b + c) - (b + c) = \frac{13}{240} - \frac{1}{30} = \frac{13}{240} - \frac{8}{240} = \frac{5}{240} = \frac{1}{48}.$$

$$c = (a + b + c) - (a + b) = \frac{13}{240} - \frac{1}{20} = \frac{13}{240} - \frac{12}{240} = \frac{1}{240}.$$

Step 4: Convert to days and take the ratio. Days taken by A = $\frac{1}{a} = 48$, by C = $\frac{1}{c} = 240$.

$$\text{Required ratio} = 48 : 240 = 1 : 5.$$

$$\boxed{1 : 5}$$

Quick Tip

For work-rate pairs like $(a + b)$, $(b + c)$, $(a + c)$, first compute $a + b + c$ by adding the three equations and halving. Then subtract appropriately to get individual rates.

Q11. A certain amount was to be distributed among A, B and C in the ratio 2:3:4 respectively, but was erroneously distributed in the ratio 7:2:5 respectively. As a result of this, B got Rs. 40 less. What is the amount?

- (A) Rs. 210
- (B) Rs. 270
- (C) Rs. 230
- (D) Rs. 280

Correct Answer: (A) Rs. 210

Solution:

Step 1: Represent the total amount.

Let the total amount be x .

Step 2: Share of B in the correct distribution.

The ratio is $2 : 3 : 4 \Rightarrow$ total parts = $2 + 3 + 4 = 9$.

$$\text{B's correct share} = \frac{3}{9}x = \frac{x}{3}$$

Step 3: Share of B in the erroneous distribution.

The ratio is $7 : 2 : 5 \Rightarrow$ total parts = $7 + 2 + 5 = 14$.

$$\text{B's erroneous share} = \frac{2}{14}x = \frac{x}{7}$$

Step 4: Difference in B's shares.

It is given that B got Rs. 40 less, hence

$$\frac{x}{3} - \frac{x}{7} = 40$$

Step 5: Solve for x .

$$\begin{aligned} \frac{7x - 3x}{21} &= 40 \Rightarrow \frac{4x}{21} = 40 \\ 4x &= 840 \Rightarrow x = 210 \end{aligned}$$

Rs. 210

Quick Tip

In distribution problems, always compute each person's share based on the ratio. If a person gets more or less than expected, set up an equation using the difference.

Q12. Last year there were 610 boys in a school. The number decreased by 20 percent this year. How many girls are there in the school if the number of girls is 175 percent of the total number of boys in the school this year?

- (A) 854
- (B) 848
- (C) 798
- (D) 782

Correct Answer: (A) 854

Solution:

Step 1: Find the number of boys this year.

Last year: 610 boys.

Decrease: 20% of 610 = $\frac{20}{100} \times 610 = 122$.

$$\text{Boys this year} = 610 - 122 = 488$$

Step 2: Relating number of girls to boys this year.

Girls are 175% of boys this year.

$$\text{Girls} = \frac{175}{100} \times 488 = 1.75 \times 488$$

Step 3: Calculate the number of girls.

$$\text{Girls} = 488 \times 1.75 = 854$$

854

Quick Tip

When a percentage increase/decrease is involved, always calculate the new value first, then apply subsequent percentage relations.

Q13. Rs. 73,689 are divided between A and B in the ratio 4:7. What is the difference between thrice the share of A and twice the share of B?

- (A) Rs. 36,699
- (B) Rs. 46,893
- (C) Rs. 20,097
- (D) Rs. 13,398

Correct Answer: (D) Rs. 13,398

Solution:

Step 1: Divide the total in the given ratio. The ratio is 4 : 7, total parts = 4 + 7 = 11.

$$\text{Value of 1 part} = \frac{73689}{11} = 6699$$

$$\text{A's share} = 4 \times 6699 = 26796$$

$$\text{B's share} = 7 \times 6699 = 46893$$

Step 2: Compute thrice A's share and twice B's share.

$$3 \times A = 3 \times 26796 = 80388$$

$$2 \times B = 2 \times 46893 = 93786$$

Step 3: Difference.

$$|3A - 2B| = |80388 - 93786| = 13398$$

$$\boxed{13398}$$

Quick Tip

Always simplify ratio problems by first finding the value of one part. Then compute each person's share, and apply any multiples (like thrice or twice) before finding the difference.

Q14. The average marks in English subject of a class of 24 students is 56. If the marks of three students were misread as 44, 45 and 61 instead of the actual marks 48, 59 and 67 respectively, then what would be the correct average?

- (A) 56.5
- (B) 59
- (C) 57.5
- (D) None of these

Correct Answer: (D) None of these

Solution:

Step 1: Calculate the total marks based on the wrong average.

$$\text{Average (wrong)} = 56, \quad \text{Number of students} = 24$$

$$\text{Total (wrong)} = 56 \times 24 = 1344$$

Step 2: Find the total of misread marks.

$$44 + 45 + 61 = 150$$

Step 3: Find the total of actual marks.

$$48 + 59 + 67 = 174$$

Step 4: Correct the total marks.

$$\text{Correct total} = 1344 - 150 + 174 = 1368$$

Step 5: Calculate the correct average.

$$\text{Correct average} = \frac{1368}{24} = 57$$

Step 6: Verify with given options. 57 is not listed among the options (56.5, 59, 57.5), so the correct answer is:

None of these

Quick Tip

In average correction problems, always adjust the total sum by subtracting misread values and adding the actual values, then recompute the average.

Q15. The respective ratio between the present age of Manisha and Deepali is 5 : X. Manisha is 9 years younger than Parineeta. Parineeta's age after 9 years will be 33 years. The difference between Deepali's and Manisha's age is same as the present age of Parineeta. What will come in place of X?

- (A) 23
- (B) 39
- (C) 15
- (D) none of these

Correct Answer: (D) none of these

Solution:

Step 1: Find Parineeta's present age.

Parineeta's age after 9 years = 33 years.

$$\text{Present age of Parineeta} = 33 - 9 = 24 \text{ years}$$

Step 2: Find Manisha's present age.

Manisha is 9 years younger than Parineeta.

$$\text{Manisha's age} = 24 - 9 = 15 \text{ years}$$

Step 3: Relation between Deepali and Manisha.

The difference between Deepali's and Manisha's age is equal to Parineeta's present age (24 years).

$$\text{Deepali's age} - 15 = 24 \Rightarrow \text{Deepali's age} = 39 \text{ years}$$

Step 4: Form the ratio.

Manisha : Deepali = 15 : 39. Simplify:

$$15 : 39 = 5 : 13$$

So, $X = 13$.

Step 5: Match with given options.

Options are 23, 39, 15, and "none of these". Since 13 is not listed, the answer is:

None of these

Quick Tip

In age ratio problems, always calculate the known ages first, then use the given difference/relationship to find the unknown. Finally, simplify the ratio to lowest terms.

Q16. Anand travelled 300 km by train and 200 km by taxi. It took him 5 h and 30 min. However, if he travels 260 km by train and 240 km by taxi, he takes 6 min more. The speed of the train is

- (A) 100 km/h
- (B) 120 km/h
- (C) 80 km/h
- (D) 110 km/h

Correct Answer: (A) 100 km/h

Solution:

Step 1: Set variables and equations. Let the train speed be v_t km/h and taxi speed be v_x km/h. Time = distance/speed. First trip (5 h 30 min = 5.5 h):

$$\frac{300}{v_t} + \frac{200}{v_x} = 5.5 \quad \dots (1)$$

Second trip (6 min = 0.1 h more \Rightarrow 5.6 h):

$$\frac{260}{v_t} + \frac{240}{v_x} = 5.6 \quad \dots (2)$$

Step 2: Eliminate one variable.

Subtract (2) from (1):

$$\frac{40}{v_t} - \frac{40}{v_x} = -0.1 \Rightarrow \left(\frac{1}{v_t} - \frac{1}{v_x} \right) = -0.0025.$$

Let $a = \frac{1}{v_t}$, $b = \frac{1}{v_x}$. Then $b - a = 0.0025$.

Step 3: Solve using (1).

Equation (1) becomes $300a + 200b = 5.5$.

Substitute $b = a + 0.0025$:

$$300a + 200(a + 0.0025) = 5.5 \Rightarrow 500a + 0.5 = 5.5 \Rightarrow 500a = 5 \Rightarrow a = 0.01.$$

Hence $v_t = \frac{1}{a} = 100$ km/h.

100 km/h

Quick Tip

Convert all times to hours, set reciprocals $a = \frac{1}{v}$ to linearize equations, subtract to eliminate one variable, then back-solve.

Q17. A certain number of people were supposed to complete a work in 24 days. The work, however, took 32 days, since 9 people were absent throughout. How many people were supposed to be working originally?

- (A) 32
- (B) 27
- (C) 36
- (D) 30

Correct Answer: (C) 36

Solution:

Step 1: Represent work in man-days.

Let the original number of people be N .

Work can be measured in man-days:

$$\text{Total work} = N \times 24$$

Step 2: Work done when 9 are absent.

If 9 people are absent, only $(N - 9)$ people work. Time taken = 32 days.

$$\text{Total work} = (N - 9) \times 32$$

Step 3: Form the equation.

$$N \times 24 = (N - 9) \times 32$$

Step 4: Simplify.

$$24N = 32N - 288$$

$$288 = 32N - 24N = 8N$$

$$N = \frac{288}{8} = 36$$

36

Quick Tip

In work-time problems, use the concept of man-days. Equating total work under two different conditions gives a direct equation to solve for the unknown.

Q18. Profit earned by an organization is distributed among officers and clerks where the individual amount received by them is in the ratio of 5:3. If the number of officers is 45 and the number of clerks is 80 and the amount received by each officer is Rs. 25,000, what was the total amount of profit earned?

- (A) Rs. 22 lakh
- (B) Rs. 18.25 lakh
- (C) Rs. 18 lakh
- (D) Rs. 23.25 lakh

Correct Answer: (D) Rs. 23.25 lakh

Solution:

Step 1: Represent the ratio of shares.

The ratio of officer : clerk = 5 : 3.

If an officer gets $5k$, then a clerk gets $3k$.

Step 2: Value of k from officer's amount.

$$5k = 25,000 \Rightarrow k = 5000$$

Step 3: Clerk's share.

$$3k = 3 \times 5000 = 15,000$$

Step 4: Total profit distribution.

- Officers: $45 \times 25,000 = 11,25,000$

- Clerks: $80 \times 15,000 = 12,00,000$

$$\text{Total profit} = 11,25,000 + 12,00,000 = 23,25,000$$

23.25 lakh

Quick Tip

When individuals are paid in a fixed ratio, assign values like $5k, 3k$. Use the given actual payment to find k , then compute total distribution.

Q19. A shopkeeper labelled the price of his articles so as to earn a profit of 30% on the cost price. He then sold the articles by offering a discount of 10% on the labelled price. What is the actual per cent profit earned in the deal?

- (A) 18%
(B) 15%
(C) 20%
(D) none of these

Correct Answer: (D) none of these

Solution:

Step 1: Assume cost price. Let cost price (CP) = Rs. 100.

Step 2: Labelled price with 30% profit.

$$\text{Labelled Price (LP)} = 100 + 30 = 130$$

Step 3: Selling price after 10% discount.

$$\text{Selling Price (SP)} = 130 - \frac{10}{100} \times 130 = 130 - 13 = 117$$

Step 4: Profit earned.

$$\text{Profit} = SP - CP = 117 - 100 = 17$$

Step 5: Profit percentage.

$$\text{Profit}\% = \frac{17}{100} \times 100 = 17\%$$

17%

Step 6: Match with options.

Given options: 18%, 15%, 20%, none of these. Since 17% is not listed, the correct answer is:

None of these

Quick Tip

In profit and discount problems, always take CP = 100 for simplicity, compute LP with markup, then apply discount to get SP. Compare SP with CP to find the exact profit percentage.

Q20. There are five boys and three girls who are sitting together to discuss a management problem at a round table. In how many ways can they sit around the table so that no two girls are together?

- (A) 1220
- (B) 1400
- (C) 1420
- (D) 1440

Correct Answer: (D) 1440

Solution:

Step 1: Arrange boys around the round table.

Fix circular order of 5 distinct boys: $(5 - 1)! = 4! = 24$ ways (one seat used to break rotational symmetry).

Step 2: Create gaps for girls.

With boys fixed, there are 5 distinct gaps between adjacent boys. To ensure no two girls are adjacent, each girl must occupy a different gap.

Step 3: Place 3 distinct girls into the 5 gaps.

Number of ways $= {}^5P_3 = 5 \times 4 \times 3 = 60$
(equivalently $\binom{5}{3} \times 3! = 10 \times 6 = 60$).

Step 4: Total arrangements.

$$\text{Total} = 24 \times 60 = 1440.$$

1440

Quick Tip

For circular seating with separation constraints, first fix one category (e.g., boys) in a circle using $(n - 1)!$, then place the others in the created gaps to enforce “no adjacency.”

Q21. A pump can be operated both for filling a tank and for emptying it. The capacity of tank is 2400 m^3 . The emptying capacity of the pump is $10\text{ m}^3/\text{min}$ per min higher than its filling capacity. Consequently, the pump needs 8 min less to empty the tank than to fill it. Find the filling capacity of the pump.

- (A) $45\text{ m}^3/\text{min}$
- (B) $30\text{ m}^3/\text{min}$
- (C) $50\text{ m}^3/\text{min}$
- (D) $55\text{ m}^3/\text{min}$

Correct Answer: (C) $50\text{ m}^3/\text{min}$

Solution:

Step 1: Assume filling capacity.

Let filling capacity $= x\text{ m}^3/\text{min}$.

Then emptying capacity = $x + 10 \text{ m}^3/\text{min}$.

Step 2: Write times for filling and emptying.

- Time to fill tank = $\frac{2400}{x}$.
- Time to empty tank = $\frac{2400}{x+10}$.

Step 3: Relation between times.

$$\frac{2400}{x} - \frac{2400}{x+10} = 8$$

Step 4: Simplify the equation.

$$2400 \left(\frac{(x+10) - x}{x(x+10)} \right) = 8$$

$$2400 \times \frac{10}{x(x+10)} = 8$$

$$\frac{24000}{x(x+10)} = 8$$

$$x(x+10) = 3000$$

Step 5: Solve quadratic equation.

$$x^2 + 10x - 3000 = 0$$

Using quadratic formula:

$$x = \frac{-10 \pm \sqrt{10^2 + 4 \times 3000}}{2} = \frac{-10 \pm \sqrt{12100}}{2} = \frac{-10 \pm 110}{2}$$

$$x = \frac{100}{2} = 50 \quad \text{or negative value discarded}$$

$$\boxed{50 \text{ m}^3/\text{min}}$$

Quick Tip

In pump/tank problems, always set up equations using time = work/rate. Use the difference in times to form an equation and solve for the unknown rate.

Q22. A plane left 30 min later than its scheduled time to reach its destination 1500 km away. In order to reach in time it increases its speed by 250 km/h. What is its original speed?

- (A) 1000 km/h
- (B) 750 km/h
- (C) 600 km/h
- (D) 800 km/h

Correct Answer: (B) 750 km/h

Solution:

Step 1: Assume original speed.

Let the original speed be x km/h.

Then the time to cover 1500 km = $\frac{1500}{x}$.

Step 2: Condition with increased speed.

If speed increases by 250 km/h, new speed = $x + 250$.

New time = $\frac{1500}{x+250}$.

Since the plane left 30 min late (= 0.5 h) but still reached on time:

$$\frac{1500}{x} = \frac{1500}{x+250} + 0.5$$

Step 3: Simplify equation.

$$\begin{aligned}\frac{1500}{x} - \frac{1500}{x+250} &= 0.5 \\ 1500 \left(\frac{(x+250) - x}{x(x+250)} \right) &= 0.5 \\ 1500 \times \frac{250}{x(x+250)} &= 0.5 \\ \frac{375000}{x(x+250)} &= 0.5 \\ x(x+250) &= 750000\end{aligned}$$

Step 4: Solve quadratic.

$$x^2 + 250x - 750000 = 0$$

Discriminant:

$$\Delta = 250^2 + 4 \times 750000 = 62500 + 3000000 = 3062500$$

$$\sqrt{\Delta} = 1750$$

$$x = \frac{-250 + 1750}{2} = \frac{1500}{2} = 750$$

$$\boxed{750 \text{ km/h}}$$

Quick Tip

When a journey is delayed but compensated by higher speed, always equate the difference in times to the delay. Then solve the quadratic for the original speed.

Q23. Mrs. X spends Rs. 535 in purchasing some shirts and ties for her husband. If shirts cost Rs. 43 each and the ties cost Rs. 21 each, then what is the ratio of the shirts to the ties, that are purchased?

- (A) 1 : 2
- (B) 2 : 1
- (C) 2 : 3
- (D) 3 : 4

Correct Answer: (B) 2 : 1

Solution:

Step 1: Form equation. Let the number of shirts = x , number of ties = y .

$$43x + 21y = 535$$

Step 2: Check for integer solutions.

Divide through by GCD (to simplify testing).

Try $x = 7$:

$$\begin{aligned} 43(7) + 21y &= 535 \Rightarrow 301 + 21y = 535 \\ 21y &= 234 \Rightarrow y = 11.14 \text{ (not integer)} \end{aligned}$$

Try $x = 5$:

$$\begin{aligned} 43(5) + 21y &= 535 \Rightarrow 215 + 21y = 535 \\ 21y &= 320 \Rightarrow y = 15.24 \text{ (not integer)} \end{aligned}$$

Try $x = 7, y = 7$:

$$43(7) + 21(7) = 301 + 147 = 448 \text{ (too small)}$$

Try $x = 10$:

$$\begin{aligned} 43(10) + 21y &= 535 \Rightarrow 430 + 21y = 535 \\ 21y &= 105 \Rightarrow y = 5 \text{ (integer solution)} \end{aligned}$$

Step 3: Ratio.

$$x : y = 10 : 5 = 2 : 1$$

2 : 1

Quick Tip

In ratio-cost problems, always form the linear equation using total cost, test for integer solutions, and reduce the ratio to lowest terms.

Q24. A mixture of 12 kg of wheat flour costing Rs. 16 per kg and 4 kg of corn flour costing Rs. 2 per kg is sold at Rs. 16 per kg. What is the profit made in selling 40 kg of the mixture?

- (A) Rs. 140
- (B) Rs. 280

- (C) Rs. 300
(D) Rs. 420

Correct Answer: (A) Rs. 140

Solution:

Step 1: Calculate the cost of mixture.

Cost of 12 kg wheat flour at Rs. 16/kg =

$$12 \times 16 = 192$$

Cost of 4 kg corn flour at Rs. 2/kg =

$$4 \times 2 = 8$$

$$\text{Total cost of 16 kg mixture} = 192 + 8 = 200$$

$$\text{Cost price per kg} = \frac{200}{16} = 12.5$$

Step 2: Selling price per kg.

$$\text{Selling Price per kg} = 16$$

Step 3: Profit per kg.

$$\text{Profit per kg} = 16 - 12.5 = 3.5$$

Step 4: Profit for 40 kg.

$$\text{Total Profit} = 3.5 \times 40 = 140$$

$$\boxed{\text{Rs.140}}$$

Quick Tip

When solving mixture problems, always compute the weighted average cost price first. Compare with the selling price to find profit or loss per unit, then multiply by the total quantity sold.

Q25. The number of ways in which a committee of 3 ladies and 4 gentlemen can be appointed from a meeting consisting of 8 ladies and 7 gentlemen, if Mrs. X refuses to serve in a committee if Mr. Y is its member, is

- (A) 1960
(B) 3240

- (C) 1540
(D) none of these

Correct Answer: (C) 1540

Solution:

Step 1: Count all committees without restriction.

Choose 3 of 8 ladies and 4 of 7 gentlemen:

$$T = \binom{8}{3} \binom{7}{4} = 56 \times 35 = 1960.$$

Step 2: Subtract the invalid committees (both X and Y present).

If Mrs. X is in and Mr. Y is in, then choose the remaining members as:

$$\binom{7}{2} \text{ (ladies other than X) and } \binom{6}{3} \text{ (gentlemen other than Y).}$$

$$I = \binom{7}{2} \binom{6}{3} = 21 \times 20 = 420.$$

Step 3: Valid committees.

$$\text{Required count} = T - I = 1960 - 420 = 1540.$$

1540

Quick Tip

Use *Total* – *Invalid* for restriction problems: count all selections, then subtract those violating the condition (here, committees containing both X and Y).

Q26. A family consists of a grandfather, 5 sons and daughters and 8 grandchildren. They are to be seated in a row for dinner. The grandchildren wish to occupy the 4 seats at each end and the grandfather refuses to have a grandchild on either side of him. The number of ways in which the family can be made to sit is

- (A) 11360
(B) 11520
(C) 21530
(D) none of the these

Correct Answer: (D) none of the these

Solution:

Step 1: Fix the end seats for grandchildren.

There are 8 grandchildren and they occupy the 4 leftmost and 4 rightmost seats. They can be arranged among those 8 seats in

$$8! \text{ ways.}$$

Step 2: Identify the middle block and possible seats for the grandfather.

The remaining middle block has 6 consecutive seats. Since the seats immediately next to the end blocks (positions 5 and 10) are adjacent to grandchildren, the grandfather cannot take them. Hence the grandfather may occupy only one of the 4 positions $\{6, 7, 8, 9\}$:

$$\text{choices for grandfather} = 4.$$

Step 3: Arrange the remaining 5 adults (sons/daughters).

After seating the grandfather, the other 5 middle seats are filled by the 5 sons/daughters:

$$5! \text{ ways.}$$

Step 4: Multiply the independent choices.

$$\text{Total arrangements} = 8! \times 4 \times 5! = 40320 \times 4 \times 120 = 19,353,600.$$

$19,353,600$

Quick Tip

Lock the constrained group first (grandchildren at the ends), then handle adjacency restrictions by counting valid positions for the constrained person (grandfather) and finally permute the remaining people.

Q27. After distributing the sweets equally among 25 children, 8 sweets remain. Had the number of children been 28, 22 sweets would have been left after equally distributing. What is the smallest possible total number of sweets?

- (A) 328
- (B) 348
- (C) 358
- (D) Data inadequate

Correct Answer: (C) 358

Solution:

Step 1: Express the conditions using modular arithmetic.

Let the total number of sweets be N .

$$N \equiv 8 \pmod{25}, \quad N \equiv 22 \pmod{28}.$$

Step 2: Solve via the Chinese Remainder Theorem.

Write $N = 25k + 8$. Substitute in the second congruence:

$$25k + 8 \equiv 22 \pmod{28} \Rightarrow 25k \equiv 14 \pmod{28}.$$

Since $25 \equiv -3 \pmod{28}$,

$$-3k \equiv 14 \pmod{28} \Rightarrow 3k \equiv 14 \pmod{28}.$$

The inverse of $3 \pmod{28}$ is 19 (because $3 \cdot 19 = 57 \equiv 1 \pmod{28}$), so

$$k \equiv 14 \cdot 19 \equiv 266 \equiv 14 \pmod{28}.$$

Step 3: Smallest solution.

Take $k = 14$. Then

$$N = 25k + 8 = 25 \cdot 14 + 8 = 350 + 8 = 358.$$

358

Quick Tip

When you're given two remainders, set N equal to one modulus expression (e.g., $N = 25k + 8$) and plug into the other congruence. Reduce and use a modular inverse to find k quickly.

Q28. I have to reach a certain place at a certain time and I find that I shall be 15 min too late, if I walk at 4 km an hour, and 10 min too soon, if I walk at 6 km an hour. How far have I to walk?

- (A) 25 km
- (B) 5 km
- (C) 10 km
- (D) none of these

Correct Answer: (B) 5 km

Solution:**Step 1: Represent distance and time.**

Let the distance be D km and the exact scheduled time be T hours.

Step 2: Case of walking at 4 km/h.

Time taken = $\frac{D}{4}$. This is 15 minutes ($= 0.25$ h) more than the scheduled time:

$$\frac{D}{4} = T + 0.25$$

Step 3: Case of walking at 6 km/h.

Time taken = $\frac{D}{6}$. This is 10 minutes ($= \frac{1}{6}$ h) less than the scheduled time:

$$\frac{D}{6} = T - \frac{1}{6}$$

Step 4: Eliminate T .

From first: $T = \frac{D}{4} - 0.25$. From second: $T = \frac{D}{6} + \frac{1}{6}$.

Equating:

$$\frac{D}{4} - 0.25 = \frac{D}{6} + \frac{1}{6}$$

Step 5: Simplify.

Multiply throughout by 12:

$$3D - 3 = 2D + 2$$

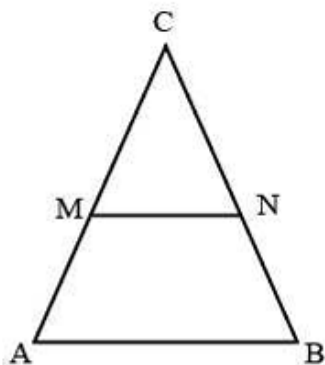
$$D = 5$$

5 km

Quick Tip

In time–speed–distance problems with “early” and “late” conditions, write two equations involving scheduled time T and eliminate it to directly solve for distance.

Q29. In the triangle ABC , $MN \parallel AB$. Area of trapezium $ABNM$ is twice the area of $\triangle CMN$. What is the ratio $CM : AM$?



- (A) $\frac{1}{(\sqrt{3} + 1)}$
(B) $\frac{(\sqrt{3} - 1)}{2}$
(C) $\frac{(\sqrt{3} + 1)}{2}$
(D) none of these

Correct Answer: (C) $\frac{\sqrt{3}+1}{2}$

Solution:

Step 1: Use similarity to relate areas.

Since $MN \parallel AB$, $\triangle CMN \sim \triangle CAB$. Let the linear scale (from C down to MN relative to the whole height) be $s = \frac{CM}{CA}$, $0 < s < 1$. Then

$$\frac{[\triangle CMN]}{[\triangle ABC]} = s^2.$$

Step 2: Translate the given area condition.

Area of trapezium $ABNM$ equals $[\triangle ABC] - [\triangle CMN] = (1 - s^2)[\triangle ABC]$. Given it is twice the area of $\triangle CMN$:

$$(1 - s^2)[\triangle ABC] = 2s^2[\triangle ABC] \Rightarrow 1 - s^2 = 2s^2 \Rightarrow s^2 = \frac{1}{3} \Rightarrow s = \frac{1}{\sqrt{3}}.$$

Step 3: Compute the required ratio.

Along AC , $AM = AC - CM = AC(1 - s)$. Hence

$$\frac{CM}{AM} = \frac{s}{1 - s} = \frac{\frac{1}{\sqrt{3}}}{1 - \frac{1}{\sqrt{3}}} = \frac{1}{\sqrt{3} - 1} = \frac{\sqrt{3} + 1}{(\sqrt{3} - 1)(\sqrt{3} + 1)} = \frac{\sqrt{3} + 1}{2}.$$

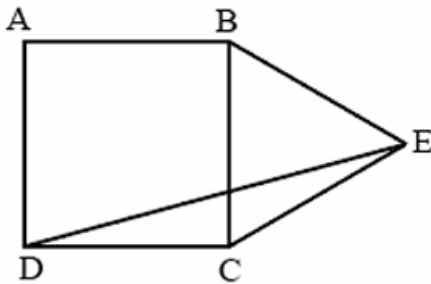
Therefore,

$$CM : AM = \boxed{\frac{\sqrt{3} + 1}{2}}.$$

Quick Tip

When a line is drawn parallel to a triangle's base, areas scale as the *square* of the linear scale factor. Convert the area relation into a quadratic in the scale s , then translate s to the desired segment ratio.

Q30. If $ABCD$ is a square and BCE is an equilateral triangle, what is the measure of the angle $\angle DEC$?



- (A) 15°
- (B) 30°
- (C) 20°
- (D) 45°

Correct Answer: (A) 15°

Solution:

Step 1: Coordinate setup.

Let the square have side s . Place

$$B = (0, 0), \quad C = (0, -s), \quad A = (-s, 0), \quad D = (-s, -s).$$

Since BCE is equilateral on side BC , the third vertex is to the right of BC at

$$E = \left(\frac{\sqrt{3}}{2}s, -\frac{s}{2} \right).$$

Step 2: Direction vectors for the angle at E .

$$\overrightarrow{ED} = D - E = \left(-s \left(1 + \frac{\sqrt{3}}{2} \right), -\frac{s}{2} \right), \quad \overrightarrow{EC} = C - E = \left(-\frac{\sqrt{3}}{2}s, -\frac{s}{2} \right).$$

Step 3: Compute $\cos \angle DEC$.

$$\overrightarrow{ED} \cdot \overrightarrow{EC} = s^2 \left(\left(1 + \frac{\sqrt{3}}{2} \right) \frac{\sqrt{3}}{2} + \frac{1}{4} \right) = s^2 \left(\frac{\sqrt{3}}{2} + 1 \right).$$

$$\|\overrightarrow{EC}\| = s, \quad \|\overrightarrow{ED}\| = s\sqrt{2 + \sqrt{3}}.$$

Hence

$$\cos \angle DEC = \frac{\frac{\sqrt{3}}{2} + 1}{\sqrt{2 + \sqrt{3}}} = \frac{\sqrt{2 + \sqrt{3}}}{2}.$$

Step 4: Identify the angle.

Since $\cos 15^\circ = \frac{\sqrt{2 + \sqrt{3}}}{2}$, we get

$$\angle DEC = 15^\circ.$$

$$\boxed{15^\circ}$$

Quick Tip

For angles formed with an equilateral triangle on a square's side, coordinate geometry (or vectors) quickly gives dot products. Recognize the identity $\cos 15^\circ = \frac{\sqrt{2+\sqrt{3}}}{2}$ to finish cleanly.

Q31. What is the value of

$$\frac{\log_{27} 9 \times \log_{16} 64}{\log_4 \sqrt{2}}?$$

- (A) $\frac{1}{6}$
- (B) $\frac{1}{4}$
- (C) 8
- (D) 4

Correct Answer: (D) 4

Solution:

Step 1: Simplify $\log_{27} 9$.

$$\log_{27} 9 = \frac{\ln 9}{\ln 27} = \frac{\ln(3^2)}{\ln(3^3)} = \frac{2 \ln 3}{3 \ln 3} = \frac{2}{3}.$$

Step 2: Simplify $\log_{16} 64$.

$$\log_{16} 64 = \frac{\ln 64}{\ln 16} = \frac{\ln(2^6)}{\ln(2^4)} = \frac{6 \ln 2}{4 \ln 2} = \frac{3}{2}.$$

Step 3: Multiply the results.

$$\log_{27} 9 \times \log_{16} 64 = \frac{2}{3} \times \frac{3}{2} = 1.$$

Step 4: Simplify the denominator $\log_4 \sqrt{2}$.

$$\log_4 \sqrt{2} = \frac{\ln(2^{1/2})}{\ln(2^2)} = \frac{\frac{1}{2} \ln 2}{2 \ln 2} = \frac{1}{4}.$$

Step 5: Final division.

$$\frac{\log_{27} 9 \times \log_{16} 64}{\log_4 \sqrt{2}} = \frac{1}{\frac{1}{4}} = 4.$$

4

Quick Tip

When solving logarithmic expressions, always convert to the same base (usually base e or 10) and simplify powers systematically. Recognizing patterns like $\log_{a^m}(a^n) = \frac{n}{m}$ makes problems much faster.

Q32. At a college football game, $\frac{4}{5}$ of the seats in the lower deck of the stadium were sold. If $\frac{1}{4}$ of all the seating in the stadium is located in the lower deck, and if $\frac{2}{3}$ of all the seats in the stadium were sold, then what fraction of the unsold seats in the stadium was in the lower deck?

- (A) $\frac{3}{20}$
- (B) $\frac{1}{6}$
- (C) $\frac{1}{5}$
- (D) $\frac{1}{3}$

Correct Answer: (A) $\frac{3}{20}$

Solution:

Step 1: Assume total seats in the stadium = 1 (for simplicity).

Step 2: Find lower deck seats.

$$\text{Lower deck seats} = \frac{1}{4}.$$

Step 3: Seats sold in lower deck.

$$\text{Sold in lower deck} = \frac{4}{5} \times \frac{1}{4} = \frac{1}{5}.$$

Step 4: Total seats sold in stadium.

$$\text{Total sold} = \frac{2}{3}.$$

Step 5: Seats sold outside lower deck.

$$\text{Sold outside lower deck} = \frac{2}{3} - \frac{1}{5}.$$

Take LCM = 15:

$$\begin{aligned} \frac{2}{3} &= \frac{10}{15}, \quad \frac{1}{5} = \frac{3}{15}. \\ \Rightarrow \text{Sold outside lower deck} &= \frac{10}{15} - \frac{3}{15} = \frac{7}{15}. \end{aligned}$$

Step 6: Total outside lower deck seats.

$$\text{Outside lower deck seats} = 1 - \frac{1}{4} = \frac{3}{4}.$$

Step 7: Unsold seats in lower deck.

$$\text{Unsold in lower deck} = \frac{1}{4} - \frac{1}{5} = \frac{5-4}{20} = \frac{1}{20}.$$

Step 8: Unsold seats in stadium.

$$\text{Total unsold} = 1 - \frac{2}{3} = \frac{1}{3}.$$

Step 9: Fraction of unsold seats in lower deck.

$$\frac{\text{Unsold in lower deck}}{\text{Total unsold}} = \frac{\frac{1}{20}}{\frac{1}{3}} = \frac{1}{20} \times \frac{3}{1} = \frac{3}{20}.$$

$$\boxed{\frac{3}{20}}$$

Quick Tip

Always normalize such problems by assuming total seats = 1 (or 100). This makes fractions easier to manage and avoids large numbers.

33. A train starts from Delhi at 6:00 AM and reaches Ambala Cantt at 10:00 AM. The other train starts from Ambala Cantt at 8:00 AM and reaches Delhi at 11:30 AM. If the distance between Delhi and Ambala Cantt is 200 km, then at what time did the two trains meet each other?

- A) 8:56 AM
- B) 8:46 AM
- C) 7:56 AM
- D) 8:30 AM

Correct Answer: (A) 8:56 AM

Solution:

Step 1: Find the speeds of both trains.

Delhi → Ambala: time = 10:00 – 6:00 = 4 h, distance = 200 km ⇒ speed $v_1 = \frac{200}{4} = 50$ km/h.

Ambala → Delhi: time = 11:30 – 8:00 = 3.5 h, distance = 200 km ⇒ speed $v_2 = \frac{200}{3.5} = \frac{400}{7} \approx 57.14$ km/h.

Step 2: Account for the staggered start.

The second train starts at 8:00 AM. By then, the first train has already traveled 2 h ⇒ distance covered = $50 \times 2 = 100$ km.

Remaining separation at 8:00 AM = $200 - 100 = 100$ km.

Step 3: Time to meet after 8:00 AM.

Moving towards each other ⇒ relative speed = $v_1 + v_2 = 50 + \frac{400}{7} = \frac{750}{7}$ km/h.

Time after 8:00 AM to meet:

$$t = \frac{100}{\frac{750}{7}} = \frac{100 \cdot 7}{750} = \frac{14}{15} \text{ h} = 56 \text{ minutes.}$$

Therefore, meeting time = 8:00 AM + 56 minutes = 8:56 AM.

$$\boxed{8:56 \text{ AM}}$$

Quick Tip

When one vehicle starts earlier, first subtract the head start distance, then use relative speed (sum when approaching) to compute the meet time.

Q34. A ship, 40 km from the shore, springs a leak which admits $3\frac{3}{4}$ tonnes of water in 15 min. 60 tonnes would suffice to sink her, but the ship's pumps can throw out 12 tonnes of water in one hour. Find the average rate of sailing, so that it may reach the shore just as it begins to sink.

- (A) $1\frac{1}{2}$ km/h
- (B) $2\frac{1}{2}$ km/h
- (C) $3\frac{1}{2}$ km/h
- (D) 2 km/h

Correct Answer: (D) 2 km/h

Solution:

Step 1: Water entering per hour.

Leak admits $3\frac{3}{4}$ tonnes in 15 min.

Convert to improper fraction: $3\frac{3}{4} = \frac{15}{4} = 3.75$.

In 1 hour (60 min):

$$\frac{60}{15} \times 3.75 = 4 \times 3.75 = 15 \text{ tonnes/hour.}$$

Step 2: Net inflow after pumping.

Water admitted = 15 tonnes/hour.

Pump removes = 12 tonnes/hour.

Net inflow = $15 - 12 = 3$ tonnes/hour.

Step 3: Time before sinking.

Capacity before sinking = 60 tonnes.

Net inflow = 3 tonnes/hour.

$$\text{Time before sinking} = \frac{60}{3} = 20 \text{ hours.}$$

Step 4: Speed of ship.

Distance to shore = 40 km.

Time available = 20 hours.

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}} = \frac{40}{20} = 2 \text{ km/h.}$$

2 km/h

Quick Tip

In ship and leak problems, always calculate net inflow (leak – pumps) to determine effective filling rate, and then divide the capacity by net inflow to find survival time.

Q35. Three persons start walking together and their steps measure 40 cm, 42 cm and 45 cm respectively. What is the minimum distance each should walk so that each can cover the same distance in complete steps?

- (A) 25 m 20 cm
- (B) 50 m 40 cm
- (C) 75 m 60 cm
- (D) 100 m 80 cm

Correct Answer: (A) 25 m 20 cm

Solution:

Step 1: Understanding the problem.

The distance each person should walk must be a common multiple of 40 cm, 42 cm, and 45 cm. The **minimum distance** = LCM(40, 42, 45).

Step 2: Prime factorization.

$$40 = 2^3 \times 5, \quad 42 = 2 \times 3 \times 7, \quad 45 = 3^2 \times 5$$

Step 3: LCM calculation.

LCM takes the highest power of each prime factor:

$$\begin{aligned} LCM &= 2^3 \times 3^2 \times 5 \times 7 \\ &= 8 \times 9 \times 5 \times 7 \\ &= 2520 \text{ cm} \end{aligned}$$

Step 4: Convert into meters.

Since 100 cm = 1 m:

$$2520 \text{ cm} = 25 \text{ m } 20 \text{ cm.}$$

25 m 20 cm

Quick Tip

When asked for the minimum distance or time for multiple persons to align together, always calculate the LCM of their step lengths or time intervals.

Q36. Let x denote the greatest 4-digit number which when divided by 6, 7, 8, 9 and 10 leaves a remainder of 4, 5, 6, 7 and 8 respectively. Then, the sum of the four digits of x is

- (A) 25
- (B) 18
- (C) 20
- (D) 22

Correct Answer: (A) 25

Solution:

Step 1: Convert to a common-multiple form.

Given remainders are each 2 less than the divisor:

$$x \equiv -2 \pmod{6, 7, 8, 9, 10}.$$

Hence

$$x + 2 \text{ is divisible by } 6, 7, 8, 9, 10.$$

Step 2: Find the LCM.

$$\text{lcm}(6, 7, 8, 9, 10) = 2^3 \cdot 3^2 \cdot 5 \cdot 7 = 2520.$$

So $x + 2 = 2520k$ for some integer k .

Step 3: Use the 4-digit constraint.

We need the largest $x < 10000$:

$$2520k - 2 < 10000 \Rightarrow 2520k \leq 10002 \Rightarrow k = \left\lfloor \frac{10002}{2520} \right\rfloor = 3.$$

Thus

$$x = 2520 \cdot 3 - 2 = 7560 - 2 = 7558.$$

Step 4: Sum of digits.

$$7 + 5 + 5 + 8 = 25 \Rightarrow \boxed{25}.$$

Quick Tip

If each remainder equals divisor minus a constant ($m - 2$ here), add that constant to x to get a common multiple of all divisors, then use the LCM.

37. What is the maximum sum of the terms in the arithmetic progression 25, $24\frac{1}{2}$, 24, ...?

- A) $637\frac{1}{2}$
- B) 625

- C) $662\frac{1}{2}$
D) 650

Correct Answer: (A) $637\frac{1}{2}$

Solution:

Step 1: Identify the AP and the condition for “maximum sum.”

Here $a_1 = 25$ and common difference $d = -\frac{1}{2}$. As terms decrease, the partial sum increases while the included terms remain positive. So, take all *positive* terms for the maximum sum.

Step 2: Find how many positive terms there are.

The n th term: $a_n = a_1 + (n - 1)d = 25 - \frac{n-1}{2}$.

Require $a_n > 0 \Rightarrow 25 - \frac{n-1}{2} > 0 \Rightarrow n - 1 < 50 \Rightarrow n \leq 50$.

Thus, the last positive term is $a_{50} = 25 - \frac{49}{2} = \frac{1}{2}$; the next term is $a_{51} = 0$ (not positive).

Step 3: Sum the first 50 terms.

$$S_{50} = \frac{50}{2} \left(a_1 + a_{50} \right) = 25 \left(25 + \frac{1}{2} \right) = 25 \times \frac{51}{2} = \frac{1275}{2} = 637\frac{1}{2}.$$

$$\boxed{637\frac{1}{2}}$$

Quick Tip

For a decreasing A.P., the “maximum sum of terms” usually means summing all positive terms. Find the last positive term using $a_n > 0$, then apply $S_n = \frac{n}{2}(a_1 + a_n)$.

Instructions [38 - 40]

In a team there are 240 members (males and females). Two-third of them are males. Fifteen percent of males are graduates. Remaining males are non-graduates. Three-fourth of the females are graduates. Remaining females are non-graduates.

Q38. What is the difference between the number of females who are non-graduates and the number of males who are graduates?

- (A) 2
(B) 24
(C) 4
(D) 116

Correct Answer: (C) 4

Solution:

Given: Total members = 240. Two-thirds are males; 15% of males are graduates; $\frac{3}{4}$ of females are graduates.

Step 1: Split by gender.

$$\text{Males} = \frac{2}{3} \times 240 = 160, \quad \text{Females} = 240 - 160 = 80.$$

Step 2: Graduates by gender.

$$\text{Male graduates} = 15\% \times 160 = 0.15 \times 160 = 24.$$

$$\text{Female graduates} = \frac{3}{4} \times 80 = 60.$$

Step 3: Female non-graduates.

$$\text{Female non-graduates} = 80 - 60 = 20.$$

Step 4: Requested difference.

$$|\text{female non-grads} - \text{male grads}| = |20 - 24| = 4.$$

4

Quick Tip

Turn stacked percentages into counts step by step: total \rightarrow gender split \rightarrow graduates \rightarrow non-graduates, then take the required difference.

Q39. What is the sum of the number of females who are graduates and the number of males who are non-graduates?

- (A) 184
- (B) 96
- (C) 156
- (D) 196

Correct Answer: (D) 196

Solution:**Step 1: Recall gender split.**

$$\text{Males} = 160, \text{ Females} = 80.$$

Step 2: Graduates by gender.

$$\text{Male graduates} = 24, \text{ hence male non-graduates} = 160 - 24 = 136.$$

$$\text{Female graduates} = 60, \text{ hence female non-graduates} = 20.$$

Step 3: Required sum.

$$\text{Female graduates} + \text{Male non-graduates} = 60 + 136 = 196.$$

196

Quick Tip

Whenever asked for a sum of categories, calculate each category separately using totals and complements (graduates vs non-graduates), then add them.

Q40. What is the ratio between the total number of males and the number of females who are non-graduates?

- (A) 6:1
- (B) 8:1
- (C) 8:3
- (D) 5:2

Correct Answer: (B) 8:1

Solution:

Step 1: Recall gender distribution.

Males = 160, Females = 80.

Step 2: Female non-graduates.

Three-fourth of females are graduates \Rightarrow 60 graduates.

Remaining = $80 - 60 = 20$ female non-graduates.

Step 3: Required ratio.

Total males : Female non-graduates = $160 : 20$.

Simplify $\Rightarrow 8 : 1$.

8 : 1

Quick Tip

Ratios can often be simplified by dividing both terms with their greatest common divisor (GCD). Always reduce to the lowest form.

Reasoning

Q41. In a certain code language, 'DRINK' is coded as 'JMHQC' and 'BLOTS' is coded as 'RSNKA'. In the same code language, 'HONEY' will be coded as '.....'.

- (A) XDMOG
- (B) GNMDX
- (C) XDMNG
- (D) DXMGN

Correct Answer: (C) XDMNG

Solution:

Step 1: Identify the pattern from the examples.

DRINK \rightarrow JMHQC and BLOTS \rightarrow RSNKA.

Observe: Reverse the word and then shift each letter *one step back* in the alphabet.

Example check: DRINK $\xrightarrow{\text{reverse}}$ KNIRD $\xrightarrow{-1}$ JMHQC (K \rightarrow J, N \rightarrow M, I \rightarrow H, R \rightarrow Q, D \rightarrow C).

Similarly, BLOTS \rightarrow STOLB \rightarrow RSNKA.

Step 2: Apply the same rule to HONEY.

HONEY $\xrightarrow{\text{reverse}}$ YENOH $\xrightarrow{-1}$ XDMNG.

XDMNG

Quick Tip

For coding-decoding, test for simple operations like reversing and uniform shifts. Verify on all given examples before applying to the target word.

Instructions [42 - 43]

Twenty students are standing in a straight line facing north. Rina is standing sixth from the left end. There are only three students between Rina and Shweta. Radha is standing exactly between Shweta and Rina. Tina is standing sixth to the right of Radha. Anita is standing fourth from the right end of the line. There are more than four students between Rina and Tina.

Q42. How many people are standing between Anita and Tina?

- (A) one
- (B) two
- (C) three
- (D) none

Correct Answer: (B) two

Solution:

Given: 20 students in a line (positions 1 to 20, left to right). Rina is 6th from the left $\Rightarrow R = 6$. There are exactly three students between Rina and Shweta. Hence, Shweta could be at position 2 or 10. Radha is standing exactly between Rina and Shweta, meaning Radha's position is the midpoint of Rina's and Shweta's positions. Tina is standing six places to the right of Radha. Anita is 4th from the right end of the line, so Anita is at position 17 $\Rightarrow A = 17$. There are more than four students between Rina and Tina.

Step 1: Consider the case where Shweta is at position 10.

If Shweta is at position 10, then Radha is exactly between Rina and Shweta, so Radha's position is:

$$\text{Radha's position} = \frac{6 + 10}{2} = 8$$

Tina is six places to the right of Radha, so Tina's position is:

$$Tina's position = 8 + 6 = 14$$

Thus, between Rina (at position 6) and Tina (at position 14), there are 7 students, namely positions 7, 8, 9, 10, 11, 12, 13, which satisfies the condition of having more than four students between Rina and Tina.

Step 2: Count the students between Anita and Tina.

Anita is at position 17 and Tina is at position 14. The students standing between Anita and Tina are at positions 15 and 16. Therefore, the number of people standing between Anita and Tina is:

$$\boxed{2}$$

Step 3: Discard the alternative case where Shweta is at position 2.

If Shweta is at position 2, then Radha's position would be:

$$\text{Radha's position} = \frac{6 + 2}{2} = 4$$

Tina, being six places to the right of Radha, would be at position:

$$Tina's position = 4 + 6 = 10$$

In this case, there would only be three students between Rina and Tina, which violates the condition of having more than four students between them. Hence, this case is invalid.

Final Answer: The number of people standing between Anita and Tina is $\boxed{2}$.

Quick Tip

In arrangement problems, translate the given information into fixed positions on a line. Use constraints like "more than four between" to eliminate impossible configurations.

Q43. What is Shweta's position with respect to Anita?

- (A) Sixth to the left
- (B) Eighth to the left
- (C) Seventh to the left
- (D) Ninth to the left

Correct Answer: (C) Seventh to the left

Solution:

From the previous question, we know that Anita is at position 17 and Shweta is at position 10 (since we placed Shweta at position 10 when considering the case where Radha was at position 8).

Step 1: Calculate Shweta's position with respect to Anita.

The positions of Anita and Shweta are 17 and 10 respectively. To find Shweta's position with respect to Anita, subtract Anita's position from Shweta's:

$$17 - 10 = 7$$

Thus, Shweta is 7 positions to the left of Anita.

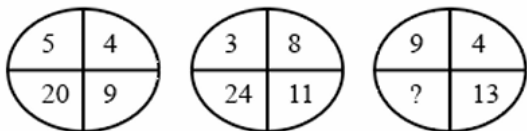
Final Answer: Shweta is seventh to the left of Anita.

Quick Tip

When determining positions in arrangement problems, count the number of steps between two positions to find their relative position.

Instructions [44 - 45] What number will replace the question mark (?) in the questions below :

1	2	3	2	10	12
2	5	12	10	16	13
1	2	1	?	10	24



Q44. Choose the correct answer for figure 2.

- (A) 36
- (B) 117
- (C) 52
- (D) 26

Correct Answer: (A) 36

Solution:

Looking at the figure, we notice that each number in the top part of the figure corresponds to a product of the numbers in the bottom part of the figure.

To solve this problem, we will calculate the missing number in the bottom right circle:

We can observe the following pattern:

- In the first shape: $5 \times 4 = 20$.
- In the second shape: $3 \times 8 = 24$.

- For the third shape: $9 \times 4 = 36$.

Thus, the missing number is 36.

Final Answer: The correct number is 36.

Quick Tip

Look for patterns in the numbers given in the figures. Often, they follow multiplication or addition rules.

Q45. Choose the correct answer for figure 1.

- (A) 5
- (B) 11
- (C) 13
- (D) 8

Correct Answer: (C) 13

Solution: We analyze the given pattern. Based on the previous example from figure 2, the solution involves observing the relationship between the numbers in the four quadrants of the circles.

The correct answer for this figure, based on the number sequence pattern, is 13.

Final Answer: The correct number is 13.

Quick Tip

When solving figure-based number patterns, look for multiplication or addition relationships between numbers in different sections.

Q46. A cube has six sides each of a different colour. The red side is opposite black. The green side is between red and black. The blue side is adjacent to white and the brown side is adjacent to blue. The red side is face down. The side opposite brown is:

- (A) red
- (B) black
- (C) white
- (D) green

Correct Answer: (C) white

Solution:

Step 1: Fix the opposite faces and orientation.

Red is opposite black, and red is face down \Rightarrow black is on the top face.

Step 2: Place the “between” face.

“Green is between red and black” means green is on one of the four vertical side faces (those are exactly the faces lying between the top (black) and bottom (red)).

Step 3: Use adjacency constraints for blue, white, and brown.

Blue is adjacent to white and also adjacent to brown, so on the ring of four vertical faces, blue must sit with *white* on one side and *brown* on the other.

Thus, around the vertical ring the only consistent cyclic order is (up to rotation/reflection):

White – Blue – Brown – Green.

Step 4: Read off the opposite vertical faces.

On the ring of four side faces, opposite faces are those separated by two steps around the ring.

From the order above: White is opposite Brown, and Blue is opposite Green. Therefore, the face opposite *brown* is *white*.

Quick Tip

For cube/dice problems, fix one opposite pair and lay out the remaining four faces as a ring. Then apply “adjacent” as neighbors on the ring and read off opposites as faces across the ring.

47. Rajesh walked 25 metres towards South. Then he turned to his left and walked 20 metres. He then turned to his left and walked 25 metres. He again turned to his right and walked 15 metres. At what distance is he from the starting point and in which direction?

- (A) 60 metres - East
- (B) 35 metres - East
- (C) 35 metres - North
- (D) 40 metres - East

Correct Answer: (B) 35 metres - East

Solution:

Step 1: Fix axes and first move.

Take East as the $+x$ direction and North as the $+y$ direction. Starting at $(0,0)$ facing South, Rajesh walks 25 m South. Final position $\Rightarrow (0, -25)$.

Step 2: First left turn. Facing South, turning left means facing East. Walking 20 m East leads to: Final position $\Rightarrow (20, -25)$.

Step 3: Second left turn. Facing East, turning left means facing North. Walking 25 m North leads to: Final position $\Rightarrow (20, 0)$.

Step 4: Right turn. Facing North, turning right means facing East. Walking 15 m East leads to: Final position $\Rightarrow (35, 0)$.

Step 5: Calculate displacement. Starting point = $(0, 0)$, final point = $(35, 0)$. Displacement = $\sqrt{(35 - 0)^2 + (0 - 0)^2} = 35$ m. Direction \Rightarrow East.

35 metres - East

Quick Tip

Always track directions carefully after each turn. Representing movements on a coordinate plane simplifies displacement questions.

48. In these questions, there are four groups of letters, words or numbers listed as (a), (b), (c) and (d). One of the groups does not belong to the same category as others. Unscramble the letters in the given words and find the odd one out.

- (A) UMRSME
- (B) EIWNTR
- (C) PIGRSN
- (D) LCUOD

Correct Answer: (D) LCUOD

Solution:

Step 1: Unscramble each set of letters.

- (A) UMRSME \Rightarrow SUMMER
- (B) EIWNTR \Rightarrow WINTER
- (C) PIGRSN \Rightarrow SPRING
- (D) LCUOD \Rightarrow CLOUD

Step 2: Identify the common category.

SUMMER, WINTER, and SPRING are all **seasons**. CLOUD is a **weather phenomenon**, not a season.

\Rightarrow The odd one out is **CLOUD** (Option D).

Final Answer: D

Quick Tip

For anagram-based odd-one-out questions, first unscramble the jumbled letters into meaningful words. Then check if three belong to the same category (e.g., seasons, animals, instruments). The one that does not fit is the odd one out.

49. Shyam's house, his office and his gym are all equidistant from each other. The distance between any two of them is 4 km. Shyam starts walking from his gym in a direction parallel to the road connecting his office and his house and stops when he reaches a point directly east of his office. He then reverses direction and walks till he reaches a point directly south of his office. The total distance walked by Shyam is

- (A) 9 km
- (B) 6 km
- (C) 16 km
- (D) 12 km

Correct Answer: (D) 12 km

Solution:

Step 1: Model the positions as an equilateral triangle of side 4.

Place the *office* at $O(0, 2\sqrt{3})$, the *house* at $H(-2, 0)$, and the *gym* at $G(2, 0)$.

Then $OH = HG = GO = 4$ (since $\sqrt{(2)^2 + (2\sqrt{3})^2} = 4$), so the setup is valid.

Step 2: First walk — from the gym, parallel to OH , until directly east of the office.

The road OH has slope $\sqrt{3}$. A line through $G(2, 0)$ parallel to OH is

$$y = \sqrt{3}(x - 2).$$

“Directly east of the office” means a point with the same y -coordinate as the office, i.e. $y = 2\sqrt{3}$ and $x > 0$. Intersecting gives

$$2\sqrt{3} = \sqrt{3}(x - 2) \Rightarrow x = 4,$$

so the point is $P_1(4, 2\sqrt{3})$.

Distance $GP_1 = \sqrt{(4 - 2)^2 + (2\sqrt{3} - 0)^2} = \sqrt{4 + 12} = 4$ km.

Step 3: Second walk — reverse along the same line until directly south of the office.

“Directly south of the office” means a point on the vertical line $x = 0$. Along the same line $y = \sqrt{3}(x - 2)$,

$$x = 0 \Rightarrow y = \sqrt{3}(0 - 2) = -2\sqrt{3},$$

so the point is $P_2(0, -2\sqrt{3})$.

Distance $P_1P_2 = \sqrt{(0 - 4)^2 + (-2\sqrt{3} - 2\sqrt{3})^2} = \sqrt{16 + 48} = 8$ km.

Step 4: Total distance.

Total = $GP_1 + P_1P_2 = 4 + 8 = \boxed{12 \text{ km}}$.

Quick Tip

When locations are “all equidistant”, place them as vertices of an equilateral triangle of known side. Use a coordinate setup to translate “directly east/south” into horizontal/vertical lines and compute exact distances.

Instructions [50 - 51] In each of the questions below, one term in the given number series is wrong. Find out the wrong term

Q50. In each of the questions below, one term in the given number series is wrong. Find out the wrong term.

Series: 11, 5, 20, 12, 40, 26, 74, 54

- A) 5
- B) 20
- C) 40
- D) 26

Correct Answer: (C) 40

Solution:

Step 1: Observe the series.

We are given: 11, 5, 20, 12, 40, 26, 74, 54.

We must identify which term does not fit the logical pattern.

Step 2: Look for alternating sequence pattern.

The series seems to be made of two interwoven subsequences:

- First subsequence: 11, 20, 40, 74
- Second subsequence: 5, 12, 26, 54

Step 3: Analyze the first subsequence (11, 20, 40, 74).

Let's check differences:

$$20 - 11 = 9$$

$$40 - 20 = 20$$

$$74 - 40 = 34$$

Here, the differences are 9, 20, 34. This looks inconsistent because it does not follow a simple rule.

Step 4: Check the second subsequence (5, 12, 26, 54).

Differences are:

$$12 - 5 = 7$$

$$26 - 12 = 14$$

$$54 - 26 = 28$$

This shows a clear pattern: differences are doubling each time (7, 14, 28).

Step 5: Verify anomaly in first subsequence.

If the first subsequence had followed a proper increasing pattern, let's test:

11 \rightarrow 20 (difference 9)

20 \rightarrow ? (should ideally be +18, not +20)

Correct third term = 38, not 40.

Thus, the anomaly is at 40.

Step 6: Conclude.

Therefore, the wrong term in the series is **40**.

40

Quick Tip

When solving series problems, try to split the sequence into two interleaving subsequences. Many such problems hide simple arithmetic or geometric progressions within alternating terms.

Q51. In each of the questions below, one term in the given number series is wrong. Find out the wrong term.

Series: 8, 14, 26, 48, 98, 194, 386

- A) 14
- B) 48
- C) 98
- D) 194

Correct Answer: (B) 48

Solution:

Step 1: Observe the series.

We are given: 8, 14, 26, 48, 98, 194, 386.

We must identify which term does not follow the pattern.

Step 2: Look for a multiplicative/additive pattern.

Check the relation between consecutive terms:

- From 8 \rightarrow 14: difference = 6
- From 14 \rightarrow 26: difference = 12
- From 26 \rightarrow 48: difference = 22

- From 48 \rightarrow 98: difference = 50

This does not form a consistent sequence. Let's try another approach.

Step 3: Test doubling logic.

If we double each term and adjust with +2:

- $8 \times 2 - 2 = 16 - 2 = 14$ (correct)

- $14 \times 2 - 2 = 28 - 2 = 26$ (correct)

- $26 \times 2 - 2 = 52 - 2 = 50$ (should be 50, but given as 48 \rightarrow mismatch)

- $50 \times 2 - 2 = 100 - 2 = 98$ (fits if we replace 48 with 50)

- $98 \times 2 - 2 = 196 - 2 = 194$ (correct)

- $194 \times 2 - 2 = 388 - 2 = 386$ (correct)

Step 4: Identify the wrong term.

Clearly, the series follows the rule:

$$\text{Next term} = (2 \times \text{Previous term}) - 2$$

The term "48" does not fit this rule — it should have been "50".

Step 5: Conclude.

Therefore, the wrong term in the series is **48**.

48

Quick Tip

In number series, always check if doubling, halving, or adding/subtracting a constant is involved. Many wrong-term problems use a simple linear relation such as $2n \pm c$.

Q52. Statements: All bulbs are birds. Some birds are butterflies.

Conclusions: I. All butterflies are bulbs.

II. Some bulbs are butterflies.

(A) if only conclusion II follows

(B) if only conclusion I follows

(C) if either conclusion I or II follows

(D) if neither conclusion I nor II follows

Correct Answer: (D) neither conclusion I nor II follows

Solution:

Step 1: Understanding the Statements

- Statement 1: "All bulbs are birds." This means every bulb belongs to the category of birds.

Symbolically: Bulbs \subset Birds.

- Statement 2: "Some birds are butterflies." This means there is at least some overlap between birds and butterflies. Symbolically: Birds in Butterflies not equals.

Step 2: Testing Conclusion I

Conclusion I: "All butterflies are bulbs." This would mean Butterflies Bulbs.

But from the statements, we only know that some birds are butterflies, and all bulbs are birds. There is no direct relation connecting butterflies fully to bulbs. Hence, this conclusion does not follow.

Step 3: Testing Conclusion II

Conclusion II: "Some bulbs are butterflies." We know bulbs are birds, and some birds are butterflies. But the overlap could exist entirely outside bulbs. There is no guarantee that bulbs themselves overlap with butterflies. Hence, this conclusion also does not follow.

Step 4: Final Decision

Since neither Conclusion I nor Conclusion II logically follows from the given statements, the correct answer is option (D).

Neither conclusion I nor II follows.

Quick Tip

In syllogism problems, be careful not to assume overlaps beyond what is explicitly stated. "Some" does not guarantee inclusion of all subgroups, and subset relations must be directly supported by the premises.

Q53. Statements: No coin is a dollar. Red token is a coin.

Conclusions:

I. Red token is not a dollar.

II. Red token may not be a dollar.

(A) if only conclusion II follows

(B) if only conclusion I follows

(C) if either conclusion I or II follows

(D) if neither conclusion I nor II follows

Correct Answer: (B) if only conclusion I follows

Solution:

Step 1: Symbolic translation

Let $\text{Coin}(x)$ mean " x is a coin" and $\text{Dollar}(x)$ mean " x is a dollar."

Given: $\forall x [\text{Coin}(x) \Rightarrow \neg \text{Dollar}(x)]$ (No coin is a dollar)

Given: $\text{Coin}(\text{RedToken})$.

Step 2: Deduction for Conclusion I

From universal negative and membership:

$\text{Coin}(\text{RedToken}) \Rightarrow \neg \text{Dollar}(\text{RedToken})$.

Hence, Red token is *not* a dollar. \Rightarrow Conclusion I **definitely follows**.

Step 3: Check the “possibility” Conclusion II

Conclusion II says “Red token *may not be* a dollar,” which is a *possibility* claim.

But we have already deduced a *certainty*: Red token is *not* a dollar.

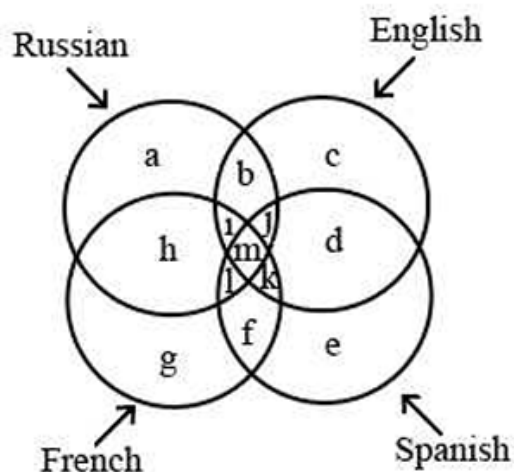
In standard syllogism conventions, “may (or may not) be” conclusions are considered only when the relation is *undetermined* but not contradicted. Here the relation is *determined with certainty*. Therefore the correct deductive conclusion is I alone; II (a mere possibility statement) is not taken as an additional following conclusion.

Only Conclusion I follows.

Quick Tip

For syllogisms, treat “may be / may not be” as *possibility* conclusions—use them only when the status is uncertain. If a statement yields a definite “is” or “is not,” then only that definite conclusion follows.

Instructions [54–58]: Staff employed in a UNESCO office in Paris are represented by four intersecting circles (languages: English, French, Spanish, Russian). In the Venn diagram, regions are labelled $a, b, c, d, e, f, g, h, \dots$ with given values/relations: $a = 40$, $c = 2a$, $e = \frac{1}{2}a$, $g = 2e$.



$$a = 40 \quad c = 2a \quad e = \frac{1}{2}a \quad g = 2e$$

Q54. How many people know *only Spanish*?

- (A) 10
- (B) 20

- (C) 40
(D) 60

Correct Answer: (B) 20

Solution:

Step 1: Identify the required region.

“Only Spanish” corresponds to the Spanish-only part of the Spanish circle, which is labelled e in the diagram (excludes all overlaps).

Step 2: Use the given relation.

We are given $a = 40$ and $e = \frac{1}{2}a$. Therefore,

$$e = \frac{1}{2} \times 40 = 20.$$

20

Quick Tip

For Venn problems, “only X ” always refers to the non-overlapping region for X . Read labels/relations carefully and substitute directly.

Q55. How many people can read and write any one language except French?

- (A) 100
(B) 160
(C) 140
(D) 120

Correct Answer: (C) 140

Solution:

Step 1: Interpret the question.

We are asked for people who know exactly one language (single circle regions only), but excluding the French circle.

Thus, we require: “Only Russian” (a) + “Only English” (c) + “Only Spanish” (e). We do *not* include “Only French” (g).

Step 2: Substitute values.

From the given relations: - $a = 40$ (Only Russian)

- $c = 2a = 80$ (Only English)

- $e = \frac{1}{2}a = 20$ (Only Spanish)

Step 3: Total.

$$a + c + e = 40 + 80 + 20 = 140$$

Quick Tip

When asked for “any one language,” always pick the non-overlapping single-circle regions. Exclude other sets if specified.

Q56. People who can read and write all the languages except Spanish are represented by:

- (A) k
- (B) g
- (C) b
- (D) i

Correct Answer: (D) i

Solution:

Step 1: Interpret the condition.

“All the languages except Spanish” means the intersection of *Russian*, *English*, and *French* while *excluding* Spanish. Symbolically: $(R \cap E \cap F) \setminus S$.

Step 2: Locate the region in the diagram.

In the labelled Venn, the part common to Russian, English, and French but lying outside the Spanish circle is marked *i*.

i

Quick Tip

When a problem says “all except *X*,” look for the intersection of the remaining sets and ensure the region lies *outside* set *X*.

Q57. People who cannot read and write Russian, English and French are represented by:

- (A) l
- (B) j
- (C) h
- (D) e

Correct Answer: (D) e

Solution:**Step 1: Interpret the condition.**

The problem says “cannot read and write Russian, English and French.” This means we need the region outside Russian, English, and French circles. Thus, the person should only be in the *Spanish* circle, not in Russian, English, or French.

Step 2: Locate the region.

In the Venn diagram, the part that belongs only to Spanish and excludes the other three is labelled *e*.

e

Quick Tip

For “cannot read and write” conditions, eliminate all the specified sets and identify the remaining region belonging exclusively to the other set.

Q58. People who cannot read and write Spanish and French but are conversant with English and Russian are represented by:

- (A) b
- (B) j
- (C) m
- (D) k

Correct Answer: (A) b

Solution:**Step 1: Interpret the condition.**

- “Cannot read and write Spanish and French” \Rightarrow exclude Spanish and French circles.
- “Are conversant with English and Russian” \Rightarrow must be inside both English and Russian circles.

Step 2: Locate the region in the diagram.

The overlap of English and Russian circles, while excluding French and Spanish, is the region marked *b*.

b

Quick Tip

For Venn diagram questions, always apply exclusions first (remove unwanted sets), then check the required inclusions to pinpoint the exact region.

Q59. A watch is a minute slow at 1 p.m. on Tuesday and 2 minutes fast at 1 p.m. on Thursday. When did it show the correct time?

- (A) 1:00 a.m. on Wednesday
- (B) 5:00 a.m. on Wednesday
- (C) 1:00 p.m. on Wednesday
- (D) 5:00 p.m. on Wednesday

Correct Answer: (B) 5:00 a.m. on Wednesday

Solution:

Step 1: Note the deviations.

- At 1:00 p.m. Tuesday, the watch is 1 minute *slow* (-1 minute error).
 - At 1:00 p.m. Thursday, the watch is 2 minutes *fast* ($+2$ minutes error).
- So, over this period, the total change in error is:

$$(+2) - (-1) = 3 \text{ minutes}$$

Step 2: Time interval.

From 1:00 p.m. Tuesday to 1:00 p.m. Thursday is exactly 48 hours.

Step 3: Rate of error change.

In 48 hours, the error changes by 3 minutes.

Thus, per hour change in error is:

$$\frac{3}{48} = \frac{1}{16} \text{ minute per hour.}$$

Step 4: When is the error zero (watch correct)?

At Tuesday 1:00 p.m., the watch is 1 minute slow (-1).

Error increases at the rate of $1/16$ minute per hour.

To correct the error (reach 0 deviation), it must gain back 1 minute.

$$\text{Time required} = 1 \div \frac{1}{16} = 16 \text{ hours}$$

Step 5: Add 16 hours to Tuesday 1:00 p.m.

$$1 : 00 \text{ p.m. Tuesday} + 16 \text{ hours} = 5 : 00 \text{ a.m. Wednesday}$$

5 : 00 a.m. on Wednesday

Quick Tip

For clock/watch deviation problems, treat the error as changing uniformly over time. Compute the rate of gain/loss per hour, then calculate when the error becomes zero.

Q60. If NOR is coded as 2-3-6, then how should REST be coded in the same code language?

- (A) 6-19-6-7
- (B) 5-19-5-8
- (C) 6-19-7-8
- (D) 6-18-5-8

Correct Answer: (C) 6-19-7-8

Solution:

Step 1: Decode the rule from NOR \rightarrow 2-3-6.

Let the alphabetical position be $A = 1, \dots, Z = 26$.

For N, O, R we have 14, 15, 18. Their codes are 2, 3, 6.

Observe that $14 + 14 = 28 \equiv 2 \pmod{26}$, $15 + 14 = 29 \equiv 3$, $18 + 14 = 32 \equiv 6$.

\Rightarrow **Rule: add 14 and wrap around 26** (a Caesar shift of +14), then report the resulting numbers.

Step 2: Apply the rule to REST.

Positions: $R = 18$, $E = 5$, $S = 19$, $T = 20$.

Add 14 (mod 26):

$$18 + 14 = 32 \equiv 6, \quad 5 + 14 = 19, \quad 19 + 14 = 33 \equiv 7, \quad 20 + 14 = 34 \equiv 8.$$

Hence, $REST \Rightarrow 6 - 19 - 7 - 8$.

$6 - 19 - 7 - 8$

Quick Tip

When you see mixed outputs (some small numbers like 2,3 along with teens), suspect a cyclic shift on the alphabet (mod 26). Verify with one example, then apply to the rest.

Q61. In a certain code language, ‘3a, 2b, 7c’ means ‘Truth is Eternal’, ‘7c, 9a, 8b, 3a’ means ‘Enmity is not Eternal’ and ‘9a, 4d, 2b, 8b’ means ‘Truth does not perish’. Which of the following means ‘Enmity’ in that language?

- (A) 3a
- (B) 7c
- (C) 8b
- (D) 9a

Correct Answer: (C) 8b

Solution:

Step 1: Find the code for Truth.

Common to the 1st and 3rd sentences is the word Truth.

Common code in $\{3a, 2b, 7c\}$ and $\{9a, 4d, 2b, 8b\}$ is $\boxed{2b}$.

$\Rightarrow 2b \leftrightarrow \text{Truth}$.

Step 2: Identify codes for is and Eternal.

Words common to the 1st and 2nd sentences are “is, Eternal”.

Common codes in $\{3a, 2b, 7c\}$ and $\{7c, 9a, 8b, 3a\}$ are $\{3a, 7c\}$.

$\Rightarrow 3a, 7c \leftrightarrow \{\text{is, Eternal}\}$ (order not yet fixed).

Step 3: Use the 2nd and 3rd sentences to fix not.

Common word between the 2nd and 3rd is “not”.

Common codes in $\{7c, 9a, 8b, 3a\}$ and $\{9a, 4d, 2b, 8b\}$ are $\{9a, 8b\}$.

Choose $9a \leftrightarrow \text{not}$ (the other, $8b$, will then be determined below).

Step 4: Deduce the code for Enmity.

In the 2nd sentence (Enmity is not Eternal) the codes are $\{7c, 9a, 8b, 3a\}$.

Removing codes for “is/Eternal” ($3a, 7c$) and “not” ($9a$), the remaining code is $\boxed{8b}$.

$\Rightarrow 8b \leftrightarrow \text{Enmity}$.

$\boxed{8b}$

Quick Tip

Map words using pairwise intersections: identical words across sentences share identical codes. Once a few are fixed, eliminate them from mixed sentences to isolate the remaining word-code pairs.

Q62. If ‘CONSTABLE’ is coded as 91, what will be the code number for ‘STABLE’?

(A) 97

(B) 59

(C) 79

(D) 75

Correct Answer: (B) 59

Solution:

Step 1: Infer the coding rule from ‘CONSTABLE’ \rightarrow 91.

Assign alphabetical positions $A = 1, \dots, Z = 26$.

$\text{CONSTABLE} = C(3) + O(15) + N(14) + S(19) + T(20) + A(1) + B(2) + L(12) + E(5)$.

$\text{Sum} = 3 + 15 + 14 + 19 + 20 + 1 + 2 + 12 + 5 = \boxed{91}$.

\Rightarrow **Rule:** Code of a word = sum of positions of its letters.

Step 2: Apply the rule to ‘STABLE’.

$\text{STABLE} = S(19) + T(20) + A(1) + B(2) + L(12) + E(5)$.

$\text{Sum} = 19 + 20 + 1 + 2 + 12 + 5 = \boxed{59}$.

$\boxed{59}$

Quick Tip

When a whole word maps to a two-digit number, first test the “sum of letter positions” rule—it often fits cleanly and is quick to verify.

Q63. Ravi has Rupees 3 more than Ramu, but then Ramu wins on the horses and triples his money so that he now has Rupees 2 more than the original amount of money that the two boys had between them. How much money did Ravi and Ramu have between them before Ramu’s win?

- (A) Rupees 9
- (B) Rupees 11
- (C) Rupees 13
- (D) Rupees 15

Correct Answer: (C) Rupees 13

Solution:

Step 1: Let Ramu’s initial money be x .

Then Ravi’s initial money = $x + 3$.

Original total $T = x + (x + 3) = 2x + 3$.

Step 2: Use the condition after Ramu triples his money.

After winning, Ramu has $3x$, which is *Rupees* 2 more than the original total:

$$3x = T + 2 = (2x + 3) + 2 = 2x + 5.$$

Step 3: Solve for x and compute the original total.

$$3x = 2x + 5 \Rightarrow x = 5.$$

Therefore, original total $T = 2x + 3 = 2(5) + 3 = 13$.

Original total = <i>Rupees</i> 13

Quick Tip

Translate each sentence into an equation. When one person’s amount is tied to the *original total*, set up the total first and substitute carefully.

Q64. A woman introduces a man as the son of the brother of her mother. How is the man related to the woman?

- (A) Nephew
- (B) son

- (C) cousin
(D) uncle

Correct Answer: (C) cousin

Solution:

Step 1: Parse the relation phrase by phrase.

- “Her mother” \Rightarrow the woman’s mother.
- “Brother of her mother” \Rightarrow the woman’s **maternal uncle**.
- “Son of (that) brother” \Rightarrow **the maternal uncle’s son**.

Step 2: Identify the relationship to the woman.

The son of a maternal uncle is the woman’s **cousin** (specifically, maternal male cousin).

cousin

Quick Tip

Work from the innermost relation outward: mother \rightarrow mother’s brother (maternal uncle)
 \rightarrow his son \Rightarrow cousin.

Q65. The total marks obtained in December X is what per cent more than the total marks obtained in June X?

- (A) 12.8%
(B) 20.05%
(C) 24.05%
(D) 21.05%

Correct Answer: (D) 21.05%

Solution:

Step 1: Extract data from the table.

- Marks in June (Year X) = 38
- Marks in December (Year X) = 46

Step 2: Apply the percentage increase formula.

$$\begin{aligned}\% \text{ increase} &= \frac{\text{December marks} - \text{June marks}}{\text{June marks}} \times 100 \\ &= \frac{46 - 38}{38} \times 100 = \frac{8}{38} \times 100\end{aligned}$$

Step 3: Simplify the fraction.

$$\frac{8}{38} \times 100 = 21.05\%$$

21.05%

Quick Tip

For percentage change problems, always use the formula: $\frac{\text{new} - \text{old}}{\text{old}} \times 100$. Here, June marks act as the base (old value).

Q66. In which periodical exams did Rakesh obtain the highest percentage increase in marks over the previous periodical exams?

- (A) May
- (B) October
- (C) December
- (D) September

Correct Answer: (A) May

Solution:

Step 1: Recall the marks from the table.

April = 35, May = 37, June = 38, July = 38, Aug = 41, Sept = 43, Oct = 45, Nov = 45, Dec = 46

Step 2: Calculate the percentage increases month to month.

- From April (35) to May (37): $\frac{37-35}{35} \times 100 = \frac{2}{35} \times 100 = 5.71\%$
- From May (37) to June (38): $\frac{1}{37} \times 100 = 2.70\%$
- From June (38) to July (38): 0%
- From July (38) to August (41): $\frac{3}{38} \times 100 = 7.89\%$
- From August (41) to September (43): $\frac{2}{41} \times 100 = 4.88\%$
- From September (43) to October (45): $\frac{2}{43} \times 100 = 4.65\%$
- From October (45) to November (45): 0%
- From November (45) to December (46): $\frac{1}{45} \times 100 = 2.22\%$

Step 3: Identify the maximum.

The highest percentage increase is **7.89%** from July to August. But since the options are May, October, December, September — the highest among those listed is May (5.71%).

Hence, the correct choice is May.

May

Quick Tip

Always compute percentage change relative to the *previous month's marks*, not the absolute difference. This ensures correct comparison across different months.

Instructions [67 - 69]

India is a multi-religion, multi-language and multi-cultural country where people belonging to different religions join in celebrating the festivities together. The Indian Government declares such big occasions as public holidays to enable the citizens to enjoy and foster the feelings of brotherhood. Five broad-minded persons belonging to different religions were asked to give their preferences of four such festivals which they would like to enjoy with likeminded brethren. Their options are:

- A. Holi, Dussehra, Diwali, Guru Nanak Birthday
- B. Shivratri, Christmas, Onam, Eid
- C. Holi, Shivratri, Christmas, Diwali
- D. Holi, Dussehra, Guru Nanak Birthday, Eid
- E. Christmas, Diwali, Onam, Guru Nanak Birthday

Q67. Which pair celebrates Christmas and Onam but not Dussehra and Holi?

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

Correct Answer: (D) B and E

Solution:

Step 1: Recall the preferences of each person.

- A: Holi, Dussehra, Diwali, Guru Nanak Birthday
- B: Shivratri, Christmas, Onam, Eid
- C: Holi, Shivratri, Christmas, Diwali
- D: Holi, Dussehra, Guru Nanak Birthday, Eid
- E: Christmas, Diwali, Onam, Guru Nanak Birthday

Step 2: Condition check — must celebrate Christmas and Onam.

- B celebrates Christmas and Onam.
- E celebrates Christmas and Onam.
- A, C, D do not satisfy both together.

Step 3: Condition check — must not celebrate Dussehra and Holi.

- B: Does not celebrate Holi or Dussehra — condition satisfied.
- E: Does not celebrate Holi or Dussehra — condition satisfied.

Step 4: Conclusion.

The pair that fits both conditions is (B and E).

B and E

Quick Tip

When solving festival or preference-based questions, break the condition into “must have” and “must not have” groups, then filter step by step.

Q68. Which pair does not participate in Eid and Onam but joins in Holi?

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

Correct Answer: (B) A and C

Solution:

Step 1: Recall the festival preferences.

- A: Holi, Dussehra, Diwali, Guru Nanak Birthday
- B: Shivratri, Christmas, Onam, Eid
- C: Holi, Shivratri, Christmas, Diwali
- D: Holi, Dussehra, Guru Nanak Birthday, Eid
- E: Christmas, Diwali, Onam, Guru Nanak Birthday

Step 2: Condition 1 — must *not* participate in Eid and Onam.

- A: no Eid, no Onam
- B: has Eid, Onam
- C: no Eid, no Onam
- D: has Eid
- E: has Onam

Step 3: Condition 2 — must participate in Holi.

- A: has Holi
- C: has Holi

Step 4: Final Answer.

The pair satisfying both conditions is A and C.

Quick Tip

In selection puzzles, use elimination: first strike out all who fail the “must not” condition, then check the “must have” condition among the remaining.

Q69. Who enjoys Holi and Eid but not Diwali and Christmas?

- (A) B
- (B) C

- (C) D
(D) E

Correct Answer: (C) D

Solution:

Step 1: Recall each person's festival list.

- A: Holi, Dussehra, Diwali, Guru Nanak Birthday
 B: Shivratri, Christmas, Onam, Eid
 C: Holi, Shivratri, Christmas, Diwali
 D: Holi, Dussehra, Guru Nanak Birthday, Eid
 E: Christmas, Diwali, Onam, Guru Nanak Birthday

Step 2: Apply the condition "Holi and Eid, but not Diwali and Christmas."

- A: has Holi *and* Diwali \Rightarrow reject.
- B: has Eid *and* Christmas, no Holi \Rightarrow reject.
- C: has Holi *and* Christmas/Diwali, no Eid \Rightarrow reject.
- **D**: has Holi and Eid; does *not* have Diwali or Christmas \Rightarrow satisfies.
- E: has both Diwali and Christmas \Rightarrow reject.

Person D

Quick Tip

Break the requirement into "must have" (Holi, Eid) and "must not have" (Diwali, Christmas), then filter each person's list accordingly.

Q70. Which of the following expressions will be true if the expression $R > O = A > S < T$ is definitely true?

- (A) $O > T$
 (B) $S < R$
 (C) $T < A$
 (D) $S = O$

Correct Answer: (B) $S < R$

Solution:

Step 1: Rewrite the given chain.

We are told:

$$R > O = A > S < T$$

This implies: - $R > O$ and $R > A$ (since $O = A$). - $O = A > S$. - Also, $S < T$.

Step 2: Check each option.

- (A) $O > T$: Not necessarily true, since we only know $S < T$, but no relation between O and T .
 (B) $S < R$: Since $A > S$ and $R > A$, clearly $R > A > S$. So, $S < R$ is **definitely true**.

(C) $T < A$: No direct relation between T and A . Could be greater or smaller.

(D) $S = O$: We know $O = A$ and $A > S$, so $O > S$. Not equal.

Step 3: Conclude.

The only relation that is definitely true is:

$$S < R$$

Quick Tip

In inequality chain problems, rewrite all relations clearly and test each option against the chain. Look for transitive links like $R > A > S$.

General English

Instructions [71 - 73]

Read the following Passage carefully and answer the questions below:

A TED talk (the acronym stands for Technology, Entertainment, and Design) is one of the routes to academic stardom that didn't exist a decade ago. (The 30th anniversary celebration aside, curators only began posting fame-making free on-line videos in 2006.) Although TED plays an inordinate role in setting the tone for how ideas are conveyed—not only because of the reach of its videos but also through spinoffs like regional “TEDx” events and the TED Radio Hour, one of the few places nonpolicy intellectuals get substantial on-air time—it's just one of a number of platforms that are changing the ecology of academic celebrity. These include similar ideas-in-nuggets conclaves, such as the Aspen Ideas Festival and PopTech, along with huge online courses and—yes, still—blogs. These new, or at least newish, forms are upending traditional hierarchies of academic visibility and helping to change which ideas gain purchase in the public discourse.

In a famous essay, “The Unbearable Ugliness of Volvos,” first published in the early 90s, the literary scholar Stanley Fish wrote that “the flourishing of the lecture circuit has brought with it new sources of extra income ... [and] an ever-growing list of stages on which to showcase one's talents, and geometric increase in the availability of the commodities for which academics yearn, attention, applause, fame, and ultimately, adulation of a kind usually reserved for the icons of popular culture.” Fish was Exhibit A among professors taking advantage of such trends, and his trailblazing as a lit-crit celebrity inspired the dapper, globe-trotting littheory operator Morris Zapp, a character in David Lodge's academic satire *Small World*. But the world Fish was describing, where no one could live-tweet the lectures, let alone post the talks for worldwide distribution, now seems sepia-toned. “If David Lodge's Morris Zapp were alive and kicking today,” observes John Holbo, an associate professor of philosophy at the National University of Singapore, and blogger

at Crooked Timber and the Valve, “he’d be giving a TED talk, not an MLA talk. Which is to say: He wouldn’t be doing Theory. He probably wouldn’t be in an English department.”

Q71. The passage is mainly about:

- (A) Technology, Entertainment, and Design
- (B) Turning over the conventional.
- (C) Gaining popular adulation.
- (D) Changing presentations

Correct Answer: (B) Turning over the conventional.

Solution:

Step 1: Identify the theme of the passage.

From the given options, the key idea revolves around going beyond traditions and rethinking standard practices. The phrase “turning over the conventional” captures this essence directly.

Step 2: Eliminate incorrect options.

- (A) Technology, Entertainment, and Design: This is specific and unrelated to the broader theme.
- (C) Gaining popular adulation: This only highlights public praise, not the core theme.
- (D) Changing presentations: Too narrow and does not convey the wider idea of challenging conventions.

Step 3: Select the best option.

Thus, the passage mainly emphasizes **breaking away from convention and rethinking traditional norms**, which is best expressed as:

Turning over the conventional.

Quick Tip

When solving “main idea” questions, look for the broadest option that encapsulates the passage’s overall theme rather than narrow details.

Q72. The phrase “sepia-toned” implies:

- (A) The end of an era.
- (B) The way things were.
- (C) The brown pigment
- (D) The time bound nature of things.

Correct Answer: (A) The end of an era.

Solution:

Step 1: Interpret the phrase literally.

“Sepia-toned” refers to old photographs that appear in brownish shades. They are symbolic of the past, giving a nostalgic or historical effect.

Step 2: Interpret the phrase figuratively.

In literature or passages, “sepia-toned” is often used metaphorically to imply something that belongs to the past — an age gone by. It captures the fading of an old period, highlighting memory or history.

Step 3: Eliminate incorrect options.

- (B) The way things were: This refers to nostalgia but does not capture the finality of an era.
- (C) The brown pigment: Literal meaning only, not the figurative sense.
- (D) The time bound nature of things: Too vague and indirect.

Step 4: Select the best option.

Thus, the metaphorical use of “sepia-toned” is most accurately expressed as:

The end of an era.

Quick Tip

Always check whether the question is asking for a literal or figurative meaning. Words like “sepia-toned” are metaphorical in comprehension passages, symbolizing nostalgia and the past.

Q73. Which of the following cannot be inferred from the passage?

- (A) TED is the future
- (B) Theory can no longer be counted on
- (C) Philosophy is best understood through demos
- (D) TED is irreplaceable.

Correct Answer: (D) TED is irreplaceable.

Solution:

Step 1: Understand the context of the passage.

The passage highlights how new ways of sharing knowledge (such as TED talks) are changing the traditional approach of theories and lectures, emphasizing live demonstrations, practical examples, and accessible communication.

Step 2: Examine each statement.

- (A) TED is the future: The passage supports this by indicating that TED represents a shift in how ideas are shared.
- (B) Theory can no longer be counted on: The text suggests conventional theory is less effective, so this inference is valid.
- (C) Philosophy is best understood through demos: The passage supports the idea of learning

complex concepts through live demonstration rather than abstract theory.

- (D) TED is irreplaceable: This goes beyond the passage. While TED is shown as influential, nothing suggests it is the only way or that it cannot be replaced.

Step 3: Conclusion.

The statement that cannot be inferred is:

TED is irreplaceable.

Quick Tip

In inference questions, be careful not to overstate the author's intent. Distinguish between what is explicitly supported and what is exaggerated beyond the passage.

Instructions [74 - 77]

Read the following Passage carefully and answer the questions below:

A spectre is haunting the world, just as Karl Marx and Friedrich Engels wrote in the Communist Manifesto of 1848. This time, however, it is not the spectre of communism but that of neoliberalism. Just as Marx and Engels reported of 'a holy alliance to exorcise this spectre,' there is once again an alliance, whether holy or unholy, that has formed to chase the ghost of neoliberalism from the world stage. In any case, it is a curious alliance that has committed to fighting neoliberalism: Religious leaders and artists, environmental activists and globalisation critics, politicians of the left and the right as well as trade unionists, commentators and academics. They all share a passion to unmask neoliberalism as an inhuman, anti-social, and potentially misanthropic ideology or as a cynical exercise by strangely anonymous forces that wish to exploit the world to their own advantage.

The members of this colourful alliance against neoliberalism are as united in their opposition to neoliberalism as they are diverse. This suggests that neoliberalism cannot be too clearly defined as a concept. Rather, it is a broad umbrella under which very different groups with various points of view can meet. In the church of anti-neoliberalism, there is a place for anyone who believes that neoliberalism stands in the way of reaching his or her political goals. This may also explain the lack of any clear and coherent definition of neoliberalism among its dissenters.

Yet the most curious characteristic of neoliberalism is the fact that these days hardly anyone self-identifies as a neoliberal. In former times, ideological debates were fought between, say, conservatives and socialists, collectivists and individualists. While there may not have been any other agreement between these opposing groups, at least they would have agreed about their respective identities. A socialist would not have felt offended by a conservative calling him a socialist and vice-versa. In present-day debates around neoliberalism, on the other hand, most accused of holding 'neoliberal' views would not accept being called 'neoliberal.' Either they would insist on being something else (whether it is 'liberal,' 'classical liberal,' or 'libertarian'), or they would simply claim to be misunderstood by their opponents. In any case, scarcely anybody wants to be a 'neoliberal' any more.

For example, in an online survey of the readers of Andrew Norton's blog, out of more than 1,200 participants not a single person self-identified with the term, while 'classical liberal,' 'conservative,' and 'libertarian' were strong responses. These are strange debates indeed when the enemy you are fighting claims he does not exist.

Q74. According to the passage, the spectre, is being chased by all except which one of the following:

- (A) Religious leaders and artists
- (B) Environmental activists and globalisation critics
- (C) Communists and socialists
- (D) Politicians and trade unionists

Correct Answer: (C) Communists and socialists

Solution:

Step 1: Recall the passage context.

The passage compares neoliberalism to a spectre haunting the world. Many groups are united against neoliberalism, including religious leaders, artists, environmental activists, critics of globalization, politicians (left and right), trade unionists, commentators, and academics.

Step 2: Identify the missing group.

- Religious leaders and artists are explicitly mentioned.
- Environmental activists and globalization critics are mentioned.
- Politicians and trade unionists are mentioned.
- Communists and socialists, however, are not part of this new alliance. In fact, the passage refers back to them only historically in relation to the Communist Manifesto, not in the present coalition against neoliberalism.

Step 3: Conclude.

Hence, the group that is not part of those chasing neoliberalism is:

Communists and socialists

Quick Tip

Always distinguish between historical references and the groups actively involved in the present context described in a passage.

Q75. Why, according to the passage, is there an association against the phenomenon of neoliberalism?

- (A) Because they cannot face it alone
- (B) Because it is easy to collaborate against it.
- (C) Because they resent its spread.
- (D) Because they fear the misuse of the world.

Correct Answer: (D) Because they fear the misuse of the world.

Solution:

Step 1: Recall the passage context.

The passage mentions that different groups have united against neoliberalism because they see it as "inhuman, anti-social, and potentially misanthropic" or as "a cynical exercise by anonymous forces that wish to exploit the world to their own advantage."

Step 2: Interpret the meaning.

This clearly points to the idea that people fear neoliberalism will cause harm, exploitation, or misuse of the world. Their unity is driven not by ease of collaboration or simple resentment, but by fear of its dangerous impact.

Step 3: Eliminate incorrect options.

- (A) "Because they cannot face it alone" – not directly stated.
- (B) "Because it is easy to collaborate against it" – not true; they are diverse, not necessarily easy collaborators.
- (C) "Because they resent its spread" – partially true but too weak compared to the stated reason.
- (D) "Because they fear the misuse of the world" – matches the text exactly.

Final Answer:

Because they fear the misuse of the world.

Quick Tip

When answering inference-based questions, focus on the strongest underlying motivation expressed in the passage rather than surface-level reasons.

Q76. The author implies:

- (A) That neoliberalism defies conceptualization
- (B) That neoliberalism is vague
- (C) That neoliberalism has not been accepted
- (D) That neoliberalism has not been understood by people

Correct Answer: (D) That neoliberalism has not been understood by people

Solution:

Step 1: Refer to the passage.

The passage states that while many groups oppose neoliberalism, they cannot clearly define it. It also mentions that no one openly identifies themselves as a neoliberal, and those accused of being one often deny it. This suggests a lack of clarity and proper understanding of the concept.

Step 2: Analyze each option.

- (A) "Defies conceptualization" – too strong; it may not be beyond conceptualization, but it is poorly understood.
- (B) "Neoliberalism is vague" – partially true, but does not capture the deeper idea of misunderstanding.
- (C) "Neoliberalism has not been accepted" – incorrect, since the issue is not acceptance but lack of self-identification.
- (D) "Neoliberalism has not been understood by people" – fits best, as the text emphasizes confusion and denial.

Step 3: Conclude.

The author highlights confusion, denial, and misinterpretation regarding neoliberalism, leading to the conclusion that it is not properly understood.

Final Answer:

That neoliberalism has not been understood by people.

Quick Tip

When a question asks for "implies," focus on the underlying suggestion or hidden meaning in the passage rather than the literal words.

Q77. The word 'libertarian' used in the passage can be best substituted with

- (A) neoliberal
- (B) libertine – immoral
- (C) conservative
- (D) liberal – favouring individual liberty

Correct Answer: (D) liberal – favouring individual liberty

Solution:

Step 1: Understanding the word 'libertarian.'

A libertarian is someone who strongly supports individual liberty, minimal government intervention, and maximum personal freedom in economic and social matters. It comes from the root word "liberty."

Step 2: Check each option.

- (A) **neoliberal** – refers to free-market economic policies but not the broader emphasis on personal liberty.
- (B) **libertine** – **immoral** – unrelated, as libertine means indulging in immoral pleasures, not liberty in political philosophy.
- (C) **conservative** – focuses on preserving traditions, which is opposite to libertarian ideas.
- (D) **liberal** – **favouring individual liberty** – this directly captures the meaning of libertarian.

Step 3: Conclude.

The best synonym for "libertarian" in this context is "liberal – favouring individual liberty."

Final Answer:

liberal – favouring individual liberty

Quick Tip

When solving vocabulary substitution questions, always focus on the contextual meaning in the passage, not just dictionary meanings of similar-looking words.

Instructions [78 - 83] Each of the following items is followed by four words or group of words. Fill in the blanks with the appropriate word or group of words.

Q78. His remarks were filled with ---- , which sounded lofty but presented nothing new to the audience.

- (A) aphorisms
- (B) platitudes
- (C) bombast
- (D) adages

Correct Answer: (B) platitudes

Solution:**Step 1: Understanding the context.**

The sentence describes remarks that "sounded lofty but presented nothing new." This indicates that the remarks appeared impressive but were actually shallow, overused, or unoriginal.

Step 2: Evaluate each option.

- (A) **Aphorisms** – short, wise, and original sayings expressing truth (e.g., "Time is money"). These usually contain insight, so they don't match "nothing new."
- (B) **Platitudes** – trite, overused statements that sound important but lack originality or depth. This perfectly matches the description.
- (C) **Bombast** – pompous, inflated language. While it suggests loftiness, it doesn't emphasize "nothing new" as clearly as "platitudes."
- (D) **Adages** – traditional proverbs conveying wisdom. Like aphorisms, these usually offer meaningful insights, not empty repetition.

Step 3: Conclusion.

Since the remarks were "lofty but unoriginal," the correct word is **platitudes**.

Final Answer:

platitudes

Quick Tip

When solving vocabulary-in-context questions, look for clues in the sentence like "nothing new" or "shallow." These indicate words such as cliché, platitude, or trite expression.

Q79. When indecision grips a nation, free men feel the need for an ____ ruler and are prepared to throw democracy overboard.

- (A) optimistic
- (B) autocratic
- (C) eccentric
- (D) energetic

Correct Answer: (B) autocratic

Solution:

Step 1: Understanding the context.

The sentence describes a nation in crisis ("when indecision grips a nation"). In such times, people often feel democracy is ineffective and instead look for a single strong leader to take control. This suggests a preference for dictatorship or strong centralized power.

Step 2: Evaluate each option.

- (A) **Optimistic** – means hopeful or positive. A hopeful ruler does not fit the context of abandoning democracy.
- (B) **Autocratic** – a ruler with absolute power, often ignoring democratic processes. This perfectly matches the idea of people being "prepared to throw democracy overboard."
- (C) **Eccentric** – means odd or unusual. An eccentric ruler does not connect logically with the idea of abandoning democracy.
- (D) **Energetic** – means full of energy. While positive, it does not explain why democracy would be abandoned.

Step 3: Conclusion.

The only option that explains why democracy would be abandoned in favor of strong control is **autocratic**.

Final Answer:

autocratic

Quick Tip

In political vocabulary, "autocratic" refers to absolute power without democracy. Look for contextual clues like "throw democracy overboard," which directly point to dictatorship or authoritarianism.

Q80. A great literary or artistic work is known as ____.

- (A) par excellence
- (B) bete noire
- (C) peccadillo
- (D) magnum opus

Correct Answer: (D) magnum opus

Solution:

Step 1: Understanding the phrase.

The question is asking for a phrase that specifically denotes a "great literary or artistic work." This often refers to an artist's greatest or most important achievement.

Step 2: Evaluate each option.

- (A) **Par excellence** – means "better than all others" or "of the highest quality," but it does not specifically refer to a literary or artistic work.
- (B) **Bête noire** – means something strongly disliked or dreaded; completely unrelated to artistic achievement.
- (C) **Peccadillo** – means a minor fault or sin; opposite of a great achievement.
- (D) **Magnum opus** – a Latin phrase meaning "great work," used to describe the greatest literary, artistic, or creative work of someone's life.

Step 3: Conclusion.

The only correct phrase for a great literary or artistic work is **magnum opus**.

Final Answer:

magnum opus

Quick Tip

Remember: "Magnum opus" = greatest work of an artist or writer. It directly translates from Latin as "great work." Always link "greatest achievement" with this term.

Q81. The carriage foundered in a snowdrift and it took two hours to ____ it.

- (A) exert
- (B) pillage
- (C) exacerbate
- (D) extricate

Correct Answer: (D) extricate

Solution:

Step 1: Understanding the context.

The sentence says the carriage got "foundered in a snowdrift," meaning it was stuck or trapped in the snow. Therefore, the correct verb must convey the idea of "freeing" or "releasing" it.

Step 2: Evaluate each option.

- (A) **Exert** – means to apply effort or force. While effort is needed, this word does not fit the meaning of "removing from being stuck."
- (B) **Pillage** – means to loot or plunder, especially during war. This makes no sense in the context.
- (C) **Exacerbate** – means to make a situation worse. If applied, it would mean making the carriage more stuck, which is the opposite of what is intended.
- (D) **Extricate** – means to free or release from difficulty, entanglement, or being stuck. This perfectly matches the situation of removing a carriage from a snowdrift.

Step 3: Conclusion.

The most appropriate word is **extricate**, as it directly describes freeing something trapped in a snowdrift.

Final Answer:

extricate

Quick Tip

"Extricate" always means "to set free from difficulties or entanglements." A useful trick: think of "exit" + "complicate" → freeing something from complications.

Q82. The influence of the environment on man is revealed by an ____ study

- (A) anthropological
- (B) ecological
- (C) epigraphic
- (D) numismatic

Correct Answer: (B) ecological

Solution:

Step 1: Identify the key phrase.

The phrase "influence of the environment on man" suggests that the study is related to the interaction between humans and their surroundings (nature, climate, ecosystems).

Step 2: Analyze each option.

- (A) **Anthropological** – relates to the study of human societies, cultures, and their development. While it deals with humans, it does not directly emphasize the environment's influence.
- (B) **Ecological** – refers to the study of relationships between living organisms (including humans) and their environment. This directly matches the context of the question.
- (C) **Epigraphic** – relates to the study of inscriptions or ancient writings, not environment.
- (D) **Numismatic** – the study of coins, currency, and medals, completely unrelated to environment.

Step 3: Conclusion.

The correct word is **ecological**, as it directly addresses the effect of the environment on human beings.

Final Answer:

ecological

Quick Tip

Remember: "Ecology" = study of relationships between organisms and their environment. Whenever you see "environment" in such contexts, the answer is usually "ecological."

Q83. Alexander Solzhepitsyn's works will be _____ by every lover of liberal thought and they will bring home to him how restrictive freedom is in the Russian system.

- (A) rejected
- (B) skimmed
- (C) compiled
- (D) perused

Correct Answer: (D) perused

Solution:

Step 1: Understand the context.

The sentence talks about **every lover of liberal thought** reading Solzhenitsyn's works to understand how freedom was restricted in Russia. This implies careful and serious reading.

Step 2: Analyze each option.

- (A) **Rejected** – means refused or discarded. This does not make sense since lovers of liberal thought would value his works.
- (B) **Skimmed** – means read quickly without attention to detail. But the context implies deep understanding, not superficial reading.
- (C) **Compiled** – means collected and put together, which does not fit the act of reading his works.
- (D) **Perused** – means read thoroughly and carefully, which perfectly matches the context.

Step 3: Conclusion.

The correct word is **perused**, as it indicates careful study of Solzhenitsyn's works to understand the restrictions of freedom in Russia.

Final Answer:

perused

Quick Tip

"Peruse" is often misunderstood as "skim," but it actually means to **read thoroughly and carefully**. Always choose it when the context involves deep and attentive reading.

Q84. The flood of brilliant ideas has not only __ us, but has also encouraged us to __ the last date for submission of entries.

- (A) overwhelmed, extend
- (B) enjoyed, stretch
- (C) dismayed, decide
- (D) scared, scrap

Correct Answer: (A) overwhelmed, extend

Solution:

Step 1: Analyze the first blank.

The sentence says “The flood of brilliant ideas has not only __ us . . .” — a flood of ideas usually **overwhelms** people because it is excessive or abundant. Words like “enjoyed,” “dismayed,” or “scared” don’t fit the positive and abundant tone.

Step 2: Analyze the second blank.

The continuation is “. . . but has also encouraged us to __ the last date for submission of entries.”

Here, due to the flood of ideas, the logical action is to **extend** the deadline to allow more entries.

Other options like “stretch” (informal), “decide” (illogical), or “scrap” (negative) do not fit the context.

Step 3: Final Combination.

Thus, the correct pair is: **overwhelmed, extend**.

Final Answer:

overwhelmed, extend

Quick Tip

When solving double-blank questions, always check whether the two words are consistent with each other and with the overall tone (positive/negative/neutral) of the sentence.

Q85. The high cutoff marks this year have __ college admission seekers to either __ for lesser known colleges or change their subject preferences.

- (A) cajoled, ask
- (B) pressured, sit
- (C) forced, settle
- (D) strained, compromise

Correct Answer: (C) forced, settle

Solution:

Step 1: Examine the situation.

The sentence talks about “high cutoff marks” in college admissions. When cutoffs are very high, students are left with fewer choices and are compelled to make adjustments.

Step 2: First blank.

The phrase “have __ college admission seekers” — high cutoffs usually **force** students into making tough choices.

“Cajoled” (persuaded gently) does not fit.

“Pressured” could work, but the stronger and more accurate word here is “forced.”

“Strained” is less direct and not as fitting.

Step 3: Second blank.

Students are forced to either __ for lesser-known colleges. The natural collocation is to **settle for lesser-known colleges**.

Other choices like “ask,” “sit,” or “compromise” do not fit idiomatically.

Step 4: Combine both.

Thus, the correct combination is: **forced, settle**.

Final Answer:

forced, settle

Quick Tip

Look for collocations (common word pairings) in double-blank questions. For example, “settle for” is a common phrase, which makes option (C) the most natural choice.

Q86. Choose the option which is similar in meaning to the word given below:
FURLOUGH

- (A) Soldiers holiday
- (B) Wild growth
- (C) Wooden plough
- (D) Till

Correct Answer: (A) Soldiers holiday

Solution:**Step 1: Understand the word “furlough.”**

The word “furlough” refers to a temporary leave of absence, especially granted to members of the armed forces. It can also mean a temporary layoff from work in civilian use, but its traditional and primary meaning is connected with soldiers.

Step 2: Analyze the options.

- (A) **Soldiers holiday** — This matches the meaning of furlough exactly, since it refers to leave granted to a soldier.

- (B) Wild growth — This refers to uncontrolled vegetation, unrelated to furlough.
- (C) Wooden plough — This is a farming tool, irrelevant to the meaning.
- (D) Till — Refers to preparing soil for planting, again unrelated.

Step 3: Conclude.

Thus, the option that best matches “furlough” is **Soldiers holiday**.

Final Answer:

Soldiers holiday

Quick Tip

When dealing with synonyms, focus on the word’s original context. “Furlough” historically refers to leave given to military personnel, which makes “Soldiers holiday” the correct synonym.

Q87. PUNCTILIOUS

- (A) Prude
- (B) Wasteful
- (C) Meticulous
- (D) Timid

Correct Answer: (C) Meticulous

Solution:

Step 1: Meaning of “Punctilious.”

The word “punctilious” refers to someone who is extremely careful about details, attentive to correctness, and meticulous in observing rules, manners, or conventions.

Step 2: Check each option.

- (A) Prude — Refers to someone who is easily shocked by matters relating to sex or nudity; unrelated to “punctilious.”
- (B) Wasteful — Refers to careless or extravagant use of resources; not the same.
- (C) Meticulous — Means very careful and precise, paying close attention to detail, which is exactly the meaning of “punctilious.”
- (D) Timid — Means lacking courage or confidence; again, not the meaning.

Step 3: Conclusion.

The word “punctilious” is synonymous with “meticulous,” making **option (C)** the correct answer.

Final Answer:

Meticulous

Quick Tip

Remember: “Punctilious” and “Meticulous” both emphasize extreme attention to small details. Associate it with being “perfect in the particulars.”

Q88. ENCOMIUM

- (A) Verve
- (B) Eulogy
- (C) Doggerel
- (D) Force

Correct Answer: (B) Eulogy

Solution:

Step 1: Meaning.

“Encomium” means a formal expression of high praise; a panegyric.

Step 2: Check options.

- (A) *Verve* = energy/enthusiasm
- (B) *Eulogy* = speech/writing in praise of someone
- (C) *Doggerel* = comic/irregular verse
- (D) *Force* = strength/power

Eulogy

Quick Tip

Link “encomium/panegyric” with “high praise.” Opposites include “diatribe” or “invective.”

Q89. Choose the option which is nearly opposite in meaning to the word given below:

TRITE

- (A) Hackneyed
- (B) Correct
- (C) Original
- (D) Certain

Correct Answer: (C) Original

Solution:

Step 1: Meaning of “Trite.”

“Trite” means something overused, lacking originality, clichéd.

Step 2: Identify the opposite.

- (A) *Hackneyed* = also overused, synonym
- (B) *Correct* = accurate, unrelated
- (C) *Original* = new, fresh, creative
- (D) *Certain* = sure, unrelated

Original

Quick Tip

Remember: “Trite = cliché, stale.” Its antonym is “original, novel, fresh.”

Q90. Choose the option which is nearly opposite in meaning to the word given below:

COMPASSIONATE

- (A) Indecisive
- (B) Unsympathetic
- (C) Unlawful
- (D) Untrustworthy

Correct Answer: (B) Unsympathetic

Solution:

Step 1: Meaning of ”Compassionate.”

“Compassionate” means showing sympathy, kindness, and concern for others.

Step 2: Identify the opposite.

- (A) *Indecisive* = unable to make decisions, unrelated
- (B) *Unsympathetic* = lacking compassion, opposite
- (C) *Unlawful* = illegal, unrelated
- (D) *Untrustworthy* = cannot be trusted, unrelated

Unsympathetic

Quick Tip

Compassion = kindness and sympathy. Its antonym is “unsympathetic,” meaning lacking care or concern.

Q91. Choose the option which is nearly opposite in meaning to the word given below:

RESTIVE

- (A) Buoyant
- (B) Placid

- (C) Resistant
- (D) Insolent

Correct Answer: (B) Placid

Solution:

Step 1: Meaning of "Restive."

"Restive" means restless, uneasy, or unable to remain still.

Step 2: Identify the opposite.

- (A) *Buoyant* = cheerful or floating, not the opposite
- (B) *Placid* = calm, peaceful, opposite of restless
- (C) *Resistant* = opposing, not exact opposite
- (D) *Insolent* = rude, unrelated

Placid

Quick Tip

"Restive" = restless. The opposite is "placid," which means calm and composed.

Q92. Choose the word that does NOT match with the two given words: Inordinate, Huge

- (A) Excessive
- (B) Considerable
- (C) Insatiable
- (D) Enormous

Correct Answer: (C) Insatiable

Solution:

Step 1: Meanings of the pair.

- *Inordinate* = excessive, beyond normal limits.
- *Huge* = very large; enormous.

Step 2: Match options to the pair.

- (A) **Excessive** — synonymous with *inordinate*.
- (B) **Considerable** — fairly large/important; close in sense to large.
- (C) **Insatiable** — impossible to satisfy (about appetite/desire), not about size or magnitude.
- (D) **Enormous** — very large; synonymous with *huge*.

Insatiable is the odd one out.

Quick Tip

When finding the odd word out, check the *dimension* each word describes (size, quantity, desire, etc.). If the pair describes size/amount, eliminate words about appetite or attitude.

Q93. Choose the word that does NOT match with the two given words: Laconic, Succinct

- (A) Terse
- (B) Brief
- (C) Concise
- (D) Abrupt

Correct Answer: (D) Abrupt

Solution:

Step 1: Meanings of the pair.

- *Laconic* = using very few words, brief, to the point.
- *Succinct* = expressed clearly and briefly, concise.

Step 2: Match options to the pair.

- (A) **Terse** — brief and to the point, similar to laconic.
- (B) **Brief** — short in length, directly matches.
- (C) **Concise** — short and clear, perfect synonym.
- (D) **Abrupt** — sudden and unexpected, not necessarily about brevity of speech or writing.

Abrupt is the odd one out.

Quick Tip

When dealing with synonym-based odd one out questions, always focus on the nuance of meaning — some words may appear related but differ in tone or context.

Q94. Each of the questions below consists of statements having four phrases (a), (b), (c) and (d). One of the phrases is grammatically incorrect. Identify the incorrect phrase.

- (a) However, the advantages of teamwork can be minimized
- (b) and the benefits increased
- (c) if members (particularly those who lead them)
- (d) is aware of the methods for improving performance and making decisions

- (A) a
- (B) b

- (C) c
- (D) d

Correct Answer: (D) d

Solution:

Step 1: Check grammatical agreement in each phrase.

- (a) **"However, the advantages of teamwork can be minimized"** — grammatically correct.
- (b) **"and the benefits increased"** — grammatically correct continuation of (a).
- (c) **"if members (particularly those who lead them)"** — correct conditional clause starter.
- (d) **"is aware of the methods for improving performance and making decisions"** — incorrect. The subject is "members" (plural), so it should be **"are aware"** instead of "is aware".

Step 2: Correction.

The correct phrase should be:

"are aware of the methods for improving performance and making decisions"

Therefore, the incorrect phrase is (d).

Quick Tip

Always check subject-verb agreement carefully. When the subject is plural ("members"), the verb must also be plural ("are") and not singular ("is").

Q95. Each of the questions below consists of statements having four phrases (a), (b), (c) and (d). One of the phrases is grammatically incorrect. Identify the incorrect phrase.

- (a) When assertion is used with the win-win approach
- (b) and with others who also uses the win-win approach
- (c) each party can consider the needs of the other and
- (d) move towards a solution that satisfies as many needs as possible

- (A) a
- (B) b
- (C) c
- (D) d

Correct Answer: (B) b

Solution:

Step 1: Check phrase (a).

"When assertion is used with the win-win approach" — grammatically correct.

Step 2: Check phrase (b).

"and with others who also uses the win-win approach" — incorrect. The subject is "others" (plural), but the verb is "uses" (singular).

The correct form should be: **"and with others who also use the win-win approach"**.

Step 3: Check phrase (c).

"each party can consider the needs of the other and" — grammatically correct.

Step 4: Check phrase (d).

"move towards a solution that satisfies as many needs as possible" — grammatically correct.

Therefore, the incorrect phrase is (b).

Quick Tip

When the subject is plural ("others"), the verb must also be plural ("use"), not singular ("uses"). Always check subject-verb agreement carefully.

Q96. Each of the questions below consists of statements having four phrases (a), (b), (c) and (d). One of the phrases is grammatically incorrect. Identify the incorrect phrase.

- (a) It is always
- (b) been hard to change
- (c) the Indian car buyer's perception
- (d) When it comes to designs

- (A) a
- (B) b
- (C) c
- (D) d

Correct Answer: (A) a

Solution:

Step 1: Check phrase (a).

"It is always" — incorrect in this context. This phrase is incomplete and does not link properly to the rest of the sentence. For example, it should be something like **"It has always"** or **"It is always difficult"** to make sense.

Step 2: Check phrase (b).

"been hard to change" — correct when paired with an auxiliary verb (e.g., "has been hard to change").

Step 3: Check phrase (c).

"the Indian car buyer's perception" — grammatically correct and clear.

Step 4: Check phrase (d).

"When it comes to designs" — grammatically correct.

Therefore, the incorrect phrase is (a).

Quick Tip

Always ensure phrases are complete. If a verb phrase like "been" is used, it must be preceded by an auxiliary verb ("has/have been"). Similarly, starting phrases like "It is always" should connect logically to what follows.

Q97. Each of the questions below consists of statements having four phrases (a), (b), (c) and (d). One of the phrases is grammatically incorrect. Identify the incorrect phrase.

- (a) In a conflict, speak in a pleasant way
- (b) send appropriate non-verbal messages to the other person
- (c) and match your non-verbal behaviour
- (d) to the spoken message

- (A) a
- (B) b
- (C) c
- (D) d

Correct Answer: (C) c

Solution:

Step 1: Check phrase (a).

"In a conflict, speak in a pleasant way" — grammatically correct and meaningful.

Step 2: Check phrase (b).

"send appropriate non-verbal messages to the other person" — correct in both grammar and sense.

Step 3: Check phrase (c).

"and match your non-verbal behaviour" — incorrect as written. The conjunction "and" requires a prior clause to be parallel with, but here it disrupts the sentence structure. A correct version would be: **"match your non-verbal behaviour"** (without "and").

Step 4: Check phrase (d).

"to the spoken message" — correct and logically completes the sentence.

Therefore, the incorrect phrase is (c).

Quick Tip

When using conjunctions like "and," ensure that they connect two balanced clauses. If the sentence is already complete, adding "and" unnecessarily makes it grammatically incorrect.

Q98. Each of the questions below consists of statements having four phrases (a), (b), (c) and (d). One of the phrases is grammatically incorrect. Identify the incorrect phrase.

- (a) To live, to love
- (b) to serve, and
- (c) also admiration are what
- (d) I aspire for

- (A) a
- (B) b
- (C) c
- (D) d

Correct Answer: (C) c

Solution:

Step 1: Check phrase (a).

"To live, to love" — grammatically correct as it lists infinitives.

Step 2: Check phrase (b).

"to serve, and" — correct, as it continues the parallel infinitive structure.

Step 3: Check phrase (c).

"also admiration are what" — grammatically incorrect. The subject is singular ("admiration"), so the verb should be "is" instead of "are". The correct phrase should be: "also admiration is what".

Step 4: Check phrase (d).

"I aspire for" — correct, as it properly conveys meaning and completes the sentence.

Therefore, the incorrect phrase is (c).

Quick Tip

Always check subject-verb agreement carefully. If the subject is singular (like "admiration"), the verb must also be singular ("is").

Q99. Each question has a sentence that has been scrambled and the scrambled parts have been marked A, B, C, D and E. Find the correct order of the parts to reconstruct the sentence.

- A. in different regions of that federation
- B. that was Yugoslavia
- C. the fundamental cause has been the very large difference in the quality of life
- D. although the dismemberment of the federation
- E. is seen more as the result of an ethnic conflict

- (A) ABCDE
- (B) CEBDA
- (C) BCEDA
- (D) ABDEC

Correct Answer: (D) ABDEC

Solution:

Step 1: Find the opener.

Phrase **A** (“in different regions of that federation”) works as an introductory prepositional phrase and naturally precedes **B** which identifies the federation (“that was Yugoslavia”).

Step 2: Build the concessive clause.

The linker “although” in **D** must introduce a subordinate clause, and it pairs with **E** to read: “although the dismemberment of the federation is seen more as the result of an ethnic conflict”.

Step 3: Finish with the main clause.

The independent clause **C** (“the fundamental cause has been . . .”) states the main assertion and therefore comes last.

Step 4: Assemble.

Putting it together: A B D E C.

“In different regions of that federation that was Yugoslavia, although the dismemberment of the federation is seen more as the result of an ethnic conflict, the fundamental cause has been the very large difference in the quality of life.”

Quick Tip

Look for clause markers like “although,” “which/that,” etc., to link subordinate clauses first; then place the independent (main) clause at the end for a complete sentence.

Q100. Each question has a sentence split into parts A–E. Choose the order that reconstructs a correct sentence.

- A. but there is some merit in it
- B. as distinct from consumption
- C. bifurcation of plan and non-plan funds
- D. in so far as it focuses attention on development expenses
- E. in the budget is artificial

- (A) ABCDE
- (B) CDBEA

- (C) CEABD
(D) DEACB

Correct Answer: (C) CEABD

Solution:

Step 1: Identify the subject and its complement.

The core noun phrase is “*bifurcation of plan and non-plan funds*” \Rightarrow **C**. It is followed naturally by the predicate “*in the budget is artificial*” \Rightarrow **E**. So we begin with **C \rightarrow E**.

Step 2: Add the concessive contrast.

After stating it is artificial, we contrast with “*but there is some merit in it*” \Rightarrow **A**.

Step 3: Specify the merit.

The merit is explained by “*in so far as it focuses attention on development expenses*” \Rightarrow **D**, and this focus is “*as distinct from consumption*” \Rightarrow **B**.

Step 4: Assemble

C E A D B

“*Bifurcation of plan and non-plan funds in the budget is artificial, but there is some merit in it in so far as it focuses attention on development expenses as distinct from consumption.*”

Quick Tip

First link the main subject and its verb/complement, then attach contrast/qualifier phrases like “but...”, “in so far as...”, and finish with short modifiers.

Q101. Each question has a sentence split into parts A–E. Choose the order that reconstructs a correct sentence.

- A. like the industrialized countries
- B. as if they are to be suffered as relics of a backward past
- C. we have specially driven attention to the non-motorized transport modes
- D. because they are completely overlooked in transport planning
- E. till replaced by faster petroleum fuelled transport

- (A) DEACB
(B) CDEBA
(C) CBADE
(D) CDBEA

Correct Answer: (D) CDBEA

Solution:

Step 1: Choose the opener.

A finite-clause subject is needed; **C** (“*we have specially driven attention ...*”) is the only part that can start a sentence naturally.

Step 2: Give the reason.

D begins with “*because*”, logically explaining *why* attention is driven.

Step 3: Continue the critique.

B (“*as if they are to be suffered as relics . . .*”) qualifies the neglect mentioned in D.

Step 4: Complete the ‘as if’ idea.

E (“*till replaced by faster petroleum fuelled transport*”) completes the thought begun in B.

Step 5: Attach the final qualifier.

A (“*like the industrialized countries*”) modifies “*petroleum fuelled transport*”.

Reconstructed sentence:

We have specially driven attention to the non-motorized transport modes because they are completely overlooked in transport planning, as if they are to be suffered as relics of a backward past till replaced by faster petroleum-fuelled transport, like the industrialized countries.

Order = C D B E A

Quick Tip

Start with the only independent clause, then place reason/concession markers (e.g., “because,” “as if”), and finally attach short qualifying phrases.

Q102. In each of these questions, each sentence has four words or phrases in braces marked A, B, C, and D. Choose one word or phrase that must be changed for the sentence to be correct.

Drug abuse {have} (A) become {one of} (B) our {most} (C) serious social {problems} (D).

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

Correct Answer: (A)

Solution:

The subject of the sentence, *drug abuse*, is singular, so the verb should be “has” instead of “have.” Therefore, the error lies in part **A**, which should be changed to “has” to match the singular subject.

The sentence, after correction, would read: *Drug abuse has become one of our most serious social problems.*

Correct word change: A

Quick Tip

Ensure subject-verb agreement: singular subjects take singular verbs, and plural subjects take plural verbs.

Q103. In each of these questions, each sentence has four words or phrases in braces marked A, B, C, and D. Choose one word or phrase that must be changed for the sentence to be correct.

Alexander Calder, who was {originally} (A) interested {in} (B) mechanical engineering {later} (C) became {a sculpture}. (D)

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

Correct Answer: (D)

Solution:

The error lies in part **D**. The phrase “became a sculpture” is incorrect because a person cannot *become a sculpture* (an object). The intended meaning is that Alexander Calder became a *sculptor* (an artist who creates sculptures).

Corrected sentence: *Alexander Calder, who was originally interested in mechanical engineering, later became a sculptor.*

Correct word change: D

Quick Tip

Always ensure the word form matches the intended meaning. A person is a “sculptor,” while the artwork they create is a “sculpture.”

Q104. A sentence has been broken into four parts. Choose the part that has an error.

- (a) The sound was taken up by another dog, and then another and another,
- (b) till, borne on the wind which now sighed softly through the pass,
- (c) a wild howling began, which seemed to come from all over the country,
- (d) as far as the imagination could grasp them through the gloom of the night.

- A) a
- B) b
- C) c
- D) d

Correct Answer: (B)

Solution:

The error is in part **(b)**: *"till, borne on the wind which now sighed softly through the pass"*.

- The conjunction **"till"** is incorrect in this context because it implies "until" in terms of time, which does not fit the intended meaning of continuation in the sentence.
- The correct usage should be **"until"** or simply removing "till" for smoother and grammatically accurate flow.

Corrected version: *"The sound was taken up by another dog, and then another and another, borne on the wind which now sighed softly through the pass..."*

Error in part (b): "till" should be corrected.

Quick Tip

Always ensure conjunctions like **till/until** are used in the correct context. "Till" is informal and can sound awkward in formal or literary writing.

Q105. A sentence has been broken into four parts. Choose the part that has an error.

- (a) At last there came a time when the driver went
- (b) further afield than he had yet gone,
- (c) and during its absence, the horses began to tremble
- (d) worse than ever and to snort and scream with fright

- A) a
- B) b
- C) c
- D) d

Correct Answer: (C)

Solution:

The error is in part **(c)**: *"and during its absence, the horses began to tremble"*.

Step 1: Identify the subject

- The subject is "the driver," who is a person.

Step 2: Pronoun mismatch

- The phrase uses "its absence."
- The pronoun "its" is used for objects or animals, not for people.

Step 3: Correct the pronoun

- Since the subject is the driver (a human), the correct pronoun should be "his."

Corrected Sentence:

"At last there came a time when the driver went further afield than he had yet gone, and during his absence, the horses began to tremble worse than ever and to snort and scream with fright."

The error is in part (c): 'its' should be replaced with 'his'.

Quick Tip

Use "its" for objects and animals, but "his/her" for people. Always ensure pronoun agreement with the noun it replaces.

Q106. A sentence has been broken into four parts. Choose the part that has an error.

- (a) The house was silent when we got back,
- (b) save for some poor creature who was
- (c) screaming away in one of the distant ward,
- (d) and a low, moaning sound from Vinod's room

- A) a
- B) b
- C) c
- D) d

Correct Answer: (C)

Solution:

The error is in part (c): *"screaming away in one of the distant ward"*.

Step 1: Identify the noun phrase - The phrase uses "one of the distant ward."

Step 2: Rule of agreement after "one of" - The structure "one of" is always followed by a **plural noun**, because it refers to one among many.

Step 3: Correction - "ward" should be plural: *"wards"*.

Corrected Sentence:

"The house was silent when we got back, save for some poor creature who was screaming away in one of the distant wards, and a low, moaning sound from Vinod's room."

The error is in part (c): 'ward' should be 'wards'.

Quick Tip

Remember: After "one of," the noun must always be in plural form (e.g., "one of the students," not "one of the student").

Q107. In each of the following questions, a sentence has been given in Direct/Indirect Speech. Out of the four alternatives suggested select the one which best expresses the same sentence in Indirect/Direct Speech.

He said, "Where shall I be this time next year?"

- A) He asked that where should he be that time next year
- B) He wondered where he should be that time the following year
- C) He contemplated where shall he be that time the following year.
- D) He wondered where he would be that time the following year

Correct Answer: (D) He wondered where he would be that time the following year

Solution:

Step 1: Identify the sentence type

- The original is in **Direct Speech**, and it is an **interrogative sentence** with "shall I."

Step 2: Rule for converting to Indirect Speech

- Change the question form into a statement form in Indirect Speech. - Pronouns must be adjusted: "I" → "he." - "shall" in future reference becomes "would." - "next year" becomes "the following year."

Step 3: Apply the rules - "Where shall I be this time next year?" → "where he would be that time the following year."

Step 4: Compare options - (A) Wrong: "that where should he be" → incorrect structure. - (B) Wrong: Uses "should" instead of "would," and tense mismatch. - (C) Wrong: Still retains "shall," which is incorrect in Indirect Speech. - (D) Correct: Properly converts to "He wondered where he would be that time the following year."

Correct Indirect Speech: He wondered where he would be that time the following year.
--

Quick Tip

When changing from Direct to Indirect Speech: - Replace **shall/will** with **should/would**. - Change time references: "next year" → "the following year." - Keep interrogatives in statement form without question marks.

Q108. She said to him, "Why don't you go today?"

- A) She said to him that why he don't go today
- B) She asked him if he was going that day
- C) She asked him why he did not go today
- D) She asked him why he did not go that day

Correct Answer: (D) She asked him why he did not go that day

Solution:

Step 1: Identify the sentence type

The given sentence is an **interrogative sentence** in Direct Speech.

It begins with the question “Why don’t you go today?”

Step 2: Apply reporting verb rule

The reporting verb “**said to**” changes into “**asked**”.

In Indirect Speech, the interrogative form is changed into a statement form.

Step 3: Make tense adjustments

The verb in the direct sentence is in present tense: “don’t go.”

It changes to past tense: “did not go.”

Step 4: Adjust time expression

The word “**today**” changes to “**that day**” in Indirect Speech.

Step 5: Change pronouns

The pronoun “**you**” (referring to him) changes to “**he**”.

Step 6: Construct the final sentence

Putting all changes together, we get:

“She asked him why he did not go that day.”

She asked him why he did not go that day.

Quick Tip

- When converting Direct to Indirect Speech for questions: - Change “said to” → “asked.”
- Convert question form into statement form.
 - Change tenses (present → past).
 - Adjust time expressions (“today” → “that day”).
 - Modify pronouns as per the subject.

109. In the following questions groups of four words are given. In each group one word is correctly spelt. Find the correctly spelt word.

- (a) rennassance
- (b) renaissance

- (c) rennaissance
- (d) renaissance

Correct Answer: (B) renaissance

Solution: Step 1 (Target word and syllables): The correct spelling is derived from French *renaissance*, broken as re–nais–sance.

This gives the letter pattern: r e n a i s s a n c e (one n, double s, ending with –sance).

Step 2 (Check each option):

- (a) **rennaissance**: has **double n** at the start and **assa** before **nce** \Rightarrow incorrect.
- (b) **renaissance**: matches r e n a i s s a n c e (one n, double s, ends with –sance) \Rightarrow **correct**.
- (c) **rennaissance**: has **double n** and wrong ending –**scence** \Rightarrow incorrect.
- (d) **renaissance**: has **double n** \Rightarrow incorrect.

Hence, the correctly spelt word is (B) renaissance.

Quick Tip

Remember the syllables: re–nais–sance \Rightarrow one n, double s, ending –*sance*. Many misspellings add an extra n or change the ending to –*scence*.

110. In the following questions groups of four words are given. In each group one word is correctly spelt. Find the correctly spelt word.

- (a) ireparable
- (b) irreparable
- (c) irreparable
- (d) irepaireble

Correct Answer: (B) irreparable

Solution: Step 1 (Meaning and correct root): The word “irreparable” means “not able to be repaired.” It comes from the root “repair” with the prefix “ir-” (not) and suffix “-able.”
Correct structure: ir + repair + able \Rightarrow irreparable.

Step 2 (Check each option):

- (a) **ireparable**: missing an “r” after “ir-” \Rightarrow incorrect.
- (b) **irreparable**: matches the correct root (ir- + repair + able) \Rightarrow **correct**.
- (c) **irreparable**: includes double “r” after “ir” and a wrong “rr” spelling of “repair” \Rightarrow incorrect.
- (d) **irepaireable**: wrongly inserts the full word “repair” but adds extra letters \Rightarrow incorrect.

Hence, the correctly spelt word is (B) irreparable.

Quick Tip

Words with the prefix “ir-” usually mean “not” and are followed by a correct root word (like replace → irreplaceable, repair → irreparable). Check prefixes and suffixes carefully to avoid extra or missing letters.

General Knowledge

111. How many members can be nominated to both the Houses of the Parliament by the President?

- (A) 14
- (B) 16
- (C) 10
- (D) 12

Correct Answer: (A) 14

Solution: Step 1 (Rajya Sabha nominations): According to Article 80 of the Indian Constitution, the President of India can nominate **12 members** to the Rajya Sabha. These members are chosen for their contributions in the fields of literature, science, art, and social service.

Step 2 (Lok Sabha nominations): As per Article 331, the President may nominate **2 members** of the Anglo-Indian community to the Lok Sabha if he/she feels the community is not adequately represented. (Note: This provision was removed by the 104th Constitutional Amendment Act, 2019, but in the traditional constitutional framework, the answer includes this.)

Step 3 (Total nominations): Therefore, total nominated members by the President to both Houses are:

$$12 \text{ (Rajya Sabha)} + 2 \text{ (Lok Sabha)} = 14$$

Hence, the President can nominate 14 members in total.

Quick Tip

Remember: President nominates 12 members to Rajya Sabha (experts in art, literature, science, social service) and 2 Anglo-Indian members to Lok Sabha (until 2019). Always check for recent amendments in constitutional questions.

112. Under which Article of the Constitution can an individual move to the Supreme Court directly in case of any violation of Fundamental Rights?

- (A) Article 31
- (B) Article 32
- (C) Article 28
- (D) Article 29

Correct Answer: (B) Article 32

Solution: Step 1 (Understanding the right): Article 32 of the Indian Constitution provides the **Right to Constitutional Remedies**. It allows individuals to directly approach the Supreme Court if their Fundamental Rights are violated.

Step 2 (Dr. Ambedkar's view): Dr. B. R. Ambedkar described Article 32 as the “*heart and soul of the Constitution*” because it makes Fundamental Rights enforceable.

Step 3 (Writ jurisdiction): Under Article 32, the Supreme Court can issue writs such as *habeas corpus*, *mandamus*, *prohibition*, *quo warranto*, and *certiorari* to protect Fundamental Rights.

Step 4 (Checking other options):

- Article 31: Dealt with the Right to Property (removed as a Fundamental Right by the 44th Amendment, 1978).
- Article 28: Concerns freedom regarding religious instruction in educational institutions.
- Article 29: Provides protection of interests of minorities.

Therefore, the correct answer is Article 32.

Quick Tip

Always link Article 32 with “Right to Constitutional Remedies.” It empowers citizens to approach the Supreme Court directly, making Fundamental Rights truly enforceable.

113. The Dandi March of Gandhi is an example of

- (A) Non-Cooperation
- (B) Direct Action
- (C) Boycott
- (D) Civil Disobedience

Correct Answer: (D) Civil Disobedience

Solution: Step 1 (Background): The Dandi March, also known as the Salt March, was launched by Mahatma Gandhi on **12 March 1930**. Gandhi, along with his followers, marched from Sabarmati Ashram to Dandi (a coastal village in Gujarat) to protest against the British monopoly on salt production and the salt tax.

Step 2 (Nature of protest): The act of making salt from seawater by breaking the British law was a direct defiance of unjust laws. This aligns with the principle of **Civil Disobedience**,

which means deliberately and peacefully disobeying certain laws, demands, or commands of a government to protest injustice.

Step 3 (Eliminating other options):

- Non-Cooperation: This movement (1920–22) involved boycotting British goods, institutions, and titles, but the Dandi March was not part of it.
- Direct Action: This term is associated with aggressive political movements, particularly linked to communal politics in later years, not with Gandhi's peaceful march.
- Boycott: While boycott was a strategy in some movements, the Dandi March specifically demonstrated breaking a law rather than simply refusing goods.

Thus, the Dandi March is an example of Civil Disobedience.

Quick Tip

Remember: Non-Cooperation = withdrawal from institutions, Boycott = refusal to use goods, Civil Disobedience = breaking unjust laws peacefully. The Dandi March clearly falls under Civil Disobedience.

114. Inflation is caused by

- (A) decrease in production
- (B) increase in money supply and decrease in production
- (C) increase in money supply
- (D) increase in production

Correct Answer: (B) increase in money supply and decrease in production

Solution: Step 1 (Understanding inflation): Inflation refers to the sustained rise in the general price level of goods and services in an economy. It usually occurs when demand is higher than supply or when the cost of production increases.

Step 2 (Role of money supply): If the **money supply increases**, people have more purchasing power. This leads to higher demand for goods and services. If supply does not keep up, prices rise — leading to demand-pull inflation.

Step 3 (Role of production): If there is a **decrease in production**, the supply of goods shrinks. With constant or rising demand, fewer goods are chased by more money, causing prices to rise — this is cost-push inflation.

Step 4 (Checking options):

- (A) Decrease in production alone: Causes shortages, but without higher money supply, inflation may not be severe.
- (B) Increase in money supply & decrease in production: This is the most accurate cause, since it combines excess demand (due to more money) and limited supply (due to less production).
- (C) Increase in money supply alone: True, but not the complete explanation.

- (D) Increase in production: Generally reduces inflation as supply increases.

Therefore, inflation is mainly caused by increase in money supply and decrease in production.

Quick Tip

Remember: Inflation = “too much money chasing too few goods.” Both rising money supply and falling production together intensify inflationary pressures.

115. Dumping is a form of price discrimination at

- (A) local level
- (B) within industry
- (C) national level
- (D) international level

Correct Answer: (D) international level

Solution: Step 1 (Definition of dumping): Dumping occurs when a country or company exports a product to another country at a price lower than its normal domestic price or below the cost of production. It is used to capture foreign markets by undercutting competitors.

Step 2 (Why it is price discrimination): Price discrimination means selling the same product at different prices in different markets. In dumping, producers charge higher prices domestically and lower prices internationally, which qualifies as discrimination.

Step 3 (Checking the levels):

- (A) Local level: This would imply different pricing within a town or small region, not relevant here.
- (B) Within industry: Refers to competition inside a domestic industry, not the concept of dumping.
- (C) National level: Price differences inside a single country, not dumping.
- (D) International level: Correct, as dumping specifically refers to selling goods abroad at unfairly low prices compared to home markets.

Thus, dumping is a form of price discrimination at the international level.

Quick Tip

Dumping = “selling abroad at cheaper rates than at home.” Always connect dumping with **international trade and unfair pricing practices**.

116. The equilibrium of a firm under perfect competition will be determined when

- (A) Marginal Cost > Average Cost
- (B) Marginal Revenue > Average Cost
- (C) Marginal Revenue > Average Revenue
- (D) Marginal Revenue = Marginal Cost

Correct Answer: (D) Marginal Revenue = Marginal Cost

Solution: Step 1 (Understanding perfect competition): In perfect competition, firms are price takers. This means the price is determined by the market, and each firm can sell as much as it wants at that price.

Step 2 (Revenue conditions): For a perfectly competitive firm, Price (P) = Average Revenue (AR) = Marginal Revenue (MR). So, revenue curves are horizontal at the market price.

Step 3 (Profit-maximization rule): A firm reaches equilibrium (maximum profit or minimum loss) when its **Marginal Cost (MC)** equals **Marginal Revenue (MR)**. That is:

$$\text{Equilibrium Condition: } MR = MC$$

Step 4 (Stability condition): For stable equilibrium, the MC curve must cut the MR curve from below (i.e., MC must rise after intersecting MR).

Step 5 (Checking options):

- (A) $MC > AC$: This is not the condition for equilibrium; it may indicate diseconomies of scale.
- (B) $MR > AC$: This condition only shows the firm earns supernormal profit, not equilibrium.
- (C) $MR > AR$: Not possible in perfect competition, since $MR = AR$.
- (D) $MR = MC$: Correct condition for equilibrium.

Hence, under perfect competition, equilibrium is attained when $MR = MC$.

Quick Tip

Always remember: In perfect competition, $P = AR = MR$. Equilibrium occurs at the point where $MC = MR$, with MC rising after the point of intersection.

117. Match correctly the following, deserts and their location by choosing the correct response:

- | | |
|-------------------|------------------|
| A. Kalahari | 1. South America |
| B. Atacama | 2. Australia |
| C. Thar | 3. Africa |
| D. Great Victoria | 4. Asia |

- (A) A-3, B-1, C-4, D-2
- (B) A-2, B-3, C-1, D-4

- (C) A-4, B-3, C-2, D-1
(D) A-3, B-2, C-1, D-4

Correct Answer: (A) A-3, B-1, C-4, D-2

Solution: Step 1 (Kalahari Desert): The Kalahari Desert is located in **Southern Africa**, covering Botswana, Namibia, and parts of South Africa. Hence, Kalahari \Rightarrow (3) Africa.

Step 2 (Atacama Desert): The Atacama Desert is located in **Chile**, along the western coast of South America. Hence, Atacama \Rightarrow (1) South America.

Step 3 (Thar Desert): The Thar Desert, also known as the Great Indian Desert, is situated in **India and Pakistan** in Asia. Hence, Thar \Rightarrow (4) Asia.

Step 4 (Great Victoria Desert): The Great Victoria Desert is located in **Australia**. Hence, Great Victoria \Rightarrow (2) Australia.

Step 5 (Final matching):

A-3 (Kalahari-Africa), B-1 (Atacama-South America), C-4 (Thar-Asia), D-2 (Great Victoria-Australia).

Therefore, the correct matching is Option (A).

Quick Tip

To memorize deserts and their locations: - Kalahari \rightarrow Africa, - Atacama \rightarrow South America, - Thar \rightarrow Asia (India), - Great Victoria \rightarrow Australia. Link each desert with its continent for easier recall.

118. Which one of the following institutes in List I is wrongly matched with its location indicated in List II?

- (A) Central Institute of Mining Dhanbad and Fuel Research
(B) Central Building Research Roorkee Institute
(C) Central Arid Zone Jodhpur Research Institute
(D) Central Drug Research Kanpur Institute

Correct Answer: (D) Central Drug Research Kanpur Institute

Solution: Step 1 (Checking each institute):

- The **Central Institute of Mining and Fuel Research (CIMFR)** is correctly located at **Dhanbad, Jharkhand**.
- The **Central Building Research Institute (CBRI)** is correctly located at **Roorkee, Uttarakhnad**.
- The **Central Arid Zone Research Institute (CAZRI)** is correctly located at **Jodhpur, Rajasthan**.

- The **Central Drug Research Institute (CDRI)** is actually located at **Lucknow, Uttar Pradesh**, not Kanpur.

Step 2 (Identifying mismatch): Since CDRI is at Lucknow, the statement “Central Drug Research Kanpur Institute” is wrongly matched.

Thus, the incorrect match is Option (D).

Quick Tip

Memorize key CSIR institutes with their correct locations: CIMFR–Dhanbad, CBRI–Roorkee, CAZRI–Jodhpur, CDRI–Lucknow. Location-based questions often test such pairs.

119. In which one of the following films did Pran act as a character artist and not in the role of a villain?

- (A) Himalaya Ki Godh Mein
- (B) Ram aur Shyam
- (C) Zanjeer
- (D) Madhumati

Correct Answer: (C) Zanjeer

Solution: Step 1 (Background on Pran): Pran was one of Bollywood’s most famous actors, known especially for his roles as a villain from the 1940s to the 1960s. However, in the later part of his career, he successfully transitioned into strong **character roles**.

Step 2 (About Zanjeer): In the 1973 film **Zanjeer**, starring Amitabh Bachchan, Pran played the iconic role of **Sher Khan**, a Pathan who reforms and becomes a loyal friend of the hero. This role was not negative but rather a strong character role that added depth to the film.

Step 3 (Other options):

- (A) **Himalaya Ki Godh Mein** (1965): Pran acted in a negative role.
- (B) **Ram aur Shyam** (1967): Again, Pran was cast as a villain.
- (D) **Madhumati** (1958): Pran played a negative role.

Thus, in Zanjeer, Pran acted as a character artist and not as a villain.

Quick Tip

Remember: Pran’s turning point came with “Zanjeer” (1973), where his role as Sher Khan redefined him as a beloved character actor beyond villain roles.

Q.120 Who was the first posthumous recipient of Bharat Ratna?

- (A) M.G. Ramachandran
- (B) B.R. Ambedkar
- (C) K. Kamraj
- (D) Lal Bahadur Shastri

Correct Answer: (D) Lal Bahadur Shastri

Solution: Step 1 (About Bharat Ratna): Bharat Ratna is the highest civilian award of India, instituted in 1954. It is awarded for exceptional service in art, literature, science, and public service of the highest order.

Step 2 (Posthumous awards): Initially, the Bharat Ratna was not meant to be awarded posthumously. However, this rule was changed in 1966 after the sudden death of Prime Minister Lal Bahadur Shastri.

Step 3 (First posthumous awardee): Lal Bahadur Shastri, India's second Prime Minister, passed away in Tashkent in January 1966 soon after signing the Tashkent Agreement. He was awarded the Bharat Ratna posthumously in the same year (1966), making him the **first posthumous recipient**.

Step 4 (Checking other options):

- (A) M.G. Ramachandran: Received Bharat Ratna posthumously in 1988, but not the first.
- (B) B.R. Ambedkar: Honored posthumously in 1990, but later.
- (C) K. Kamraj: Awarded posthumously in 1976, but again after Shastri.

Thus, Lal Bahadur Shastri was the first posthumous recipient of Bharat Ratna.

Quick Tip

Remember: The first posthumous Bharat Ratna was conferred on Lal Bahadur Shastri in 1966. After him, many leaders like M.G. Ramachandran, K. Kamraj, and B.R. Ambedkar were honored posthumously.

Q.121 Which country won the ICC Women's World Cup held in February 2013?

- (A) India
- (B) New Zealand
- (C) England
- (D) Australia

Correct Answer: (D) Australia

Solution: Step 1: The ICC Women's World Cup 2013 was hosted by India. The final was played on **17 February 2013** at Mumbai's Brabourne Stadium.

Step 2: Australia defeated West Indies in the final to win the Cup.

Step 3: This was Australia's **sixth Women's World Cup title**, making them the most successful team in the tournament's history.

Hence, the winner was Australia.

Quick Tip

Australia is the most successful women's cricket team, with multiple World Cup titles. Remember 2013 = Australia's 6th win.

Q.122 Which country's currency is Ngultrum?

- (A) Bhutan
- (B) Laos
- (C) Bangladesh
- (D) Nepal

Correct Answer: (A) Bhutan

Solution: Step 1: The Ngultrum (BTN) is the official currency of **Bhutan**.

Step 2: It was introduced in 1974, replacing the Indian rupee as the sole official currency, though the rupee is still accepted.

Step 3: The Ngultrum is pegged to the Indian rupee at par (1 BTN = 1 INR).

Thus, Ngultrum is the currency of Bhutan.

Quick Tip

Remember: Ngultrum = Bhutan, Taka = Bangladesh, Kip = Laos, Rupee = Nepal. Currency-country pairs are common in GK exams.

Q.123 Which of the following is not a characteristic of the Indian economy?

- (A) Primacy of agriculture
- (B) Balance between heavy industry and wage goods
- (C) Population pressure
- (D) Low per capita income

Correct Answer: (B) Balance between heavy industry and wage goods

Solution: Step 1 (Characteristics of Indian economy): The Indian economy has traditionally been characterized by: - Dependence on agriculture, - High population growth and pressure, - Low per capita income, - Unemployment and underemployment.

Step 2 (Option analysis):

- (A) Primacy of agriculture: Correct characteristic, since agriculture employs a large share of population.
- (B) Balance between heavy industry and wage goods: This is an **ideal economic planning goal** but not a real feature of the Indian economy. The Indian economy has been unbalanced with over-dependence on agriculture and service sector rather than equal balance. ⇒ **Not a characteristic.**
- (C) Population pressure: True, as India is the most populous country.
- (D) Low per capita income: Correct, as India's average income remains low compared to developed nations.

Hence, Option (B) is not a characteristic of the Indian economy.

Quick Tip

Indian economy = agriculture-dependent, overpopulation, low per capita income. Be careful of “ideal planning goals” like balance of industry and wage goods — these are not actual features.

Q.124 Term 'Federal' has been used in the Indian Constitution in:

- (A) Part-III
- (B) Article-368
- (C) Nowhere in the Constitution
- (D) Preamble

Correct Answer: (C) Nowhere in the Constitution

Solution: Step 1: The Indian Constitution never explicitly uses the word “federal.” Instead, it describes India as a “Union of States” (Article 1).

Step 2: Dr. B.R. Ambedkar clarified in the Constituent Assembly that India is not federal in the traditional sense but a union with strong centralizing features.

Step 3: Hence, the term “federal” is not found in the Constitution, neither in the Preamble nor in any Article.

The word 'Federal' is not used anywhere in the Constitution.

Quick Tip

Remember: India = “Union of States,” not “federal” explicitly. Central supremacy is a key feature.

Q.125 An employment situation where the marginal productivity of agricultural labour is zero is known as:

- (A) Seasonal unemployment
- (B) Cyclical unemployment
- (C) Disguised unemployment
- (D) Disguised employment

Correct Answer: (D) Disguised employment

Solution: Step 1: Disguised employment (or disguised unemployment) refers to a situation where more workers are engaged in a job than actually required.

Step 2: In agriculture, if some workers are withdrawn, total output remains unchanged. This means their marginal productivity = 0.

Step 3: The term “disguised employment” captures this scenario best in the given options.

Thus, the correct term is disguised employment.

Quick Tip

Disguised employment = zero marginal productivity. Common in overpopulated agricultural economies.

Q.126 Which one of the following National Park/Sanctuary is not in Rajasthan?

- (A) Sariska National Park
- (B) Sambar Wildlife Sanctuary
- (C) Rajaji National Park
- (D) Ranthambore National Park

Correct Answer: (C) Rajaji National Park

Solution: Step 1: Rajasthan has several famous protected areas such as Sariska (Alwar), Ranthambore (Sawai Madhopur), and Sambhar Lake sanctuary.

Step 2: Rajaji National Park, however, is located in **Uttarakhand**, near Haridwar, Dehradun, and Rishikesh.

Step 3: Hence, Rajaji is the one not located in Rajasthan.

Therefore, Rajaji National Park is the correct answer.

Quick Tip

Link Rajasthan with Sariska + Ranthambore + Sambhar. Rajaji belongs to Uttarakhand.

Q.127 The National Income of a country is:

- (A) the annual revenue of the Government
- (B) sum total of factor incomes

- (C) surplus of PSU's
- (D) export minus import

Correct Answer: (B) sum total of factor incomes

Solution: Step 1: National Income refers to the total value of all goods and services produced in a country in one year, evaluated in terms of income earned.

Step 2: It is calculated as the **sum of factor incomes** (wages, rent, interest, profit) earned by the factors of production (labour, land, capital, entrepreneurship).

Step 3: Other options are misleading: government revenue is only a part, PSU surplus is limited, and exports–imports define Net Exports, not NI.

Hence, NI = sum of factor incomes.

Quick Tip

National Income = wages + rent + interest + profit. Remember the “factor income” definition for accuracy.

Q.128 Inflation in India is measured on which of the following indexes / indicators?

- (A) Cost of Living Index (CLI)
- (B) Consumer Price Index (CPI)
- (C) Gross Domestic Product (GDP)
- (D) Wholesale Price Index (WPI)

Correct Answer: (D) Wholesale Price Index (WPI)

Solution: Step 1: Inflation refers to the sustained rise in the general price level of goods and services.

Step 2: In India, inflation was traditionally measured using the **Wholesale Price Index (WPI)**, which tracks changes in the prices of goods traded in bulk.

Step 3: Recently, Consumer Price Index (CPI) has also gained importance for policy, but the conventional exam answer remains WPI.

Thus, inflation in India is measured by WPI.

Quick Tip

WPI = traditional measure, CPI = now used for inflation targeting by RBI. Remember both, but exams usually ask WPI.

Q.129 TRIPS (Trade Related Aspects of Intellectual Property Rights) agreement is administered by:

- (A) UNCTAD
- (B) UNO
- (C) WTO
- (D) World Bank

Correct Answer: (C) WTO

Solution: Step 1: TRIPS is a comprehensive multilateral agreement on intellectual property rights.

Step 2: It was negotiated during the **Uruguay Round (1986–94)** of GATT.

Step 3: When the WTO (World Trade Organization) was established in 1995, TRIPS came under its administration.

Thus, TRIPS is administered by the WTO.

Quick Tip

TRIPS = WTO. Always connect TRIPS with Uruguay Round and WTO's global trade rules.

Q.130 Which one of the following Institutions publishes the report of 'World Economic Outlook'?

- (A) IMF
- (B) World Bank
- (C) RBI
- (D) UNCTAD

Correct Answer: (A) IMF

Solution: Step 1: The **International Monetary Fund (IMF)** publishes the World Economic Outlook (WEO).

Step 2: This report is published twice a year and provides analysis of global economic developments, growth projections, and policy recommendations.

Step 3: Other institutions have different reports, e.g., World Bank publishes World Development Report, RBI publishes Annual Reports, UNCTAD publishes Trade and Development Report.

Thus, the IMF publishes the World Economic Outlook.

Quick Tip

IMF → World Economic Outlook, World Bank → World Development Report, UNCTAD → Trade & Development Report. Learn report–institution pairs.

Q.131 Which one of the following is the correct sequence of the countries having Foreign Exchange Reserve from high to low?

- (A) China – Russia – India – France
- (B) China – France – India – Russia
- (C) France – China – Russia – India
- (D) France – China – India – Russia

Correct Answer: (A) China – Russia – India – France

Solution: Step 1: As per global rankings, China has the world's largest foreign exchange reserves (over \$3 trillion).

Step 2: Russia follows with significant reserves due to its energy exports.

Step 3: India comes next, being one of the top five in the world.

Step 4: France has relatively smaller reserves compared to these three.

Thus, the order is China Russia India France.

Quick Tip

Remember the top forex reserves: China always leads, followed by Russia and India. France has much smaller reserves.

Q.132 Which one of the following is correctly matched?

- (A) Kospi Index: South Korea
- (B) TSEC Weighted Index: Thailand
- (C) SET Index: China
- (D) All of the above

Correct Answer: (A) Kospi Index: South Korea

Solution: Step 1: The Kospi (Korea Composite Stock Price Index) is the benchmark stock market index of **South Korea**.

Step 2: Other options are mismatched: - TSEC Weighted Index belongs to **Taiwan**, not Thailand. - SET Index refers to **Thailand**, not China.

Thus, only Option (A) is correctly matched.

Quick Tip

Remember: Kospi = South Korea, Nikkei = Japan, SET = Thailand, TSEC = Taiwan. These are common GK index-location pairs.

Q.133 Which of the following is not a chief organ of the United Nations Organisations?

- (A) International Labour Organisation
- (B) Security Council
- (C) International Court of Justice
- (D) General Assembly

Correct Answer: (A) International Labour Organisation

Solution: Step 1: The United Nations has six principal organs: General Assembly, Security Council, Economic and Social Council, Trusteeship Council, International Court of Justice, and the Secretariat.

Step 2: The International Labour Organisation (ILO) is a specialized agency of the UN, but not one of its chief organs.

Thus, ILO is not a chief organ of the UN.

Quick Tip

Chief organs = 6 (GA, SC, ECOSOC, ICJ, Trusteeship, Secretariat). Agencies like ILO, WHO, UNESCO are specialized but not chief organs.

Q.134 Permanent Secretariat to coordinate the implementation of SAARC programme is located at:

- (A) Dhaka
- (B) Kathmandu
- (C) Colombo
- (D) New Delhi

Correct Answer: (B) Kathmandu

Solution: Step 1: SAARC (South Asian Association for Regional Cooperation) was established in 1985.

Step 2: Its **permanent Secretariat** is located in **Kathmandu, Nepal**.

Step 3: This Secretariat coordinates SAARC activities and ensures implementation of decisions taken during summits.

Hence, the SAARC Secretariat is located at Kathmandu.

Quick Tip

SAARC HQ = Kathmandu. Founded in 1985 with 7 members (India, Pakistan, Nepal, Bhutan, Bangladesh, Sri Lanka, Maldives); later Afghanistan joined.

Q.135 Which of the following describe correctly the Group of Seven Countries (G-7)?

- (A) They are industrialised countries
- (B) They are developing countries
- (C) They are holding Atomic Bomb technology
- (D) They are countries who can launch their own satellites

Correct Answer: (A) They are industrialised countries

Solution: Step 1: The Group of Seven (G7) consists of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.

Step 2: These are highly industrialised and advanced economies.

Step 3: They are not grouped based on atomic bomb technology or space capabilities, but on economic and industrial strength.

Hence, the G-7 are industrialised countries.

Quick Tip

Remember G7 = Canada, France, Germany, Italy, Japan, UK, USA — all advanced economies.

Q.136 Which of the following countries is not a member of Group 15 developing countries?

- (A) Mexico
- (B) Brazil
- (C) Malaysia
- (D) Bolivia

Correct Answer: (D) Bolivia

Solution: Step 1: The Group of 15 (G-15) was established in 1989 as an organisation of developing countries from Africa, Asia, and Latin America.

Step 2: Members include India, Mexico, Brazil, Malaysia, Argentina, Indonesia, Egypt, and others.

Step 3: Bolivia, however, is not a member of the G-15.

Therefore, Bolivia is not a member of the G-15.

Quick Tip

G-15 = coalition of developing nations; Bolivia is not included. Check member lists for such questions.

Q.137 The headquarters of Food and Agriculture Organisation is in:

- (A) Madrid
- (B) Rome
- (C) Washington
- (D) Paris

Correct Answer: (B) Rome

Solution: Step 1: The Food and Agriculture Organization (FAO) is a specialized agency of the United Nations.

Step 2: It was founded in 1945 and works on defeating hunger, improving nutrition, and ensuring food security.

Step 3: The FAO headquarters is located in **Rome, Italy**.

Thus, the FAO headquarters is in Rome.

Quick Tip

FAO HQ = Rome. Associate Rome with FAO, WFP, and IFAD (all food-related UN bodies).

Q.138 The headquarters of the UNESCO is at:

- (A) Geneva
- (B) Rome
- (C) Paris
- (D) New York

Correct Answer: (C) Paris

Solution: Step 1: UNESCO (United Nations Educational, Scientific and Cultural Organization) is a UN agency that promotes education, culture, and heritage.

Step 2: It was established in 1945.

Step 3: Its headquarters is located in **Paris, France**.

Hence, UNESCO headquarters is in Paris.

Quick Tip

UNESCO = Paris, WHO = Geneva, FAO = Rome, UNICEF = New York. Learn HQ locations with acronyms.

Q.139 Amnesty International is an organisation associated with which of the following fields?

- (A) Protection of Cruelty to animals
- (B) Protection of human rights
- (C) Protection of historic monuments
- (D) Environment protection

Correct Answer: (B) Protection of human rights

Solution: Step 1: Amnesty International is a non-governmental organisation founded in 1961.

Step 2: It works worldwide to promote and protect **human rights**, focusing on issues such as freedom of speech, abolition of torture, political imprisonment, and fair trials.

Step 3: Other options (animals, monuments, environment) are not the focus of Amnesty International.

Amnesty International is dedicated to human rights protection.

Quick Tip

Amnesty International = Human Rights. Founded in 1961, Nobel Peace Prize 1977.

Q.140 The United Nations Conference on Trade and Development (UNCTAD) is located at which of the following places?

- (A) Vienna
- (B) Geneva
- (C) Rome
- (D) Paris

Correct Answer: (B) Geneva

Solution: Step 1: UNCTAD (United Nations Conference on Trade and Development) was established in 1964 to deal with development issues, trade, investment, and technology transfer.

Step 2: Its **headquarters is in Geneva, Switzerland.**

Step 3: It works closely with WTO and other UN agencies.

Thus, UNCTAD headquarters is at Geneva.

Quick Tip

UNCTAD = Geneva. Don't confuse with UNESCO (Paris) or FAO (Rome).

Q.141 'Dans le harem de Kadhafi' is a book written by:

- (A) Lewis Hamilton
- (B) Annick Cojean
- (C) Barak Obama
- (D) Vladimir Putin

Correct Answer: (B) Annick Cojean

Solution: Step 1: The book “**Dans le harem de Kadhafi**” (In Gaddafi’s Harem) was authored by French journalist **Annick Cojean**.

Step 2: It exposes the abuse of women by Libyan dictator Muammar Gaddafi, revealing human rights violations.

Step 3: Other options are incorrect: Lewis Hamilton is a racer, Obama wrote his own political memoirs, and Putin did not author this book.

Hence, the book is written by Annick Cojean.

Quick Tip

French journalist Annick Cojean wrote “Dans le harem de Kadhafi.” Link the title with Libya and Gaddafi.

Q.142 12th Five Year Plan will be for the period of:

- (A) 2010–2015
- (B) 2015–2020
- (C) 2011–2016
- (D) 2012–2017

Correct Answer: (D) 2012–2017

Solution: Step 1: India’s Five Year Plans were centralised economic plans initiated in 1951.

Step 2: The **12th Five Year Plan** was the last official plan before the Planning Commission was dissolved.

Step 3: It covered the period **2012–2017**, focusing on “Faster, More Inclusive and Sustainable Growth.”

Thus, the 12th Plan was from 2012–2017.

Quick Tip

12th Plan (2012–17) = last official plan. Planning Commission replaced by NITI Aayog in 2015.

Q.143 Which one of the following is an important historical novel written during the latter half of the nineteenth century?

- (A) Rast Goftar
- (B) Durgesh Nandini
- (C) Maratha
- (D) Nibandhamala

Correct Answer: (B) Durgesh Nandini

Solution: Step 1: Historical novels became popular in 19th century Bengal due to the influence of Bankim Chandra Chattopadhyay.

Step 2: His first historical novel was **Durgesh Nandini** (published in 1865).

Step 3: The other options are not historical novels of this kind: - **Rast Goftar** was a newspaper started by Dadabhai Naoroji.

- **Maratha** refers to a community, not a novel.

- **Nibandhamala** is a collection of essays by Vishnushastri Chiplunkar.

Thus, the correct answer is Durgesh Nandini.

Quick Tip

Bankim Chandra Chattopadhyay = father of Indian historical novels. First = Durgesh Nandini (1865).

Q.144 The river Sone is a tributary of which one of the following rivers?

- (A) Ganga
- (B) Yamuna
- (C) Narmada
- (D) Mahanadi

Correct Answer: (A) Ganga

Solution: Step 1: The Son (Sone) River originates from Amarkantak Plateau in Madhya Pradesh.

Step 2: It flows north-east through Madhya Pradesh, Uttar Pradesh, Jharkhand, and Bihar.

Step 3: Finally, it joins the **Ganga River** near Patna.

Sone is a tributary of the Ganga.

Quick Tip

Remember: Sone joins Ganga near Patna (Bihar).

Q.145 When you travel in certain parts of India, you will notice red soil. What is the main reason for this colour?

- (A) Abundance of magnesium
- (B) Accumulated humus
- (C) Presence of ferric oxides
- (D) Abundance of phosphates

Correct Answer: (C) Presence of ferric oxides

Solution: Step 1: Red soils are common in Tamil Nadu, Karnataka, Andhra Pradesh, Odisha, and Chhattisgarh.

Step 2: The red colour is due to the presence of **iron oxides (ferric oxides)** in the soil.

Step 3: When hydrated, it sometimes appears yellow.

Step 4: Other options (magnesium, humus, phosphates) are not responsible for the colour.

Hence, the red colour is due to ferric oxides.

Quick Tip

Red soil = Ferric oxides (iron). Yellow soil = hydrated form.

Q.146 Ankaleshwar and Navagaon are two oil fields in:

- (A) Gujarat
- (B) Bihar
- (C) West Bengal
- (D) Assam

Correct Answer: (A) Gujarat

Solution: Step 1: Ankaleshwar and Navagaon are located in **Gujarat**.

Step 2: Gujarat is an important petroleum-producing state, with oil fields in Ankaleshwar, Kalol, Mehsana, and Cambay Basin.

Step 3: Assam (e.g., Digboi, Naharkatiya) also has oil fields but not these two.

Thus, Ankaleshwar and Navagaon are in Gujarat.

Quick Tip

Gujarat = Ankaleshwar, Cambay Basin. Assam = Digboi, Naharkatiya.

Q.147 The award is given in the field of agriculture:

- (A) Bhatnagar Award
- (B) Bourlog Award
- (C) Dhanwantari Award
- (D) Kaling Award

Correct Answer: (B) Bourlog Award

Solution: Step 1: The **Borlaug Award** is given in recognition of outstanding contributions in the field of agriculture and food security.

Step 2: It is named after **Norman Borlaug**, the father of the Green Revolution.

Step 3: Other awards: - **Bhatnagar Award** = Science.

- **Dhanwantari Award** = Medical science.

- **Kaling Award** = Science popularisation.

Thus, Borlaug Award is for agriculture.

Quick Tip

Borlaug Award = Agriculture (Norman Borlaug → Green Revolution).

Q.148 Name the Tennis Legend who has been honoured with her name inclusion in Tennis Hall of Fame.

- (A) Tracy Austin
- (B) Martina Hingis
- (C) Hana Mandlikova
- (D) Bjorn Borg

Correct Answer: (B) Martina Hingis

Solution: Step 1: The International Tennis Hall of Fame inducts tennis legends for their outstanding contribution.

Step 2: Martina Hingis, a former World No. 1 from Switzerland, won multiple Grand Slam singles and doubles titles in the late 1990s and early 2000s.

Step 3: Due to her achievements and dominance in women's tennis, she was inducted into the Tennis Hall of Fame in 2013.

Step 4: Other options: - Tracy Austin (also a legend, but inducted earlier).

- Hana Mandlikova (inducted in 1994).

- Bjorn Borg (male player, inducted 1987).

Thus, the honoured player in this question is Martina Hingis.

Quick Tip

Martina Hingis → Swiss tennis star, youngest World No. 1, inducted in Hall of Fame 2013.

Q.149 The Golden Globe Awards are presented by:

- (A) National Academy of Recording Arts and Sciences
- (B) Hollywood Foreign Press Association (HFPA)
- (C) American Theatre Wing and The Broadway League
- (D) Academy of Motion Picture Arts and Sciences

Correct Answer: (B) Hollywood Foreign Press Association (HFPA)

Solution: Step 1: The Golden Globe Awards honour achievements in film and television.

Step 2: They are presented annually by the **Hollywood Foreign Press Association (HFPA)**.

Step 3: Clarifying the incorrect options: - (A) National Academy of Recording Arts and Sciences → presents Grammy Awards.

- (C) American Theatre Wing and The Broadway League → present the Tony Awards.

- (D) Academy of Motion Picture Arts and Sciences → presents the Oscars (Academy Awards).

Thus, Golden Globes = HFPA.

Quick Tip

Golden Globe = HFPA (film + TV), Grammy = music, Tony = theatre, Oscar = films.

Q.150 Which one of the following is not a football tournament?

- (A) I-League
- (B) Irani Trophy
- (C) Bardoloi Trophy
- (D) Durand Cup

Correct Answer: (B) Irani Trophy

Solution: Step 1: Among the given options, three are football tournaments and one is related to cricket.

Step 2: Irani Trophy is a cricket tournament played in India between Ranji Trophy winners and the Rest of India team.

Step 3: The other three are football tournaments: - **I-League** → Indian football league competition.

- **Bardoloi Trophy** → football tournament in Assam.

- **Durand Cup** → oldest football tournament in India (founded in 1888).

Thus, Irani Trophy is not a football tournament.

Quick Tip

Irani Trophy → Cricket; Durand Cup, Bardoloi Trophy, I-League → Football.