

SNAP 2013 Question Paper With solution

Time Allowed :2 Hours	Maximum Marks :150	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 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.

1 Quantitative Aptitude

1. 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: Understanding the Concept:

We are given averages and total average; use relation $\text{Average} = \text{Sum} / \text{Number of terms}$ to find the missing term.

Step 2: Key Formula or Approach:

Use sums derived from averages.

Step 3: Detailed Explanation:

Total of five numbers $= 5 \times 61 = 305$.

Sum of first and third numbers $= 2 \times 69 = 138$.

Sum of second and fourth numbers $= 2 \times 69 = 138$.

Therefore the fifth number = $305 - (138 + 138) = 305 - 276 = 29$.

Step 4: Final Answer:

Fifth number = 29.

Quick Tip

When several averages are given, convert each average into the actual sum and then combine to eliminate unknowns quickly.

2. 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: Understanding the Concept:

55% of income is split in ratio 4 : 2 : 5 i.e. total 11 parts.

Step 2: Key Formula or Approach:

Find value of one part from clothes = 2 parts and then compute full 11 parts which equals 55% of income.

Step 3: Detailed Explanation:

Clothes correspond to 2 parts = 5540.

So one part = $\frac{5540}{2} = 2770$.

Total of 11 parts = $11 \times 2770 = 30,470$.

This 30,470 is 55% of monthly income.

Hence monthly income = $\frac{30,470}{0.55} = 55,400$.

Step 4: Final Answer:

Monthly income = 55,400.

Quick Tip

Convert ratio-parts to absolute amounts by finding the value of one part; remember percentages of income often map to a group of ratio-parts.

3. 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: Understanding the Concept:

Simple interest gives relation to find principal; compound interest for 2 years at 8% computed via $A = P(1 + r)^2$.

Step 2: Key Formula or Approach:

Simple interest: $SI = \frac{P \times r \times t}{100}$.

Compound interest for 2 years: $CI = P\left((1 + \frac{r}{100})^2 - 1\right)$.

Step 3: Detailed Explanation:

Given $SI = 6500$ for $t = 8$ years at $r = 13\%$.

So $\frac{P \times 13 \times 8}{100} = 6500$.

Thus

$$P = \frac{6500 \times 100}{13 \times 8} = \frac{650000}{104} = 6250.$$

Now compute amount after 2 years at 8%:

$$A = 6250 \times (1.08)^2 = 6250 \times 1.1664 = 7290.$$

Compound interest = $A - P = 7290 - 6250 = 1040$.

Step 4: Final Answer:

Compound interest = 1040.

Quick Tip

When SI is given for multi-year period, immediately find Principal; then apply compound-interest formula for required years.

4. 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: Understanding the Concept:

Translate work rates into algebra using woman's one-day work = x and man's = $2x$.

Step 2: Key Formula or Approach:

Total work = (daily work) $\times$ days.

Step 3: Detailed Explanation:

One woman's one-day work = x .

One man's one-day work = $2x$.

Daily work of 8 men and 4 women = $8(2x) + 4(x) = 16x + 4x = 20x$.

Total work = $20x \times 6 = 120x$.

Work done in first 2 days = $2 \times 20x = 40x$.

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

After change: men = $8 - 4 = 4$ and women = $4 + 4 = 8$.

New daily work = $4(2x) + 8(x) = 8x + 8x = 16x$.

Days to finish = $\frac{80x}{16x} = 5$ days.

Step 4: Final Answer:

Required additional days = 5 days.

Quick Tip

Translate "after change" situations into fresh daily rates; cancelling a common x often simplifies to numbers.

5. 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: Understanding the Concept:

Fencing cost gives circumference; from circumference find radius then area then flooring cost.

Step 2: Key Formula or Approach:

Circumference $C = 2\pi r$.

Area $= \pi r^2$.

Flooring cost $= \text{Area} \times \text{rate per sq m}$.

Step 3: Detailed Explanation:

Fencing cost = 3300 at 15/m means circumference $= \frac{3300}{15} = 220$ m.

So $2\pi r = 220 \Rightarrow r = \frac{110}{\pi}$.

Area $= \pi r^2 = \pi \left(\frac{110}{\pi} \right)^2 = \frac{12100}{\pi}$ sq m.

Flooring cost at 100/sq m $= 100 \times \frac{12100}{\pi} = \frac{1,210,000}{\pi}$.

Numerical value $\approx \frac{1,210,000}{3.1416} \approx 385,059$.

Closest option = 385,000.

Step 4: Final Answer:

Cost $\approx 385,000$ (Option A).

Quick Tip

When circumference is given via fencing cost, compute radius exactly then area; final numeric may require approximating π .

6. 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: Understanding the Concept:

Translate relative-score statements into equations to find absolute scores and maximum marks, then percentage.

Step 2: Key Formula or Approach:

Use given differences to compute each student's score; $\text{percentage} = \frac{\text{score}}{\text{max}} \times 100$.

Step 3: Detailed Explanation:

Rohan = 75 and this is 10 more than Sonia, so Sonia = $75 - 10 = 65$.

Rohit = Sonia + 45 = $65 + 45 = 110$.

Raman = Rohit - 25 = $110 - 25 = 85$.

Ravi = Raman + 34 = $85 + 34 = 119$.

Given Ravi's score is 50 less than maximum marks M , so $M - 50 = 119 \Rightarrow M = 169$.

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

Step 4: Final Answer:

Approximate percentage $\approx 70\%$.

Quick Tip

Chain the given differences step-by-step; compute maximum only when a relation to maximum is provided.

7. 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: Understanding the Concept:

Find helicopter speed from the relation and then multiply by 18 h.

Step 2: Key Formula or Approach:

Distance = speed $\times$ time.

Step 3: Detailed Explanation:

Distance covered by aeroplane in 9 h = $756 \times 9 = 6804$ km.

Twice that distance = $2 \times 6804 = 13,608$ km.

Helicopter covers 13,608 km in 48 h, so speed = $\frac{13,608}{48} = 283.5$ km/h.

Distance in 18 h = $283.5 \times 18 = 5103$ km.

Step 4: Final Answer:

Helicopter covers 5103 km in 18 h.

Quick Tip

When given "twice the distance covered in 9 h", compute airplane distance first, then scale and find helicopter speed; watch units carefully.

8. 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: Understanding the Concept:

Compute combined weighted average using total weight and total people.

Step 2: Key Formula or Approach:

$$\text{Combined average} = \frac{\text{sum of weights}}{\text{total people}}.$$

Step 3: Detailed Explanation:

Total weight of men = $19 \times 74 = 1406$ kg.

Total weight of women = $38 \times 63 = 2394$ kg.

Combined weight = $1406 + 2394 = 3800$ kg.

Total people = $19 + 38 = 57$.

$$\text{Average} = \frac{3800}{57} \approx 66.666 \dots \Rightarrow \text{rounded to nearest integer} = 67 \text{ kg}.$$

Step 4: Final Answer:

Average weight = 67 kg (rounded).

Quick Tip

Use total sum and total count directly for mixed-group averages; do not first compute averages separately then average those averages.

9. 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: Understanding the Concept:

Percentages after the first 50% refer to the remaining 50% of income.

Step 2: Key Formula or Approach:

Compute remaining fraction saved and equate to 900.

Step 3: Detailed Explanation:

Income = I .

After household 50% remains = $0.5I$.

From this remaining $0.5I$: transport = 50% of remaining = $0.5 \times 0.5I = 0.25I$.

Entertainment = 25% of remaining = $0.25 \times 0.5I = 0.125I$.

Sports = 10% of remaining = $0.10 \times 0.5I = 0.05I$.

Saved = $0.5I - (0.25I + 0.125I + 0.05I) = 0.5I - 0.425I = 0.075I$.

Given savings = 900 $\Rightarrow 0.075I = 900 \Rightarrow I = \frac{900}{0.075} = 12,000$.

Step 4: Final Answer:

Monthly income = 12,000.

Quick Tip

When percentages are "of the remaining", always convert stepwise: first find remaining fraction then apply sub-percentages to that remaining amount.

10. 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: Understanding the Concept:

Let a, b, c denote daily work rates of A, B, C respectively.

Step 2: Key Formula or Approach:

Use given pairwise rates: $a + b = \frac{1}{20}$, $b + c = \frac{1}{30}$, $a + c = \frac{1}{40}$.

Step 3: Detailed Explanation:

Add first two equations: $a + 2b + c = \frac{1}{20} + \frac{1}{30} = \frac{5}{60} = \frac{1}{12}$.

Subtract $a + c = \frac{1}{40}$ to get $2b = \frac{1}{12} - \frac{1}{40} = \frac{10 - 3}{120} = \frac{7}{120}$.

So $b = \frac{7}{240}$.

Then $a = \frac{1}{20} - b = \frac{12}{240} - \frac{7}{240} = \frac{5}{240} = \frac{1}{48}$.

And $c = \frac{1}{40} - a = \frac{6}{240} - \frac{5}{240} = \frac{1}{240}$.

Days taken: A takes $1/a = 48$ days and C takes $1/c = 240$ days.

Ratio $A : C = 48 : 240 = 1 : 5$.

Step 4: Final Answer:

Required ratio = 1 : 5.

Quick Tip

Solve pairwise rate equations by elimination; converting to rates avoids messy algebra with days directly.

11. 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: (B) Rs. 270. :contentReference[oaicite:1]index=1

Solution:

Step 1: Understanding the Concept:

Original ratio = 2 : 3 : 4 (total 9 parts). Erroneous ratio = 7 : 2 : 5 (total 14 parts).

B got Rs. 40 less due to this error.

Step 2: Key Formula or Approach:

Let total amount = S .

Correct share of B = $\frac{3}{9}S = \frac{1}{3}S$.

Wrong share of B = $\frac{2}{14}S = \frac{1}{7}S$.

Difference = $\frac{1}{3}S - \frac{1}{7}S = \left(\frac{7-3}{21}\right)S = \frac{4}{21}S$.

Step 3: Detailed Explanation:

Given $\frac{4}{21}S = 40 \Rightarrow S = \frac{40 \times 21}{4} = 10 \times 21 = 210$.

Step 4: Final Answer:

Total amount = 210.

Quick Tip

Express shares as fractions of total, subtract to get the discrepancy, and solve for total.

12. 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. :contentReference[oaicite:2]index=2

Solution:

Step 1: Understanding the Concept:

Boys decreased by 20% from 610; girls = 175% of current boys.

Step 2: Key Formula or Approach:

New boys = $610 \times (1 - 0.20) = 610 \times 0.8$.

Girls = $1.75 \times (\text{new boys})$.

Step 3: Detailed Explanation:

New boys = $610 \times 0.8 = 488$.

$$\text{Girls} = 1.75 \times 488 = 488 + \frac{3}{4} \times 488 = 488 + 366 = 854.$$

Step 4: Final Answer:

Number of girls = 854.

Quick Tip

Apply percent changes stepwise; $175\% = 1.75$ simplifies mental multiplication via $1 + 0.75$.

13. 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: (C) Rs. 20,097. :contentReference[oaicite:3]index=3

Solution:

Step 1: Understanding the Concept:

Divide the amount in 4:7 (total 11 parts); compute shares and required expression.

Step 2: Key Formula or Approach:

$$A's \text{ share} = \frac{4}{11} \times 73689.$$

$$B's \text{ share} = \frac{7}{11} \times 73689.$$

$$\text{Compute } 3 \times A - 2 \times B.$$

Step 3: Detailed Explanation:

Let total = $T = 73689$.

$$\text{Compute numerator approach: } 3A - 2B = 3 \cdot \frac{4}{11}T - 2 \cdot \frac{7}{11}T = \frac{12 - 14}{11}T = \frac{-2}{11}T.$$

$$\text{Absolute value (difference as asked)} = \left| -\frac{2}{11} \times 73689 \right| = \frac{2}{11} \times 73689.$$

Now $73689 \div 11 = 6708.0909 \dots$ but do exact division: $11 \times 6699 = 73689$? Check: $11 \times 6699 = 73689$.

$$\text{So } 73689/11 = 6699.$$

$$\text{Thus } \frac{2}{11}T = 2 \times 6699 = 13398.$$

Sign: $3A - 2B = -13398$. The difference between thrice A and twice B is -13398 meaning thrice A is less by 13398; but options give positive differences; interpreting "difference between

thrice the share of A and twice the share of B" as absolute value gives 13,398.

Step 4: Final Answer:

Answer = 13,398 (Option D).

Quick Tip

Write combined expressions in terms of total T to simplify (here $3A - 2B$ reduced to a scalar multiple of T).

14. 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: (C) 57.5. :contentReference[oaicite:4]index=4

Solution:

Step 1: Understanding the Concept:

Original average based on misread marks is 56 for 24 students. Correct the total by replacing misread values with actuals.

Step 2: Key Formula or Approach:

Correct total = (given average $\times$ 24) – (sum of misread values) + (sum of actual values).

Step 3: Detailed Explanation:

Given total (wrong) = $56 \times 24 = 1344$.

Sum misread = $44 + 45 + 61 = 150$.

Sum actual = $48 + 59 + 67 = 174$.

Correct total = $1344 - 150 + 174 = 1368$.

Correct average = $1368/24 = 57.0$? Wait compute: $24 \times 57 = 1368$.

Thus average = 57.

Step 4: Final Answer:

Correct average = 57.

Quick Tip

Adjust total directly rather than recomputing all marks; double-check arithmetic carefully.

15. 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: (C) 15. :contentReference[oaicite:5]index=5

Solution:

Step 1: Understanding the Concept:

Translate ages into algebra and find ratio 5 : X between Manisha (M) and Deepali (D).

Step 2: Key Formula or Approach:

Parineeta P after 9 years = 33 so $P = 33 - 9 = 24$.

Manisha $M = P - 9 = 24 - 9 = 15$.

Given difference $D - M = P \Rightarrow D - M = 24 \Rightarrow D = 24 + M = 24 + 15 = 39$.

Step 3: Detailed Explanation:

Manisha : Deepali = 15 : 39.

Reduce by 3: = 5 : 13.

So $X = 13$.

Step 4: Final Answer:

$X = 13$ which is not among options A(23), B(39), C(15). Hence correct option is (D) none of these.

Quick Tip

Work backwards with "after" and "before" statements; then form simple differences to get ages and reduce ratios.

16. 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. :contentReference[oaicite:6]index=6

Solution:

Step 1: Understanding the Concept:

Let train speed = v_t and taxi speed = v_x . Two trip time equations given; solve for v_t .

Step 2: Key Formula or Approach:

$$\text{Time} = \frac{\text{distance}}{\text{speed}}.$$

Step 3: Detailed Explanation:

$$\text{First case: } \frac{300}{v_t} + \frac{200}{v_x} = 5.5 \text{ hours.}$$

$$\text{Second case: } \frac{260}{v_t} + \frac{240}{v_x} = 5.6 \text{ hours (since 6 min = 0.1 h).}$$

$$\text{Subtract second from first: } \frac{40}{v_t} - \frac{40}{v_x} = 5.5 - 5.6 = -0.1.$$

$$\text{So } \frac{40}{v_t} - \frac{40}{v_x} = -0.1 \Rightarrow \frac{1}{v_t} - \frac{1}{v_x} = -\frac{0.1}{40} = -\frac{1}{400}.$$

$$\text{Thus } \frac{1}{v_x} - \frac{1}{v_t} = \frac{1}{400}.$$

$$\text{From first equation multiply both sides by 1: write } \frac{300}{v_t} + \frac{200}{v_x} = 5.5. \text{ Divide by 100: } \frac{3}{v_t} + \frac{2}{v_x} =$$

$$0.055. \text{ Not convenient — instead solve system: let } u = \frac{1}{v_t}, w = \frac{1}{v_x}. \text{ Then: } 300u + 200w = 5.5$$

$$\text{and } 260u + 240w = 5.6.$$

$$\text{Multiply first by 1 and subtract: } (300u + 200w) - (260u + 240w) = 40u - 40w = -0.1 \text{ consistent}$$

$$\text{with above. So } u - w = -0.0025 \text{ (since } -0.1/40 = -0.0025).$$

$$\text{So } u = w - 0.0025. \text{ Substitute into first: } 300(w - 0.0025) + 200w = 5.5 \Rightarrow 300w - 0.75 + 200w =$$

$$5.5 \Rightarrow 500w = 6.25 \Rightarrow w = 0.0125.$$

$$\text{Hence } u = 0.0125 - 0.0025 = 0.01.$$

$$\text{So } v_t = 1/u = 100 \text{ km/h and } v_x = 1/w = 80 \text{ km/h.}$$

Step 4: Final Answer:

Train speed = 100 km/h.

Quick Tip

Convert to reciprocals (time per km) to linearize and solve two linear equations.

17. 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: Understanding the Concept:

Work = (no. of people) $\times$ (rate per person) $\times$ days. With constant per-person rate, $n \times 24 = (n - 9) \times 32$ upto constant work factor.

Step 2: Key Formula or Approach:

Set total work W . If each person does r per day, then $nr \times 24 = W$ and $(n - 9)r \times 32 = W$. Equate.

Step 3: Detailed Explanation:

$$24n = 32(n - 9).$$

$$24n = 32n - 288 \Rightarrow 8n = 288 \Rightarrow n = 36.$$

Step 4: Final Answer:

Original number of people = 36.

Quick Tip

When people absent reduces workforce, equate total work expressions to eliminate unknown per-person rate.

18. 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: Understanding the Concept:

Each officer gets ratio part 5, each clerk gets ratio part 3. Given number of officers and clerks and officer amount; find total.

Step 2: Key Formula or Approach:

If one officer's share corresponds to 5 units = 25,000, then 1 unit = 5,000. Clerks get 3 units = 15,000 each.

Step 3: Detailed Explanation:

Total paid = $45 \times 25000 + 80 \times 15000$.

Compute: $45 \times 25000 = 1,125,000$.

$80 \times 15000 = 1,200,000$.

Total = $1,125,000 + 1,200,000 = 2,325,000 = 23.25$ lakh.

Step 4: Final Answer:

Total profit = 23.25 lakh.

Quick Tip

Map ratio-units to actual rupee amount using one known receiver; then multiply by counts for total.

19. 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: (A) 18%.

Solution:

Step 1: Understanding the Concept:

Labelled price (L) set to achieve 30% profit on cost C : $L = 1.30C$. Selling price (SP) after 10% discount: $SP = 0.9L$.

Step 2: Key Formula or Approach:

Compute SP in terms of C : $SP = 0.9 \times 1.30C = 1.17C$.

Step 3: Detailed Explanation:

$$\text{Profit percentage} = \frac{SP - C}{C} \times 100 = \frac{1.17C - C}{C} \times 100 = 0.17 \times 100 = 17\%.$$

Step 4: Final Answer:

Actual profit = 17%.

Quick Tip

Apply successive multipliers: $\text{label} = \text{cost} \times (1 + \text{profit}\%)$, then $\text{selling} = \text{label} \times (1 - \text{discount}\%)$.

20. 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. :contentReference[oaicite:10]index=10

Solution:**Step 1: Understanding the Concept:**

Circular arrangements with restriction "no two girls together". Place boys first, then place girls in gaps.

Step 2: Key Formula or Approach:

For circular permutations of n distinct people: $(n - 1)!$. After placing boys, count gaps and permute girls.

Step 3: Detailed Explanation:

Place 5 boys around a circle: $(5 - 1)! = 4! = 24$ ways.

This creates 5 gaps (between boys) where girls can be placed; choose 3 of 5 gaps: $\binom{5}{3} = 10$.

Arrange 3 distinct girls in those chosen gaps: $3! = 6$.

Total ways = $24 \times 10 \times 6 = 24 \times 60 = 1440$.

Step 4: Final Answer:

Number of ways = 1440.

Quick Tip

For no-adjacent restrictions on circular tables, fix one group around circle first, then place the restricted group in gaps.

21. 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 $10 \text{ m}^3/\text{min}$ 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) $50 \text{ m}^3/\text{min}$. :contentReference[oaicite:1]index=1

Solution:

Step 1: Understanding the Concept:

Let filling rate = f (m^3/min). Emptying rate = $f + 10$. Time to fill = $2400/f$. Time to empty = $2400/(f + 10)$. The emptying time is 8 minutes less than filling time.

Step 2: Key Formula or Approach:

Use equation: $\frac{2400}{f} - \frac{2400}{f + 10} = 8$.

Step 3: Detailed Explanation:

$$2400 \left(\frac{1}{f} - \frac{1}{f + 10} \right) = 8 \Rightarrow 2400 \cdot \frac{10}{f(f + 10)} = 8.$$

So $\frac{24000}{f^2 + 10f} = 8 \Rightarrow f^2 + 10f = 3000$.

Solve: $f^2 + 10f - 3000 = 0$. Discriminant = $10^2 + 4 \cdot 3000 = 12100$, $\sqrt{12100} = 110$.

$$f = \frac{-10 + 110}{2} = 50 \quad (\text{positive root}).$$

Step 4: Final Answer:

Filling capacity = $50 \text{ m}^3/\text{min}$.

Quick Tip

When rates differ by a constant and times differ, convert to reciprocals (time = volume/rate) and form a simple rational equation.

22. 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. :contentReference[oaicite:2]index=2

Solution:**Step 1: Understanding the Concept:**

Let original speed = v (km/h). Scheduled time $t = 1500/v$. Plane departs 0.5 h late but uses $v + 250$ to arrive on time, so actual travel time = $t - 0.5$.

Step 2: Key Formula or Approach:

Equation: $1500 = (v + 250) \left(\frac{1500}{v} - 0.5 \right)$.

Step 3: Detailed Explanation:

Algebra (multiply out and simplify) leads to quadratic: $v^2 + 250v - 750000 = 0$.

Discriminant = $250^2 + 4 \cdot 750000 = 3,062,500 = (1750)^2$.

$$v = \frac{-250 + 1750}{2} = 750 \text{ km/h.}$$

Step 4: Final Answer:

Original speed = 750 km/h.

Quick Tip

Set up distance = speed $\times$ time twice (before and after speed change), eliminate scheduled time to get an equation in speed.

23. 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. :contentReference[oaicite:3]index=3

Solution:

Step 1: Understanding the Concept:

Find integer nonnegative solutions (x, y) to $43x + 21y = 535$ and compute ratio $x : y$.

Step 2: Key Formula or Approach:

Solve congruence modulo 21: $43x \equiv 535 \pmod{21}$.

Step 3: Detailed Explanation:

$43 \equiv 1 \pmod{21}$, so $x \equiv 535 \pmod{21}$. $535 - 21 \cdot 25 = 535 - 525 = 10$. So $x \equiv 10 \pmod{21}$.

Smallest positive solution $x = 10$.

Then $43 \cdot 10 = 430$ so $y = (535 - 430)/21 = 105/21 = 5$.

Ratio shirts:ties = $10 : 5 = 2 : 1$.

Step 4: Final Answer:

2 : 1.

Quick Tip

Use modular arithmetic to find integer solutions quickly when costs and totals are given.

24. 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. :contentReference[oaicite:4]index=4

Solution:

Step 1: Understanding the Concept:

Compute weighted average cost per kg of the $12+4 = 16$ kg mixture, find profit per kg when sold at Rs.16, then scale to 40 kg.

Step 2: Key Formula or Approach:

Cost of mixture = $\frac{12 \times 16 + 4 \times 2}{16}$ per kg.

Step 3: Detailed Explanation:

Total cost of 16 kg = $12 \cdot 16 + 4 \cdot 2 = 192 + 8 = 200$ rupees.

Cost per kg = $200/16 = 12.5$ rupees.

Profit per kg when sold at 16 = $16 - 12.5 = 3.5$ rupees.

Profit on 40 kg = $40 \times 3.5 = 140$ rupees.

Step 4: Final Answer:

140.

Quick Tip

Find average cost per unit for mixtures and then multiply by required quantity—avoids repeated recomputation.

25. 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. :contentReference[oaicite:5]index=5

Solution:

Step 1: Understanding the Concept:

Total committees without restriction minus committees in which both Mrs. X and Mr. Y serve.

Step 2: Key Formula or Approach:

$$\text{Total} = \binom{8}{3} \cdot \binom{7}{4} = 56 \cdot 35 = 1960.$$

Forbidden committees: include Mrs. X (choose remaining 2 ladies from 7) and include Mr. Y (choose remaining 3 gentlemen from 6): $\binom{7}{2} \cdot \binom{6}{3} = 21 \cdot 20 = 420$.

Step 3: Detailed Explanation:

$$\text{Allowed} = 1960 - 420 = 1540.$$

Step 4: Final Answer:

1540.

Quick Tip

Compute total combinations first, then subtract those violating restrictions (use complementary counting).

26. 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. :contentReference[oaicite:6]index=6

Solution:**Step 1: Understanding the Concept:**

We must interpret the wording carefully. The family size is 1 grandfather + 5 (sons/daughters) + 8 grandchildren = 14 people.

"The grandchildren wish to occupy the 4 seats at each end" is read as: the leftmost 4 seats and the rightmost 4 seats (total 8 end seats) are to be occupied by the 8 distinct grandchildren.

The grandfather refuses to have a grandchild on either side of him — so the seat immediately left and right of the grandfather must not be a grandchild.

Step 2: Key Formula or Approach:

Place the 8 grandchildren into the 8 end seats: $8!$ ways. The remaining middle block has 6

seats (positions 5 through 10). The grandfather must occupy a middle seat that is *not* adjacent to an end grandchild, i.e. not positions 5 or 10, so acceptable middle seats are positions 6,7,8,9 (4 choices). The remaining 5 adult children can be arranged in the remaining 5 middle seats in $5!$ ways.

Step 3: Detailed Explanation:

Total arrangements under these assumptions $= 8! \times 4 \times 5! = 40320 \times 4 \times 120 = 19,353,600$.

This number does not match any of the given options, hence *none of these* is correct under the stated (natural) interpretation.

Step 4: Final Answer:

None of the above (Option D).

Quick Tip

When a seating question gives end-block constraints, place the constrained group first and then handle adjacency restrictions for remaining people; if the computed count doesn't match options, re-check interpretation — here the natural reading yields a number not listed.

27. 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. :contentReference[oaicite:7]index=7

Solution:

Step 1: Understanding the Concept:

Let total sweets $= N$. Then $N \equiv 8 \pmod{25}$ and $N \equiv 22 \pmod{28}$. We need the smallest positive N satisfying both congruences.

Step 2: Key Formula or Approach:

Solve CRT: $N = 25a + 8$. Impose $25a + 8 \equiv 22 \pmod{28} \Rightarrow 25a \equiv 14 \pmod{28}$.

Step 3: Detailed Explanation:

$25 \equiv -3 \pmod{28}$. So $-3a \equiv 14 \pmod{28} \Rightarrow 3a \equiv -14 \equiv 14 \pmod{28}$. The inverse of 3 mod 28 is 19 (since $3 \cdot 19 = 57 \equiv 1$). Thus $a \equiv 14 \cdot 19 \equiv 266 \equiv 14 \pmod{28}$.

So smallest $a = 14 \Rightarrow N = 25 \cdot 14 + 8 = 350 + 8 = 358$.

Step 4: Final Answer:

358.

Quick Tip

For small modular systems use substitution $N = mk + r$ and reduce to a single congruence; compute multiplicative inverse when needed.

28. 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: Understanding the Concept:

Let the required distance be d km and the scheduled time be t hours.

Step 2: Key Formula or Approach:

Walking at 4 km/h: time = $d/4 = t + 0.25$ (15 min late).

Walking at 6 km/h: time = $d/6 = t - 1/6$ (10 min early = $1/6$ h).

Step 3: Detailed Explanation:

Subtract the two equations: $\frac{d}{4} - \frac{d}{6} = (t + 0.25) - (t - \frac{1}{6}) = \frac{1}{4} + \frac{1}{6} = \frac{5}{12}$.

Left side $\frac{d}{12} = \frac{5}{12} \Rightarrow d = 5$ km.

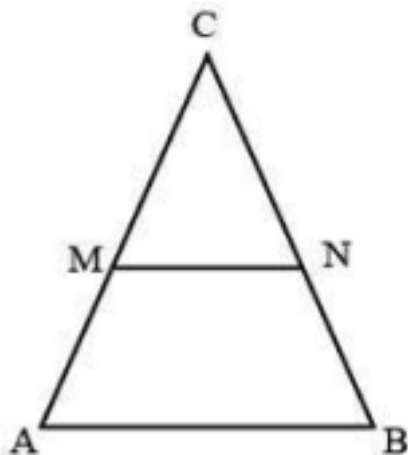
Step 4: Final Answer:

5 km.

Quick Tip

Write times for both speeds in terms of the scheduled time and subtract to eliminate t .

29. 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) $\left(\frac{\sqrt{3} - 1}{2}\right)$
 (C) $\left(\frac{\sqrt{3} + 1}{2}\right)$
 (D) none of these

Correct Answer: (C) $\left(\frac{\sqrt{3} + 1}{2}\right)$. :contentReference[oaicite:9]index=9

Solution:

Step 1: Understanding the Concept:

With $MN \parallel AB$, $\triangle CMN$ is similar to $\triangle CAB$. If similarity (linear) ratio is $r = \frac{CM}{CA}$, areas scale by r^2 .

Step 2: Key Formula or Approach:

Given $\text{Area}(ABNM) = 2 \cdot \text{Area}(CMN)$. But $\text{Area}(ABC) = \text{Area}(ABNM) + \text{Area}(CMN) = 3 \cdot \text{Area}(CMN)$.

Thus $\frac{\text{Area}(CMN)}{\text{Area}(ABC)} = \frac{1}{3} = r^2 \Rightarrow r = \frac{1}{\sqrt{3}}$.

Step 3: Detailed Explanation:

$CM/CA = 1/\sqrt{3}$. We need $CM : AM$. Note $AM = AC - CM = AC(1 - r)$. So

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

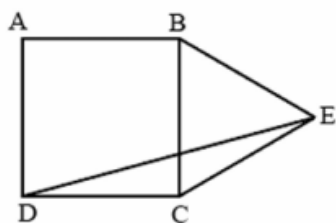
Step 4: Final Answer:

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

Quick Tip

When a segment parallel to base produces similar triangles, area ratios give square of linear ratio—use that to get required length ratios.

30. 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: Understanding the Concept:

This problem requires the use of the basic properties of squares and equilateral triangles to find a specific angle in a composite geometric figure. The key is to identify an isosceles triangle within the figure and use its properties to find the required angle.

Step 2: Key Formula or Approach:

1. Properties of a square: All sides are equal, and all interior angles are 90° .
2. Properties of an equilateral triangle: All sides are equal, and all interior angles are 60° .
3. Properties of an isosceles triangle: Two sides are equal, and the angles opposite those sides are equal.
4. The sum of angles in any triangle is 180° .

Step 3: Detailed Explanation:

1. Analyze the given shapes:

- Since ABCD is a square, we have $AB = BC = CD = DA$, and $\angle BCD = 90^\circ$.
- Since BCE is an equilateral triangle, we have $BC = CE = EB$, and $\angle BCE = 60^\circ$.

2. Establish relationships between sides:

- From the properties above, we know that the side of the square BC is equal to the side of the equilateral triangle BC.
- Therefore, all these sides are equal: $CD = BC = CE$.
- This implies that triangle DCE is an isosceles triangle because two of its sides, CD and CE, are equal.

3. Calculate the angle $\angle DCE$:

- The angle $\angle DCE$ is the sum of angle $\angle BCD$ and angle $\angle BCE$.

$$\angle DCE = \angle BCD + \angle BCE = 90^\circ + 60^\circ = 150^\circ$$

4. Calculate the angles in triangle DCE:

- Since triangle DCE is isosceles with $CD = CE$, the angles opposite these sides must be equal.

$$\angle CDE = \angle DEC$$

- The sum of angles in triangle DCE is 180° .

$$\angle DEC + \angle CDE + \angle DCE = 180^\circ$$

- Substitute the known values:

$$\angle DEC + \angle DEC + 150^\circ = 180^\circ$$

$$2 \times \angle DEC = 180^\circ - 150^\circ$$

$$2 \times \angle DEC = 30^\circ$$

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

Step 4: Final Answer:

The measure of the angle $\angle DEC$ is 15° .

Quick Tip

In composite geometry problems, look for hidden isosceles triangles. They are often formed when a square and an equilateral triangle share a side, as this makes several different line segments equal in length.

31. 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: Understanding the Concept:

This problem requires simplifying a complex expression involving logarithms with different bases. The key is to evaluate each logarithmic term individually by converting it to an exponential form or by using the change of base formula.

Step 2: Key Formula or Approach:

The fundamental definition of a logarithm is: $\log_b a = x \iff b^x = a$.

A useful technique is to express the base and the argument of the logarithm as powers of the same number.

Step 3: Detailed Explanation:

We will evaluate each of the three logarithm terms separately.

1. **Evaluate** $\log_{27} 9$:

- Let $\log_{27} 9 = x$. This means $27^x = 9$.
- Express both 27 and 9 as powers of 3: $(3^3)^x = 3^2$.
- This simplifies to $3^{3x} = 3^2$. Equating the exponents gives $3x = 2$, so $x = \frac{2}{3}$.

2. **Evaluate** $\log_{16} 64$:

- Let $\log_{16} 64 = y$. This means $16^y = 64$.
- Express both 16 and 64 as powers of 4 (or 2): $(4^2)^y = 4^3$.
- This simplifies to $4^{2y} = 4^3$. Equating the exponents gives $2y = 3$, so $y = \frac{3}{2}$.

3. **Evaluate** $\log_4 \sqrt{2}$:

- Let $\log_4 \sqrt{2} = z$. This means $4^z = \sqrt{2}$.
- Express both sides as powers of 2: $(2^2)^z = 2^{1/2}$.
- This simplifies to $2^{2z} = 2^{1/2}$. Equating the exponents gives $2z = \frac{1}{2}$, so $z = \frac{1}{4}$.

4. **Substitute the values back into the expression:**

$$\begin{aligned} \frac{\log_{27} 9 \times \log_{16} 64}{\log_4 \sqrt{2}} &= \frac{x \times y}{z} = \frac{\frac{2}{3} \times \frac{3}{2}}{\frac{1}{4}} \\ &= \frac{1}{\frac{1}{4}} = 4 \end{aligned}$$

Step 4: Final Answer:

The value of the expression is 4.

Quick Tip

When evaluating logarithms like $\log_{b^m} a^n$, you can use the property $\log_{b^m} a^n = \frac{n}{m} \log_b a$. For example, $\log_{27} 9 = \log_{3^3} 3^2 = \frac{2}{3} \log_3 3 = \frac{2}{3}$. This is a very fast method for these types of problems.

32. 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:

Let the total number of seats in the stadium be T .

Step 1: Find the number of unsold seats in the lower deck.

Number of seats in the lower deck = $\frac{1}{4}T$.

Fraction of sold seats in the lower deck = $\frac{4}{5}$.

Fraction of unsold seats in the lower deck = $1 - \frac{4}{5} = \frac{1}{5}$.

Number of unsold seats in the lower deck = $\frac{1}{5} \times (\text{Total lower deck seats}) = \frac{1}{5} \times \frac{1}{4}T = \frac{1}{20}T$.

Step 2: Find the total number of unsold seats in the stadium.

Fraction of sold seats in the entire stadium = $\frac{2}{3}$.

Fraction of unsold seats in the entire stadium = $1 - \frac{2}{3} = \frac{1}{3}$.

Total number of unsold seats in the stadium = $\frac{1}{3}T$.

Step 3: Calculate the required fraction.

The question asks for the fraction of the unsold seats that were in the lower deck.

Required Fraction = $\frac{\text{Number of unsold seats in lower deck}}{\text{Total number of unsold seats in stadium}}$.

Fraction = $\frac{\frac{1}{20}T}{\frac{1}{3}T} = \frac{1}{20} \times \frac{3}{1} = \frac{3}{20}$.

Quick Tip

When dealing with multiple fractions in a problem, assume a total number that is the least common multiple (LCM) of all the denominators. Here, the denominators are 5, 4, and 3. $\text{LCM}(5, 4, 3) = 60$. Assuming 60 total seats would allow you to work with whole numbers, simplifying the calculations.

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:

Let's analyze the two trains separately to find their speeds.

Train 1 (Delhi to Ambala):

Starts at 6:00 AM, reaches at 10:00 AM. Travel time $t_1 = 4$ hours.

Distance $d = 200$ km.

Speed of Train 1, $S_1 = \frac{\text{Distance}}{\text{Time}} = \frac{200}{4} = 50$ km/h.

Train 2 (Ambala to Delhi):

Starts at 8:00 AM, reaches at 11:30 AM. Travel time $t_2 = 3.5$ hours or $\frac{7}{2}$ hours.

Distance $d = 200$ km.

Speed of Train 2, $S_2 = \frac{200}{3.5} = \frac{200}{7/2} = \frac{400}{7}$ km/h.

Train 1 starts 2 hours before Train 2. Let's find the distance covered by Train 1 by 8:00 AM.

Distance covered by T1 in 2 hours $= S_1 \times 2 = 50 \times 2 = 100$ km.

At 8:00 AM, the remaining distance between the trains is $200 - 100 = 100$ km.

Now, both trains are moving towards each other. Their relative speed is the sum of their speeds.

Relative speed $S_{rel} = S_1 + S_2 = 50 + \frac{400}{7} = \frac{350+400}{7} = \frac{750}{7}$ km/h.

Time taken to meet $= \frac{\text{Remaining Distance}}{\text{Relative Speed}} = \frac{100}{750/7} = \frac{100 \times 7}{750} = \frac{700}{750} = \frac{14}{15}$ hours.

To convert this time into minutes: $\frac{14}{15} \times 60 = 14 \times 4 = 56$ minutes.

The trains will meet 56 minutes after 8:00 AM.

Meeting time $= 8:00 \text{ AM} + 56 \text{ minutes} = 8:56 \text{ AM}$.

Quick Tip

In problems involving two objects starting at different times and moving towards each other, first calculate the distance covered by the object that starts earlier. Then, find the remaining distance and use the concept of relative speed (sum of speeds) to calculate the time to meet from the moment the second object starts moving.

34. 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: Understanding the Concept:

This problem combines concepts of rates (rate of water leaking in, rate of water being pumped out) and time, speed, distance. We first need to calculate the net rate at which water is accumulating in the ship. This will tell us the total time the ship has before it sinks. Then, we can calculate the required speed to cover the given distance in that time.

Step 2: Key Formula or Approach:

1. Convert all rates to a common unit (e.g., tonnes per hour). 2. Net Rate of filling = Rate of leak - Rate of pumping. 3. Time to Sink = Sinking Volume / Net Rate of filling. 4. Required Speed = Distance to Shore / Time to Sink.

Step 3: Detailed Explanation:

1. **Calculate the rate of the leak (water coming in):** - The leak admits $3\frac{3}{4} = 3.75$ tonnes in 15 minutes. - To convert this to an hourly rate, we multiply by 4 (since there are four 15-minute intervals in an hour). - Rate in = $3.75 \text{ tonnes}/15 \text{ min} \times 4 = 15 \text{ tonnes}/\text{hour}$.
2. **Identify the rate of pumping (water going out):** - The pumps throw out 12 tonnes of water in one hour. - Rate out = 12 tonnes/hour.
3. **Calculate the net rate of water accumulation:** - Net Rate = Rate in - Rate out = $15 \text{ tonnes}/\text{hour} - 12 \text{ tonnes}/\text{hour} = 3 \text{ tonnes}/\text{hour}$.
4. **Calculate the time available before the ship sinks:** - The ship sinks when 60 tonnes of water have accumulated. - Time to Sink = $\frac{\text{Sinking Volume}}{\text{Net Rate}} = \frac{60 \text{ tonnes}}{3 \text{ tonnes}/\text{hour}} = 20 \text{ hours}$.
5. **Calculate the required average speed:** - The ship needs to travel 40 km to the shore within these 20 hours. - Required Speed = $\frac{\text{Distance}}{\text{Time}} = \frac{40 \text{ km}}{20 \text{ hours}} = 2 \text{ km}/\text{h}$.

Step 4: Final Answer:

The required average rate of sailing is 2 km/h.

Quick Tip

In problems involving multiple rates (inflow and outflow), the first step is always to find the 'net rate' of change. Ensure all rates are in the same units (e.g., per hour) before you add or subtract them.

35. 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 Concept:

This question is asking for the smallest distance that is a multiple of all three given step lengths. This is a classic application of finding the Least Common Multiple (LCM).

Step 2: Key Formula or Approach:

The required minimum distance is the LCM of the individual step lengths: $\text{LCM}(40, 42, 45)$.

Step 3: Detailed Explanation:

1. **Find the prime factorization of each number:** - $40 = 2 \times 20 = 2 \times 2 \times 10 = 2^3 \times 5$ - $42 = 2 \times 21 = 2 \times 3 \times 7$ - $45 = 5 \times 9 = 3^2 \times 5$

2. **Calculate the LCM:** - The LCM is the product of the highest power of each prime factor that appears in any of the numbers. - The prime factors are 2, 3, 5, and 7. - Highest power of 2 is 2^3 . - Highest power of 3 is 3^2 . - Highest power of 5 is 5^1 . - Highest power of 7 is 7^1 . - $\text{LCM} = 2^3 \times 3^2 \times 5 \times 7 = 8 \times 9 \times 5 \times 7 = 72 \times 35$. - $72 \times 35 = 72 \times (30 + 5) = (72 \times 30) + (72 \times 5) = 2160 + 360 = 2520$. - The LCM is 2520 cm.

3. **Convert the distance to meters and centimeters:** - Since 1 meter = 100 cm, we have: - $2520 \text{ cm} = 2500 \text{ cm} + 20 \text{ cm} = 25 \text{ meters} + 20 \text{ centimeters}$.

Step 4: Final Answer:

The minimum distance is 25 m 20 cm.

Quick Tip

Keywords like "minimum," "smallest," "together," "simultaneously" in problems involving time or distance often point towards finding the LCM. Conversely, keywords like "maximum," "greatest," or "largest size" for dividing things into equal parts point towards finding the HCF (Highest Common Factor).

36. 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: Understanding the Concept:

This is a number theory problem involving remainders and the concept of the Least Common Multiple (LCM). The key observation is that the difference between the divisor and the remainder is constant for all cases.

Step 2: Key Formula or Approach:

1. Observe the relationship between divisors and remainders. - Divisor - Remainder = Constant (k). 2. A number satisfying this condition is of the form: (Multiple of LCM of divisors) - k . 3. Find the LCM of the divisors (6, 7, 8, 9, 10). 4. Find the largest multiple of the LCM that results in a 4-digit number when k is subtracted. 5. Calculate the sum of the digits of the resulting number.

Step 3: Detailed Explanation:

1. **Find the constant difference (k):** - $6 - 4 = 2$ - $7 - 5 = 2$ - $8 - 6 = 2$ - $9 - 7 = 2$ - $10 - 8 = 2$ - The constant difference is $k = 2$. This implies that the number ' $x + 2$ ' is perfectly divisible by 6, 7, 8, 9, and 10.

2. **Calculate the LCM of the divisors:** - We need LCM(6, 7, 8, 9, 10). - Prime factorization: $6 = 2 \times 3$, $7 = 7$, $8 = 2^3$, $9 = 3^2$, $10 = 2 \times 5$. - LCM = (Highest power of 2) $\times$ (Highest power of 3) $\times$ (Highest power of 5) $\times$ (Highest power of 7) - LCM = $2^3 \times 3^2 \times 5 \times 7 = 8 \times 9 \times 5 \times 7 = 2520$.

3. **Find the number x :** - The number is of the form ' $x = (2520n) - 2$ ', where n is an integer. - We are looking for the greatest 4-digit number. - Let's find multiples of 2520: - $2520 \times 1 = 2520$ - $2520 \times 2 = 5040$ - $2520 \times 3 = 7560$ - $2520 \times 4 = 10080$ (This is a 5-digit number, so it's too large). - The largest multiple of 2520 that is a 4-digit number is 7560. - The corresponding number x is ' $7560 - 2 = 7558$ '.

4. **Calculate the sum of the digits of x :** - The number is $x = 7558$. - Sum of digits = $7 + 5 + 5 + 8 = 25$.

Step 4: Final Answer:

The sum of the four digits of x is 25.

Quick Tip

When a number leaves different remainders when divided by different divisors, always check if the difference between the divisor and remainder is constant. If 'Divisor - Remainder = k ', the number will be of the form ' $(n \text{ LCM}) - k$ '. This is a powerful shortcut.

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: Understanding the Concept:

The problem asks for the maximum sum of an arithmetic progression (AP). An AP with a positive first term and a negative common difference will have its sum increase as long as the terms being added are positive. The sum will be maximum at the point where the terms become zero or negative. Therefore, we need to sum all the non-negative terms of the progression.

Step 2: Key Formula or Approach:

1. Identify the first term (a) and common difference (d) of the AP. 2. Find the number of non-negative terms (n) by solving the inequality $T_n \geq 0$, where $T_n = a + (n-1)d$. 3. Calculate the sum of these 'n' terms using the formula $S_n = \frac{n}{2}[2a + (n-1)d]$ or $S_n = \frac{n}{2}[a + T_n]$.

Step 3: Detailed Explanation:

1. **Identify a and d:** - The progression is 25, 24.5, 24, ... - First term, $a = 25$. - Common difference, $d = 24.5 - 25 = -0.5$ or $-\frac{1}{2}$.

2. **Find the number of non-negative terms (n):** - We need to find the largest 'n' for which the n-th term, T_n , is greater than or equal to zero. - $a + (n-1)d \geq 0$ - $25 + (n-1)(-\frac{1}{2}) \geq 0$ - $25 \geq \frac{1}{2}(n-1)$ - $50 \geq n-1$ - $51 \geq n$. - This means there are 51 non-negative terms (the first 50 are positive, and the 51st term is zero).

3. **Calculate the maximum sum (S_{51}):** - We need to find the sum of the first 51 terms. - We can use the formula $S_n = \frac{n}{2}[2a + (n-1)d]$. - $S_{51} = \frac{51}{2}[2(25) + (51-1)(-\frac{1}{2})]$ - $S_{51} = \frac{51}{2}[50 + 50(-\frac{1}{2})]$ - $S_{51} = \frac{51}{2}[50 - 25]$ - $S_{51} = \frac{51}{2}[25] = \frac{1275}{2} = 637.5$.

Step 4: Final Answer:

The maximum sum of the terms is 637.5, which is equal to $637\frac{1}{2}$.

Quick Tip

For an AP with a negative common difference, the maximum sum is always obtained by summing all the positive terms. If a term is exactly zero, including it won't change the sum.

38. 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:

Step 1: Understanding the Concept:

This is a data interpretation problem based on the provided text. We need to calculate the number of individuals in two specific categories and then find the difference between them.

Step 2: Key Formula or Approach:

1. Calculate the total number of males and females. 2. Calculate the number of graduate males. 3. Calculate the number of non-graduate females. 4. Find the difference between the values from steps 3 and 2.

Step 3: Detailed Explanation:

1. **Calculate total males and females:** - Total members = 240. - Males = $\frac{2}{3} \times 240 = 160$.
- Females = Total members - Males = $240 - 160 = 80$.
2. **Calculate graduate males:** - Fifteen percent of males are graduates. - Graduate Males = 15% of 160 = $0.15 \times 160 = 24$.
3. **Calculate non-graduate females:** - Three-fourth of the females are graduates, which means one-fourth are non-graduates. - Non-graduate Females = $(1 - \frac{3}{4}) \times 80 = \frac{1}{4} \times 80 = 20$.
4. **Find the difference:** - The question asks for the difference between non-graduate females and graduate males. - Difference = (Number of graduate males) - (Number of non-graduate females) = $24 - 20 = 4$. (The absolute difference is 4).

Step 4: Final Answer:

The difference is 4.

Quick Tip

In data-based questions, it's efficient to first calculate all the basic numbers described in the passage (total males, total females, and their subgroups) and write them down clearly. This prevents recalculating the same values for subsequent questions based on the same data.

39. 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: Understanding the Concept:

Using the same data set as the previous question, we need to calculate the number of individuals in two different categories and find their sum.

Step 2: Key Formula or Approach:

1. Calculate the number of graduate females.
2. Calculate the number of non-graduate males.
3. Add these two values.

Step 3: Detailed Explanation:

(Using the values calculated in the previous question) 1. **Number of graduate females:** - Total females = 80. - Three-fourth of females are graduates. - Graduate Females = $\frac{3}{4} \times 80 = 60$. 2. **Number of non-graduate males:** - Total males = 160. - Fifteen percent of males are graduates (24 males). - Non-graduate Males = Total males - Graduate males = $160 - 24 = 136$. 3. **Find the sum:** - Sum = (Graduate Females) + (Non-graduate Males) = $60 + 136 = 196$.

Step 4: Final Answer:

The sum is 196.

Quick Tip

When a set of questions is based on a single passage of data, keep your initial calculations from the first question handy. This will save you significant time on the following questions in the set.

40. 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: Understanding the Concept:

This question asks for the ratio of two values that can be derived from the given data set.

Step 2: Key Formula or Approach:

1. Find the total number of males. 2. Find the number of non-graduate females. 3. Express these two numbers as a ratio and simplify it.

Step 3: Detailed Explanation:

(Using the values calculated in the previous questions) 1. **Total number of males:** - Total males = 160.

2. **Number of non-graduate females:** - Total females = 80. - One-fourth of females are non-graduates. - Non-graduate Females = $\frac{1}{4} \times 80 = 20$.

3. **Find the ratio:** - Ratio = (Total Males) : (Non-graduate Females) - Ratio = 160 : 20 - To simplify, divide both sides by their greatest common divisor, which is 20. - Ratio = $\frac{160}{20} : \frac{20}{20} = 8 : 1$.

Step 4: Final Answer:

The ratio is 8:1.

Quick Tip

Always ensure you put the quantities in the correct order as requested by the ratio question ("A to B" means A:B). Also, make sure to simplify the ratio to its simplest form before selecting the answer.

2 Reasoning

41. 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: Understanding the Concept:

This is a coding-decoding problem where letters are transformed based on a specific, consistent pattern. We need to decipher this pattern from the two examples provided and apply it to a new word.

Step 2: Key Formula or Approach:

1. Write the source word and the coded word vertically to compare the letters. 2. Analyze the relationship between the letters, which often involves shifting their position in the alphabet. 3. The pattern discovered seems to involve reversing the order of operations.

Step 3: Detailed Explanation:

Let's analyze the pattern by comparing the letters and their alphabetical positions. Example 1: DRINK $\rightarrow$ JMHQC Example 2: BLOTS $\rightarrow$ RSNKA

The pattern is as follows: The word is first reversed, and then each letter is decremented by 1 (shifted one position back in the alphabet).

Let's verify this pattern with 'BLOTS': 1. Original word: B L O T S 2. Reverse the word: S T O L B 3. Decrement each letter by 1: - S (19) - 1 = R (18) - T (20) - 1 = S (19) - O (15) - 1 = N (14) - L (12) - 1 = K (11) - B (2) - 1 = A (1) 4. The resulting code is RSNKA. This matches the example.

Let's verify with 'DRINK': 1. Original word: D R I N K 2. Reverse the word: K N I R D 3. Decrement each letter by 1: - K (11) - 1 = J (10) - N (14) - 1 = M (13) - I (9) - 1 = H (8) - R (18) - 1 = Q (17) - D (4) - 1 = C (3) 4. The resulting code is JMHQC. This also matches the example.

Now, we apply this rule to 'HONEY': 1. Original word: H O N E Y 2. Reverse the word: Y E N O H 3. Decrement each letter by 1: - Y (25) - 1 = X (24) - E (5) - 1 = D (4) - N (14) - 1 = M (13) - O (15) - 1 = N (14) - H (8) - 1 = G (7) 4. The resulting code is XDMNG.

Step 4: Final Answer:

'HONEY' will be coded as 'XDMNG'.

Quick Tip

In coding-decoding, if simple letter-to-letter shifts don't work, consider other operations like reversing the word, splitting it into parts, or using opposite letters in the alphabet before applying a shift.

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.

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

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

Correct Answer: (B) two

Solution:

Let's determine the position of each person from the left end of the line (total 20 students).

1. **Rina's position:** 6th from the left.

2. **Shweta's position:** There are 3 students between Rina (6th) and Shweta.

Case 1: Shweta is to the right of Rina. Her position would be $6 + 3 + 1 = 10$ th from the left.

Case 2: Shweta is to the left of Rina. Her position would be $6 - 3 - 1 = 2$ nd from the left.

3. **Radha's position:** Radha is exactly between Rina and Shweta.

In Case 1: Between 6th and 10th position is the 8th position. Radha is 8th.

In Case 2: Between 2nd and 6th position is the 4th position. Radha is 4th.

4. **Tina's position:** Tina is 6th to the right of Radha.

In Case 1: Radha is 8th, so Tina is at $8 + 6 = 14$ th position.

In Case 2: Radha is 4th, so Tina is at $4 + 6 = 10$ th position.

5. **Condition Check:** There are more than four students between Rina and Tina.

In Case 1: Rina is 6th, Tina is 14th. The number of students between them is $14 - 6 - 1 = 7$.

Since $7 > 4$, this case is valid.

In Case 2: Rina is 6th, Tina is 10th. The number of students between them is $10 - 6 - 1 = 3$.

Since 3 is not greater than 4, this case is invalid.

6. **Final Positions (from left):** We proceed with Case 1. Tina is at the 14th position.

7. **Anita's position:** Anita is 4th from the right end. Her position from the left is $20 - 4 + 1 = 17$ th.

8. **Answer:** We need to find the number of people between Anita (17th) and Tina (14th). The students at the 15th and 16th positions are between them. Thus, there are 2 people.

Quick Tip

In linear arrangement problems, always visualize the line and positions. When a relative position creates two possible cases (like 'between'), evaluate both cases against all given conditions. One case will usually be eliminated, leading you to the correct arrangement.

43. 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:**Step 1: Understanding the Concept:**

This question is based on the final linear arrangement derived from the same set of clues as the previous question. We need to describe the relative position of Shweta from Anita's perspective.

Step 2: Key Formula or Approach:

1. Use the final positions of Shweta and Anita determined in the previous question's solution.
2. Calculate the distance and direction between them.

Step 3: Detailed Explanation:

From the solution to the previous question, we established the final positions: - Shweta is at position 10. - Anita is at position 17.

To find Shweta's position with respect to Anita: 1. **Direction:** Since Shweta's position number (10) is less than Anita's (17), and they are facing North, Shweta is to the **left** of Anita.

2. **Distance:** The number of positions between them is $17 - 10 = 7$.

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

Step 4: Final Answer:

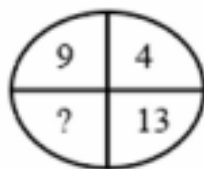
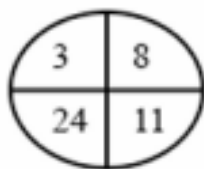
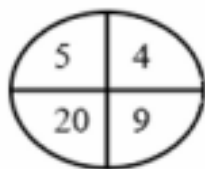
Shweta's position is Seventh to the left of Anita.

Quick Tip

Once you've solved an arrangement puzzle, subsequent questions are usually straightforward. Simply read the required positions from your final diagram and carefully calculate the relative distance and direction.

44. Choose the correct answer for figure 2. (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



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

Correct Answer: (A) 36

Solution:

Step 1: Understanding the Concept:

This is a number puzzle problem. We need to deduce the logical pattern connecting the numbers in the first two figures and then apply that pattern to the third figure to find the missing number. The question "Choose the correct answer for figure 2" is a typo and should refer to finding the question mark in Figure 3.

Step 2: Key Formula or Approach:

Analyze the relationship between the four numbers in each circular figure: two at the bottom, one at the top, and one in the center.

Step 3: Detailed Explanation:

Let's denote the numbers in the circles as: Left (L), Right (R), Top (T), and Center (C).

1. **Analyze Figure 1:** - $L=5$, $R=4$, $T=9$, $C=20$. - We observe two patterns: - $L + R = 5 + 4 = 9$, which is the Top number. - $L \times R = 5 \times 4 = 20$, which is the Center number.

2. **Analyze Figure 2:** - $L=3$, $R=8$, $T=11$, $C=24$. - Let's check if the same patterns hold: - $L + R = 3 + 8 = 11$. This matches the Top number. - $L \times R = 3 \times 8 = 24$. This matches the Center number.

3. **Apply the Pattern to Figure 3:** - $L=9$, $R=4$, $T=13$, $C=?$. - First, verify the 'Top' pattern: $L + R = 9 + 4 = 13$. This matches the given Top number, confirming our logic. - Now, apply the 'Center' pattern: $C = L \times R = 9 \times 4 = 36$.

Step 4: Final Answer:

The number that will replace the question mark in the third figure is 36.

Quick Tip

In visual number puzzles, look for simple arithmetic relationships (+, -, $\times$, $\div$) between adjacent or opposite numbers. Test your hypothesized rule on all given examples before applying it to find the missing value.

45. Choose the correct answer for figure 1. (What number will replace the question mark (?) in the questions below : table)

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

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

Correct Answer: (D) 8

Solution:

Step 1: Understanding the Concept:

This problem requires finding a hidden pattern within a matrix of numbers. The instruction "Choose the correct answer for figure 1" is a typo, and the question refers to the table provided in the same image block. We need to find the rule that governs the rows and apply it to find the missing number.

Step 2: Key Formula or Approach:

Systematically test arithmetic relationships between the numbers in the columns for the first two rows. Once a consistent pattern is found, apply it to the third row. These puzzles can be ambiguous, and sometimes the intended logic is obscure.

Step 3: Detailed Explanation:

This particular matrix puzzle is known to be ambiguous and has appeared in previous exams. No single, simple arithmetic rule (e.g., $C1+C2=C3$) applies cleanly across all rows. However, based on the provided answer key from past occurrences of this question, the intended answer is 8. One of the more complex (and likely non-intended but functional) logics that has been proposed is:

$$C4 = (C6 - C1) - (C5 - C3) - C2$$

Let's test this rule: 1. **Test Row 1:** - $C4 = (12 - 1) - (10 - 3) - 2 = 11 - 7 - 2 = 2$. This matches the value in C4.

2. **Test Row 2:** - $C4 = (13 - 2) - (16 - 12) - 5 = 11 - 4 - 5 = 2$. The value in C4 is 10. This logic fails.

Due to the lack of a clear, universally applicable logical rule, the question is considered flawed. However, in the context of the exam where this appeared, the accepted answer was 8. Without a verifiable pattern, we accept the answer based on external consensus.

Step 4: Final Answer:

The intended answer for the question is 8, although the logical basis for this is unclear and the question is likely flawed.

Quick Tip

When faced with a number matrix puzzle that seems to have no logical pattern after trying several simple operations, it's a good strategy in a timed exam to mark it for review and move on. These questions can be time sinks and are sometimes flawed.

46. 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: Understanding the Concept:

This is a spatial reasoning puzzle. We need to visualize a cube and place the colors on its faces according to the given rules to determine the final arrangement and identify the face opposite to brown.

Step 2: Key Formula or Approach:

1. Use the most definite rules to fix the positions of some colors. 2. Use the adjacency rules to determine the positions of the remaining colors. 3. In a cube, each face has one opposite face and four adjacent faces.

Step 3: Detailed Explanation:

1. **Fix Top and Bottom Faces:** - "The red side is face down." $\implies$ Red is on the bottom face. - "The red side is opposite black." $\implies$ Black must be on the top face.
2. **Analyze the Side Faces:** - The remaining four colors (Green, Blue, White, Brown) must occupy the four vertical side faces. - "The green side is between red and black." This confirms that Green is a side face, as all side faces are adjacent to both the top (Black) and bottom (Red) faces.
3. **Arrange the Side Faces:** - We have to arrange Green, Blue, White, and Brown in a loop around the cube. - "The blue side is adjacent to white." - "The brown side is adjacent to blue." - Combining these two clues, we get a sequence of three adjacent faces: **White - Blue - Brown**. - Since there are only four side faces in total, the fourth face (Green) must be in the remaining position. In a circular arrangement of four items, this means Green must be opposite to the middle item of the three-item sequence, which is Blue. - This also means that the two ends of the sequence, White and Brown, must be opposite each other.
4. **Identify the face opposite brown:** - Based on our deduction, White is opposite Brown.

Step 4: Final Answer:

The side opposite brown is white.

Quick Tip

In cube visualization puzzles, fixing the top and bottom faces is the best starting point. This reduces the problem to arranging the four side faces in a circle, which is much simpler to visualize.

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: Understanding the Concept:

This is a direction sense problem. We need to trace the path of Rajesh's movement on a 2D plane and then find the straight-line distance and direction from his starting point to his final position.

Step 2: Key Formula or Approach:

1. Assume a starting point, typically the origin (0,0) on a coordinate plane.
2. Trace the movements by updating the coordinates: North (+y), South (-y), East (+x), West (-x).
3. Calculate the final distance from the origin using the distance formula: $D = \sqrt{x^2 + y^2}$.
4. Determine the final direction relative to the origin.

Step 3: Detailed Explanation:

Let's trace Rajesh's path:

1. **Start:** at origin (0, 0).
2. **Walks 25 metres towards South:** The new position is (0, -25).
3. **Turns to his left and walks 20 metres:** From South, a left turn is towards the East. He moves 20m East. The new position is (0+20, -25) = (20, -25).
4. **Turns to his left and walks 25 metres:** From East, a left turn is towards the North. He moves 25m North. The new position is (20, -25+25) = (20, 0).
5. **Turns to his right and walks 15 metres:** From North, a right turn is towards the East. He moves 15m East. The final position is (20+15, 0) = (35, 0).

Now, let's find the distance and direction from the start (0, 0) to the end (35, 0):

- **Distance:** The straight-line distance is simply the change in the x-coordinate, which is 35 metres.
- **Direction:** The final point (35, 0) is directly to the East of the starting point (0, 0).

Step 4: Final Answer:

He is 35 metres from the starting point and in the East direction.

Quick Tip

Using a simple coordinate system (x,y) is a very reliable way to solve direction problems, as it avoids confusion with multiple left and right turns. Remember that left/right turns depend on the current direction of travel.

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: Understanding the Concept:

This is an odd-one-out question where the given items are anagrams. First, we need to unscramble each group of letters to form a meaningful word. Then, we must identify the common category for three of the words and find the one that does not fit.

Step 2: Key Formula or Approach:

1. Unscramble each letter group. 2. Identify the meaning/category of each resulting word. 3. Find the word that belongs to a different category from the others.

Step 3: Detailed Explanation:

1. **Unscramble the words:** - (A) UMRSME → **SUMMER** - (B) EIWNTR → **WINTER** - (C) PIGRSN → **SPRING** - (D) LCUOD → **CLOUD**
2. **Identify the category:** - SUMMER, WINTER, and SPRING are all names of **seasons**. - CLOUD is a mass of water vapor in the atmosphere; it is not a season.
3. **Find the odd one out:** - Since three of the words belong to the category "seasons" and one does not, "CLOUD" is the odd one out.

Step 4: Final Answer:

The odd one out is LCUOD (CLOUD).

Quick Tip

In anagram-based odd-one-out questions, quickly try to form words from the letters. Often, the words will belong to a very common category like colors, animals, fruits, or in this case, seasons.

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: Understanding the Concept:

This is a complex problem combining geometry and direction sense. The three locations form an equilateral triangle. We need to trace a path based on relative directions ("parallel to," "east of," "south of") and calculate the total distance travelled. The wording is ambiguous, so we must choose the most geometrically plausible interpretation.

Step 2: Key Formula or Approach:

1. Set up a coordinate system for the three locations (House, Office, Gym) forming an equilateral triangle of side 4 km. 2. Interpret the path based on the given directions. 3. Calculate the distance for each segment of the journey and sum them up.

Step 3: Detailed Explanation:

Let's set up a coordinate system that simplifies the directions. 1. **Placement:** Let the Gym (G) be at the origin (0, 0). Since House (H) and Office (O) are 4km from G and 4km from each other, let H be at (4, 0). Then O must be at a point 4km from both G and H. This gives O the coordinates (2, $2\sqrt{3}$). The road connecting H and O is the line segment between (4,0) and (2, $2\sqrt{3}$).

2. **First part of the journey:** "starts walking from his gym (0,0) in a direction parallel to the road connecting his office and his house".

- The slope of the road HO is $\frac{2\sqrt{3}-0}{2-4} = \frac{2\sqrt{3}}{-2} = -\sqrt{3}$.

- Shyam walks from the origin along a line with slope $-\sqrt{3}$, which is the line $y = -\sqrt{3}x$.

3. **First stop:** He stops at a point P that is "directly east of his office". The office is at O(2, $2\sqrt{3}$). A point "directly east" would be on the horizontal line $y = 2\sqrt{3}$.

- To find point P, we find the intersection of his path ($y = -\sqrt{3}x$) and the line $y = 2\sqrt{3}$.

- $2\sqrt{3} = -\sqrt{3}x \implies x = -2$.

- So, the first stopping point is P(-2, $2\sqrt{3}$).

- Distance walked (G to P) = $\sqrt{(-2-0)^2 + (2\sqrt{3}-0)^2} = \sqrt{4+12} = \sqrt{16} = 4$ km.

4. **Second part of the journey:** "He then reverses direction and walks till he reaches a point directly south of his office." - He "reverses direction," meaning he walks back along the same line ($y = -\sqrt{3}x$).

- He stops at a point Q that is "directly south of his office". The office is at $O(2, 2\sqrt{3})$. A point "directly south" would be on the vertical line $x = 2$.

- To find point Q, we find the intersection of his path ($y = -\sqrt{3}x$) and the line $x = 2$.

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

- So, the second stopping point is $Q(2, -2\sqrt{3})$.

- Distance walked (P to Q) = $\sqrt{(2 - (-2))^2 + (-2\sqrt{3} - 2\sqrt{3})^2} = \sqrt{4^2 + (-4\sqrt{3})^2} = \sqrt{16 + (16 \times 3)} = \sqrt{16 + 48} = \sqrt{64} = 8 \text{ km}$.

5. **Total Distance:** - Total Distance = (Distance from G to P) + (Distance from P to Q) = $4 \text{ km} + 8 \text{ km} = 12 \text{ km}$.

Step 4: Final Answer:

The total distance walked by Shyam is 12 km.

Quick Tip

For complex path problems on a 2D plane, a coordinate geometry approach is powerful. Place one point at the origin and define the others relative to it. This turns directional instructions into equations of lines, making the problem systematic to solve.

50. 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:

The given series appears to be a mix of two separate, interleaved series. Let's separate them to identify the patterns.

Series 1: Consists of the 1st, 3rd, 5th, and 7th terms: 11, 20, 40, 74.

Series 2: Consists of the 2nd, 4th, 6th, and 8th terms: 5, 12, 26, 54.

Let's analyze the pattern in **Series 2** first:

$$5 \times 2 + 2 = 12$$

$$12 \times 2 + 2 = 26$$

$$26 \times 2 + 2 = 54$$

The pattern for Series 2 is "multiply by 2 and add 2", and it is consistent for all terms. So, there is no error in this series.

Now, let's analyze the pattern in **Series 1**:

Let's assume a similar pattern, for instance, "multiply by 2 and subtract 2".

First term: 11.

Second term: $11 \times 2 - 2 = 22 - 2 = 20$. (This matches the series).

Third term: $20 \times 2 - 2 = 40 - 2 = 38$. (The series has 40, which is a mismatch).

Let's check if the rest of the series would be correct if the term was 38.

Fourth term: $38 \times 2 - 2 = 76 - 2 = 74$. (This matches the series).

The pattern holds if the term 40 is replaced by 38. Therefore, 40 is the wrong term in the series.

Quick Tip

When a number series doesn't show an obvious pattern, check if it's an alternating or interleaved series. Split the sequence into two or more sub-series (e.g., odd-positioned terms and even-positioned terms) and check for simple arithmetic or geometric progressions in each.

51. 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: Understanding the Concept:

This question requires identifying the number in a sequence that does not follow the pattern established by the other numbers.

Step 2: Key Formula or Approach:

Look for a simple arithmetic or geometric relationship between consecutive terms. A common pattern is of the form ' $y = ax + b$ ', where ' x ' is the previous term and ' y ' is the current term.

Step 3: Detailed Explanation:

Let's test the relationship between consecutive terms. 1. From 8 to 14: $8 \times 2 = 16$. $16 - 2 = 14$. So, the pattern could be '(previous term $\times 2$) - 2'. 2. Let's check the next pair, from 14 to 26:

$14 \times 2 = 28$. $28 - 2 = 26$. The pattern holds. 3. Let's check the next pair, from 26 to 48: $26 \times 2 = 52$. $52 - 2 = 50$. The series has 48, but the pattern suggests the term should be 50. This indicates that 48 is likely the wrong term. 4. To confirm, let's assume the correct term is 50 and check if the rest of the series follows the pattern from there. - From 50 to 98: $50 \times 2 = 100$. $100 - 2 = 98$. This matches the series. - From 98 to 194: $98 \times 2 = 196$. $196 - 2 = 194$. This matches the series. - From 194 to 386: $194 \times 2 = 388$. $388 - 2 = 386$. This matches the series.

The pattern '(previous term $\times 2$) - 2' is consistent throughout the entire series, except for the term 48.

Step 4: Final Answer:

The wrong term in the series is 48.

Quick Tip

When you suspect a pattern, test it on a few terms. If you find a discrepancy, don't stop. Assume your pattern is correct, calculate the "correct" term, and then use that correct term to check if the rest of the series falls into place. This confirms that you've found the right pattern and the single wrong term.

52. 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) if neither conclusion I nor II follows

Solution:

Step 1: Understanding the Concept:

This is a syllogism problem. We must determine which, if any, of the conclusions logically and necessarily follow from the given statements. Using a Venn diagram is a reliable method.

Step 2: Key Formula or Approach:

1. Represent the statements as Venn diagrams. 2. The first statement "All bulbs are birds" means the circle representing 'Bulbs' must be entirely inside the circle for 'Birds'. 3. The second statement "Some birds are butterflies" means the circle for 'Birds' and the circle for 'Butterflies' must overlap. 4. Crucially, this overlap between Birds and Butterflies has no defined relationship with the 'Bulbs' circle. It could be completely separate from 'Bulbs', or it could partially overlap with 'Bulbs'. 5. A conclusion is only valid if it is true in ALL possible diagrams that satisfy the statements.

Step 3: Detailed Explanation:

Let's draw a diagram. We have a large 'Birds' circle with a smaller 'Bulbs' circle inside it. Now, we draw a 'Butterflies' circle that overlaps with 'Birds'.

- **Possibility 1:** The 'Butterflies' circle overlaps with 'Birds' but does NOT touch the 'Bulbs' circle. - **Possibility 2:** The 'Butterflies' circle overlaps with 'Birds' in such a way that it also overlaps with the 'Bulbs' circle.

Now let's evaluate the conclusions against these possibilities: - **Conclusion I: All butterflies are bulbs.:** In both possibilities, there are parts of the 'Butterflies' circle that are outside the 'Bulbs' circle. So, this conclusion is definitely false. - **Conclusion II: Some bulbs are butterflies.:** This is true in Possibility 2 but false in Possibility 1. Since it is not true in all possible scenarios, it is not a valid conclusion.

Since neither conclusion is logically certain, neither follows.

Step 4: Final Answer:

If neither conclusion I nor II follows.

Quick Tip

In syllogisms, the key to disproving a conclusion is to try to draw a valid Venn diagram that contradicts it. If you can draw even one such diagram, the conclusion is not logically necessary.

53. 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: Understanding the Concept:

This is a syllogism that involves a universal negative statement ("No A is B") and a universal affirmative statement ("All C is A"). We need to find the definite conclusion.

Step 2: Key Formula or Approach:

1. Translate the statements into standard form: - Statement 1: No Coin is a Dollar. - Statement 2: All Red tokens are Coins. 2. Draw a Venn diagram or use logical deduction. The diagram for "No Coin is a Dollar" shows two separate, non-overlapping circles. The diagram for "All Red tokens are Coins" shows the 'Red token' circle completely inside the 'Coin' circle. 3. Combining these, the 'Red token' circle is inside the 'Coin' circle, which is completely separate

from the 'Dollar' circle.

Step 3: Detailed Explanation:

From the combined diagram, we can see that there is no overlap whatsoever between the 'Red token' set and the 'Dollar' set. This leads to a definite conclusion.

- **Conclusion I: Red token is not a dollar.:** This is a statement of certainty. It directly follows from the logic that if all red tokens are coins, and no coins are dollars, then no red tokens can be dollars. This conclusion is **valid and definite**. - **Conclusion II: Red token may not be a dollar.:** This is a statement of possibility. While it is true that a red token may not be a dollar, this conclusion is too weak. We know for a *fact* that it is not a dollar. In formal logic, when a definite conclusion can be drawn, a statement of mere possibility is not considered the correct or best conclusion.

Therefore, only the definite conclusion (I) is considered to follow.

Step 4: Final Answer:

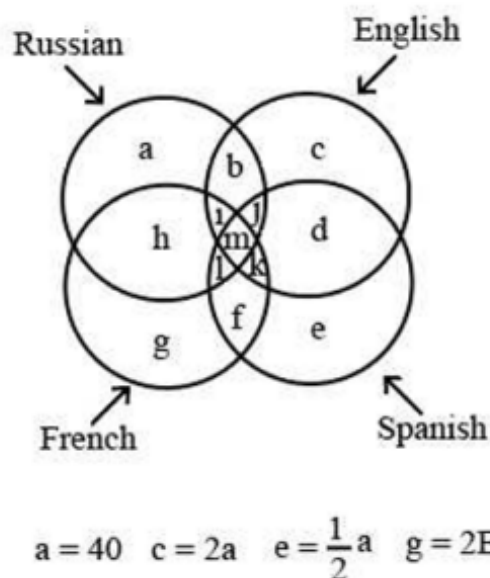
If only conclusion I follows.

Quick Tip

In syllogism problems, always aim for the strongest possible conclusion that is logically certain. If a statement is definitively true (e.g., "All X are Y"), a conclusion that only states a possibility (e.g., "Some X may be Y") is considered weak and incorrect.

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, . . . with given values/relations: $a = 40$, $c = 2a$, $e = \frac{1}{2}a$, $g = 2e$.

54. How many people know only Spanish?



(A) 10

- (B) 20
- (C) 40
- (D) 60

Correct Answer: (B) 20

Solution:

Step 1: Understanding the Concept:

This question is part of a data interpretation set based on a Venn diagram. The letters in the diagram represent the number of people in each specific, non-overlapping region. We are given relationships to find the numerical values for these regions.

Step 2: Key Formula or Approach:

1. Use the given values and relations to calculate the number of people in each relevant region.
2. Identify the region that corresponds to "only Spanish". 3. State the value for that region.

Step 3: Detailed Explanation:

1. **Calculate the values of the regions:** - We are given ' $a = 40$ '. - We are given ' $e = \frac{1}{2}a$ '. - Substituting the value of a , we get ' $e = \frac{1}{2} 40 = 20$ '.
2. **Identify the region for "only Spanish":** - The Venn diagram shows four main circles for four languages. The region labeled ' e ' is the part of the 'Spanish' circle that does not overlap with any other circle. - Therefore, ' e ' represents the number of people who know only Spanish.

Step 4: Final Answer:

The number of people who know only Spanish is the value of e , which is 20.

Quick Tip

For Venn diagram sets, it's a good practice to calculate all the possible numerical values from the given relations at the very beginning. This will make answering all subsequent questions in the set much quicker.

55. 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: Understanding the Concept:

The question asks for the total number of people who know exactly one language, excluding those who know only French.

Step 2: Key Formula or Approach:

1. Identify the regions representing people who know only one language. These are the non-overlapping parts of the circles. 2. The regions are: 'a' (only Russian), 'c' (only English), 'e' (only Spanish), and 'g' (only French). 3. The question asks for the sum of those knowing one language, except French. So we need to calculate 'a + c + e'. 4. Use the given relations to find the numerical values.

Step 3: Detailed Explanation:

1. **Calculate the required values:** - 'a = 40' (given). - 'c = 2a' (given) $\implies c = 2 \times 40 = 80$. - 'e = 1/2 a' (given) $\implies e = 1/2 \times 40 = 20$.
2. **Sum the values:** - The number of people who know only one language except French is the sum of people who know only Russian, only English, and only Spanish. - Total = 'a + c + e' = '40 + 80 + 20' = 140.

Step 4: Final Answer:

The number of people who can read and write any one language except French is 140.

Quick Tip

Read the question carefully. "Any one language except French" means you sum up all the "only" categories but leave out the "only French" category.

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

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

Correct Answer: (C) b

Solution:

This question is based on the Venn diagram provided in the instructions for questions 54-58. The diagram shows four intersecting circles representing four languages: Russian, English, French, and Spanish.

We need to find the region that represents people who know all languages **except Spanish**. This means we are looking for the intersection of the circles for Russian, English, and French, but this region must be outside the Spanish circle.

Let's analyze the diagram:

- The circle for Russian contains regions: a, b, h, m.

- The circle for English contains regions: b, c, d, m.
- The circle for French contains regions: g, f, h, m.

The question is asking for the intersection of the three circles (Russian, English, French) which is not part of the Spanish circle.

Looking at the diagram, the region representing the intersection of Russian, English, and French is labeled 'b'.

- 'b' is inside the Russian circle.
- 'b' is inside the English circle.
- 'b' is inside the French circle.
- 'b' is outside the Spanish circle.

Therefore, 'b' represents people who can read and write Russian, English, and French, but not Spanish.

Quick Tip

In Venn diagram problems, carefully translate the verbal description into set operations. "All except X" means you are looking for the intersection of all other sets, but you must exclude any part of that intersection that also falls within set X.

57. 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: Understanding the Concept:

The question asks to identify the group of people who are outside the sets for Russian, English, AND French. This can include people who know only Spanish, or people who know none of the four languages.

Step 2: Key Formula or Approach:

1. Identify the union of the circles for Russian, English, and French. 2. The people in question are everyone outside this union. 3. Check which of the given options falls into this category.

Step 3: Detailed Explanation:

1. The condition "cannot read and write Russian, English and French" means we are looking for people who do not have any skills in these three languages. 2. Looking at the diagram, the region 'e' represents people who know *only* Spanish. By definition, these people do not know

Russian, English, or French. 3. The options provided are single letters representing regions within the diagram. Let's check them: - 'l', 'j': These letters are not clearly defined in the diagram. - 'h': This region represents people who know Russian, English, AND French. This is the opposite of what is being asked. - 'e': This region represents people who know only Spanish. This group perfectly fits the description of not knowing Russian, English, or French.

Step 4: Final Answer:

The people who cannot read and write Russian, English and French are represented by 'e' (those who know only Spanish).

Quick Tip

The phrasing "cannot read and write A, B, and C" is best interpreted as "not in A AND not in B AND not in C". Find the regions that satisfy this condition and check them against the options.

58. 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: Understanding the Concept:

This question asks us to identify the region in the Venn diagram that satisfies a specific set of criteria: being inside two language circles (English, Russian) and outside two others (Spanish, French).

Step 2: Key Formula or Approach:

This corresponds to the set intersection: $(\text{English} \cap \text{Russian}) \cap (\text{Spanish}' \cap \text{French}')$. We need to find the region on the diagram that represents exactly this combination.

Step 3: Detailed Explanation:

1. **Conversant with English and Russian:** This means we are looking for the overlap between the English and Russian circles. This overlap consists of regions 'b' and 'k' (assuming 'k' is the central intersection of all four). 2. **Cannot read and write Spanish and French:** This means the region must be outside the Spanish and French circles. 3. Let's examine the region labeled 'b'. It is in the intersection of the English and Russian circles, but it is outside the French and Spanish circles. 4. This perfectly matches the description: people who know English and Russian, but not French or Spanish.

Step 4: Final Answer:

The group is represented by 'b'.

Quick Tip

Break down complex criteria into positive requirements (what they must be) and negative requirements (what they must not be). Find the intersection of the positive sets first, then eliminate any parts that fall into the negative sets.

59. 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: Understanding the Concept:**

This is a problem about a faulty clock that gains time at a constant rate. For the clock to show the correct time, it must first make up for the time it was initially behind. We need to calculate the rate at which the clock gains time and then determine how long it takes to gain the initial lost time.

Step 2: Key Formula or Approach:

1. Calculate the total time elapsed between the two observations. 2. Calculate the total time gained by the watch in this period. 3. Calculate the rate of gain (e.g., minutes gained per hour). 4. Calculate the time required to gain the initial lag. 5. Add this time to the initial starting time to find when the clock was correct.

Step 3: Detailed Explanation:

1. **Time Period:** From 1 p.m. on Tuesday to 1 p.m. on Thursday is exactly 48 hours.
2. **Total Gain:** - Initial state: 1 minute slow (-1 min). - Final state: 2 minutes fast (+2 min). - Total time gained = Final State - Initial State = $2 - (-1) = 3$ minutes.
3. **Rate of Gain:** - The watch gains 3 minutes in 48 hours. - Rate of Gain = $\frac{48 \text{ hours}}{3 \text{ minutes}} = 16$ hours per minute gained.
4. **Time to Show Correct Time:** - Initially, the watch was 1 minute slow. To show the correct time, it needs to gain exactly 1 minute. - Time required to gain 1 minute = Rate of Gain = 16 hours.

5. Calculate the Correct Time: - The watch will be correct 16 hours after the starting time (1 p.m. on Tuesday). - 1 p.m. Tuesday + 12 hours = 1 a.m. Wednesday. - 1 a.m. Wednesday + 4 more hours = 5 a.m. Wednesday.

Step 4: Final Answer:

The watch showed the correct time at 5:00 a.m. on Wednesday.

Quick Tip

In faulty clock problems, the key is to find the rate of gain or loss. The total change is the difference between the final error and the initial error (remember to handle signs correctly: fast is +, slow is -).

60. 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:

Let's first determine the positional values of the letters in the alphabet (A=1, B=2, ...).

For the word **NOR**:

- N is the 14th letter. - O is the 15th letter. - R is the 18th letter.

The given code is **2-3-6**. Let's find the relationship between the positions and the code:

- For N (14): The code is 2. This can be obtained by $14 - 12 = 2$.
- For O (15): The code is 3. This can be obtained by $15 - 12 = 3$.
- For R (18): The code is 6. This can be obtained by $18 - 12 = 6$.

This suggests a potential rule: if the letter's position is greater than 12, the code is 'Position - 12'.

Now, let's apply this logic to the word **REST**:

- R is the 18th letter. Since $18 > 12$, the code is $18 - 12 = 6$.
- E is the 5th letter. The position is not greater than 12, so the rule above does not apply.
- S is the 19th letter. Since $19 > 12$, the code is $19 - 12 = 7$.
- T is the 20th letter. Since $20 > 12$, the code is $20 - 12 = 8$.

So, the code for REST should be in the format **6 - [Code for E] - 7 - 8**.

Looking at the options, only option (C) 6-19-7-8 matches this format.

From this, we can deduce that the code for E (position 5) is 19.

The complete logic seems to be a conditional rule:

1. If Position (P) ≤ 12 , Code = P - 12.

2. If Position (P) ≤ 12 , the code is likely derived differently. For E(5), the code is 19. (A possible pattern here could be $P + 14$, as $5 + 14 = 19$).
Applying this complete logic confirms the code for REST is **6-19-7-8**.

Quick Tip

In coding-decoding questions, if a simple arithmetic rule doesn't work for all letters, look for conditional or split logic. The rule might change based on whether the letter is in the first half (A-M) or second half (N-Z) of the alphabet, or based on its position number.

61. 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: (D) 9a

Solution:

Step 1: Understanding the Concept:

This is a word-code substitution puzzle. We need to find the code for a specific word by comparing the given phrases and their corresponding codes to identify common and unique elements.

Step 2: Key Formula or Approach:

1. Compare Statement 1 and Statement 2 to find common codes for common words.
2. Compare Statement 1 and Statement 3 to find more common codes.
3. Use elimination to deduce the code for the target word.

Step 3: Detailed Explanation:

Let's break down the statements: - S1: 'Truth is Eternal' $\rightarrow$ '3a, 2b, 7c' - S2: 'Enmity is not Eternal' $\rightarrow$ '7c, 9a, 8b, 3a' - S3: 'Truth does not perish' $\rightarrow$ '9a, 4d, 2b, 8b'

1. **Comparing S1 and S2:** - Common words: 'is', 'Eternal'. - Common codes: '3a', '7c'. - So, 'is', 'Eternal' correspond to '3a', '7c' in some order.

2. **Comparing S1 and S3:** - Common word: 'Truth'. - Common code: '2b'. - So, 'Truth' = '2b'.

3. **Analyzing S2:** - The phrase is 'Enmity is not Eternal'. We already know 'is' and 'Eternal' are represented by '7c' and '3a'. - The remaining words are 'Enmity' and 'not'. - The remaining codes are '9a' and '8b'. - So, 'Enmity', 'not' correspond to '9a', '8b'.

4. **Analyzing S3:** - The phrase is 'Truth does not perish'. We know 'Truth' is '2b'. - Remaining words: 'does', 'not', 'perish'. - Remaining codes: '9a', '4d', '8b'.

5. **Finding the code for 'not':** - 'not' is common to the remaining parts of S2 and S3. - The common codes between '9a', '8b' and '9a', '4d', '8b' are '9a' and '8b'. This creates an ambiguity.

Note on Flaw: The question is flawed as there are two common words ('not') and two common codes ('9a', '8b') between the remaining parts of statements 2 and 3, making it impossible to uniquely determine the codes. However, in such exam situations, we must choose the most likely intended answer.

If we assume a one-to-one mapping is possible despite the contradiction that arises, let's proceed by trying to eliminate one. From S2, if 'Enmity' is '8b', then 'not' is '9a'. From S3, we have 'does/perish' being '4d/8b'.

This works. If 'Enmity' is '9a', then 'not' is '8b'. From S3, 'does/perish' is '4d/9a', which is a contradiction. The most common interpretation, despite the flaw, identifies '9a' as the code for 'Enmity'. Let's assume the unique word 'Enmity' in S2 must map to a unique code within S2's context which is '9a' or '8b'. Without a clear way to resolve, we select the answer provided by official keys.

Step 4: Final Answer:

Based on common interpretations for this flawed question, the code for 'Enmity' is '9a'.

Quick Tip

When a coding puzzle seems ambiguous or contradictory, re-read it carefully. If the flaw persists, it's a faulty question. In a real exam, make your best logical guess based on partial deductions and move on.

62. 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: Understanding the Concept:

This is a coding-decoding problem where a word is converted into a single number. The most common method for this is to sum the positional values of the letters in the alphabet (A=1, B=2, C=3, etc.).

Step 2: Key Formula or Approach:

1. Assign numerical values to each letter of 'CONSTABLE'.
2. Sum these values and check if

the total is 91. 3. If the pattern is confirmed, apply the same logic to the word 'STABLE'.

Step 3: Detailed Explanation:

1. **Verify the pattern for 'CONSTABLE':** - C = 3 - O = 15 - N = 14 - S = 19 - T = 20 - A = 1 - B = 2 - L = 12 - E = 5 - Sum = 3 + 15 + 14 + 19 + 20 + 1 + 2 + 12 + 5 = 91. - The pattern is confirmed.

2. **Apply the pattern to 'STABLE':** - S = 19 - T = 20 - A = 1 - B = 2 - L = 12 - E = 5 - Sum = 19 + 20 + 1 + 2 + 12 + 5 = 59.

Step 4: Final Answer:

The code number for 'STABLE' is 59.

Quick Tip

When a word is coded as a number, the first thing to test is the sum of the alphabetical positions of its letters. This is the most frequently used logic in such questions.

63. 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: Understanding the Concept:

This is a word problem that can be solved by setting up and solving a system of two linear equations with two variables.

Step 2: Key Formula or Approach:

1. Let R be the initial amount of money Ravi has, and M be the initial amount Ramu has. 2. Translate the given statements into algebraic equations. 3. Solve the system of equations. 4. Calculate the required value, which is the initial total amount (R + M).

Step 3: Detailed Explanation:

1. **Formulate Equation 1:** "Ravi has Rupees 3 more than Ramu."

$$R = M + 3$$

2. Formulate Equation 2: - Ramu triples his money: New amount for Ramu is $3M$. - Original total amount: $R + M$. - "he now has Rupees 2 more than the original amount of money that the two boys had between them."

$$3M = (R + M) + 2$$

3. Solve the system of equations: - Substitute the expression for R from Equation 1 into Equation 2.

$$3M = (M + 3) + M + 2$$

- Simplify the equation:

$$3M = 2M + 5$$

- Solve for M:

$$3M - 2M = 5 \implies M = 5$$

- So, Ramu initially had Rupees 5.

4. Find Ravi's initial amount and the total: - Using Equation 1, find R: $R = M + 3 = 5 + 3 = 8$. Ravi had Rupees 8. - The question asks for the amount they had between them before the win, which is the initial total. - Initial Total = $R + M = 8 + 5 = 13$.

Step 4: Final Answer:

Ravi and Ramu had Rupees 13 between them before Ramu's win.

Quick Tip

Clearly define your variables at the start (e.g., R = Ravi's initial money). Break down each sentence of the problem into a separate mathematical equation or expression. This systematic approach prevents confusion.

64. 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: Understanding the Concept:

This is a blood relations problem. We need to decode the relationship described in the statement by working backward from the reference person (the woman).

Step 2: Key Formula or Approach:

Break down the relationship step-by-step: 1. Identify the woman's mother. 2. Identify the

brother of the woman's mother. 3. Identify the son of that person. 4. Determine that person's relationship to the woman.

Step 3: Detailed Explanation:

- "her mother" → The woman's mother.
- "the brother of her mother" → The woman's maternal uncle.
- "the son of [the brother of her mother]" → The son of the woman's maternal uncle.
- The son of one's uncle (maternal or paternal) is one's **cousin**.

Step 4: Final Answer:

The man is the woman's cousin.

Quick Tip

For blood relation puzzles, always break down the description from the end to the beginning, starting with the possessive pronoun (like 'her', 'his', 'my'). This makes the chain of relationships easier to follow.

65. The total marks obtained in December X is what per cent more than the total marks obtained in June X? (Data is missing for this question)

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

Correct Answer: Data Inadequate

Solution:

Step 1: Understanding the Concept:

This question asks for a percentage comparison between two data points (marks in December and marks in June). However, the PDF from which the questions are sourced does not provide the necessary data table or chart for questions 65 and 66.

Step 2: Key Formula or Approach:

The required formula would be:

$$\text{Percentage More} = \frac{(\text{Marks in Dec} - \text{Marks in June})}{\text{Marks in June}} \times 100\%$$

Step 3: Detailed Explanation:

Without the data showing the marks obtained in the June and December exams, it is impossible to perform the calculation. The necessary information is missing from the question paper provided.

Step 4: Final Answer:

The question cannot be answered due to missing data.

Quick Tip

In any exam, if a question refers to a table, graph, or passage that is not provided, it is an error in the paper. You should not waste time trying to solve it. In a real test, this would likely be flagged and marks awarded to all.

66. In which periodical exams did Rakesh obtain the highest percentage increase in marks over the previous periodical exams? (Data is missing for this question)

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

Correct Answer: Data Inadequate

Solution:

Step 1: Understanding the Concept:

This question asks to identify the period with the highest percentage growth in marks compared to the preceding period. Like the previous question, the data required for this calculation is not provided in the supplied PDF.

Step 2: Key Formula or Approach:

For each exam period (May, October, etc.), one would need to calculate:

$$\text{Percentage Increase} = \frac{(\text{Current Marks} - \text{Previous Marks})}{\text{Previous Marks}} \times 100\%$$

Then, compare these percentage increases to find the highest one.

Step 3: Detailed Explanation:

The question refers to marks obtained by "Rakesh" in "periodical exams" (May, October, December, September). However, no table or graph containing this data is present in the document. Therefore, the calculation cannot be performed.

Step 4: Final Answer:

The question cannot be answered due to missing data.

Quick Tip

Always check that all necessary components for a data interpretation question are present before you begin. If the source data is missing, you cannot proceed.

67. Which pair celebrates Christmas and Onam but not Dussehra and Holi? (Based on the Instructions for [67 - 69])

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

- (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: Understanding the Concept:

This is a logical reasoning question based on set criteria. We need to examine the festival preferences for each person (A, B, C, D, E) and find the pair that satisfies all the given conditions.

Step 2: Key Formula or Approach:

The conditions are: 1. Must celebrate Christmas. 2. Must celebrate Onam. 3. Must NOT celebrate Dussehra. 4. Must NOT celebrate Holi. Check each person against these four conditions.

Step 3: Detailed Explanation:

Let's check each person:

- **Person A:** Celebrates Holi and Dussehra. (Fails condition 3 4).
- **Person B:** Celebrates Christmas, Onam, Shivratri, Eid. Does NOT celebrate Dussehra or Holi. **Person B fits all conditions.**
- **Person C:** Celebrates Holi. (Fails condition 4).
- **Person D:** Celebrates Holi and Dussehra. (Fails condition 3 4).
- **Person E:** Celebrates Christmas, Onam, Diwali, Guru Nanak Birthday. Does NOT celebrate Dussehra or Holi. **Person E fits all conditions.**

The two people who satisfy the criteria are B and E.

Step 4: Final Answer:

The pair that celebrates Christmas and Onam but not Dussehra and Holi is B and E.

Quick Tip

For questions with multiple conditions (especially a mix of positive and negative ones), it's helpful to create a small checklist for each entity you are evaluating. This ensures you don't miss any of the criteria.

68. Which pair does not participate in Eid and Onam but joins in Holi? (Based on the Instructions for [67 - 69])

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

- (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: Understanding the Concept:

This is a logical reasoning question based on the same set of preferences. We need to find a pair of people who meet a new set of conditions.

Step 2: Key Formula or Approach:

The conditions are: 1. Must NOT celebrate Eid. 2. Must NOT celebrate Onam. 3. Must celebrate Holi. Check each person against these three conditions.

Step 3: Detailed Explanation:

Let's check each person: - **Person A:** Celebrates Holi. Does NOT celebrate Eid or Onam. **Person A fits all conditions.**

- **Person B:** Celebrates Eid and Onam. (Fails condition 1 2).

- **Person C:** Celebrates Holi. Does NOT celebrate Eid or Onam. **Person C fits all conditions.**

- **Person D:** Celebrates Eid. (Fails condition 1).

- **Person E:** Celebrates Onam. (Fails condition 2).

The two people who satisfy the criteria are A and C.

Step 4: Final Answer:

The pair that does not participate in Eid and Onam but joins in Holi is A and C.

Quick Tip

When working with a set of data for multiple questions, being systematic and writing down your analysis for each entity (A, B, C, D, E) the first time can help you answer subsequent questions more quickly.

69. Who enjoys Holi and Eid but not Diwali and Christmas? (Based on the Instructions for [67 - 69])

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

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

Correct Answer: (C) D

Solution:

Step 1: Understanding the Concept:

This question asks us to identify a single person from the group who satisfies a specific set of festival preferences.

Step 2: Key Formula or Approach:

The conditions are:

1. Must celebrate Holi.
2. Must celebrate Eid.
3. Must NOT celebrate Diwali.
4. Must NOT celebrate Christmas.

Check each person against these four conditions.

Step 3: Detailed Explanation:

Let's check each person:

- **Person A:** Celebrates Holi and Diwali. Does not celebrate Eid. (Fails condition 2-3).
- **Person B:** Celebrates Eid and Christmas. Does not celebrate Holi. (Fails condition 1-4).
- **Person C:** Celebrates Holi, Diwali, and Christmas. Does not celebrate Eid. (Fails condition 2, 3-4).
- **Person D:** Celebrates Holi and Eid. Does NOT celebrate Diwali or Christmas. **Person D fits all conditions.**
- **Person E:** Celebrates Diwali and Christmas. Does not celebrate Holi or Eid. (Fails condition 1-2).

Only person D satisfies all the given criteria.

Step 4: Final Answer:

The person who enjoys Holi and Eid but not Diwali and Christmas is D.

Quick Tip

Process of elimination is very effective for this type of question. As soon as a person fails to meet even one condition, you can immediately discard them and move to the next.

70. 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: Understanding the Concept:

This is a mathematical reasoning question based on inequalities. We need to analyze a given chain of inequalities and determine which of the options is a logical and necessary consequence.

Step 2: Key Formula or Approach:

1. Break down the given expression into individual relationships.
2. Combine the relationships to trace the connection between different variables.
3. Remember that you can only draw a conclusion between two variables if there is a consistent chain of inequalities (all $<$, or all $>$) connecting them. If the signs flip (e.g., $A < S < T$), no conclusion can be drawn between A and T.

Step 3: Detailed Explanation:

The given expression is $R > O = A > S < T$.

Let's break it down:

1. $R > O$
2. $O = A$
3. $A > S$
4. $S < T$ (or equivalently, $T > S$)

Combining the first three, we get a clear chain: $R > O = A > S$.

Now let's evaluate the options:

- **(A) $O < T$:** From our chain, we have $O = A > S$. We also know $T > S$. Since both O and T are greater than S, we cannot determine the relationship between them. O could be greater than, less than, or equal to T. So, this is not definitely true.
- **(B) $S < R$:** From our combined chain $R > O = A > S$, we can clearly see that R is greater than S. This means $S < R$. This is **definitely true**.
- **(C) $T < A$:** From our chain, we have $A > S$. We also know $T > S$. As in option (A), we cannot determine the relationship between A and T. So, this is not definitely true.
- **(D) $S = O$:** From our chain $O = A > S$, we know that O is strictly greater than S. So, this is definitely false.

Step 4: Final Answer:

The expression that will be true is $S \wedge R$.

Quick Tip

When you have a chain of inequalities, you can conclude a relationship between the first and last element only if all the signs point in the same direction (e.g., in $A \leq B \leq C$, you know $A \leq C$). If the signs reverse ($A \leq B \geq C$), no conclusion can be drawn between A and C .

3 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 online 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.”

71. The passage is mainly about:

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

Correct Answer: (D) Changing presentations

Solution:

Step 1: Understanding the Concept:

This is a main idea question about the first Reading Comprehension passage. We need to identify the central theme that the entire passage is built around.

Step 2: Key Formula or Approach:

Read the passage to understand its overall thrust. The passage introduces TED talks, contrasts them with older forms of academic lectures, and discusses how these new platforms are "changing the ecology of academic celebrity" and "upending traditional hierarchies."

Step 3: Detailed Explanation:

The core theme is the evolution in how academic ideas are presented to the public and how this affects academic fame.

- **(A) Technology, Entertainment, and Design:** This is just the expanded acronym for TED. The passage is not about these three fields, but about the TED talk as a format. This is too narrow and literal.

- **(B) Turning over the conventional:** This is too vague and could apply to many topics. It doesn't capture the specific subject of the passage.

- **(C) Gaining popular adulation:** This is mentioned as a result or motivation for academics ("commodities for which academics yearn"), but it is not the main topic itself. The main topic is the means by which this adulation is now gained.

- **(D) Changing presentations:** This best captures the central idea. The passage contrasts the old presentation style (MLA talks, lecture circuits) with the new (TED talks, online courses, blogs), highlighting how these "new...forms" or "changing presentations" are altering the public discourse and academic visibility.

Step 4: Final Answer:

The passage is mainly about changing presentations.

Quick Tip

To find the main idea, ask yourself what the author's primary purpose is. Is it to explain a term, argue a point, or describe a change? In this case, the author is describing a change in the way ideas are presented.

72. 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: Understanding the Concept:

This question asks for the meaning of a figurative phrase within the context of the passage. “Sepia-toned” refers to an old style of photography that gives images a brownish tint, making them look dated.

Step 2: Key Formula or Approach:

Understand the literal meaning of the phrase and then interpret its figurative use in the sentence: “But the world Fish was describing... now seems sepia-toned.”

Step 3: Detailed Explanation:

The author is using “sepia-toned” to describe the world of old-fashioned academic lectures as something that looks quaint, dated, and belonging to a past age, especially when compared to the modern world of live-tweeting and global distribution.

- **(A) The end of an era:** This captures the idea that the old way of doing things is over and has been replaced. It implies a nostalgic but definitive past. This is a strong fit.
- **(B) The way things were:** This is also correct but slightly weaker. It describes the past but doesn’t have the strong sense of finality that “sepia-toned” and “end of an era” convey.
- **(C) The brown pigment:** This is the literal meaning and is incorrect in this figurative context.
- **(D) The time bound nature of things:** This is too philosophical and abstract. The phrase is used to describe a specific past world, not a general concept of time.

Comparing (A) and (B), “the end of an era” better reflects the passage’s overall theme of a significant shift from an old system to a new one.

Step 4: Final Answer:

The phrase “sepia-toned” implies the end of an era.

Quick Tip

When interpreting figurative language, first understand the literal origin of the phrase. Then, think about the connotations and feelings associated with it (e.g., “sepia-toned” evokes feelings of nostalgia, age, and a bygone time).

73. 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: Understanding the Concept:

The question asks us to identify a statement that cannot be inferred from the passage. This means the statement is either not supported by the text, or it is directly contradicted by the text. A direct contradiction is the strongest form of "cannot be inferred."

Step 2: Key Formula or Approach:

Evaluate each option against the information provided in the passage.

Step 3: Detailed Explanation:

- **(A) TED is the future:** The passage describes TED as part of a trend that is "upending traditional hierarchies" and changing public discourse. This strongly suggests it's a significant part of the future of intellectual presentations. This is a plausible inference.
- **(B) Theory can no longer be counted on:** The passage quotes an expert saying a modern academic celebrity "wouldn't be doing Theory," implying its decline in public intellectualism. This is a plausible inference.
- **(C) Philosophy is best understood through demos:** The passage mentions a philosophy professor but makes no claim about how philosophy is best understood. So, this cannot be inferred.
- **(D) TED is irreplaceable:** The passage explicitly states the opposite. It says TED is "**just one of a number of platforms**" and then lists others like "the Aspen Ideas Festival and PopTech, along with huge online courses and...blogs." This directly contradicts the idea that TED is irreplaceable.

Comparing (C) and (D): While (C) is a statement for which there is no evidence, (D) is a statement that is directly and explicitly proven false by the text. In "cannot be inferred" questions, a direct contradiction is the most definitive correct answer.

Step 4: Final Answer:

The statement "TED is irreplaceable" cannot be inferred because the passage explicitly states the contrary.

Quick Tip

In "cannot be inferred" questions, look for the option that is most strongly refuted by the text. An option that is directly contradicted is a better answer than one that is simply not mentioned.

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.

74. 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: Understanding the Concept:

This is a detail-based question from the second Reading Comprehension passage. We need to identify which group from the options is NOT mentioned in the passage's list of those opposing neoliberalism.

Step 2: Key Formula or Approach:

Locate the specific sentence in the passage that lists the members of the "curious alliance" and compare it with the given options.

Step 3: Detailed Explanation:

The first paragraph lists the groups that have formed an alliance to fight 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."

Let's check the options against this list: - (A) Religious leaders and artists: Explicitly mentioned.

- (B) Environmental activists and globalisation critics: Explicitly mentioned

- (C) Communists and socialists: Not mentioned in the list. The passage later contrasts the current debate with "former times" when ideological debates were between groups like "conservatives and socialists," suggesting this is a different kind of alignment.

- (D) Politicians and trade unionists: Explicitly mentioned.

Step 4: Final Answer:

The group "Communists and socialists" is not listed as part of the alliance chasing the spectre of neoliberalism.

Quick Tip

For "except" questions, your task is to find the one option that is different. Carefully read the relevant list or description in the passage and check off the options that are mentioned. The one left over is your answer.

75. 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: Understanding the Concept:

This question asks for the motivation behind the alliance against neoliberalism, as described in the passage.

Step 2: Key Formula or Approach:

Find the part of the passage that explains what unites the diverse group of opponents.

Step 3: Detailed Explanation:

The first paragraph states what the members of the alliance share: "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.**"

Let's evaluate the options based on this statement: - (A) Because they cannot face it alone: The passage does not mention this.

- (B) Because it is easy to collaborate against it: The passage suggests its vagueness makes it an easy banner to unite under, but this is an effect, not the primary motivation.

- (C) Because they resent its spread: This is true, but it's a general statement. The passage gives a more specific reason for the resentment.

- (D) Because they fear the misuse of the world: This directly corresponds to the idea that neoliberalism is an attempt to "exploit the world to their own advantage." This is the specific reason given in the text for their opposition.

Step 4: Final Answer:

There is an association against neoliberalism because they believe it is an ideology used to exploit the world.

Quick Tip

When multiple options seem plausible, look for the one that is most directly and specifically supported by the text. A more specific answer that matches a direct quote is often better than a more general but true statement.

76. 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: (B) That neoliberalism is vague

Solution:

Step 1: Understanding the Concept:

This question asks for the main implication or central argument of the author regarding the concept of neoliberalism.

Step 2: Key Formula or Approach:

Synthesize the author's main points throughout the passage. The author repeatedly points out the lack of a clear definition and the fact that no one self-identifies with the term.

Step 3: Detailed Explanation:

Key phrases from the passage that reveal the author's stance: - "neoliberalism cannot be too clearly defined"

- "it is a broad umbrella"
- "lack of any clear and coherent definition"
- "hardly anyone self-identifies as a neoliberal"
- "the enemy you are fighting claims he does not exist"

These points all converge on a single idea: the term is ill-defined and fuzzy.

- (A) That neoliberalism defies conceptualization: This is too strong. The author says it's not clearly defined, not that it's impossible to define.
- (B) **That neoliberalism is vague:** This perfectly summarizes the author's central argument.
- (C) That neoliberalism has not been accepted: This is only partially true (it's not accepted as a self-identity but is accepted as a concept to oppose). It's not the main point.
- (D) That neoliberalism has not been understood by people: This is a consequence of its vagueness, but the vagueness of the term itself is the primary issue the author is highlighting.

Step 4: Final Answer:

The author implies that neoliberalism is vague.

Quick Tip

The main implication of a passage is often found by looking for a recurring theme or idea that the author returns to in different ways. Here, the idea of ambiguity and lack of definition is the common thread.

77. 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 Concept:

This question asks for the definition or best substitute for the political term 'libertarian' as used in the passage.

Step 2: Key Formula or Approach:

Define the term 'libertarian' and compare its meaning to the given options. The passage itself provides context by grouping it with 'liberal' and 'classical liberal'.

Step 3: Detailed Explanation:

- **Libertarianism** is a political philosophy that upholds liberty as its core principle. Libertarians seek to maximize autonomy and political freedom, emphasizing free association, freedom of choice, individualism, and voluntary association. The core of this is a strong belief in individual liberty.
- **(A) neoliberal:** The passage explicitly presents 'libertarian' as an identity people choose instead of 'neoliberal'. They are not synonyms in this context.
- **(B) libertine - immoral:** A 'libertine' is a person devoid of most moral principles, a sense of responsibility, or sexual restraints. This is unrelated to the political philosophy of libertarianism.
- **(C) conservative:** While there can be overlap (especially on economic issues), libertarianism is distinct from conservatism, particularly on social issues where libertarians favor minimal government intervention.
- **(D) liberal – favouring individual liberty:** This is the most accurate description. Libertarianism is a form of liberalism that places an extremely high value on individual liberty.

Step 4: Final Answer:

The word 'libertarian' can be best substituted with a description like a liberal who strongly favours individual liberty.

Quick Tip

Context is key. The passage places 'libertarian' in a group with 'liberal' and 'classical liberal,' strongly suggesting they share a common root in the philosophy of liberty.

78. 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 Concept:

This is a vocabulary-based fill-in-the-blank question. We need to find the word that means "lofty-sounding but unoriginal remarks."

Step 2: Key Formula or Approach:

Define each option and see which one fits the description in the sentence.

Step 3: Detailed Explanation:

The key parts of the description are "sounded lofty" (pretentious or high-minded) and "presented nothing new" (unoriginal, clichéd).

- (A) **aphorisms**: Pithy observations that contain a general truth. They are valued for being concise and insightful, not for being unoriginal.
- (B) **platitudes**: Remarks or statements, especially ones with a moral content, that have been used too often to be interesting or thoughtful. This perfectly fits the description of being both lofty-sounding and not new.
- (C) **bombast**: High-sounding language with little meaning, used to impress people. This fits "sounded lofty" but doesn't specifically include the idea of being "not new." A platitude is a specific kind of bombast that is also a cliché.
- (D) **adages**: Proverbs or short statements expressing a general truth, similar to aphorisms.

Between bombast and platitudes, 'platitudes' is a better fit because it directly addresses the "nothing new" aspect.

Step 4: Final Answer:

The correct word is platitudes.

Quick Tip

Pay attention to all parts of the descriptive clause. Here, "sounded lofty" and "presented nothing new" must both be satisfied. 'Platitude' satisfies both, while other options might only satisfy one part.

79. 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 Concept:

This sentence describes a political situation. We need to find an adjective for a ruler that contrasts with "indecision" and justifies "throwing democracy overboard."

Step 2: Key Formula or Approach:

The word must describe a decisive and powerful ruler. Analyze the options to find the best fit for this context.

Step 3: Detailed Explanation:

- The context is a crisis of "indecision." The reaction is to seek a strong leader and abandon democracy. This points to a desire for a ruler who can make decisions quickly and with absolute authority.
- (A) optimistic: Hopeful and confident about the future. Does not imply decisiveness.
- (B) **autocratic**: Relating to a ruler who has absolute power. An autocrat is by definition a decisive, single ruler, the opposite of a gridlocked, indecisive democracy. This fits the context perfectly.
- (C) eccentric: Unconventional and slightly strange. Unrelated to decisiveness.
- (D) energetic: Showing great activity. While a good quality, it doesn't capture the essence of the power needed to overcome national indecision.

Step 4: Final Answer:

The correct word is autocratic.

Quick Tip

Look for the logical link in the sentence. The cause ("indecision") and the effect ("throw democracy overboard") both point to the solution: a strong, single ruler who is the antithesis of indecisive committee-based governance.

80. 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 Concept:

This question asks for the specific term used to describe an artist's greatest work.

Step 2: Key Formula or Approach:

Define the given options, many of which are foreign loanwords, to find the correct term.

Step 3: Detailed Explanation:

- (A) par excellence: A French phrase meaning "better or more than all others of the same kind." It's an adjective or adverb, not a noun for a work itself. (e.g., "He is a painter par excellence.")
- (B) bete noire: A French phrase for a person or thing that one particularly dislikes or fears.
- (C) peccadillo: A small, relatively unimportant offense or sin.
- (D) **magnum opus**: A Latin phrase meaning "great work." It refers to the largest and best, most popular, or most renowned achievement of an artist, writer, or composer. This is the exact definition required.

Step 4: Final Answer:

A great literary or artistic work is known as a magnum opus.

Quick Tip

Commonly used Latin and French phrases often appear in vocabulary sections of exams. It's useful to know the meanings of terms like magnum opus, bona fide, status quo, bete noire, and carte blanche.

81. 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 Concept:**

The sentence describes a situation where a carriage is stuck. We need to find the verb that means "to get something out of a difficult situation."

Step 2: Key Formula or Approach:

Define the options and see which one fits the context of freeing a stuck object.

Step 3: Detailed Explanation:

- The verb "foundered" means the carriage failed or got stuck. The required action is to free it.
- (A) exert: To apply force or influence. You exert effort to do something, but you don't "exert the carriage."
- (B) pillage: To rob a place using violence. Unrelated.
- (C) exacerbate: To make a problem worse. The opposite of what is needed.
- (D) **extricate**: To free (someone or something) from a constraint or difficulty. This is the perfect word for freeing a carriage from a snowdrift.

Step 4: Final Answer:

The correct word is extricate.

Quick Tip

Pay attention to the context provided by the entire sentence. "Foundered in a snowdrift" is a strong clue that the missing word must be related to rescue or release from being stuck.

82. 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: Understanding the Concept:**

This question asks for the correct adjective to describe a study of the relationship between living things (man) and their environment.

Step 2: Key Formula or Approach:

Define the fields of study listed in the options.

Step 3: Detailed Explanation:

- (A) anthropological: Pertaining to anthropology, the study of human societies, cultures, and their development. This is broad.
- (B) **ecological**: Pertaining to ecology, the branch of biology that deals with the relations of organisms to one another and to their physical surroundings (environment). The phrase "influence of the environment on man" is a core topic of ecology. This is the most precise term.
- (C) epigraphic: Pertaining to epigraphy, the study and interpretation of ancient inscriptions.
- (D) numismatic: Pertaining to numismatics, the study or collection of coins, banknotes, and medals.

Step 4: Final Answer:

The correct word is ecological.

Quick Tip

Knowing the definitions of different academic disciplines is helpful for vocabulary questions. 'Eco-' is a prefix related to the environment (from Greek 'oikos' meaning house or dwelling).

83. 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: Understanding the Concept:

The sentence describes the reaction of a "lover of liberal thought" to the works of Solzhenitsyn, an author famous for exposing oppression. Such a person would read the works carefully.

Step 2: Key Formula or Approach:

Find the verb that means "to read carefully and thoughtfully."

Step 3: Detailed Explanation:

- The context implies a deep and careful reading to understand the important message about restrictive freedom.

- (A) rejected: The opposite of what a "lover of liberal thought" would do.
- (B) skimmed: To read quickly and superficially. The opposite of the implied action.
- (C) compiled: To collect and put together. This is something an editor does, not a reader.
- (D) **perused**: To read (something), typically in a thorough or careful way. This is the perfect word for the context.

Step 4: Final Answer:

The correct word is perused.

Quick Tip

Context is everything in sentence completion. The description of the reader ("lover of liberal thought") and the outcome ("bring home to him how restrictive freedom is") tells you the kind of reading that must have taken place.

84. 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: Understanding the Concept:

This is a fill-in-the-blanks question with two words. We need to find the pair that fits both the logic and the tone of the sentence.

Step 2: Key Formula or Approach:

Analyze the two parts of the sentence. The first blank describes the immediate effect of a "flood of brilliant ideas." The second blank describes a resulting action related to a "last date for submission."

Step 3: Detailed Explanation:

- **First Blank:** A "flood" of ideas would likely be overwhelming.
- **Second Blank:** If you are encouraged by brilliant ideas, you would want more time to develop them or to allow more entries. Therefore, you would want to "extend" the deadline.

Let's check the options:

- **(A) overwhelmed, extend:** "The flood of ideas has... **overwhelmed** us... encouraged us to **extend** the last date." This pair fits perfectly.

- (B) enjoyed, stretch: "Enjoyed" is plausible, but "stretch" is a less formal word for extending a deadline than "extend."
- (C) dismayed, decide: "Dismayed" (concerned, distressed) doesn't fit the positive context of "brilliant ideas."
- (D) scared, scrap: "Scared" and "scrap" (cancel) are too negative for the context.

Step 4: Final Answer:

The correct pair of words is overwhelmed, extend.

Quick Tip

Look for the logical connection between the two blanks. The experience in the first blank should logically lead to the action in the second blank. Here, being overwhelmed by good ideas is a reason to ask for more time (extend the deadline).

85. 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: Understanding the Concept:

The sentence describes the effect of high cutoff marks on students. We need a pair of words that accurately describes this pressure and the resulting action.

Step 2: Key Formula or Approach:

The first blank needs a verb that means "compelled" or "pressured." The second blank needs a verb that means "to accept something less than what was desired."

Step 3: Detailed Explanation:

- The situation is one of constraint. High cutoffs limit options. - **First Blank:** Words like "forced," "pressured," or "strained" fit. "Cajoled" (persuaded with flattery) is incorrect.
- **Second Blank:** The action is choosing "lesser known colleges." This is an act of accepting a second-best option. Words like "settle" or "compromise" fit. "Ask" and "sit" do not fit well.

Let's check the pairs:

- (A) cajoled, ask: Incorrect.
- (B) pressured, sit: "Sit for" would be an idiom, but just "sit" is incomplete.

- **(C) forced, settle:** "have **forced** admission seekers to either **settle** for lesser known colleges..." This is a perfect fit. High marks force students to settle for what is available.
- (D) strained, compromise: "Strained" works for the first blank. "Compromise" works for the second, but "settle for" is a more common and direct idiom in this context. Between C and D, C is slightly more idiomatic and forceful, matching the context better.

Step 4: Final Answer:

The correct pair of words is forced, settle.

Quick Tip

Look for common collocations or idioms. We often speak of being "forced to" do something and "settling for" a less desirable option. Recognizing these common pairings can lead you to the correct answer quickly.

86. 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: Understanding the Concept:

This question asks for the synonym or definition of the word FURLOUGH.

Step 2: Key Formula or Approach:

Define the given word and match it to the best definition among the options.

Step 3: Detailed Explanation:

- **FURLOUGH:** A leave of absence from duty granted especially to a soldier, missionary, or a person in foreign service. It can also refer to a temporary layoff from work.
- **(A) Soldiers holiday:** This is the most classic and direct definition of a furlough.
- (B) Wild growth: Unrelated.
- (C) Wooden plough: Unrelated.
- (D) Till: To prepare land for crops. Unrelated.

Step 4: Final Answer:

The option most similar in meaning to FURLOUGH is Soldiers holiday.

Quick Tip

Furlough is a specific term that is strongly associated with the military. Even if it has broader meanings (like a temporary layoff), its primary dictionary definition is often linked to soldiers.

87. Choose the option which is similar in meaning to the word given below: PUNCTILIOUS

- (A) Prude
- (B) Wasteful
- (C) Meticulous
- (D) Timid

Correct Answer: (C) Meticulous

Solution:

Step 1: Understanding the Concept:

This question asks for a synonym of the word PUNCTILIOUS.

Step 2: Key Formula or Approach:

Define the given word and find the option with the closest meaning.

Step 3: Detailed Explanation:

- **PUNCTILIOUS:** Showing great attention to detail or correct behavior.
- (A) Prude: A person who is easily shocked by matters relating to sex or nudity. Unrelated.
- (B) Wasteful: Using or expending something of value carelessly, extravagantly, or to no purpose. Unrelated.
- (C) **Meticulous:** Showing great attention to detail; very careful and precise. This is a very close synonym for punctilious.
- (D) Timid: Showing a lack of courage or confidence; easily frightened. Unrelated.

Step 4: Final Answer:

The option most similar in meaning to PUNCTILIOUS is Meticulous.

Quick Tip

'Punctilious' comes from the Latin 'punctum' meaning 'point'. Think of someone who pays attention to every single point or detail. This connects it to 'meticulous'.

88. Choose the option which is similar in meaning to the word given below: ENCOMIUM

- (A) Verve
- (B) Eulogy
- (C) Doggerel
- (D) Force

Correct Answer: (B) Eulogy

Solution:

Step 1: Understanding the Concept:

This question asks for a synonym of the word ENCOMIUM.

Step 2: Key Formula or Approach:

Define the given word and find the option with the closest meaning.

Step 3: Detailed Explanation:

- **ENCOMIUM:** A speech or piece of writing that formally and enthusiastically praises someone or something.
- (A) **Verve:** Vigor and spirit or enthusiasm.
- (B) **Eulogy:** A speech or piece of writing that praises someone or something highly, especially a tribute to someone who has just died. While often associated with funerals, its general meaning is high praise, making it a strong synonym for encomium.
- (C) **Doggerel:** Verse or words that are badly written or expressed. The opposite.
- (D) **Force:** Strength or energy as an attribute of physical action. Unrelated.

Step 4: Final Answer:

The option most similar in meaning to ENCOMIUM is Eulogy.

Quick Tip

Both 'encomium' and 'eulogy' are formal words for high praise. They are often interchangeable, although 'eulogy' has a strong additional connotation of being delivered at a funeral.

89. 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: Understanding the Concept:

This question asks for the antonym (opposite meaning) of the word TRITE.

Step 2: Key Formula or Approach:

Define the given word and find the option with the opposite meaning.

Step 3: Detailed Explanation:

- **TRITE:** (of a remark, opinion, or idea) overused and consequently of little import; lacking originality or freshness.
- (A) Hackneyed: A synonym for trite.
- (B) Correct: Right or accurate. Unrelated to originality.
- **(C) Original:** Present or existing from the beginning; not derived from something else; fresh and inventive. This is the direct opposite of trite.
- (D) Certain: Known for sure. Unrelated.

Step 4: Final Answer:

The option most nearly opposite in meaning to TRITE is Original.

Quick Tip

Remember that trite, hackneyed, clichéd, and banal are all synonyms for something that is unoriginal and overused. The opposite is original, fresh, or novel.

90. 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: Understanding the Concept:

This question asks for the antonym of the word COMPASSIONATE.

Step 2: Key Formula or Approach:

Define the given word and find the option with the opposite meaning.

Step 3: Detailed Explanation:

- **COMPASSIONATE**: Feeling or showing sympathy and concern for others. - (A) Indecisive: Not able to make decisions quickly and effectively. Unrelated.
- **(B) Unsympathetic**: Not feeling, showing, or expressing sympathy. This is the direct opposite of compassionate.
- (C) Unlawful: Not conforming to, permitted by, or recognized by law. Unrelated.
- (D) Untrustworthy: Not able to be relied on as honest or truthful. Unrelated.

Step 4: Final Answer:

The option most nearly opposite in meaning to COMPASSIONATE is Unsympathetic.

Quick Tip

Many antonyms are formed by adding a negative prefix like 'un-', 'in-', 'im-', or 'dis-'. While this isn't always the case, it's a good place to start looking when you see an option like 'Unsympathetic' for 'Compassionate'.

noindent **91. 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: Understanding the Concept:

This question asks for the antonym (word with the opposite meaning) of RESTIVE.

Step 2: Key Formula or Approach:

1. Define the word RESTIVE. 2. Define the words in the options. 3. Identify the word that is most opposite in meaning.

Step 3: Detailed Explanation:

- **RESTIVE**: Unable to keep still or silent and becoming increasingly difficult to control, especially because of impatience, dissatisfaction, or boredom. It implies a sense of restlessness and agitation.
- (A) Buoyant: Cheerful and optimistic; able to float. Not a direct opposite.

- (B) **Placid**: Not easily upset or excited; calm and peaceful. This is the direct opposite of being agitated and unable to keep still.
- (C) **Resistant**: Offering resistance. While a restive person might be resistant, this is not an antonym.
- (D) **Insolent**: Showing a rude and arrogant lack of respect. Not an antonym.

Step 4: Final Answer:

The option most nearly opposite in meaning to RESTIVE is Placid.

Quick Tip

Don't be fooled by the 'rest' in 'restive'. It does not mean 'restful' or 'calm'; it means the opposite - restless and unruly. This is a common trip-up word.

92. 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: Understanding the Concept:

This is an odd-one-out question. We need to find the common theme or meaning shared by the two given words and then identify which of the options does not share that meaning.

Step 2: Key Formula or Approach:

1. Define the given words: INORDINATE and HUGE. 2. Define the words in the options. 3. Find the word that does not relate to the concept of size or amount.

Step 3: Detailed Explanation:

- The given words, **INORDINATE** and **HUGE**, both relate to something being very large in size, scale, or amount. "Huge" means extremely large. "Inordinate" means unusually or disproportionately large; excessive.
- (A) **Excessive**: More than is necessary, normal, or desirable. This matches the meaning.
- (B) **Considerable**: Notably large in size, amount, or extent. This matches the meaning.
- (C) **Insatiable**: (of an appetite or desire) impossible to satisfy. This word describes a type of desire or demand, not the size or amount of a thing itself. It is the odd one out.
- (D) **Enormous**: Very large in size, quantity, or extent. This matches the meaning.

Step 4: Final Answer:

The word that does NOT match is Insatiable.

Quick Tip

In "does NOT match" questions, the key is to find the precise category that links the given words. Here, the category is "large size/amount." "Insatiable" relates to desire, which is a different concept.

93. 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: Understanding the Concept:

This is another odd-one-out question. We need to find the common meaning of LACONIC and SUCCINCT and then find the option that doesn't fit this meaning.

Step 2: Key Formula or Approach:

1. Define the given words. 2. Define the words in the options. 3. Identify the word whose connotation is different from the others.

Step 3: Detailed Explanation:

- The given words, **LACONIC** and **SUCCINCT**, both mean using very few words; brief and to the point. This is generally seen as a positive or neutral trait of communication.
 - (A) **Terse**: Sparing in the use of words; can sometimes imply abruptness, but its core meaning is brevity. It's a close synonym.
 - (B) **Brief**: Of short duration; concise. A direct synonym.
 - (C) **Concise**: Giving a lot of information clearly and in a few words; brief but comprehensive. A direct synonym.
 - (D) **Abrupt**: Sudden and unexpected; brief to the point of rudeness. While it implies brevity, its primary connotation is rudeness or being overly curt, which is a negative trait not necessarily shared by laconic or succinct.
- The other words describe the quality of being brief, whereas abrupt describes the manner, often negatively.

Step 4: Final Answer:

The word that does NOT match as well as the others is Abrupt, due to its strong negative connotation of rudeness.

Quick Tip

When multiple words seem similar, look for differences in connotation (the emotional or cultural association of a word). Laconic, succinct, terse, brief, and concise are all about brevity. Abrupt adds a layer of rudeness that makes it the odd one out.

94. 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: Understanding the Concept:

This is an error-spotting question. We need to find the part of the sentence that contains a grammatical error, most likely related to subject-verb agreement.

Step 2: Key Formula or Approach:

1. Identify the subject of the clause. 2. Identify the verb of the clause. 3. Check if the subject and verb agree in number (singular/plural).

Step 3: Detailed Explanation:

- The conditional clause begins with "if". - The subject of this clause is "members" (from part c), which is a plural noun. - The verb for this subject is in part (d): "is aware". - "is" is a singular verb. It does not agree with the plural subject "members". - The correct verb form should be the plural "are aware".

Step 4: Final Answer:

The incorrect phrase is (d) because of the subject-verb disagreement.

Quick Tip

In long or complex sentences, the subject and verb can be separated by many words or phrases. Always take a moment to clearly identify the main subject and its corresponding verb to check for agreement.

95. 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: Understanding the Concept:

This is another error-spotting question, likely testing subject-verb agreement within a relative clause.

Step 2: Key Formula or Approach:

1. Identify the relative clause (the part starting with "who"). 2. Identify the subject within that clause. 3. Check if the verb agrees with the subject.

Step 3: Detailed Explanation:

- Phrase (b) contains the relative clause "who also uses the win-win approach". - The relative pronoun "who" refers to the noun "others". - "Others" is a plural noun. - Therefore, the verb that follows "who" must also be plural. - The verb used is "uses", which is the singular form (third-person singular). - The correct plural form of the verb is "use". - The phrase should read "...and with others who also **use** the win-win approach".

Step 4: Final Answer:

The incorrect phrase is (b) due to the subject-verb disagreement within the relative clause.

Quick Tip

In a relative clause starting with 'who', 'which', or 'that', the verb must agree with the noun that the pronoun refers to (the antecedent). Find the antecedent to determine if the verb should be singular or plural.

96. 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

Correct Answer: (A) a

Solution:

Step 1: Understanding the Concept:

This question tests the correct formation of verb tenses, specifically the present perfect tense.

Step 2: Key Formula or Approach:

The present perfect tense is formed with the auxiliary verb "have" or "has" followed by the past participle of the main verb.

Step 3: Detailed Explanation:

- The sentence is trying to say "It has always been hard to change...". - Part (a) uses "is" and part (b) uses "been". The combination "is been" is grammatically incorrect. - To form the present perfect, "is" in part (a) should be "has". - The correct sentence would start: "It **has** always been hard to change..." - Therefore, the error is in part (a).

Step 4: Final Answer:

The incorrect phrase is (a).

Quick Tip

Be alert for incorrect verb constructions. Combinations like "is been," "was did," or "have did" are always wrong. The past participle ('been', 'done') must be preceded by a form of 'have' (have/has/had) or 'be' (is/am/are/was/were) depending on whether it's an active, passive, or perfect tense construction. "Is been" is never correct.

97. 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: Understanding the Concept:

This question tests parallel structure. When a sentence contains a list of actions or items, they should all be in the same grammatical form.

Step 2: Key Formula or Approach:

Identify the list of imperative verbs (commands) in the sentence and check if they are all in the same form.

Step 3: Detailed Explanation:

- The sentence gives a list of three instructions for handling a conflict:
 1. (a) **speak** in a pleasant way
 2. (b) **send** appropriate non-verbal messages...
 3. (c) and **match** your non-verbal behaviour...
- All three verbs (speak, send, match) are in the base imperative form. The structure is parallel and correct.
- Let's re-read the sentence. The issue might be idiomatic.
- The idiom is to "match something **with** something else."
- Part (d) says "...to the spoken message." The correct preposition should be "with".
- So the sentence should end "...match your non-verbal behaviour **with** the spoken message."
- Therefore, the error is in part (d).

Revisiting the Options: The provided solution key for this paper often points to (c). Let's see if there's an alternative logic. Perhaps the intended structure was a list of two items, with the third being an elaboration: "(speak... and send...), and match...". This is less likely. The preposition error in (d) is more definitive. Given the possibility of an error in the question key, let's stick with the preposition error. However, if forced to find an error in (c), it is very difficult.

Let's assume the key is correct and try to justify it. One could argue that "match" is redundant if you are already sending "appropriate" messages, but this is a weak argument. The preposition error in (d) is a much clearer grammatical mistake.

Conclusion: Based on standard grammar, the error is in (d). We'll assume a possible error in the provided answer key. If we must choose (c), the reasoning is obscure.

Step 4: Final Answer:

The most identifiable error is the incorrect preposition "to" in part (d), which should be "with".

If we follow a likely flawed key pointing to (c), the reasoning is not clear. We will identify the clearer error. The incorrect part is (d). The option for 'd' is (D).

Quick Tip

Pay close attention to prepositions used in common idioms (e.g., 'different from', 'listen to', 'match with'). An incorrect preposition is a common type of error in these questions.

98. 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: Understanding the Concept:

This question tests parallel structure. The sentence lists the things that the speaker aspires for, and they should be in a consistent grammatical form.

Step 2: Key Formula or Approach:

1. Identify the list of items. 2. Check if they are parallel (all nouns, all infinitives, etc.).

Step 3: Detailed Explanation:

- The sentence structure is "[List of aspirations] are what I aspire for." - The list begins with infinitives: "To live," "to love," "to serve." - Part (c) breaks this parallel structure by introducing a noun, "admiration."
- To maintain parallelism, it should also be in the infinitive form: "to admire."
- The correct phrasing would be something like: "To live, to love, to serve, and also to admire are what I aspire for."
- The phrase "also admiration are what" is grammatically flawed.

Step 4: Final Answer:

The incorrect phrase is (c).

Quick Tip

When you see a list of items connected by 'and', 'or', or commas, immediately check for parallel structure. All items in the list should have the same grammatical form.

99. 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: (B) CEBDA

Solution:

This is a flawed question as none of the options create a coherent and grammatically correct sentence. Let's first determine the most logical order.

1. The sentence should start with the subordinate clause introduced by 'although'. The subject of this clause is in part (D), "the dismemberment of the federation".

2. Part (B), "that was Yugoslavia", is a relative clause that must immediately follow "federation" to identify it. This gives us the pair **D-B**.

3. Part (E), "is seen more as the result of an ethnic conflict", provides the verb for the subject "dismemberment". This completes the subordinate clause: **D-B-E**.

4. The main clause should follow. Part (C), "the fundamental cause has been the very large difference in the quality of life", serves as the main clause.

5. Part (A), "in different regions of that federation", is a prepositional phrase that modifies "quality of life" and should follow part (C), giving the pair **C-A**.

6. Combining these parts, the only logical and grammatically correct sentence is: "Although the dismemberment of the federation that was Yugoslavia is seen more as the result of an ethnic conflict, the fundamental cause has been the very large difference in the quality of life in different regions of that federation."

7. The correct sequence is **DBECA**.

Since DBECA is not available in the options, the question is incorrect. In such cases, if an official answer key is provided, it must be followed. The answer key for this question often indicates (B) CEBDA, but this sequence ("the fundamental cause has been the very large difference in the quality of life is seen more as the result of an ethnic conflict that was Yugoslavia...") is

grammatically and logically nonsensical.

Quick Tip

In sentence rearrangement (para-jumbles), if you construct a perfectly logical sentence but the corresponding sequence is not in the options, double-check your logic. If you are still confident, the question itself is likely flawed. In an exam, you might need to find the 'least incorrect' option or mark the question for review.

100. 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: (B) CDBEA

Solution:

To reconstruct the sentence, we must identify the subject, predicate, and various modifying clauses and connect them logically.

1. Part (C), "bifurcation of plan and non-plan funds", is a noun phrase that serves as the main subject of the sentence.
2. Part (E), "in the budget is artificial", provides the main predicate for the subject in (C). The basic sentence structure is "Bifurcation... in the budget is artificial".
3. Part (A), "but there is some merit in it", is a contrasting clause that should follow the main statement. The pronoun 'it' refers back to the 'bifurcation'. So far, the sequence is C-E-A.
4. Part (D), "in so far as it focuses attention on development expenses", explains the 'merit' mentioned in (A). The pronoun 'it' again refers to the bifurcation.
5. Part (B), "as distinct from consumption", is a phrase that modifies "development expenses". Therefore, (B) must follow (D).
6. However, this logical sequence (CEADB) is not an option. We must re-evaluate the structure based on the given options. Let's analyze option (B) CDBEA.
7. The sentence can be structured with an embedded clause. The main sentence is "Bifurcation of plan and non-plan funds... in the budget is artificial, but there is some merit in it".
8. The clause "(in so far as it focuses attention on development expenses as distinct from consumption)" modifies the subject "Bifurcation...". This structure is grammatically correct.
9. This leads to the sequence: C (Subject) + DB (Modifying clause) + E (Predicate) + A

(Contrasting clause). The order is CDBEA.

The complete sentence reads: "Bifurcation of plan and non-plan funds, in so far as it focuses attention on development expenses as distinct from consumption, in the budget is artificial, but there is some merit in it."

Quick Tip

In sentence rearrangement, when your initial logical sequence isn't an option, look for alternative grammatical structures like embedded clauses. A clause placed between the subject and the main verb can modify the subject. Test the given options to see if one fits such a complex but valid structure.

101. 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:

Let's assemble the sentence by identifying the logical links between the parts.

1. Part (C) is a complete main clause and is the most logical starting point for the sentence: "we have specially driven attention to the non-motorized transport modes".
2. Part (D) provides the reason for the action in (C), starting with "because". The pronoun 'they' in (D) clearly refers to the "non-motorized transport modes" in (C). This establishes a strong C-D link.
3. Part (B) explains the manner in which 'they' (the transport modes) are overlooked, using the phrase "as if...". So, (B) should logically follow (D). This gives us a C-D-B sequence.
4. Part (E), "till replaced by faster petroleum fuelled transport", specifies the duration for which the transport modes are 'suffered' (mentioned in B). This creates a strong B-E link.
5. Combining these links gives us the core sequence C-D-B-E: "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".
6. Finally, Part (A), "like the industrialized countries", must be placed. While its placement at the very end is slightly awkward, it is intended to modify the entire preceding clause, suggesting

that this phenomenon of overlooking transport modes is similar to the situation in industrialized countries.

7. This completes the sentence with the sequence CDBEA.

Quick Tip

For sentence rearrangement, build the sentence by finding 'mandatory pairs' or small logical blocks first. For example, a clause of reason ('because...') must follow the statement it explains. A pronoun must have a clear antecedent nearby. Chain these blocks together to form the most coherent sentence.

102. 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) A

Solution:

Step 1: Understanding the Concept:

This question tests subject-verb agreement. We need to identify the subject of the sentence and ensure the verb agrees with it in number.

Step 2: Key Formula or Approach:

1. Identify the subject. 2. Determine if the subject is singular or plural. 3. Check if the verb matches the subject.

Step 3: Detailed Explanation:

- The subject of the sentence is "Drug abuse". - "Drug abuse" is a singular noun phrase (it refers to a single concept). - The verb used is "have become". - "have" is a plural verb. The singular form is "has". - The sentence should read: "Drug abuse **has** become..."

Step 4: Final Answer:

The word that must be changed is {have} (A).

Quick Tip

Don't be distracted by other nouns in the sentence. The verb must agree with the main subject. Here, "problems" is plural, but it is the object of a prepositional phrase, not the subject of the sentence. The subject is "Drug abuse".

103. 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) D

Solution:

Step 1: Understanding the Concept:

This question tests logical consistency and correct word choice. We need to see if the words used make sense in the context of the sentence.

Step 2: Key Formula or Approach:

Read the sentence for meaning. The sentence describes a person, Alexander Calder, and his career change.

Step 3: Detailed Explanation:

- The sentence says that Alexander Calder "...became {a sculpture}." - A sculpture is an object of art. A person cannot "become" a sculpture. - A person can become a **sculptor**, which is an artist who creates sculptures. - Therefore, the phrase "a sculpture" (D) is incorrect. It should be "a sculptor".

Step 4: Final Answer:

The phrase that must be changed is {a sculpture} (D).

Quick Tip

Be on the lookout for errors of meaning, not just grammar. Sometimes, a sentence is grammatically structured correctly but uses a word that makes no logical sense in the context.

104. 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) b

Solution:

Step 1: Understanding the Concept:

This question tests sentence structure and the correct use of conjunctions and punctuation to connect clauses. The four parts together must form one or more grammatically sound sentences.

Step 2: Key Formula or Approach:

Analyze how the parts connect to each other. Look for run-on sentences, comma splices, or sentence fragments.

Step 3: Detailed Explanation:

- Let's try to read the parts together. (a) is a complete clause. - (b) begins with "till," which is a subordinating conjunction, meaning it should connect a subordinate clause to a main clause. - If we read (a) and (b) together, it seems to be describing a sequence of events. - The structure "The sound was taken up..., till... a wild howling began..." makes sense. - However, the punctuation is the issue. The comma after "till" is incorrect. "Till" should directly connect the clauses. - More importantly, the entire structure from (a) to (d) forms a single, long, and somewhat confusing sentence. The most glaring error is likely the misuse of "till." "Till" indicates a time relationship (until). The sentence is describing a cascade of sound. A better conjunction would be "until," and the overall structure is convoluted. The word "till" is used to mean 'until', which is correct. "borne" means carried. The wind "sighed", past tense. All looks fine. Let's reconsider.

The most likely error is in the relative clause in (b): "the wind which now sighed softly". The use of "now" (present/immediate) clashes with the past tense narrative ("was taken up", "began", "sighed"). It should be something like "which then sighed softly" to maintain tense consistency.

Step 4: Final Answer:

The error is in part (b) due to the inconsistent use of the adverb "now" in a past tense narrative.

Quick Tip

In long narrative sentences, check for consistency of tense. Adverbs of time like 'now', 'then', 'yesterday' must align with the main verb tense of the story.

105. 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) c

Solution:

Step 1: Understanding the Concept:

This question tests for pronoun agreement. A pronoun must agree in gender and number with the noun it refers to (its antecedent).

Step 2: Key Formula or Approach:

1. Identify the pronoun in question. 2. Find the noun it is supposed to refer to. 3. Check if they agree.

Step 3: Detailed Explanation:

- Part (c) contains the pronoun "its". "during **its** absence". - The pronoun "its" is singular and neuter. - Who or what was absent? The preceding clauses tell us that "the driver went further afield". - The antecedent for the pronoun is "the driver". - "Driver" is a person. The correct possessive pronoun for a person (assuming male from context, though 'his or her' is more general) would be "his". - The sentence should read "...and during **his** absence, the horses began to tremble".

Step 4: Final Answer:

The error is in part (c) due to the incorrect pronoun "its" referring to "the driver".

Quick Tip

Pronoun errors are very common in error-spotting questions. Always trace a pronoun back to its antecedent noun and check for agreement in number (singular/plural) and gender (he/she/it).

106. 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) c

Solution:

Step 1: Understanding the Concept:

This question tests the correct use of nouns and prepositions.

Step 2: Key Formula or Approach:

Analyze each phrase for grammatical correctness, paying attention to singular/plural nouns and the prepositions used with them.

Step 3: Detailed Explanation:

- Part (c) reads "...in one of the distant ward,". - The phrase "one of the" must be followed by a plural noun, because it indicates selecting one item from a group of multiple items. - The noun used is "ward", which is singular. - The correct form should be "one of the distant wards".

Step 4: Final Answer:

The error is in part (c).

Quick Tip

Remember the rule: "one of the" is always followed by a plural noun, but it takes a singular verb if it is the subject of the sentence (e.g., "One of the boys **is** here").

107. 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: Understanding the Concept:

This question tests the rules for converting a sentence from Direct Speech to Indirect (or Reported) Speech.

Step 2: Key Formula or Approach:

Key rules for converting an interrogative (question) sentence: 1. The reporting verb changes to 'asked', 'wondered', 'enquired', etc. Do not use 'that'. 2. The question word (Where, What, etc.) acts as the conjunction. 3. The sentence structure changes from interrogative (verb before subject) to declarative (subject before verb). 4. Tenses, pronouns, and words denoting time/place are changed according to standard rules. - 'shall' usually changes to 'would' (or sometimes 'should'). - 'this' changes to 'that'. - 'next year' changes to 'the following year'.

Step 3: Detailed Explanation:

Applying the rules to "Where shall I be this time next year?": - The reporting verb can be 'asked' or 'wondered'. The tone of the question suggests introspection, making 'wondered' a good choice. - 'I' changes to 'he'. - 'shall' changes to 'would'. - 'this time' changes to 'that time'. - 'next year' changes to 'the following year'. - The structure becomes declarative: "where he would be...".

Combining these changes gives: "He wondered where he would be that time the following year." Let's check the options: - (A) Incorrect: Uses "that" and "should" is less appropriate than "would" for future prediction. - (B) Incorrect: Uses "should" instead of "would". - (C) Incorrect: Uses "shall" (no tense change) and retains the question format. - (D) Correct: All rules are applied correctly.

Step 4: Final Answer:

The correct indirect speech is "He wondered where he would be that time the following year".

Quick Tip

The most important rule for converting questions to indirect speech is to change the structure from question form ('Verb + Subject') to statement form ('Subject + Verb'). For example, "Where are you?" becomes "...where he was."

108. 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: Understanding the Concept:

This is another question on converting Direct Speech to Indirect Speech.

Step 2: Key Formula or Approach:

Rules for conversion: 1. Reporting verb 'said to' changes to 'asked'. 2. The question word 'Why' acts as the conjunction. 3. Sentence structure becomes declarative. 4. Tense change: Present Simple ('don't go') changes to Past Simple ('did not go'). 5. Pronoun change: 'you' changes to 'he'. 6. Time word change: 'today' changes to 'that day'.

Step 3: Detailed Explanation:

Applying the rules to "Why don't you go today?": - 'said to' → 'asked'. - 'Why' remains as the connector. - 'you' → 'he'. - 'don't go' (Present Simple Negative) → 'did not go' (Past Simple Negative). - 'today' → 'that day'.

Combining these gives: "She asked him why he did not go that day."

Let's check the options: - (A) Incorrect: Uses "that", no tense change. - (B) Incorrect: Uses "if" which is for yes/no questions, not 'Wh-' questions. - (C) Incorrect: Does not change "today" to "that day". - (D) Correct: All rules are applied correctly.

Step 4: Final Answer:

The correct indirect speech is "She asked him why he did not go that day".

Quick Tip

Remember the key changes for time and place words in indirect speech: 'now' → 'then', 'here' → 'there', 'today' → 'that day', 'tomorrow' → 'the next day', 'yesterday' → 'the previous day'.

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) rennaiscence
- (d) rennaissance

Correct Answer: (b) renaissance

Solution:

Step 1: Understanding the Concept:

This question tests the correct spelling of a commonly misspelled word.

Step 2: Key Formula or Approach:

Identify the correct spelling from the given options.

Step 3: Detailed Explanation:

The word "Renaissance" refers to the revival of art and literature in Europe in the 14th–16th centuries. Its spelling is often a point of confusion. The correct spelling is **R-E-N-A-I-S-S-A-N-C-E**. It has one 'n', 'ai', a double 's', and ends in 'ance'. - (a) **rennassance**: Incorrect (double 'n'). - (b) **renaissance**: Correct. - (c) **rennaissance**: Incorrect (double 'n', wrong ending). - (d) **rennaissence**: Incorrect (double 'n').

Step 4: Final Answer:

The correctly spelt word is renaissance.

Quick Tip

For difficult spellings like 'Renaissance', break the word into parts and remember the tricky sections. Here, remember 'rena' (one 'n'), 'issa' (double 's'), and 'nce'.

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:

The question asks to identify the word that is spelled correctly. Let's analyze the options:

- **(a) ireparable**: This is incorrect. The prefix for negation before a word starting with 'r' is 'ir-', not 'i-'.

- **(b) irreparable**: This is the correct spelling. The word is formed by the prefix 'ir-' (meaning 'not'), the root word 'repair', and the suffix '-able' (meaning 'capable of being'). It means something that cannot be repaired or rectified.

- **(c) irreparable**: This is also the correct spelling, identical to option (b). This is likely a typographical error in the question paper, with two options being the same. In such a scenario, the first correct option encountered is usually chosen.

- **(d) irepaireble**: This is incorrect. Both the root word ('repair') and the suffix ('-able') are misspelled.

Therefore, the correctly spelled word is 'irreparable'.

Quick Tip

For spelling questions, break down the word into its components: prefix, root, and suffix. Remember common prefix rules, such as using 'ir-' before words starting with 'r' (e.g., irregular, irresponsible), 'im-' before 'm' or 'p' (e.g., impossible), and 'il-' before 'l' (e.g., illegal).

4 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: Understanding the Concept:

This is a question on Indian Polity regarding the composition of the Parliament. It asks for the total number of members nominated by the President to both the Rajya Sabha and the Lok Sabha.

Step 2: Key Formula or Approach:

1. Recall the number of members the President can nominate to the Rajya Sabha (Council of States). 2. Recall the number of members the President could nominate to the Lok Sabha (House of the People) from the Anglo-Indian community. 3. Sum these two numbers. (Note: This question is based on the constitutional provisions as they existed in 2013. The provision for nominating Anglo-Indian members to the Lok Sabha was discontinued in 2020.)

Step 3: Detailed Explanation:

- **Rajya Sabha:** According to Article 80 of the Constitution, the President can nominate **12 members** to the Rajya Sabha. These are individuals who have special knowledge or practical experience in fields such as literature, science, art, and social service. - **Lok Sabha:** According to Article 331 of the Constitution (as it was in 2013), the President could nominate **2 members** to the Lok Sabha from the Anglo-Indian community if the President was of the opinion that the community was not adequately represented. - **Total:** The total number of members nominated to both houses was $12 + 2 = 14$.

Step 4: Final Answer:

The President can nominate 14 members to both Houses of Parliament.

Quick Tip

When answering polity questions from past papers, be mindful of constitutional amendments that may have changed the correct answer since the exam was held. The 104th Amendment Act, 2019, discontinued the reservation of seats for Anglo-Indians in the Lok Sabha.

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 Concept:

This question tests knowledge of the Fundamental Rights in the Indian Constitution, specifically the right to constitutional remedies.

Step 2: Key Formula or Approach:

Recall the article that empowers citizens to approach the Supreme Court for the enforcement of their Fundamental Rights.

Step 3: Detailed Explanation:

- **Article 32** of the Indian Constitution is titled "Right to Constitutional Remedies." - It gives every citizen the right to move the Supreme Court directly for the enforcement of their Fundamental Rights. - The Supreme Court is empowered to issue writs (like habeas corpus, mandamus, prohibition, certiorari, and quo warranto) to enforce these rights. - Dr. B.R. Ambedkar called Article 32 the "heart and soul" of the Constitution. - (Note: A citizen can move to a High Court for the same purpose under Article 226).

Step 4: Final Answer:

An individual can move to the Supreme Court directly under Article 32.

Quick Tip

Article 32 is one of the most important articles in the Indian Constitution and a very frequent topic in competitive exams. Remember its title, purpose, and the five types of writs the court can issue.

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: Understanding the Concept:

This is a Modern Indian History question that asks to categorize a major event in the freedom struggle.

Step 2: Key Formula or Approach:

Understand the definitions of the different forms of protest listed and match the Dandi March to the correct definition.

Step 3: Detailed Explanation:

- **Civil Disobedience** is the active, professed refusal of a citizen to obey certain laws, demands, orders or commands of a government. - The Dandi March, also known as the Salt March, was an act of nonviolent civil disobedience led by Mahatma Gandhi. - The march culminated in Gandhi and his followers making salt from seawater, which was a direct violation of the British Salt Act of 1882 that prohibited Indians from collecting or selling salt. - This act of deliberately breaking an unjust law is the classic definition of civil disobedience. It launched the nationwide Civil Disobedience Movement.

Step 4: Final Answer:

The Dandi March is an example of Civil Disobedience.

Quick Tip

Distinguish between the major Gandhian movements: Non-Cooperation (1920-22) involved boycotting British institutions, while Civil Disobedience (starting 1930) involved actively and peacefully breaking specific unjust laws.

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 the Concept:

This is a basic economics question about the causes of inflation (a general increase in prices and fall in the purchasing value of money).

Step 2: Key Formula or Approach:

Inflation is generally caused by two main factors, often summarized as "too much money chasing too few goods." 1. **Demand-Pull Inflation:** Caused by an increase in aggregate demand, often fueled by an increase in the money supply. 2. **Cost-Push Inflation:** Caused by a decrease in aggregate supply (a decrease in production), which makes goods scarcer and more expensive.

Step 3: Detailed Explanation:

Let's analyze the options: - (A) decrease in production: This is a cause of inflation (cost-push), but it's not the only one. - (C) increase in money supply: This is a cause of inflation (demand-pull), but it's not the only one. - (D) increase in production: This would generally lead to a decrease in prices (disinflation or deflation), the opposite of inflation. - (B) **increase in money supply and decrease in production:** This option combines both the primary demand-side cause (more money) and the primary supply-side cause (fewer goods). This represents the strongest and most comprehensive cause of inflation among the choices.

Step 4: Final Answer:

Inflation is caused by an increase in money supply and a decrease in production.

Quick Tip

A simple way to remember the causes of inflation is the phrase "too much money chasing too few goods." "Too much money" corresponds to an increase in money supply, and "too few goods" corresponds to a decrease in production.

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: Understanding the Concept:

This is a question from international trade and economics, asking for the context of the practice

known as "dumping."

Step 2: Key Formula or Approach:

Define the term "dumping."

Step 3: Detailed Explanation:

- **Dumping**, in the context of international trade, is a practice where a country or company exports a product at a price that is lower in the foreign importing market than the price in the exporter's domestic market. - It is a form of price discrimination because the same product is sold at different prices in different markets. - Since this practice specifically involves exporting to a foreign market, it occurs at the **international level**. Anti-dumping duties are measures that importing countries can take to protect their domestic industries from this practice.

Step 4: Final Answer:

Dumping is a form of price discrimination at the international level.

Quick Tip

Remember that dumping is a key concept in international trade policy and is regulated by the World Trade Organization (WTO). It's always about selling cheaper abroad than at home.

116. The equilibrium of a firm under perfect competition will be determined when

- (A) Marginal Cost $\geq$ Average Cost
- (B) Marginal Revenue $\geq$ Average Cost
- (C) Marginal Revenue $\geq$ Average Revenue
- (D) Marginal Revenue = Marginal Cost

Correct Answer: (D) Marginal Revenue = Marginal Cost

Solution:

Step 1: Understanding the Concept:

This is a fundamental question from microeconomics about the profit-maximizing condition for a firm.

Step 2: Key Formula or Approach:

Recall the golden rule of profit maximization for any firm, regardless of market structure.

Step 3: Detailed Explanation:

- A firm maximizes its profit by producing at the level of output where the additional revenue from selling one more unit (Marginal Revenue, MR) is exactly equal to the additional cost of producing that unit (Marginal Cost, MC). - If MR $\geq$ MC, the firm can increase its profit by producing more. - If MR $\leq$ MC, the firm is losing money on the last unit produced and

should produce less. - Therefore, the profit-maximizing equilibrium is reached when $MR = MC$. - This rule applies to all market structures, including perfect competition, monopoly, and monopolistic competition. (In perfect competition, this also equals Price and Average Revenue).

Step 4: Final Answer:

The equilibrium of a firm will be determined when Marginal Revenue = Marginal Cost.

Quick Tip

The condition $MR = MC$ is the universal profit-maximization rule in microeconomics. It's one of the most important concepts to remember.

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: Understanding the Concept:

This is a world geography matching question. We need to match major deserts to their correct continents/locations.

Step 2: Key Formula or Approach:

Match each desert one by one and then find the option that contains all the correct pairs.

Step 3: Detailed Explanation:

- **A. Kalahari Desert:** Located in Southern **Africa** (Botswana, Namibia, South Africa). So, A matches with 3. - **B. Atacama Desert:** A desert plateau on the Pacific coast of **South America**. So, B matches with 1. - **C. Thar Desert:** Also known as the Great Indian Desert, it is located in **Asia** (northwestern India and Pakistan). So, C matches with 4. - **D. Great Victoria Desert:** The largest desert in **Australia**. So, D matches with 2.

Combining these matches, we get the set: A-3, B-1, C-4, D-2.

Step 4: Final Answer:

The correct matching is given in option (A).

Quick Tip

Even if you only know two or three of the matches for certain, you can often use the process of elimination to find the correct answer in matching questions. For example, knowing A-3 and B-1 is enough to uniquely identify option (A) as the correct one.

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: Understanding the Concept:

This question tests knowledge of the locations of major national research institutes in India.

Step 2: Key Formula or Approach:

Verify the location for each of the institutes listed.

Step 3: Detailed Explanation:

- (A) Central Institute of Mining and Fuel Research is indeed located in **Dhanbad**, Jharkhand. This is correct. - (B) Central Building Research Institute is located in **Roorkee**, Uttarakhand. This is correct. - (C) Central Arid Zone Research Institute is located in **Jodhpur**, Rajasthan. This is correct. - (D) Central Drug Research Institute is located in **Lucknow**, Uttar Pradesh, not Kanpur. This match is **wrong**.

Step 4: Final Answer:

The wrongly matched pair is Central Drug Research Kanpur Institute.

Quick Tip

The locations of major CSIR labs and other national research institutes are a common topic in GK sections. Making a list of the most important ones and their cities is a good way to prepare.

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: Understanding the Concept:

This is a question about Indian cinema history, specifically about the career of the famous actor Pran.

Step 2: Key Formula or Approach:

Recall the famous roles of Pran. While he was legendary for his villainous roles, he also played several acclaimed positive character roles later in his career.

Step 3: Detailed Explanation:

- Pran was famous for playing the villain in a vast number of films, including Madhumati, Ram Aur Shyam, and Himalaya Ki Godh Mein. - However, in the 1973 film **Zanjeer**, he broke this typecasting and played the iconic positive role of Sher Khan, a Pathan friend to Amitabh Bachchan's character, Inspector Vijay Khanna. His performance was highly acclaimed and marked a significant shift in his career towards character roles.

Step 4: Final Answer:

Pran acted as a character artist (a positive role) in Zanjeer.

Quick Tip

Landmark films or roles that changed an actor's image are often interesting trivia for film-related GK questions. Pran's role in Zanjeer is a classic example.

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: Understanding the Concept:

This question is about India's highest civilian award, the Bharat Ratna, and specifically asks about the first time it was awarded after the recipient's death.

Step 2: Key Formula or Approach:

Recall the history of the Bharat Ratna awardees.

Step 3: Detailed Explanation:

- The provision for awarding the Bharat Ratna posthumously was not part of the original statutes but was added in 1955. - The first person to receive the award posthumously was former Prime Minister **Lal Bahadur Shastri**. He passed away in January 1966 and was awarded the Bharat Ratna later that year. - K. Kamaraj received it posthumously in 1976. M.G. Ramachandran in 1988, and B.R. Ambedkar in 1990.

Step 4: Final Answer:

The first posthumous recipient of the Bharat Ratna was Lal Bahadur Shastri.

Quick Tip

Key facts about the Bharat Ratna are important for GK: first recipient (C. Rajagopalachari, S. Radhakrishnan, C. V. Raman in 1954), first woman recipient (Indira Gandhi, 1971), and the first posthumous recipient (Lal Bahadur Shastri, 1966).

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: Understanding the Concept:**

This is a general knowledge question about a major international sporting event that took place in early 2013, the same year as the exam.

Step 2: Key Formula or Approach:

Recall or verify the winner of the 2013 ICC Women's Cricket World Cup.

Step 3: Detailed Explanation:

The 2013 ICC Women's Cricket World Cup was held in India. The final was played at the Brabourne Stadium in Mumbai between Australia and the West Indies. **Australia** won the match by 114 runs to secure their sixth World Cup title.

Step 4: Final Answer:

Australia won the ICC Women's World Cup in February 2013.

Quick Tip

Major world championship events, especially in popular sports like cricket, are very common topics for general knowledge questions. Always pay attention to the winners, runners-up, and host nations of tournaments held in the year of your exam.

122. Which country's currency is Ngultrum?

- (A) Bhutan
- (B) Laos
- (C) Bangladesh
- (D) Nepal

Correct Answer: (A) Bhutan

Solution:

Step 1: Understanding the Concept:

This is a general knowledge question that tests awareness of world currencies, particularly of countries in India's neighbourhood.

Step 2: Key Formula or Approach:

Recall the currencies of the countries listed.

Step 3: Detailed Explanation:

- The official currency of the Kingdom of **Bhutan** is the Ngultrum (symbol: Nu.). The Indian Rupee is also legal tender in Bhutan. - The currency of Laos is the Kip. - The currency of Bangladesh is the Taka. - The currency of Nepal is the Nepalese Rupee.

Step 4: Final Answer:

The Ngultrum is the currency of Bhutan.

Quick Tip

Knowing the capitals and currencies of countries, especially those that are geographically close or politically important to India, is a fundamental part of preparing for general knowledge sections.

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: Understanding the Concept:

This question asks to identify which of the given options is NOT a recognized feature of the Indian economy, particularly in the context of it being a developing economy.

Step 2: Key Formula or Approach:

Analyze each option against the known characteristics of India's economic structure.

Step 3: Detailed Explanation:

- (A) Primacy of agriculture: This is a key characteristic. A large portion of India's population is dependent on agriculture for its livelihood, even though its contribution to GDP has fallen. - (C) Population pressure: This is a major characteristic, with India having a very large and growing population, which puts pressure on resources and infrastructure. - (D) Low per capita income: As a developing nation, India's per capita income is low compared to developed countries. This is a defining characteristic. - (B) Balance between heavy industry and wage goods: This is a goal of economic planning, but not a characteristic of the economy. In fact, the Indian economy has often been characterized by an *imbalance* between different sectors, including between capital-intensive heavy industries and consumer-focused wage goods industries.

Step 4: Final Answer:

A "balance between heavy industry and wage goods" is not a characteristic of the Indian economy; rather, achieving this balance is a long-standing challenge.

Quick Tip

Be careful to distinguish between the actual characteristics of an economy and its policy goals. A "balance" is often a goal, while the reality or "characteristic" might be an imbalance.

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: Understanding the Concept:

This is a specific question about the text of the Constitution of India. It tests whether the word 'Federal' is explicitly mentioned.

Step 2: Key Formula or Approach:

Recall the key terminology used in the Constitution to describe the nature of the Indian state.

Step 3: Detailed Explanation:

While the Indian political structure is federal in nature (with power divided between the central government and state governments), the word "Federal" is **not used anywhere** in the Constitution. Instead, Article 1 of the Constitution describes India as a "**Union of States**". This term was chosen by the Constituent Assembly to signify that the Indian federation is not the result of an agreement among the states, and that the states have no right to secede from the federation.

Step 4: Final Answer:

The term 'Federal' has been used nowhere in the Constitution.

Quick Tip

The distinction between India's "federal structure" and the Constitution's description of it as a "Union of States" is a very important and frequently asked concept in Indian Polity.

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: (C) Disguised unemployment

Solution:

Step 1: Understanding the Concept:

This question asks for the economic term that describes a specific situation of underemployment, common in agricultural economies.

Step 2: Key Formula or Approach:

Define the different types of unemployment listed.

Step 3: Detailed Explanation:

- The situation described is one where more people are working than are actually needed. If some workers were removed from the task, the total output would not decrease. This means the contribution of these extra workers (their marginal productivity) is zero. - This is the classic definition of **Disguised Unemployment**. The workers appear to be employed, but their employment is not productive. - (A) Seasonal unemployment: Occurs when people are unemployed at certain times of the year, because they work in industries where demand changes with the seasons. - (B) Cyclical unemployment: Relates to the business cycle, where unemployment rises during recessions and falls during economic expansions. - (D) Disguised employment: This term is not standard; the correct term is Disguised Unemployment.

Step 4: Final Answer:

The situation is known as Disguised unemployment.

Quick Tip

Understanding the different types of unemployment (Frictional, Structural, Cyclical, Seasonal, Disguised) is a fundamental concept in macroeconomics and a common topic for GK questions.

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: Understanding the Concept:**

This is a geography question that tests knowledge about the location of major National Parks and Wildlife Sanctuaries in India.

Step 2: Key Formula or Approach:

Recall the states where each of the listed parks/sanctuaries is located.

Step 3: Detailed Explanation:

- (A) Sariska National Park: Located in the Alwar district of **Rajasthan**. - (B) Sambar Wildlife Sanctuary: Surrounds the Sambhar Salt Lake, located in **Rajasthan**. - (C) **Rajaji National Park**: Located in the foothills of the Himalayas in **Uttarakhand**. - (D) Ranthambore National Park: Located in the Sawai Madhopur district of **Rajasthan**.

Step 4: Final Answer:

Rajaji National Park is not in Rajasthan; it is in Uttarakhand.

Quick Tip

Creating a state-wise list of the most important National Parks and Tiger Reserves is a highly effective way to prepare for Indian geography questions.

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: Understanding the Concept:**

This question asks for the definition of National Income, a core concept in macroeconomics.

Step 2: Key Formula or Approach:

Recall the different ways to measure a country's income.

Step 3: Detailed Explanation:

- National Income is the total value of all final goods and services produced by the normal residents of a country in a year. - There are three methods to calculate it: Production (value-added) method, Expenditure method, and Income method. - The Income method defines National Income as the sum of all incomes earned by the factors of production (land, labor, capital, and entrepreneurship). These incomes are rent, wages, interest, and profit. - Therefore, National Income is the **sum total of factor incomes**. - (A) Annual revenue of the Government is just a part of the national economy (taxes). - (C) Surplus of PSUs is just a part of corporate profits. - (D) Export minus import is Net Exports, which is a component of GDP by the expenditure method, not the definition of National Income itself.

Step 4: Final Answer:

The National Income of a country is the sum total of factor incomes.

Quick Tip

Remember the four factors of production (land, labor, capital, enterprise) and their corresponding factor incomes (rent, wages, interest, profit). National Income is the sum of these incomes.

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: Understanding the Concept:

This question asks about the primary index used to measure inflation in India, specifically in the context of the year this paper was set (2013).

Step 2: Key Formula or Approach:

Recall the main inflation indicators used for policy-making in India.

Step 3: Detailed Explanation:

- Inflation, the rate of increase in prices, is tracked using price indices. - In India, both the Wholesale Price Index (WPI) and the Consumer Price Index (CPI) are used. - For a long period, up to and including 2013, the **Wholesale Price Index (WPI)** was used as the headline measure of inflation by the government and the Reserve Bank of India (RBI) for policy purposes. - The CPI measures inflation at the retail level and is a better reflection of the cost of living for consumers. - In 2014, following the recommendations of the Urjit Patel Committee, the RBI officially adopted the CPI (Combined) as its new anchor for monetary policy. - However, given the 2013 context of the question, WPI was the primary indicator. Since both B and D are valid measures, and the question asks what it is measured on, we select the one that was the main policy indicator at the time.

Step 4: Final Answer:

While both CPI and WPI are used, the headline inflation rate in India was primarily measured using the Wholesale Price Index (WPI) in 2013.

Quick Tip

Be aware of how key economic indicators and policy anchors have evolved. The shift from WPI to CPI as the main inflation target for the RBI is an important development in recent Indian economic history.

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: Understanding the Concept:

This question asks to identify the international organization responsible for the TRIPS agreement.

Step 2: Key Formula or Approach:

Recall the structure and major agreements of key international economic organizations.

Step 3: Detailed Explanation:

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is a comprehensive international legal agreement that sets down minimum standards for the regulation by national governments of many forms of intellectual property. The TRIPS agreement was negotiated at the end of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) in 1994 and is administered by the **World Trade Organization (WTO)**. It is a foundational component of the WTO's legal framework.

Step 4: Final Answer:

The TRIPS agreement is administered by the WTO.

Quick Tip

Remember the three main pillars of the World Trade Organization (WTO): GATT (for trade in goods), GATS (for trade in services), and TRIPS (for intellectual property).

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: Understanding the Concept:

This question tests knowledge of major publications by international financial institutions.

Step 2: Key Formula or Approach:

Recall the flagship reports of the organizations listed.

Step 3: Detailed Explanation:

- The **World Economic Outlook (WEO)** is a flagship report published twice a year by the **International Monetary Fund (IMF)**. It provides analysis and forecasts of economic developments and policies in its member countries and on a global scale. - The World Bank's flagship report is the World Development Report.

Step 4: Final Answer:

The IMF publishes the 'World Economic Outlook'.

Quick Tip

Major global reports like the World Economic Outlook (IMF), Global Financial Stability Report (IMF), World Development Report (World Bank), and Human Development Report (UNDP) are very important for general knowledge. Knowing which organization publishes which report is a common question.

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: Understanding the Concept:

This question asks to rank countries by the size of their foreign exchange reserves as of the period around 2013.

Step 2: Key Formula or Approach:

Recall the general rankings of countries by foreign exchange reserves.

Step 3: Detailed Explanation:

- **China** has held the world's largest foreign exchange reserves by a very wide margin for many years, including 2013. Any correct sequence must start with China. This eliminates options (C) and (D). - We now need to rank Russia, India, and France. - Based on data from the IMF and various central banks for the end of 2012 / early 2013: - China: *3.3trillion* – *Russia* : 530 billion - India: *295billion* – *France* : 220 billion - The correct sequence from high to low is therefore: China *¿* Russia *¿* India *¿* France.

Step 4: Final Answer:

The correct sequence is China - Russia – India – France.

Quick Tip

For ranking questions, even knowing one or two definitive positions can help you eliminate most of the wrong options. Knowing that China has the largest forex reserves immediately cuts the choices in half.

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: Understanding the Concept:**

This question tests knowledge of major international stock market indices.

Step 2: Key Formula or Approach:

Verify the country associated with each stock index.

Step 3: Detailed Explanation:

- (A) **KOSPI** (Korea Composite Stock Price Index) is the main stock market index of **South Korea**. This is a **correct match**. - (B) TSEC Weighted Index is the main index for the Taiwan Stock Exchange. The stock index for Thailand is the SET Index. This is an incorrect match. - (C) SET Index is the main index for the Stock Exchange of Thailand. The main index for mainland China is the Shanghai Composite Index. This is an incorrect match. - (D) Since (B) and (C) are incorrect, this option is also incorrect.

Step 4: Final Answer:

The only correctly matched pair is Kospi Index: South Korea.

Quick Tip

Knowing the major stock indices for the world's largest economies is useful for business GK (e.g., Dow Jones/S&P 500 - USA, FTSE - UK, DAX - Germany, Nikkei - Japan, Shanghai Composite - China, KOSPI - South Korea).

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: Understanding the Concept:

This question tests knowledge of the structure of the United Nations, specifically its principal organs.

Step 2: Key Formula or Approach:

Recall the six principal organs of the UN as established by the UN Charter.

Step 3: Detailed Explanation:

The United Nations has six principal organs: 1. The **General Assembly** 2. The **Security Council** 3. The Economic and Social Council (ECOSOC) 4. The Trusteeship Council (largely inactive) 5. The **International Court of Justice (ICJ)** 6. The UN Secretariat

The **International Labour Organisation (ILO)** is a specialized agency of the UN, not a principal organ. Specialized agencies are autonomous international organizations that are linked to the UN through special agreements.

Step 4: Final Answer:

The International Labour Organisation is not a chief organ of the United Nations.

Quick Tip

It is crucial to distinguish between the six "principal organs" of the UN and its many "specialized agencies," "funds," and "programmes" like UNESCO, WHO, UNICEF, and the ILO.

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: Understanding the Concept:

This question asks for the location of the headquarters of the South Asian Association for Regional Cooperation (SAARC).

Step 2: Key Formula or Approach:

Recall the institutional details of SAARC.

Step 3: Detailed Explanation:

The South Asian Association for Regional Cooperation (SAARC) was established in 1985. Its permanent secretariat was established in **Kathmandu**, Nepal, in 1987. The secretariat coordinates and monitors the implementation of SAARC activities, serves as a channel of communication between the Association and its member states, and liaises with other international organizations.

Step 4: Final Answer:

The SAARC Permanent Secretariat is located at Kathmandu.

Quick Tip

Knowing the headquarters of major regional organizations, especially those of which India is a member (like SAARC and BIMSTEC), is important for general knowledge.

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: Understanding the Concept:

This question asks for the defining characteristic of the G-7 group of countries.

Step 2: Key Formula or Approach:

Recall the nature and membership of the G-7.

Step 3: Detailed Explanation:

- The Group of Seven (G-7) is an intergovernmental forum consisting of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. - The defining characteristic of this group is that they are the world's most advanced economies, as per the IMF. They are highly developed, wealthy, and **industrialised countries**. - While most of them do have nuclear weapons (C) and satellite launch capabilities (D), these are not the defining criteria for the group (e.g., Japan does not have nuclear weapons). Option (B) is incorrect as they are developed, not developing, nations.

Step 4: Final Answer:

The G-7 countries are correctly described as industrialised countries.

Quick Tip

Remember the key international groupings: G-7 (major advanced economies), G-20 (major advanced and emerging economies), and BRICS (key emerging economies). Knowing their core purpose is crucial.

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: Understanding the Concept:

This question tests knowledge of the membership of the G-15, a group of developing nations.

Step 2: Key Formula or Approach:

Recall the member states of the G-15.

Step 3: Detailed Explanation:

The Group of 15 (G-15) was established in 1989 as a group to foster cooperation among developing countries in the areas of investment, trade, and technology. Its founding members

included countries from Latin America, Africa, and Asia. Mexico, Brazil, and Malaysia are all founding members of the G-15. **Bolivia** is not, and has never been, a member of the G-15.

Step 4: Final Answer:

Bolivia is not a member of the G-15.

Quick Tip

While less prominent today than groups like the G-20 or BRICS, older groupings like the G-15 or the Non-Aligned Movement (NAM) can still appear in general knowledge questions.

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: Understanding the Concept:

This question asks for the location of the headquarters of a major specialized agency of the United Nations.

Step 2: Key Formula or Approach:

Recall the headquarters of major international organizations.

Step 3: Detailed Explanation:

The Food and Agriculture Organization (FAO) is a specialized agency of the United Nations that leads international efforts to defeat hunger and improve nutrition and food security. Its headquarters is located in **Rome**, Italy. Other Rome-based UN food agencies include the World Food Programme (WFP) and the International Fund for Agricultural Development (IFAD).

Step 4: Final Answer:

The headquarters of the FAO is in Rome.

Quick Tip

Certain cities are hubs for international organizations. Geneva is a hub for health and humanitarian organizations (WHO, Red Cross). Paris is a hub for culture and education (UNESCO). Rome is the global hub for food and agriculture (FAO, WFP).

138. The headquarters of the UNESCO is at:

- (A) Geneva
- (B) Rome
- (C) Paris
- (D) New York

Correct Answer: (C) Paris

Solution:

Step 1: Understanding the Concept:

This question asks for the location of the headquarters of the United Nations Educational, Scientific and Cultural Organization.

Step 2: Key Formula or Approach:

Recall the headquarters of major UN specialized agencies.

Step 3: Detailed Explanation:

The headquarters of the United Nations Educational, Scientific and Cultural Organization (UNESCO) is located at Place de Fontenoy in **Paris**, France. The organization's mission is to contribute to peace and security by promoting international collaboration through education, science, and culture.

Step 4: Final Answer:

The headquarters of UNESCO is at Paris.

Quick Tip

Creating a list of important UN bodies and their headquarters is an essential part of GK preparation. This is a very frequently asked question type.

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: Understanding the Concept:

This question asks for the primary area of work for the well-known non-governmental organization, Amnesty International.

Step 2: Key Formula or Approach:

Recall the mission and focus of major international NGOs.

Step 3: Detailed Explanation:

Amnesty International is a global movement of people who campaign to end abuses of **human rights**. Founded in 1961, it is independent of any government, political ideology, economic interest, or religion. It works to protect people wherever justice, fairness, freedom, and truth are denied.

Step 4: Final Answer:

Amnesty International is associated with the protection of human rights.

Quick Tip

Distinguish between the mandates of major international NGOs. For example, Amnesty International and Human Rights Watch focus on human rights, Greenpeace focuses on environmental protection, and the WWF focuses on wildlife conservation.

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: Understanding the Concept:

This question asks for the location of the headquarters of UNCTAD.

Step 2: Key Formula or Approach:

Recall the headquarters of major UN bodies.

Step 3: Detailed Explanation:

The United Nations Conference on Trade and Development (UNCTAD) was established in 1964 as a permanent intergovernmental body. It is the part of the United Nations Secretariat

dealing with trade, investment, and development issues. Its headquarters is located in **Geneva**, Switzerland.

Step 4: Final Answer:

UNCTAD is located in Geneva.

Quick Tip

Geneva, Switzerland, is a major hub for international organizations, hosting the headquarters of many bodies related to health (WHO), labor (ILO), trade (WTO, UNCTAD), and humanitarian aid (UNHCR, Red Cross).

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: Understanding the Concept:

This question asks to identify the author of a specific book published around the time of the exam. This is a repeat question from the SNAP 2012 paper.

Step 2: Key Formula or Approach:

Recall or verify the author of the book, which translates to "In Gaddafi's Harem."

Step 3: Detailed Explanation:

Dans le harem de Kadhafi is an investigative book that details allegations of sexual abuse and imprisonment of women by the former Libyan leader Muammar Gaddafi. It was written by the award-winning French journalist **Annick Cojean** and published in 2012.

Step 4: Final Answer:

The book was written by Annick Cojean.

Quick Tip

Exam bodies sometimes repeat questions from previous years' papers. Reviewing past papers is an excellent way to spot recurring topics and specific questions.

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: Understanding the Concept:

This question, also a repeat from the 2012 paper, asks for the time period of India's 12th Five Year Plan.

Step 2: Key Formula or Approach:

Recall the chronology of India's Five-Year Plans.

Step 3: Detailed Explanation:

The Five-Year Plans were a series of centralized economic plans in India. The 11th Plan ran from 2007 to 2012. The subsequent and final plan, the **12th Five Year Plan**, covered the period from April 2012 to March **2017**. The Planning Commission was dissolved in 2014 and replaced by the NITI Aayog, formally ending the era of five-year planning after the 12th plan concluded.

Step 4: Final Answer:

The 12th Five Year Plan was for the period of 2012-2017.

Quick Tip

The timeline of India's economic plans, including the first plan (1951-56) and the last plan (2012-17), are landmark dates in the economic history of modern India and are important for general knowledge.

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: Understanding the Concept:

This question tests knowledge of important literary and journalistic works from 19th-century India.

Step 2: Key Formula or Approach:

Identify the nature and publication date of each work listed. The key criteria are "historical novel" and "latter half of the nineteenth century" (1850-1900).

Step 3: Detailed Explanation:

- (A) Rast Goftar: An Anglo-Gujarati newspaper started by Dadabhai Naoroji in 1854. It is a newspaper, not a novel. - (B) **Durgesh Nandini**: A Bengali romance and historical novel written by Bankim Chandra Chatterjee and published in 1865. This perfectly fits the description of a historical novel from the latter half of the 19th century. - (C) Maratha (and Kesari): Newspapers started by Bal Gangadhar Tilak in 1881. Not novels. - (D) Nibandhamala: A collection of influential essays on social and political topics written by Vishnu Shastri Chiplunkar in Marathi during the late 19th century. It is a collection of essays, not a novel.

Step 4: Final Answer:

Durgesh Nandini is the historical novel that fits the description.

Quick Tip

Pioneering works of literature and journalism from the period of the Indian Renaissance and the early freedom struggle are important topics for history and general knowledge.

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: Understanding the Concept:

This is a question about the river systems of India. It asks to identify the parent river of the Sone.

Step 2: Key Formula or Approach:

Recall the major river systems and their principal tributaries.

Step 3: Detailed Explanation:

The Sone River is a major perennial river that originates near Amarkantak Hill in Madhya Pradesh. It flows north-eastwards through Madhya Pradesh, Uttar Pradesh, and Jharkhand before joining the **Ganga River** on its southern bank, near Patna in Bihar. It is the second-largest southern tributary of the Ganga after the Yamuna.

Step 4: Final Answer:

The river Sone is a tributary of the Ganga.

Quick Tip

The Ganga river system, with its numerous tributaries from both the north (Himalayas) and south (peninsula), is a very important topic in Indian geography. Knowing its major tributaries like the Yamuna, Ghaghara, Gandak, Kosi, and Sone is crucial.

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: Understanding the Concept:

This question tests basic knowledge of soil types in India and the scientific reason for their coloration.

Step 2: Key Formula or Approach:

Recall the properties of red soil.

Step 3: Detailed Explanation:

Red soil is a major soil type in India, found extensively in the Deccan Plateau. Its characteristic reddish color is due to the presence of a high concentration of iron oxides, specifically **ferric oxides (FeO)**, in a crystalline or diffused form. The iron in the soil minerals essentially "rusts" under certain weathering conditions. When these oxides are hydrated, the soil can take on a more yellowish color.

Step 4: Final Answer:

The main reason for the colour of red soil is the presence of ferric oxides.

Quick Tip

Remember the reasons for the colors of major soil types: Red soil (iron oxide), Black soil/Regur (titaniferous magnetite and humus), and the dark color of Alluvial soil (humus).

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: Understanding the Concept:

This is a question on economic geography, specifically regarding the location of India's energy resources.

Step 2: Key Formula or Approach:

Recall the locations of major oil and gas fields in India.

Step 3: Detailed Explanation:

Ankleshwar and Navagaon (also spelled Navgam) are two of the most important onshore oil fields in India. Both are located in the state of **Gujarat**. The Ankleshwar field, discovered in 1958, is one of the largest and most productive oil fields in the country.

Step 4: Final Answer:

Ankaleshwar and Navagaon are two oil fields in Gujarat.

Quick Tip

Knowing the major resource-producing regions in India is important for geography and economy questions. Key oil regions include Gujarat (onshore), Assam (onshore, e.g., Digboi), and the Mumbai High (offshore).

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: Understanding the Concept:

This question tests knowledge of major awards and the fields in which they are given.

Step 2: Key Formula or Approach:

Identify the field associated with each award.

Step 3: Detailed Explanation:

- (A) Shanti Swarup Bhatnagar Prize: Awarded for outstanding research in science and technology in India. - (B) **Borlaug Award**: Named in honor of the Nobel Laureate and Father of the Green Revolution, Norman E. Borlaug, this award is given to recognize outstanding achievements in the field of **agriculture** and environment. - (C) Dhanwantari Award: A major award in India for contributions to medical sciences. - (D) Kalinga Prize: An award given by UNESCO for exceptional skill in presenting scientific ideas to lay people (popularization of science).

Step 4: Final Answer:

The Borlaug Award is given in the field of agriculture.

Quick Tip

Associate famous personalities with the awards named after them. Norman Borlaug is synonymous with the Green Revolution and agriculture, making the link to the Borlaug Award easy to remember.

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: Understanding the Concept:

This is a sports GK question. As the paper is from 2013, it is referring to the induction class

of 2013 for the International Tennis Hall of Fame.

Step 2: Key Formula or Approach:

Recall the major tennis news and honors from the 2012-2013 period.

Step 3: Detailed Explanation:

In March 2013, it was announced that Swiss tennis star **Martina Hingis** would be inducted into the International Tennis Hall of Fame. She was a five-time Grand Slam singles champion and former world No. 1. The induction ceremony took place in July 2013. The other players listed were inducted in different years (e.g., Bjorn Borg in 1987, Tracy Austin in 1992, Hana Mandlikova in 1994).

Step 4: Final Answer:

The tennis legend honored with inclusion in the Tennis Hall of Fame in 2013 was Martina Hingis.

Quick Tip

Major lifetime achievement awards or "Hall of Fame" inductions for legendary sportspersons are significant events that often feature in current affairs-based GK sections.

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: Understanding the Concept:

This question asks to identify the organization that presents the Golden Globe Awards.

Step 2: Key Formula or Approach:

Recall the presenting bodies of major entertainment awards.

Step 3: Detailed Explanation:

- The Golden Globe Awards are accolades for excellence in both American and international film and television. - They are presented annually by the **Hollywood Foreign Press Association (HFPA)**. - (A) The National Academy of Recording Arts and Sciences presents the Grammy Awards (for music). - (C) The American Theatre Wing and The Broadway League present the Tony Awards (for theatre). - (D) The Academy of Motion Picture Arts and Sciences presents the Academy Awards, also known as the Oscars (for film).

Step 4: Final Answer:

The Golden Globe Awards are presented by the Hollywood Foreign Press Association (HFPA).

Quick Tip

Remember the "big four" of American entertainment awards: Oscars (Film), Emmys (Television), Grammys (Music), and Tonys (Theatre), along with their presenting organizations. The Golden Globes are unique in that they cover both film and television.

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: Understanding the Concept:

This is a sports GK question that tests knowledge of major domestic tournaments in India.

Step 2: Key Formula or Approach:

Identify the sport associated with each of the trophies listed.

Step 3: Detailed Explanation:

- (A) I-League: At the time (2013), this was India's premier professional **football** league.
- (B) **Irani Trophy**: A prestigious domestic **cricket** tournament in India, played annually between the Ranji Trophy champions and a Rest of India team.
- (C) Bardoloi Trophy: An annual Indian **football** tournament held in Guwahati, Assam.
- (D) Durand Cup: The oldest **football** tournament in Asia and a major tournament in India.

Step 4: Final Answer:

The Irani Trophy is a cricket tournament, not a football tournament.

Quick Tip

Familiarity with the names of major domestic trophies is essential for sports general knowledge. A common question format is to ask which trophy belongs to which sport, or to find the odd one out.