

SSC MTS Similar PYP (Held on 6 Feb 2026 S1)

Q.1 Cost price of an article is Rs. 750. The profit percentage is 24 percent. What is the value of the profit?

- A. Rs. 150
- B. Rs. 160
- C. Rs. 180
- D. Rs. 200

Answer: C

Sol: Given:

Cost Price (CP) = Rs. 750

Profit % = 24%

Formula Used:

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

Solution:

$$\text{Profit} = 750 \times \frac{24}{100} = 7.5 \times 24$$

Profit = 180

Final Answer:

So the correct answer is (c)

Q.2 45 percent of a number exceeds 25 percent of the same number by 72. What is the value of the number?

- A. 300
- B. 320
- C. 360
- D. 400

Answer: C

Sol: Given:

45% of N - 25% of N = 72

Solution:

(45 - 25)% of N = 72

20% of N = 72

0.2N = 72 \Rightarrow N = 72 / 0.2 = **360**

So the correct answer is (c).

Q.3 The average of 15 numbers is 40. Five numbers 10, 12, 18, 20, and 30 were removed. What will be the new average?

- A. 45
- B. 48
- C. 51
- D. 54

Answer: C

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Sol: Given:

Average of 15 numbers = 40.
Numbers removed: 10, 12, 18, 20, 30.

Formula Used:

Sum = Average \times Count.
New Average = $\frac{\text{New Sum}}{\text{New Count}}$

Solution:

Initial Sum = $15 \times 40 = 600$
Sum of removed numbers = $10 + 12 + 18 + 20 + 30 = 90$
New Sum = $600 - 90 = 510$
New Count = $15 - 5 = 10$
New Average = $\frac{510}{10} = 51$
So the correct answer is (c).

Q.4 There is a rectangular floor of size 420 cm \times 660 cm. The floor is to be tiled with the largest square tiles. How many such tiles will be required?

- A. 66
- B. 77
- C. 88
- D. 99

Answer: B

Sol: Given:

Floor size = 420×660 .
Largest possible square tiles.

Formula Used:

Tile side = HCF(Length, Breadth).
Count = Area of floor / Area of tile

Solution:

Tile side = HCF(420, 660) = 60 cm.
Number of tiles = $\frac{420}{60} \times \frac{660}{60} = 7 \times 11 = 77$
So the correct answer is (b)

Q.5 $\frac{(\sqrt{7} + \sqrt{3})^2 + (\sqrt{7} - \sqrt{3})^2}{5\sqrt{21}} = ?$

- A. $\frac{4\sqrt{21}}{21}$
- B. $\frac{2\sqrt{21}}{21}$
- C. $\frac{4\sqrt{21}}{5}$
- D. $\frac{20\sqrt{21}}{21}$

Answer: A

Sol: Given:

Expression: $\frac{(\sqrt{7} + \sqrt{3})^2 + (\sqrt{7} - \sqrt{3})^2}{5\sqrt{21}}$

Formula Used:

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

Solution:

Numerator = $2((\sqrt{7})^2 + (\sqrt{3})^2) = 2(7 + 3) = 20$
Expression = $\frac{20}{(5\sqrt{21})} = \frac{4}{\sqrt{21}}$
Rationalize: $\frac{4}{\sqrt{21}} \times \frac{\sqrt{21}}{\sqrt{21}} = \frac{4\sqrt{21}}{21}$

So the correct answer is (a)

Q.6 $\frac{1}{6 + \sqrt{5}} + \frac{1}{6 - \sqrt{5}} = ?$

- A. 12/31
- B. 6/31
- C. 10/29
- D. 12/35

Answer: A

Sol: Given:

$$\text{Expression} = \frac{1}{6 + \sqrt{5}} + \frac{1}{6 - \sqrt{5}}$$

Formula Used:

Addition of fractions and $(a-b)(a+b) = a^2 - b^2$

Solution:

$$\begin{aligned} & \frac{1}{6 + \sqrt{5}} + \frac{1}{6 - \sqrt{5}} \\ &= \frac{(6 - \sqrt{5}) + (6 + \sqrt{5})}{(6 + \sqrt{5})(6 - \sqrt{5})} \\ &= \frac{6 - \sqrt{5} + 6 + \sqrt{5}}{36 - 5} \\ &= \frac{12}{31} \end{aligned}$$

Final Answer:

So the correct answer is (a)

Q.7 $1^3 + 2^3 + 3^3 + \dots + 30^3 = ?$

- A. 215225
- B. 216225
- C. 217225
- D. 218225

Answer: B

Sol: Given:

Sum of cubes of first 30 natural numbers.

Formula Used:

$$\sum n^3 = \left[\frac{n(n+1)}{2} \right]^2$$

Solution:

Here $n = 30$

$$\text{Sum} = \left[\frac{30 \times 31}{2} \right]^2 = [15 \times 31]^2 = [465]^2$$

$$465 \times 465 = \mathbf{216225}$$

Final Answer:

So the correct answer is (b)

Q.8 What is the remainder when 2459 is divided by 8?

- A. 1
- B. 3
- C. 5
- D. 7

Answer: B

Sol: Given:

Number = 2459

Divisor = 8

Find the remainder when 2459 is divided by 8.

Formula Used:

Dividend = (Divisor × Quotient) + Remainder

Solution:

$$2459 \div 8$$

$$8 \times 307 = 2456$$

$$\text{Remainder} = 2459 - 2456$$

$$\text{Remainder} = 3$$

Q.9 Which of the following numbers is neither divisible by 3 nor by 8?

- A. 5124
- B. 4216
- C. 7142
- D. 3168

Answer: C

Sol: Given:

Numbers: 5124, 4216, 7142, 3168.

Formula Used:

Divisibility by 3: Sum of digits is divisible by 3.

Divisibility by 8: Last three digits are divisible by 8.

Solution:

A) 5124

Sum of digits = $5 + 1 + 2 + 4 = 12 \rightarrow$ divisible by 3

B) 4216

Sum of digits = $4 + 2 + 1 + 6 = 13 \rightarrow$ not divisible by 3

Last three digits = 216 \rightarrow divisible by 8

C) 7142

Sum of digits = $7 + 1 + 4 + 2 = 14 \rightarrow$ not divisible by 3

142 is not divisible by 8

D) 3168

Sum of digits = $3 + 1 + 6 + 8 = 18 \rightarrow$ divisible by 3

So the correct answer is (c)

Q.10 The ratio of the speeds of two cars is 3:5. If the faster car travels 300 km in 4 hours, find the time taken by the slower car to cover 180 km.

- A. 3 hours
- B. 4 hours
- C. 5 hours
- D. 6 hours

Answer: B

Sol: Given:

Speed ratio (Slower : Faster) = 3 : 5

Faster car: 300 km in 4 hours

Formula Used:

Speed = Distance / Time

Time = Distance / Speed

Solution:

Speed of faster car = $300 / 4 = 75$ km/h

Speed of slower car: (5 units = 75) 1 unit = 15. Slower = $3 \times 15 = 45$ km/h

Time taken by slower car for 180 km = $180 / 45 = 4$ hours

So the correct answer is (b)

Q.11 A bus travels at a speed of 60 km/hr and covers a particular distance in 3 hours 15 minutes. How much time (in hours) will another bus travelling at the speed of 45 km/hr take to cover the same distance?

- A. $11/3$
- B. $13/3$
- C. $14/3$
- D. $15/3$

Answer: B

Sol: Given:

Speed 1 (S1) = 60 km/hr
 Time 1 (T1) = 3 hours 15 minutes = 3.25 hours
 Speed 2 (S2) = 45 km/hr

Formula Used:

Distance = Speed × Time

Solution:

Distance = 60 × 3.25 = 195 km
 Time taken by second bus = $\frac{\text{Distance}}{S2} = \frac{195}{45}$

Simplify the fraction: $\frac{195}{45} = \frac{13}{3} \text{ hours}$

So the correct answer is (b).

Q.12 A is 25 percent more efficient than B. B alone can finish a work in 30 days. In how many days will A alone finish the same work?

- A. 20
- B. 24
- C. 25
- D. 28

Answer: B

Sol: Given:

A efficiency = 125% of B efficiency.
 Time taken by B = 30 days.

Formula Used:

Efficiency × Time = Total Work.

Solution:

Let B efficiency = 4 units/day. Then A efficiency = 5 units/day.

Total Work = 4 × 30 = 120 units

Time for A = $\frac{120}{5} = \mathbf{24 \text{ days}}$

So the correct answer is (b)

Q.13 Three partners P, Q, and R started a business. P invested Rs. 40,000, Q invested Rs. 30,000, and R invested Rs. 50,000. After 4 months, P withdrew Rs. 10,000 and Q invested Rs. 5,000 more. At the end of the year, the firm earned a profit of Rs. 70,000. Find the share of profit of partner Q.

- A. Rs. 15,000
- B. Rs. 30,000
- C. Rs. 25,000
- D. Rs. 20,000

Answer: D

Sol: Given:

P: 40k (4 mo), then 30k (8 mo).
 Q: 30k (4 mo), then 35k (8 mo).
 R: 50k (12 mo).

Formula Used:

Ratio = (Investment × Time)

Solution:

P share ratio = (40 × 4) + (30 × 8) = 160 + 240 = 400

Q share ratio = (30 × 4) + (35 × 8) = 120 + 280 = 400

R share ratio = 50 × 12 = 600

Ratio P : Q : R = 400 : 400 : 600 = 2 : 2 : 3

Total Profit = Rs. 70,000

Sum of ratios = 7 units.

Q's share = $\frac{2}{7} \times 70000 = \mathbf{Rs. 20,000}$

So the correct answer is (d)

Q.14 \$Y = 2500 - X\$. When Y is divided by 6, 9, and 15, the remainder is 3 in each case. What is the minimum possible positive value of X?

- A. 43
- B. 87
- C. 77

D. 67

Answer: D

Sol: Given:

$$Y = 2500 - X$$

When Y is divided by 6, 9 and 15, the remainder is 3.

Solution:

If the remainder is 3, then

$Y - 3$ is divisible by 6, 9 and 15.

LCM of 6, 9 and 15 = 90

So,

$$Y = 90k + 3$$

Substitute $Y = 2500 - X$

$$2500 - X = 90k + 3$$

$$X = 2497 - 90k$$

For minimum positive X:

$$90 \times 27 = 2430$$

$$X = 2497 - 2430$$

X = 67

Final Answer: 67 (Option d)

Q.15 Pipes A and B alone can fill a tank in 4 hours and 6 hours respectively. Pipe C alone can empty the same tank in 12 hours. Firstly, both pipes A and B are opened and after 2 hours pipe C is also opened. In how much total time (in hours) will the tank be completely filled?

- A. $7/2$
- B. $5/2$
- C. $9/4$
- D. 3

Answer: B

Sol:

Given:

A fills the tank in 4 hours, B fills in 6 hours, and C empties in 12 hours.

A and B work for the first 2 hours, then C is opened.

Concept:

Net work rate

Solution:

Rate of A;

$$\frac{1}{4}$$

Rate of B;

$$\frac{1}{6}$$

Rate of A + B;

$$\frac{1}{4} + \frac{1}{6} = \frac{5}{12}$$

Work done in 2 hours

$$2 \times \frac{5}{12} = \frac{5}{6}$$

Remaining work

$$1 - \frac{5}{6} = \frac{1}{6}$$

Now C is opened.

Net rate

$$\frac{1}{4} + \frac{1}{6} - \frac{1}{12} = \frac{1}{3}$$

Time for remaining work

$$\frac{1/6}{1/3} = \frac{1}{2}$$

Total time

$$2 + \frac{1}{2} = \frac{5}{2}$$

Final Answer: $\frac{5}{2}$ hours (Option B)

Q.16 A tank contains 80 litres of a liquid mixture containing 60% acid. If 20 litres of this mixture is replaced by another liquid containing 40% acid, what is the percentage of acid in the resulting solution?

- A. 50%

- B. 52%
- C. 55%
- D. 58%

Answer: C

Sol: Given:

Initial mixture = 80 L (60% acid).
20 L removed and replaced by 40% acid liquid.

Formula Used:

Total acid / Total volume $\times 100$.

Solution:

Volume remaining after removal = $80 - 20 = 60$ L

Acid in 60 L = 60% of 60 = 36 L

Acid in 20 L replacement = 40% of 20 = 8 L

Total Acid = $36 + 8 = 44$ L

Total Volume = 80 L

Percentage = $\frac{44}{80} \times 100 = 55\%$

So the correct answer is (c)

Q.17 Speeds of train A and B are 80 m/s and 55 m/s. Train A and B are running in the same direction. They cross each other in 36 seconds. What is the total length (in metres) of trains A and B?

- A. 850
- B. 900
- C. 950
- D. 1000

Answer: B

Sol: Given:

Speed of A = 80 m/s, Speed of B = 55 m/s.
Time taken to cross in same direction = 36 s.

Formula Used:

Distance = Relative Speed \times Time

Relative Speed (same direction) = $S_1 - S_2$

Solution:

Relative Speed = $80 - 55 = 25$ m/s.

Total Length = $25 \times 36 = 900$ m

So the correct answer is (b).

Q.18 Every day a vendor sells 60 percent of his vegetables and 20 percent of the remaining vegetables get spoilt overnight. If a total of 48 vegetables got spoilt on the first night, then how many vegetables did he sell on the first day?

- A. 360
- B. 300
- C. 400
- D. 480

Answer: A

Sol: Given:

Vegetables sold = 60%.

Remaining vegetables = $100 - 60 = 40\%$.

Spoilt vegetables = 20% of remaining = 48.

Solution:

Let total vegetables be V

Remaining = $0.4V$

Spoilt = $0.2 \times (0.4V) = 48$

$0.08V = 48 \Rightarrow V = 48 / 0.08 = 600$

Vegetables sold = 60% of 600 = $6000 \times \frac{60}{100} = 360$

Final Answer:

So the correct answer is (a).

Q.19 The average of 15 numbers is Y and one of these numbers is 85. If 85 is replaced with 40, then what will be the new average?

- A. Y - 2
- B. Y - 3
- C. Y + 3
- D. Y + 5

Answer: B

Sol: Given:

Initial Average = Y for 15 numbers.

Replacement: 85 is replaced by 40.

Formula Used:

$$\text{Change in Average} = \frac{\text{Net Change in Sum}}{\text{Total Count}}$$

Solution:

Net Change in Sum = 40 - 85 = -45

Change in Average = -45 / 15 = -3

New Average = **Y - 3**

So the correct answer is (b)

Q.20 Arrange the following values in descending order.

$$3\frac{1}{4}, \frac{17}{5}, 3\frac{3}{8}, \frac{23}{7}$$

- A. $\frac{17}{5} > 3\frac{3}{8} > \frac{23}{7} > 3\frac{1}{4}$
- B. $3\frac{3}{8} > \frac{17}{5} > \frac{23}{7} > 3\frac{1}{4}$
- C. $\frac{17}{5} > \frac{23}{7} > 3\frac{3}{8} > 3\frac{1}{4}$
- D. $\frac{17}{5} > 3\frac{3}{8} > 3\frac{1}{4} > \frac{23}{7}$

Answer: A

Sol: Given:

$$\text{Values: } 3\frac{1}{4}, \frac{17}{5}, 3\frac{3}{8}, \frac{23}{7}$$

Solution:

Convert each value to decimal form:

$$3\frac{1}{4} = 3 + 0.25 = 3.25$$

$$\frac{17}{5} = 3.4$$

$$3\frac{3}{8} = 3 + 0.375 = 3.375$$

$$\frac{23}{7} \approx 3.285$$

Comparing the decimals: 3.4 > 3.375 > 3.285 > 3.25

$$\text{Descending order: } \frac{17}{5} > 3\frac{3}{8} > \frac{23}{7} > 3\frac{1}{4}$$

So the correct answer is (a)

Q.21 A series is given with one term missing. Select the correct alternative from the given options that will complete the series.

BD12, CF36, DH108, ?, FL972

- A. GI324
- B. GJ324
- C. EJ216
- D. EJ324

Answer: D

Sol: Given: BD12, CF36, DH108, ?, FL972

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

Logic: 1st letter + 1, 2nd letter + 2 and number multiply by 3.

For, 1st letter

$B + 1 = C, C + 1 = D, D + 1 = E, E + 1 = F$

For, 2nd letter

$D + 2 = F, F + 2 = H, H + 2 = J, J + 2 = L$

For, number

$12 \times 3 = 36, 36 \times 3 = 108, 108 \times 3 = 324, 324 \times 3 = 972$

So, the missing term is **EJ324**.

Thus, correct option is (d).

Q.22 If 15 March 2015 was a Sunday, then what day of the week was 15 July 2015?

- A. Tuesday
- B. Wednesday
- C. Thursday
- D. Friday

Answer: B

Sol: Given: If 15 March 2015 was a Sunday.

Solution:

We count the days from 15 March to 15 July 2015.

March $\rightarrow 31 - 15 = 16$ days

April = 30 days

May = 31 days

June = 30 days

July \rightarrow up to 15 = 15 days

Total days: $16 + 30 + 31 + 30 + 15 = 122$ days

Now divide by 7:

$122 \div 7 = 17$ weeks + 3 days

So the day shifts 3 days forward from Sunday.

Sunday \rightarrow Monday (1) \rightarrow Tuesday (2) \rightarrow Wednesday (3)

So, **Wednesday** of the week was 15 July 2015.

Thus, correct option is (b).

Q.23 Height of six boys A, B, C, D, E and F is compared. Height of no two boys is the same. B is taller than only three boys. E is taller than both C and D. A is taller than E but shorter than F. C is taller than only one boy. Who is the tallest among them?

- A. A
- B. B
- C. E
- D. F

Answer: D

Sol: Given:

Height of six boys A, B, C, D, E and F is compared.

Height of no two boys is the same.

B is taller than only three boys.

E is taller than both C and D.

A is taller than E but shorter than F.

C is taller than only one boy.

From the given information arrangement will be.

$F > A > B > E > C > D$

So, **F** is the tallest among them.

Thus, correct option is (d).

Q.24 A series is given with one term missing. Select the correct alternative from the given options that will complete the series.

DA10, GF18, JK26, ?, PU42

- A. MP32
- B. NP34
- C. MP34
- D. NQ32

Answer: C

Sol: Given: DA10, GF18, JK26, ?, PU42

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

Logic: 1st letter + 3, 2nd letter + 5 and number increasing + 8 place.

For, 1st letter

$D + 3 = G, G + 3 = J, J + 3 = M, M + 3 = P$

For, 2nd letter

$A + 5 = F, F + 5 = K, K + 5 = P, P + 5 = U$

For, number

$10 + 8 = 18, 18 + 8 = 26, 26 + 8 = 34, 34 + 8 = 42$

So, the missing term is **MP34**.

Thus, correct option is (c).

Q.25 What will be the product of the number of Mondays and Fridays in the month of July in the year 2018?

- A. 20
- B. 24
- C. 25
- D. 16

Answer: A

Sol: In 2018, 1 July was a Sunday.

July has 31 days.

So the days fall like this:

1 July – Sunday

2 July – Monday

3 July – Tuesday

4 July – Wednesday

5 July – Thursday

6 July – Friday

7 July – Saturday

Now count the required days.

Mondays: 2, 9, 16, 23, 30 → 5 Mondays

Fridays: 6, 13, 20, 27 → 4 Fridays

Product: $5 \times 4 = 20$

So, **20** will be the product of the number of Mondays and Fridays in the month of July in the year 2018.

Thus, correct option is (a).

Q.26 Select the option that is related to the third number in the same way as the second number is related to the first number and the sixth number is related to the fifth number. (Operations should be performed on the whole numbers without breaking them into digits.)

7421 : 3710 :: 5633 : ? :: 8943 : 4471

- A. 2816
- B. 2815
- C. 2817
- D. 2814

Answer: A

Sol: Given: $7421 : 3710 :: 5633 : ? :: 8943 : 4471$
Logic: $(2\text{nd number} \times 2) + 1 = 1\text{st number}$
For, $7421 : 3710$
 $(3710 \times 2) + 1 = 7421$
For, $8943 : 4471$
 $(4471 \times 2) + 1 = 8943$
 Similarly,
 $5633 : ?$
 $(? \times 2) + 1 = 5633$
 $? \times 2 = 5633 - 1$
 $? \times 2 = 5622$
 $? = 2816$
 Thus, correct option is (a).

Q.27 The present ages of P, Q and R are 24 years, 30 years and 36 years respectively. What was the ratio of their ages 6 years ago?

- A. 3 : 4 : 5
- B. 4 : 5 : 6
- C. 3 : 5 : 6
- D. 2 : 3 : 4

Answer: A

Sol: Given: The present ages of P, Q and R are 24 years, 30 years and 36 years respectively.

Solution:

Present ages:

$$P = 24, Q = 30, R = 36$$

Ages 6 years ago

$$P = 24 - 6 = 18$$

$$Q = 30 - 6 = 24$$

$$R = 36 - 6 = 30$$

So the ratio becomes:

$$18 : 24 : 30$$

Divide by the common factor 6:

$$18 \div 6 : 24 \div 6 : 30 \div 6$$

$$= 3 : 4 : 5$$

So, **3 : 4 : 5** was the ratio of their ages 6 years ago.

Thus, correct option is (a).

Q.28 The present ages of a mother and her daughter are 72 years in total. 8 years ago, the ratio of their ages was 5 : 1. What will be the ratio of their ages after 8 years from now?

- A. 45 : 20
- B. 47 : 19
- C. 44 : 17
- D. 43 : 18

Answer: B

Sol: Given: The present ages of a mother and her daughter are 72 years in total. 8 years ago, the ratio of their ages was 5 : 1.

Solution:

Let present ages of Mother = M and Daughter = D.

$$\text{Total present age: } M + D = 72$$

Ratio 8 years ago

8 years ago:

$$\text{Mother} = (M - 8)$$

$$\text{Daughter} = (D - 8)$$

Given ratio (5 : 1)

$$\frac{M - 8}{D - 8} = 5$$

$$M - 8 = 5(D - 8)$$

$$M - 8 = 5D - 40$$

$$M = 5D - 32$$

Substitute in total age:

$$(5D - 32) + D = 72$$

$$6D - 32 = 72$$

$$6D = 104$$

$$D = \frac{104}{6} = 17\frac{1}{3}$$

Mother:

$$M = 72 - 17\frac{1}{3} = 54\frac{2}{3}$$

Ages after 8 years

Mother:

$$54\frac{2}{3} + 8 = 62\frac{2}{3}$$

Daughter:

$$17\frac{1}{3} + 8 = 25\frac{1}{3}$$

Ratio:

$$62\frac{2}{3} : 25\frac{1}{3}$$

Multiply by 3:

$$188 : 76$$

Divide by 4: 47 : 19

So, **47 : 19** will be the ratio of their ages after 8 years from now.

Thus, correct option is (b).

Q.29 Five persons A, B, C, D and E are sitting in a row facing north (not necessarily in the same order). A and D are sitting at the extreme ends of the row. B is sitting immediately to the left of D. C is sitting second to the right of A. What is the position of E in the given seating arrangement?

- A. Second from the left end
- B. Third from the left end
- C. Second from the right end
- D. Third from the right end

Answer: A

Sol: Given:

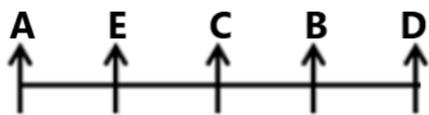
Five persons A, B, C, D and E are sitting in a row facing north (not necessarily in the same order).

A and D are sitting at the extreme ends of the row.

B is sitting immediately to the left of D.

C is sitting second to the right of A.

From the given information seating arrangement will be.



So, **Second from the left end** is the position of E in the given seating arrangement.

Thus, correct option is (a).



Q.30 Select the option that is related to the sixth number in the same way as the first number is related to the second number and the third number is related to the fourth number. (Operations should be performed on the whole numbers without breaking them into digits.)

$$315 : 952 :: 428 : 1291 :: ? : 694$$

- A. 221
- B. 224
- C. 226
- D. 229

Answer: D

Sol: Given: 315 : 952 :: 428 : 1291 :: ? : 694

Logic: (1st number \times 3) + 7 = 2nd number

For, 315 : 952

$$(315 \times 3) + 7 = 952$$

For, 428 : 1291

$$(428 \times 3) + 7 = 1291$$

Similarly,

? : 694

$$(x \times 3) + 7 = 694$$

$$x \times 3 = 687$$

$$x = \mathbf{229}$$

Thus, correct option is (d).

Q.31 In 24 hours, how many times do the minute hand and hour hand of a clock overlap?

- A. 20
- B. 22
- C. 24
- D. 26

Answer: B

Sol: Given: Time period = 24 hours

Explanation:

In 12 hours, the minute hand overlaps the hour hand 11 times.

This happens because the minute hand moves faster than the hour hand and catches it approximately every 65 minutes.

So, In 12 hours → 11 overlaps

Therefore, In 24 hours

$$= 11 \times 2$$

$$= \mathbf{22} \text{ overlaps}$$

So, **22** times do the minute hand and hour hand of a clock overlap.

Thus, correct option is (b).

Q.32 The ratio of the present ages of A and B is 5 : 3. After 8 years from now, A's age will be 28 years. What will be the ratio of the ages of A and B after 12 years from now?

- A. 7 : 5
- B. 4 : 5
- C. 7 : 4
- D. 4 : 3

Answer: D

Sol: Given: The ratio of the present ages of A and B is 5 : 3. After 8 years from now, A's age will be 28 years.

Solution:

Let present ages be:

$$A = (5x)$$

$$B = (3x)$$

Condition after 8 years

After 8 years, A's age = 28

$$5x + 8 = 28$$

Solving:

$$(5x = 20)$$

$$(x = 4)$$

Present ages:

$$A = (5 \times 4 = 20)$$

$$B = (3 \times 4 = 12)$$

Ages after 12 years:

$$A = (20 + 12 = 32)$$

$$B = (12 + 12 = 24)$$

Ratio after 12 years: (32 : 24)

Divide by 8: (4 : 3)

So, **4 : 3** will be the ratio of the ages of A and B after 12 years from now.

Thus, correct option is (d).

Q.33 Select the option that is related to the fourth letter–number cluster in the same way as the first letter–number cluster is related to the second letter–number cluster and the fifth letter–number cluster is related to the sixth letter–number cluster. (Operations should be performed on the whole numbers without breaking them into digits.)

LM15 : PQ225 :: ? : TU256 :: EF20 : IJ400

- A. QR14
- B. QR16
- C. PQ16
- D. PS16

Answer: C

Sol: Given: LM15 : PQ225 :: ? : TU256 :: EF20 : IJ400

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

Logic: Letters are increasing + 4 and number is perfect square of 1st number.

For, LM15 : PQ225

$L + 4 = P, M + 4 = Q$

$15^2 = 225$

For, EF20 : IJ400

$E + 4 = I, F + 4 = J$

$20^2 = 400$

Similarly,

? : TU256

$T - 4 = P, U - 4 = Q$

$\sqrt{256} = 16$

So, **PQ16** : TU256

Thus, correct option is (c).

Q.34 In a certain code language, 'students read books' is coded as 'ka tu mi', 'books give knowledge' is coded as 'mi pa lo', and 'knowledge improves mind' is coded as 'lo sa re'. How will 'books knowledge' be coded in that language?

- A. mi lo
- B. tu mi
- C. pa lo
- D. sa re

Answer: A

Sol: Given:

In a certain code language, 'students read books' is coded as 'ka tu mi', 'books give knowledge' is coded as 'mi pa lo', and 'knowledge improves mind' is coded as 'lo sa re'.

students read books = ka tu **mi**

books give knowledge = **mi** pa **lo**

knowledge improves mind = **lo** sa re

So, the code of '**books knowledge**' is **mi lo**.

Thus, correct option is (a).

Q.35 In the following question, a set of letter clusters is given. The letter clusters of each set are related to the letter clusters of the same set by some logic/rule/relation. From the given alternatives, select a group of letter clusters which follows the same logic/rule/relation.

(PF, KD, JZ)

(LC, GA, FW)

- A. (RQ, MO, LK)
- B. (SG, OC, KY)
- C. (TA, QE, PW)
- D. (UP, RL, MI)

Answer: A

Sol: Given:

(PF, KD, JZ)

(LC, GA, FW)

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

Logic: 1st letter - 5 = 3rd letter, 3rd letter - 1 = 5th letter

2nd letter - 2 = 4th letter, 4th letter - 4 = 6th letter

For, (PF, KD, JZ)

$P - 5 = K, K - 1 = J$

$F - 2 = D, D - 4 = Z$

For, (LC, GA, FW)

$L - 5 = G, G - 1 = F$

$C - 2 = A, A - 4 = W$

Now, we check each options.

Option (a): (RQ, MO, LK)

$R - 5 = M, M - 1 = L$

$Q - 2 = O, O - 4 = K$

Option (b): (SG, OC, KY)

$S - 5 \neq O, O - 1 \neq K$

Option (c): (TA, QE, PW)

$T - 5 \neq Q, Q - 1 = P$

Option (d): (UP, RL, MI)

$U - 5 \neq R, R - 1 \neq M$

Thus, correct option is (a).

Q.36 Select the option that is related to the first letter–number cluster in the same way as the fourth letter–number cluster is related to the third letter–number cluster and the sixth letter–number cluster is related to the fifth letter–number cluster. (Operations should be performed on the whole numbers without breaking them into digits.)

CF16 : ? :: GI36 : KM76 :: NP81 : RT121

- A. DG25
- B. GJ56
- C. DG36
- D. GH25

Answer: B

Sol: Given: CF16 : ? :: GI36 : KM76 :: NP81 : RT121

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

Logic: Letters are increasing + 4 and number is increasing + 40 place.

For, GI36 : KM76

$G + 4 = K, I + 4 = M$

$36 + 40 = 76$

For, NP81 : RT121

$N + 4 = R, P + 4 = T$

$81 + 40 = 121$

Similarly,

CF16 : ?

$C + 4 = G, F + 4 = J$

$16 + 40 = 56$

So, CF16 : **GJ56**

Thus, correct option is (b).

Q.37 A series is given with one term missing. Select the correct alternative from the given options that will complete the series.

BY, DW, FU, HS, JQ, ?, NM

- A. LO
- B. LP
- C. LN
- D. LM

Answer: A

Sol: Given: BY, DW, FU, HS, JQ, ?, NM

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

Logic: 1st letter + 2 and 2nd letter - 2 place.

For, 1st letter

$B + 2 = D, D + 2 = F, F + 2 = H, H + 2 = J, J + 2 = L, L + 2 = N$

For, 2nd letter

$Y - 2 = W, W - 2 = U, U - 2 = S, S - 2 = Q, Q - 2 = O, O - 2 = M$

So, the missing term is **LO**.

Thus, correct option is (a).

Q.38 Select the option that is related to the third letter cluster in the same way as the second letter cluster is related to the first letter cluster and the sixth letter cluster is related to the fifth letter cluster.
AB : YZ :: CD : WX :: EF : ?

- A. UT
- B. ST
- C. UV
- D. SR

Answer: C

Sol: Given: AB : YZ :: CD : WX :: EF : ?

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

Logic: 1st letter → Opposite → 4th letter and 2nd letter → Opposite → 3rd letter

For, AB : YZ

A → Z, B → Y

For, CD : WX

C → X, D → W

Similarly,

EF : ?

E → V, F → U

So, EF : **UV**

Thus, correct option is (c).

Q.39 The angle between the minute hand and hour hand of a clock at 3:20 and 5:40 are A and B respectively. What is the absolute difference (in degrees) between A and B?

- A. 20
- B. 25
- C. 50
- D. 35

Answer: C

Sol: Angle = $|30H - 5.5M|$

Given:

Time 1 = 3:20

Time 2 = 5:40

Angles = A and B

Required = $|A - B|$

where H = hour and M = minutes.

Angle at 3:20

$|30(3) - 5.5(20)|$

$|90 - 110| = 20^\circ$

So A = 20°

Angle at 5:40

$|30(5) - 5.5(40)|$

$|150 - 220| = 70^\circ$

So B = 70°

Absolute difference:

$|A - B| = |20 - 70| = 50^\circ$

Thus, correct option is (c).

Q.40 In a certain coded language, 'MIND' is coded as 'OKPF' and 'GAME' is coded as 'ICOG'. How will 'TIME' be coded in the same coded language?

- A. VKOG
- B. VKPF
- C. VKOF
- D. WKOG

Answer: A

Sol: Given: In a certain coded language, 'MIND' is coded as 'OKPF' and 'GAME' is coded as 'ICOG'.

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

Logic: Letters are increasing + 2 place.

For, MIND - OKPF

M + 2 = O, I + 2 = K, N + 2 = P, D + 2 = F

For, GAME - ICOG

G + 2 = I, A + 2 = C, M + 2 = O, E + 2 = G

Similarly,

TIME - ?

T + 2 = V, I + 2 = K, M + 2 = O, E + 2 = G

So, TIME is coded as **VKOG**.

Thus, correct option is (a).

Q.41 ____ is a method of farming where crops are grown and animals are reared on the same farm simultaneously.

- A. Shifting cultivation
- B. Plantation farming
- C. Mixed farming
- D. Subsistence farming

Answer: C

Sol: The correct answer is **(C) Mixed farming**

Explanation:

- Mixed farming is a type of agriculture that involves both the growing of crops and the raising of livestock.
- This system provides a balanced farm economy as the animal waste can be used as manure for crops, and crop residues can be used as fodder for animals.
- It reduces the risk for farmers, as they do not depend solely on one source of income (either crops or animals).
- This practice is common in Europe, North America, and parts of India.

Information Booster:

- **Crop Rotation:** Often practiced alongside mixed farming to maintain soil fertility.
- **Sustainability:** Mixed farming is often more sustainable than monoculture because it mimics a more natural ecosystem cycle.
- **Economic Stability:** If a crop fails due to pests or weather, the livestock provides an insurance-like buffer for the farmer's livelihood.

Additional Knowledge:

- **Shifting cultivation (Option A):** A plot of land is cleared, cultivated for a few years, and then abandoned (shifted) for the soil to regain fertility.
- **Plantation farming (Option B):** Large-scale commercial farming of a single cash crop like tea, coffee, or rubber.
- **Subsistence farming (Option D):** Farming where the producer's goal is to grow enough food to feed themselves and their family, with little surplus for trade.

Q.42 The Life Insurance Corporation of India (LIC) was established in the year

- A. 1948
- B. 1956
- C. 1964
- D. 1972

Answer: B

Sol: The correct answer is **(B) 1956**

Explanation:

- The Life Insurance Corporation of India (LIC) was established on **September 1, 1956**.
- The Government of India passed the Life Insurance of India Act and nationalized the entire life insurance industry in the country.
- About 245 insurance companies and provident societies were merged to create the state-owned LIC.
- The main objective was to spread life insurance much more widely and in particular to the rural areas, and to mobilize people's savings for nation-building.

Information Booster:

- **Headquarters:** LIC is headquartered in Mumbai.

- **Slogan:** The slogan of LIC is "Yogakshemam Vahamyaham" (Your welfare is our responsibility), taken from the Bhagavad Gita.
- **Initial Public Offering (IPO):** In 2022, LIC went public with one of India's largest ever IPOs, though the government still maintains a majority stake.

Additional Knowledge:

- **1948 (Option A):** This year saw the establishment of the Industrial Finance Corporation of India (IFCI).
- **1964 (Option C):** This year is significant for the establishment of the Industrial Development Bank of India (IDBI) and UTI.
- **1972 (Option D):** The General Insurance Business (Nationalisation) Act was passed in 1972, leading to the nationalization of general insurance companies in 1973.

Q.43 The Moon completes one revolution around the Earth in approximately ___ days.

- A. 15
- B. 27
- C. 31
- D. 365

Answer: B

Sol: The correct answer is **(B) 27**

Explanation:

- The Moon takes approximately **27.3 days** (specifically 27 days, 7 hours, and 43 minutes) to complete one revolution around the Earth. This is known as a **Sidereal Month**.
- Interestingly, the Moon also takes exactly the same amount of time to complete one rotation on its own axis.
- This phenomenon is known as **Tidal Locking** or Synchronous Rotation, which is why we always see the same side (face) of the Moon from Earth.
- However, the time between one new moon and the next is about 29.5 days (Synodic Month), because the Earth is also moving along its orbit around the Sun.

Information Booster:

- **Perigee and Apogee:** The Moon's orbit is elliptical. When it's closest to Earth, it's at 'Perigee'; when it's farthest, it's at 'Apogee'.
- **Moon's Light:** The Moon does not have its own light; it reflects sunlight. The changing angles between Earth, Moon, and Sun result in the 'Phases of the Moon'.
- **Gravity:** The Moon's gravitational pull is primarily responsible for the tides in Earth's oceans.

Additional Knowledge:

- **15 Days (Option A):** This is roughly the time between a New Moon and a Full Moon (one Paksha in the Hindu calendar).
- **31 Days (Option C):** This is the length of several calendar months on Earth but does not correspond to a specific lunar cycle.
- **365 Days (Option D):** This is the approximate time the Earth takes to complete one revolution around the Sun (a year).

Q.44 In the Modern Periodic Table, elements are arranged on the basis of their

- A. Increasing atomic mass
- B. Increasing atomic number
- C. Decreasing reactivity
- D. Decreasing number of isotopes

Answer: B

Sol: The correct answer is **(B) Increasing atomic number**

Explanation:

- The Modern Periodic Table is based on the Modern Periodic Law, which states that "the physical and chemical properties of elements are a periodic function of their atomic numbers."
- This was proposed by **Henry Moseley** in 1913, who showed that atomic number is a more fundamental property of an element than its atomic mass.
- Arranging elements by atomic number resolves discrepancies found in earlier tables, such as the position of isotopes and the placement of certain pairs of elements like Cobalt and Nickel.
- The table consists of 18 vertical columns called 'Groups' and 7 horizontal rows called 'Periods'.

Information Booster:

- **Mendeleev's Periodic Table:** This earlier version was based on atomic mass. It was brilliant but had flaws, such as not having a fixed position for Hydrogen.
- **Atomic Number (Z):** Refers to the number of protons in the nucleus of an atom, which also equals the number of electrons in a neutral atom.
- **Valence Electrons:** Elements in the same group have the same number of valence electrons, which gives them similar chemical properties.

Additional Knowledge:

- **Increasing atomic mass (Option A):** This was the basis for Newlands' Law of Octaves and Mendeleev's Periodic Table, but it was replaced by the atomic number in the modern table.
- **Decreasing reactivity (Option C):** Reactivity varies across the table (increasing in some directions and decreasing in others) but is not the organizational basis.
- **Number of isotopes (Option D):** The number of isotopes is not a periodic property and does not follow a systematic order across the table.

Q.45 Deimachus visited the court of Bindusara as an ambassador sent by which ruler?

- A. Antiochus I
- B. Seleucus I
- C. Ptolemy II
- D. Darius III

Answer: A

Sol: The correct answer is **(A) Antiochus I**

Explanation:

- Deimachus was a Greek ambassador from the **Seleucid Empire** who visited the court of the Mauryan Emperor Bindusara (the son of Chandragupta Maurya).
- He was sent by **Antiochus I Soter**, the ruler of Syria.
- This indicates the continued diplomatic relations between the Mauryan Empire and the Hellenistic kingdoms established after Alexander's invasion.
- According to historical accounts, Bindusara requested Antiochus I for sweet wine, dried figs, and a philosopher. Antiochus sent the first two but declined the philosopher, stating that Greek law did not permit the sale of philosophers.

Information Booster:

- **Bindusara:** Known as 'Amitraghata' (Slayer of foes), he expanded the Mauryan Empire southward.
- **Megasthenes:** He was the predecessor to Deimachus, sent by Seleucus I Nicator to the court of Chandragupta Maurya.
- **Dionysius:** Another ambassador sent to the Mauryan court by Ptolemy Philadelphus of Egypt.

Additional Knowledge:

- **Seleucus I (Option B):** He was the founder of the Seleucid Empire and sent Megasthenes, not Deimachus.
- **Ptolemy II (Option C):** Ruler of Egypt who sent the ambassador Dionysius to the Mauryan court during the reign of Bindusara or Ashoka.
- **Darius III (Option D):** The last Achaemenid King of Kings of Persia, who was defeated by Alexander the Great long before the rise of the Mauryan-Greek diplomacy.

Q.46 Which of the following statement is correct regarding the National Development Council (NDC)? I. It was established in 1952. II. The Prime Minister of India acts as its chairperson.

- A. Only I
- B. Only II
- C. Both I and II
- D. Neither I nor II

Answer: C

Sol: The correct answer is **(C) Both I and II**

Explanation:

- The National Development Council (NDC) was established on **August 6, 1952**, by an executive resolution of the Government of India.
- It was created to strengthen and mobilize the effort and resources of the nation in support of the Five-Year Plans and to promote common economic policies in all vital spheres.
- The **Prime Minister** serves as the Chairperson of the NDC.
- Its members include Union Cabinet Ministers, Chief Ministers of all states, and representatives of Union Territories and members of the Planning Commission (now NITI Aayog).

Information Booster:

- **Status:** Like the Planning Commission (and now NITI Aayog), the NDC is neither a constitutional body nor a statutory body.
- **Functions:** Its primary function was to review the working of the national plan from time to time and to consider important questions of social and economic policy affecting national development.
- **Current Context:** With the replacement of the Planning Commission by NITI Aayog and the move away from Five-Year Plans, the relevance and meeting frequency of the NDC have significantly diminished.

Additional Knowledge:

- **NITI Aayog:** Replaced the Planning Commission in 2015. While NITI Aayog has a Governing Council (which includes CMs), the NDC remains the apex body for plan approval in the old framework.
- **Administrative Structure:** The Secretary of the Planning Commission (now NITI Aayog) used to act as the Secretary of the National Development Council.

Q.47 Which component of human blood is primarily responsible for carrying oxygen to the tissues?

- White blood cells
- Blood platelets
- Plasma
- Red blood cells

Answer: D

Sol: The correct answer is **(D) Red blood cells**

Explanation:

- Red Blood Cells (RBCs), also known as **Erythrocytes**, contain a protein called **Hemoglobin**.
- Hemoglobin binds with oxygen in the lungs to form oxyhemoglobin and carries it to all the cells and tissues of the body.
- RBCs have a biconcave shape, which increases their surface area for oxygen exchange, and they lack a nucleus to make more room for hemoglobin.
- The lifespan of a typical human RBC is about 120 days.

Information Booster:

- **Iron:** Hemoglobin requires iron to function properly; a deficiency in iron leads to Anaemia.
- **Production:** RBCs are primarily produced in the red bone marrow through a process called Erythropoiesis.
- **Carbon Dioxide:** While RBCs primarily carry oxygen, they also transport about 20-25% of the body's carbon dioxide back to the lungs.

Additional Knowledge:

- **White blood cells (Option A):** Also known as Leucocytes, they are part of the immune system and help the body fight infections.
- **Blood platelets (Option B):** Also known as Thrombocytes, they are essential for blood clotting to prevent excessive bleeding during injury.
- **Plasma (Option C):** The liquid component of blood that carries nutrients, hormones, and proteins throughout the body, as well as waste products.

Q.48 Under which Article of the Indian Constitution can a Financial Emergency be proclaimed?

- Article 352
- Article 356
- Article 360
- Article 368

Answer: C

Sol: The correct answer is **(C) Article 360**

Explanation:

- Article 360 of the Indian Constitution empowers the President to proclaim a Financial Emergency if he is satisfied that a situation has arisen whereby the financial stability or credit of India or any part of its territory is threatened.
- Once approved by both Houses of Parliament, the Financial Emergency continues indefinitely until it is revoked by the President.
- During such an emergency, the executive authority of the Union extends to giving directions to any state to observe specified canons of financial propriety.
- Notably, a Financial Emergency has never been declared in India so far, even during the 1991 economic crisis.

Information Booster:

- **Parliamentary Approval:** A proclamation declaring a financial emergency must be approved by both Houses of Parliament within two months from the date of its issue.
- **Effects:** The President can issue directions for the reduction of salaries and allowances of all or any class of persons serving the Union, including the judges of the Supreme Court and High Courts.
- **Revocation:** A proclamation may be revoked or varied by a subsequent proclamation by the President at any time and does not require parliamentary approval for revocation.

Additional Knowledge:

- **Article 352 (Option A):** This pertains to 'National Emergency' on the grounds of war, external aggression, or armed rebellion.
- **Article 356 (Option B):** This pertains to 'President's Rule' or State Emergency, imposed when the constitutional machinery in a state fails.
- **Article 368 (Option D):** This article grants Parliament the power to amend the Constitution and lays down the procedure for such amendments.

Q.49 The new series Rs. 200 banknote was introduced by the RBI. What is the approximate width of this note in millimeters?

- A. 120
- B. 146
- C. 166
- D. 150

Answer: B

Sol: The correct answer is **(B) 146**

Explanation:

- The Mahatma Gandhi (New) Series Rs. 200 banknote was introduced by the Reserve Bank of India in August 2017.
- The dimensions of the note are **66 mm × 146 mm** (Height x Width).
- The base color of the note is Bright Yellow.
- The reverse side of the note features a motif of the **Sanchi Stupa**, depicting the country's cultural heritage.

Information Booster:

- **Security Features:** It includes a see-through register with the denominational numeral 200, a latent image, and a portrait of Mahatma Gandhi at the center.
- **Other Notes:** Rs. 500 note (66mm x 150mm), Rs. 2000 note (66mm x 166mm), and Rs. 100 note (66mm x 142mm).
- **Language Panel:** Like all Indian banknotes, the Rs. 200 note has a language panel displaying the denomination in 15 languages.

Additional Knowledge:

- **120 mm (Option A):** This is significantly shorter than any of the standard high-denomination notes in the new series.
- **166 mm (Option C):** This is the width of the Rs. 2000 banknote (the longest in the series).
- **150 mm (Option D):** This is the width of the new Rs. 500 banknote.

Q.50 'T' is a sector of the economy that provides services to both consumers and the production sectors. Which of the following is part of 'T'?

- A. Mining
- B. Information Technology
- C. Animal Husbandry
- D. Textile Manufacturing

Answer: B

Sol: The correct answer is **(B) Information Technology**

Explanation:

- The letter 'T' refers to the Tertiary sector, also known as the service sector. It involves the provision of services rather than tangible goods.
- Information Technology (IT) is a core component of the modern service sector, providing digital services, software development, and data management to both individuals and businesses.
- This sector aids the primary and secondary sectors by providing transportation, banking, insurance, and communication support.
- In many developing and developed countries, the tertiary sector contributes the largest share to the GDP.

Information Booster:

- **Quaternary Sector:** Often considered a subset of the tertiary sector, it involves intellectual activities like research and development (R&D) and high-level IT services.
- **Quinary Sector:** This involves the highest level of decision-making in an economy, including top government officials and CEOs.
- **Economic Evolution:** According to the Fisher-Clark model, as economies develop, the workforce shifts from the primary to the secondary and finally to the tertiary sector.

Additional Knowledge:

- **Mining (Option A):** Part of the Primary Sector as it involves the extraction of raw materials directly from nature.

- **Animal Husbandry (Option C):** Part of the Primary Sector, relating to the breeding and caring of farm animals for produce.
- **Textile Manufacturing (Option D):** Part of the Secondary Sector (Manufacturing), as it processes raw materials (cotton/fiber) into finished products (clothes).

Q.51 Who built the famous Moti Masjid inside the Red Fort complex in Delhi?

- A. Akbar
- B. Jahangir
- C. Shah Jahan
- D. Aurangzeb

Answer: D

Sol: The correct answer is **(D) Aurangzeb**

Explanation:

- The Moti Masjid (Pearl Mosque) inside the Red Fort (Lal Qila) in Delhi was built by the Mughal Emperor Aurangzeb between 1659 and 1660.
- It was intended to be the personal mosque of the Emperor, as the main Jama Masjid was located outside the fort.
- It is made of white marble and is located to the west of the Hamman and close to the Diwan-i-Khas.
- Its architecture is typical of the Aurangzeb era, featuring three domes and curved arches.

Information Booster:

- **Another Moti Masjid:** There is another famous Moti Masjid located in the Agra Fort, which was built by **Shah Jahan**. Students often confuse these two.
- **Design:** The Delhi Moti Masjid is relatively small and was meant for private use by the emperor and the ladies of the zenana.
- **UNESCO Site:** The Red Fort complex itself, which houses this masjid, was designated a UNESCO World Heritage Site in 2007.

Additional Knowledge:

- **Akbar (Option A):** Known for building the Agra Fort and Fatehpur Sikri, but the Moti Masjid in Delhi was built long after his reign.
- **Jahangir (Option B):** Focused more on gardens (like Shalimar Bagh) and paintings; he did not build the Moti Masjid in Delhi.
- **Shah Jahan (Option C):** He built the Red Fort itself and the Moti Masjid in **Agra**, but the mosque inside the Delhi Red Fort was added by his son, Aurangzeb.

Q.52 The Simhastha Kumbh Mela is held in which of the following cities?

- A. Nashik
- B. Ujjain
- C. Haridwar
- D. Prayagraj

Answer: B

Sol: The correct answer is **(B) Ujjain**

Explanation:

- The Simhastha Kumbh Mela is held in **Ujjain** on the banks of the **Shipra River**.
- It is called 'Simhastha' because it occurs when the planet Jupiter (Guru) enters the Leo (Simha) zodiac sign.
- Kumbh Mela is celebrated at four places in India: Prayagraj, Haridwar, Nashik, and Ujjain, rotating every 12 years.
- Millions of devotees gather to take a holy dip in the river, believing it cleanses them of sins and leads to salvation (Moksha).

Information Booster:

- **UNESCO Recognition:** Kumbh Mela was inscribed on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity in 2017.
- **Mythology:** The festival is linked to the 'Samudra Manthan' (churning of the ocean) where drops of 'Amrit' (nectar of immortality) fell at these four locations.
- **Sequence:** The Ujjain Simhastha follows the Kumbh Mela at Nashik by one year.

Additional Knowledge:

- **Nashik (Option A):** Kumbh Mela here is held on the banks of the **Godavari** river.
- **Haridwar (Option C):** Kumbh Mela here is held on the banks of the **Ganga** river.
- **Prayagraj (Option D):** Kumbh Mela here is held at the **Triveni Sangam** (confluence of Ganga, Yamuna, and the mythical Saraswati).

Q.53 The Seychelles Islands are located in the

- A. Atlantic Ocean
- B. Indian Ocean

- C. Pacific Ocean
- D. Southern Ocean

Answer: B

Sol: The correct answer is **(B) Indian Ocean**

Explanation:

- Seychelles is an archipelagic island country consisting of 115 islands in the Indian Ocean, off the coast of East Africa.
- Its capital and largest city, Victoria, is located 1,500 kilometers east of mainland Africa.
- It is the least populous sovereign African country, with an estimated population of roughly 100,000.
- The islands are divided into two main groups: the Mahé group (granitic islands) and the outlying islands (coralline islands).

Information Booster:

- **Strategic Importance:** Seychelles is part of India's SAGAR (Security and Growth for All in the Region) initiative and holds significant maritime importance for regional security.
- **Aldabra Atoll:** Seychelles is home to the Aldabra Atoll, the world's second-largest coral atoll and a UNESCO World Heritage site.
- **Climate:** It has a tropical rainforest climate with high humidity and comfortable temperatures year-round.

Additional Knowledge:

- **Atlantic Ocean (Option A):** This ocean houses islands like the Azores, Bermuda, and the Falklands, but not Seychelles.
- **Pacific Ocean (Option C):** This is the largest ocean, containing Oceania islands like Fiji, Hawaii, and Tahiti.
- **Southern Ocean (Option D):** Also known as the Antarctic Ocean, it encircles Antarctica and features islands like the South Shetland Islands.

Q.54 Which of the following players in a sports match typically does NOT wear gloves as part of their standard equipment?

- A. A Football Goalkeeper
- B. A Boxing Athlete
- C. A Basketball Player
- D. A Cricket Wicketkeeper

Answer: C

Sol: The correct answer is **(C) A Basketball Player**

Explanation:

- In basketball, players rely on the direct feel and grip of their fingertips and palms to dribble, pass, and shoot accurately. Wearing gloves would interfere with this tactile sensitivity and ball control.
- While some players might use sweatbands or finger tape, gloves are not part of the standard or legal equipment in basketball.
- In contrast, the other sports mentioned require gloves for either protection or enhanced grip/padding for safety.

Information Booster:

- **Cricket:** Only the wicketkeeper is permitted to wear gloves and external leg guards. Other fielders can only wear gloves if they have prior permission from the umpires (usually due to injury).
- **Boxing:** Gloves are mandatory to protect both the hands of the puncher and the face/body of the opponent from cuts and bone fractures.
- **Football:** Goalkeepers wear specialized gloves with latex palms to improve grip on the ball and protect their hands when parrying powerful shots.

Additional Knowledge:

- **Football Goalkeeper (Option A):** Gloves are essential to prevent the ball from slipping and to cushion the impact.
- **Boxing (Option B):** Modern boxing is defined by the use of padded gloves, which distinguishes it from bare-knuckle fighting.
- **Cricket Wicketkeeper (Option D):** Heavy padding and gloves are vital for the keeper because they have to catch high-velocity deliveries throughout the match.

Q.55 The term "Powerplay" in cricket is related to which part of the game?

- A. Batting strategy restrictions
- B. Fielding restrictions
- C. Bowling speed limits
- D. Umpiring decisions

Answer: B

Sol: The correct answer is **(B) Fielding restrictions**

Explanation:

- Powerplay is a rule in limited-overs cricket (ODIs and T20Is) that limits the number of fielders allowed outside the 30-yard circle during certain overs.
- In T20 Internationals, the first 6 overs are the Powerplay, where only 2 fielders are allowed outside the circle.
- In One Day Internationals (ODIs), there are typically three stages of Powerplay: Mandatory Powerplay (Overs 1-10), Second Powerplay (Overs 11-40),

and Third Powerplay (Overs 41-50), each with different fielder limit rules.

- The objective is to encourage aggressive batting and higher scoring in the early stages of an innings.

Information Booster:

- **Mandatory Powerplay (ODI):** Only two fielders are allowed outside the 30-yard circle for the first 10 overs.
- **Non-Powerplay Overs:** After the powerplays, more fielders (usually up to 5 in ODIs) can be placed on the boundary.
- **History:** The concept was introduced by the ICC to make the middle overs of ODIs more exciting and to prevent defensive bowling/fielding tactics from dominating the game.

Additional Knowledge:

- **Batting strategy (Option A):** While batters use the Powerplay for strategy, the term itself defines a rule regarding field placement, not a forced batting style.
- **Bowling speed (Option C):** Cricket does not have a concept of 'Powerplay' related to speed limits; speed is a natural attribute of the bowler.
- **Umpiring decisions (Option D):** Umpiring involves rules like DRS (Decision Review System) or LBW, which are distinct from fielding restriction rules.

Q.56 What is the 'Infant Mortality Rate'?

- The number of deaths of children under 1 year of age per 100 live births.
- The number of deaths of children under 1 year of age per 1000 live births.
- The number of deaths of children under 5 years of age per 1000 live births.
- The number of deaths of children under 1 year of age per 10000 live births.

Answer: B

Sol: The correct answer is **(B) The number of deaths of children under 1 year of age per 1000 live births.**

Explanation:

- Infant Mortality Rate (IMR) is the number of deaths of children under one year of age occurring among the live births in a given geographical area during a given year, per 1,000 live births.
- It is a key indicator of the health and well-being of a population, reflecting the quality of healthcare, nutrition, and sanitation.
- According to recent data, India's IMR has been steadily declining due to better immunization coverage and institutional deliveries.

Information Booster:

- **Neonatal Mortality Rate:** Refers to deaths within the first 28 days of life per 1000 live births.
- **Maternal Mortality Ratio (MMR):** This is calculated per **1,00,000** live births, not per 1,000, which is a common point of confusion in exams.
- **NFHS-5:** The National Family Health Survey-5 recorded significant improvements in infant health indicators across most Indian states.

Additional Knowledge:

- **Option A:** While percentages (per 100) are used for some statistics, mortality rates in demography are standardly measured per 1,000 to capture smaller variations accurately.
- **Option C:** This describes the **Under-five Mortality Rate (U5MR)**, which is another crucial health indicator but different from IMR.
- **Option D:** Calculation per 10,000 is not a standard demographic convention for infant mortality reporting.

Q.57 Deoxygenated blood from the body first enters which chamber of the human heart?

- Left atrium
- Left ventricle
- Right atrium
- Right ventricle

Answer: C

Sol: The correct answer is **(C) Right atrium**

Explanation:

- The human heart has four chambers: two atria (upper) and two ventricles (lower).
- Deoxygenated blood returns from the body through two large veins—the **Superior Vena Cava** and the **Inferior Vena Cava**—and empties into the **Right Atrium**.
- From the right atrium, the blood flows through the tricuspid valve into the **Right Ventricle**, which then pumps it to the lungs for oxygenation via the pulmonary artery.
- This represents the beginning of the 'Pulmonary Circulation' cycle.

Information Booster:

- **Left Side:** The left side of the heart deals with oxygenated blood. The Left Atrium receives oxygen-rich blood from the lungs via pulmonary veins.
- **Bicuspid/Mitral Valve:** Located between the left atrium and left ventricle.
- **Aorta:** The largest artery in the body, which carries oxygenated blood from the Left Ventricle to the rest of the body.

Additional Knowledge:

- **Left atrium (Option A):** Receives oxygenated blood from the lungs.
- **Left ventricle (Option B):** Pumps oxygenated blood to the entire body; it has the thickest muscular walls.
- **Right ventricle (Option D):** Receives blood from the right atrium and pumps it specifically to the lungs.

Q.58 In which Indian state is the 'Maha Mastakabhisheka Festival' celebrated?

- A. Karnataka
- B. Rajasthan
- C. Uttarakhand
- D. Gujarat

Answer: A

Sol: The correct answer is **(A) Karnataka**

Explanation:

- Maha Mastakabhisheka is a grand Jain festival held once every **12 years** in the town of **Shravanabelagola**, Karnataka.
- The festival is dedicated to the massive 57-foot-high monolithic statue of **Lord Bahubali** (Gommateshwara), which was built in 981 AD by Chavundaraya, a minister of the Ganga dynasty.
- During the ceremony, the statue is anointed with milk, sugarcane juice, saffron paste, and powders of sandalwood, turmeric, and vermilion.
- The last ceremony was held in 2018, and the next one is scheduled for 2030.

Information Booster:

- **Bahubali:** According to Jainism, he was the son of Rishabhanatha (the first Tirthankara) and is revered for his extreme meditation and renunciation.
- **Shravanabelagola:** It is one of the most important pilgrimage sites for Jains. Chandragupta Maurya is said to have spent his last days here practicing Sallekhana (religious fasting to death).
- **UNESCO:** The statue is one of the largest free-standing monolithic statues in the world.

Additional Knowledge:

- **Rajasthan (Option B):** Famous for the Dilwara Jain Temples at Mount Abu, but not the site of Maha Mastakabhisheka.
- **Uttarakhand (Option C):** Primarily known for Hindu pilgrimage sites like the Char Dham (Badrinath, Kedarnath, Gangotri, Yamunotri).
- **Gujarat (Option D):** Famous for the Palitana temples on Shatrunjaya hills, which is a major Jain pilgrimage site, but distinct from the Shravanabelagola traditions.

Q.59 Which of the following major movements was launched by Mahatma Gandhi in 1942?

- A. Non-Cooperation Movement
- B. Civil Disobedience Movement
- C. Quit India Movement
- D. Khilafat Movement

Answer: C

Sol: The correct answer is **(C) Quit India Movement**

Explanation:

- The Quit India Movement, also known as the August Kranti Movement, was launched on **August 8, 1942**, at the Gowalia Tank Maidan in Bombay.
- It was a call for the immediate end of British rule in India.
- During this movement, Mahatma Gandhi gave the famous slogan **"Do or Die"** (Karo Ya Maro).
- The movement was launched in the backdrop of the failure of the **Cripps Mission**, which sought to secure Indian cooperation for the British war effort in World War II.

Information Booster:

- **Aruna Asaf Ali:** Known as the 'Grand Old Lady' of the Independence Movement for hoisting the Indian National Congress flag at the Gowalia Tank Maidan during the movement.
- **Parallel Governments:** During this period, parallel governments were established in places like Ballia (Chittu Pandey), Satara, and Tamluk.
- **Mass Participation:** Despite the arrest of all top leaders within 24 hours of the resolution, the movement saw massive participation from students, workers, and peasants.

Additional Knowledge:

- **Non-Cooperation Movement (Option A):** Launched in **1920** following the Jallianwala Bagh massacre and the Rowlatt Act.
- **Civil Disobedience Movement (Option B):** Launched in **1930** with the famous Dandi March (Salt Satyagraha).
- **Khilafat Movement (Option D):** Launched in **1919-20** by the Ali Brothers to protect the Caliphate in Turkey; it was later merged with the Non-Cooperation Movement by Gandhi.

Q.60 As of the latest data for 2025, approximately what percentage of seats are reserved for women in Panchayati Raj Institutions in India?

- A. 33%
- B. 25%
- C. 15%
- D. 50%

Answer: A

Sol: The correct answer is **(A) 33%**

Explanation:

- According to **Article 243D** of the Indian Constitution (introduced by the 73rd Amendment Act, 1992), not less than **one-third (33.3%)** of the total number of seats to be filled by direct election in every Panchayat shall be reserved for women.
- This reservation applies to both the membership and the posts of Chairpersons at all three levels of the Panchayati Raj system.
- It includes reservation for women belonging to Scheduled Castes (SC) and Scheduled Tribes (ST) within their respective quotas.

Information Booster:

- **State Variation:** While the constitutional mandate is 33%, many states like Bihar, Madhya Pradesh, Uttarakhand, Rajasthan, and others have increased this reservation to **50%** through state legislation.
- **73rd Amendment:** This amendment gave constitutional status to Panchayati Raj Institutions (PRIs) and added the 11th Schedule to the Constitution.
- **Nari Shakti Vandan Adhiniyam (2023):** This is a recent landmark law (106th Amendment Act) that reserves 33% of seats for women in the Lok Sabha and State Legislative Assemblies, though it will take effect after the next delimitation.

Additional Knowledge:

- **Option B, C:** These percentages are incorrect as per the constitutional provisions for local bodies in India.
- **Option D (50%):** While several states have adopted 50%, the base constitutional requirement as per Article 243D remains one-third (approx 33%). Since the question asks for the standard requirement, 33% is the most accurate answer for general exams unless specified by a particular state.

Q.61 In which year was the Dena Bank merged with the Bank of Baroda?

- A. 2017
- B. 2018
- C. 2019
- D. 2020

Answer: C

Sol: The correct answer is **(C) 2019**

Explanation:

- On **April 1, 2019**, the first-ever three-way merger of public sector banks took place where **Dena Bank** and **Vijaya Bank** were merged into the **Bank of Baroda (BoB)**.
- Following this merger, Bank of Baroda became India's third-largest lender at the time, after State Bank of India (SBI) and HDFC Bank.
- This was part of the government's strategy to consolidate public sector banks (PSBs) to create stronger, globally competitive entities with larger capital bases.
- All branches of Dena Bank and Vijaya Bank began functioning as branches of Bank of Baroda from the effective date.

Information Booster:

- **Amalgamation:** The move was intended to achieve economies of scale and reduce the burden of Non-Performing Assets (NPAs) through better resource management.
- **Other Major Mergers:** In 2020, ten public sector banks were consolidated into four (e.g., Oriental Bank of Commerce and United Bank of India merged into PNB).
- **SBI Merger:** In 2017, five associate banks and the Bharatiya Mahila Bank were merged with the State Bank of India.

Additional Knowledge:

- **2018 (Option B):** This was the year the government initially announced the proposal for the BoB-Dena-Vijaya merger, but the legal implementation occurred in 2019.
- **2020 (Option D):** This year saw the mega-merger of several other banks like Syndicate Bank (into Canara Bank) and Allahabad Bank (into Indian Bank).

Q.62 To calculate Net Domestic Product (NDP) from Gross Domestic Product (GDP), what must be subtracted?

- A. Indirect Taxes
- B. Subsidies
- C. Depreciation
- D. Net Factor Income from Abroad

Answer: C

Sol: The correct answer is **(C) Depreciation**

Explanation:

- In economics, 'Gross' refers to the total value before accounting for wear and tear, while 'Net' refers to the value after such deductions.
- **NDP = GDP - Depreciation.**
- Depreciation represents the monetary value of the wear and tear of capital assets (like machinery, buildings, and equipment) used in the production process over a year.
- NDP is a more accurate measure of the actual economic growth because it considers the cost of maintaining the capital stock.

Information Booster:

- **GDP at Factor Cost:** This is calculated by subtracting Indirect Taxes and adding Subsidies to GDP at Market Price.
- **NNP:** Net National Product is calculated by subtracting depreciation from GNP (Gross National Product).
- **National Income:** In India, NNP at Factor Cost (NNP_{fc}) is considered the 'National Income'.

Additional Knowledge:

- **Indirect Taxes & Subsidies (Options A & B):** These are adjusted to convert between 'Market Price' and 'Factor Cost', but they don't convert 'Gross' to 'Net'.
- **Net Factor Income from Abroad (Option D):** This is used to convert 'Domestic' product into 'National' product (e.g., GDP + NFIA = GNP).

Q.63 Who is one of the authors of 'The Greatest: My Own Story'?

- A. Mike Tyson
- B. Muhammad Ali
- C. George Foreman
- D. Floyd Mayweather

Answer: B

Sol: The correct answer is **(B) Muhammad Ali**

Explanation:

- 'The Greatest: My Own Story' is the autobiography of the legendary heavyweight boxing champion **Muhammad Ali**.
- It was co-written with Richard Durham and published in 1975.
- The book covers his journey from his childhood as Cassius Clay in Louisville, Kentucky, to his Olympic gold medal, his conversion to Islam, and his refusal to be drafted into the Vietnam War.
- It provides deep insight into his boxing career and his role as a civil rights icon.

Information Booster:

- **Muhammad Ali:** Born Cassius Marcellus Clay Jr., he is widely regarded as one of the most significant sports figures of the 20th century.
- **Famous Fights:** The book details historic matches like the 'Rumble in the Jungle' (against George Foreman) and the 'Thrilla in Manila' (against Joe Frazier).
- **Other Works:** Ali also authored 'The Soul of a Butterfly: Reflections on Life's Journey' later in his life.

Additional Knowledge:

- **Mike Tyson (Option A):** His famous autobiography is titled 'Undisputed Truth'.
- **George Foreman (Option C):** A legendary rival of Ali, he wrote books like 'God in My Corner' and 'By George'.
- **Floyd Mayweather (Option D):** A modern boxing great known for his undefeated record; he hasn't released a definitive autobiography of this specific fame.

Q.64 _____ is the most abundant metal found in the Earth's crust.

- A. Iron
- B. Aluminum
- C. Copper
- D. Magnesium

Answer: B

Sol: The correct answer is **(B) Aluminum**

Explanation:

- Aluminum (Al) is the most abundant **metal** in the Earth's crust, making up about 8% by weight.
- However, it is never found in its free (pure) state in nature due to its high reactivity; it is typically found in ores like **Bauxite**.
- It is prized for its low density, high strength (when alloyed), and excellent corrosion resistance.
- In terms of overall elements in the crust, Aluminum ranks third, behind Oxygen (non-metal) and Silicon (metalloid).

Information Booster:

- **Top 3 Elements:** 1. Oxygen (~46.6%), 2. Silicon (~27.7%), 3. Aluminum (~8.1%).
- **Earth's Core vs. Crust:** While Aluminum is the most abundant metal in the **Crust**, Iron is the most abundant element (and metal) in the **Earth as a whole**, largely because it makes up most of the core.
- **Extraction:** Aluminum is extracted via the Hall-Héroult process, which involves the electrolysis of alumina dissolved in cryolite.

Additional Knowledge:

- **Iron (Option A):** It is the second most abundant metal in the crust (~5%) and the most abundant overall when considering the whole Earth.
- **Copper (Option C):** Relatively rare compared to Al and Fe; it is highly used in electrical wiring but exists in very small percentages in the crust.
- **Magnesium (Option D):** It is the seventh or eighth most abundant element in the crust, following Calcium and Sodium.

Q.65 According to the Regulating Act of 1773, which of the following changes were implemented in the British administration in India? I. Designation of Governor of Bengal as Governor-General of Bengal. II. Establishment of a Supreme Court at Calcutta.

- A. Only I
B. Only II
C. Both I and II
D. Neither I nor II

Answer: C

Sol: The correct answer is **(C) Both I and II**

Explanation:

- The Regulating Act of 1773 was the first step taken by the British Government to control and regulate the affairs of the East India Company in India.
- It designated the Governor of Bengal as the **Governor-General of Bengal** and created an Executive Council of four members to assist him. **Lord Warren Hastings** was the first such Governor-General.
- It also provided for the establishment of a **Supreme Court at Calcutta** (at Fort William) in 1774, comprising one Chief Justice and three other judges. Sir Elijah Impey was the first Chief Justice.
- This act also made the Governors of Bombay and Madras presidencies subordinate to the Governor-General of Bengal.

Information Booster:

- **Objective:** The act aimed to remove the corruption and mismanagement within the Company and established the foundation of central administration in India.
- **Court of Directors:** The act required the Court of Directors (governing body of the Company) to report its revenue, civil, and military affairs in India to the British Treasury.
- **Prohibition:** It prohibited the servants of the Company from engaging in any private trade or accepting presents/bribes from the natives.

Additional Knowledge:

- **Pitts India Act of 1784:** This followed the Regulating Act and established the 'Board of Control' to distinguish between the commercial and political functions of the Company.
- **Charter Act of 1833:** This later converted the 'Governor-General of Bengal' into the 'Governor-General of India', with Lord William Bentinck being the first.

Q.66 From the options given below, select the word that is incorrectly spelt.

- A. Conscience
B. Perseverance
C. Priviledge
D. Thoroughly

Answer: C

Sol: The correct option is (c).

Explanation

Option (C) is the incorrectly spelt word. The correct spelling is **Privilege**, which means a special right, advantage, or immunity granted or available only to a particular person or group. (विशेषाधिकार)

Example: Education should be a right, not a privilege for the wealthy few.

Meanings of all the given options

- **Conscience:** A person's moral sense of right and wrong, acting as a guide to one's behaviour. (अंतरात्मा)

- **Perseverance:** Persistence in doing something despite difficulty or delay in achieving success. (दृढ़ता)
- **Thoroughly:** In a thorough manner; with great care and completeness. (पूर्णतया)

So the correct answer is (c)

Q.67 Choose the most suitable Passive Voice conversion of the sentence given below.

Will the committee consider his application?

- A. Will his application be considered by the committee?
- B. Would his application be considered by the committee?
- C. Has his application been considered by the committee?
- D. Is his application considered by the committee?

Answer: A

Sol: The correct option is (a).

Explanation

The given sentence is in the Active Voice and follows the Future Indefinite (Simple Future) interrogative structure. To convert it into Passive Voice, the object of the active sentence ('his application') becomes the subject, and the subject of the active sentence ('the committee') becomes the agent.

Structure

Active Voice: Will/Shall + Subject + Verb (V1) + Object + ?

Passive Voice: Will/Shall + Object (as subject) + be + Verb (V3) + by + Agent + ?

Comparison of options

- **Option A:** Correctly follows the structure: Will + his application + be + considered + by + the committee.
- **Option B:** Incorrect because 'Would' changes the tense/mood of the sentence.
- **Option C:** Incorrect because it uses 'Has', which is Present Perfect.
- **Option D:** Incorrect because it uses 'Is', which is Present Indefinite.

So the correct answer is (a)

Q.68 Select the most appropriate single word for the expression given below.

A person who doubts the existence of God or believes it cannot be proven.

- A. Pantheist
- B. Atheist
- C. Agnostic
- D. Theist

Answer: C

Sol: The correct option is (c).

Explanation

The correct one-word for the given group of words is **Agnostic**. An agnostic is someone who believes that nothing is known or can be known of the existence or nature of God or of anything beyond material phenomena. (अज्ञेयवादी)

Example: Since he was an agnostic, he didn't attend church but also didn't claim to know God doesn't exist.

Meanings of the given other options

- **Pantheist:** A person who believes that God is everything and everyone and that everyone and everything is God. (सर्वेश्वरवादी)
- **Atheist:** A person who disbelieves or lacks belief in the existence of God or gods. (नास्तिक)
- **Theist:** A person who believes in the existence of a god or gods, specifically of a creator who intervenes in the universe. (आस्तिक)

So the correct answer is (c)

Q.69 Which of the following conditions, as per the passage, discourages investment in education?

Read the following passage carefully and answer the question based on it:

People will invest in education if they are given the economic freedom to fully enjoy the benefits. As has become the norm, people invest in education because the marginal return on education increases their economic freedom. It is a sound decision to invest in education if, after tax rate reductions, people can enjoy a certain income marginally higher than the income they derive from improving educational levels. However, it makes no significant sense to invest in education if the government taxes the income of educated people at a very high rate. The same applies to parents who wish to improve their children's educational standards.

- A. When educational institutions charge low tuition fees.
- B. When tax rate reductions lead to higher disposable income.
- C. When the government imposes very high taxes on the income of educated individuals.
- D. When the marginal return from education exceeds the cost of studying.

Answer: C

Sol: The correct option is (c).

Explanation

The passage explicitly states: "it makes no significant sense to invest in education if the government taxes the income of educated people at a very high rate." This clearly identifies high taxation as a deterrent.

Context of Passage

The passage highlights that for education to be a viable investment, the individual must be able to enjoy the benefits. High taxes reduce the net benefit, thereby discouraging the initial investment.

Other options are incorrect because

- **Option A:** Low tuition fees would likely encourage investment, and they are not mentioned here.
- **Option B:** Tax rate reductions are described as an incentive, not a discouragement.
- **Option D:** If return exceeds cost, it encourages investment; the passage focuses on the negative impact of taxes on that return.

So the correct answer is (c)

Q.70 What does the passage identify as the primary driver behind the decision to invest in education?

Read the following passage carefully and answer the question based on it:

People will invest in education if they are given the economic freedom to fully enjoy the benefits. As has become the norm, people invest in education because the marginal return on education increases their economic freedom. It is a sound decision to invest in education if, after tax rate reductions, people can enjoy a certain income marginally higher than the income they derive from improving educational levels. However, it makes no significant sense to invest in education if the government taxes the income of educated people at a very high rate. The same applies to parents who wish to improve their children's educational standards.

- A. Social prestige associated with higher educational qualifications.
- B. The increase in economic freedom resulting from the marginal return on education.
- C. Government scholarships and financial aid programmes for students.
- D. The reduction in cost of living that comes with better employment.

Answer: B

Sol: The correct option is (b).

Explanation

The opening sentence of the passage states: "People will invest in education if they are given the economic freedom to fully enjoy the benefits." It further clarifies that marginal returns increase this freedom, motivating the investment.

Context of Passage

The entire text revolves around the idea that education is an investment aimed at securing greater economic freedom and higher disposable income.

Other options are incorrect because

- **Option A:** Social prestige is not mentioned in the text.
- **Option C:** Scholarships are not mentioned; the focus is on post-education income and taxes.
- **Option D:** Cost of living is not the specific factor highlighted; the focus is on "economic freedom" through marginal returns.

So the correct answer is (b)

Q.71 According to the passage, what is the role of tax rate reductions in influencing educational investment?

Read the following passage carefully and answer the question based on it:

People will invest in education if they are given the economic freedom to fully enjoy the benefits. As has become the norm, people invest in education because the marginal return on education increases their economic freedom. It is a sound decision to invest in education if, after tax rate reductions, people can enjoy a certain income marginally higher than the income they derive from improving educational levels. However, it makes no significant sense to invest in education if the government taxes the income of educated people at a very high rate. The same applies to parents who wish to improve their children's educational standards.

- A. They eliminate the need for individuals to seek higher qualifications.
- B. They enable individuals to earn an income slightly higher than what education alone provides, making investment worthwhile.
- C. They discourage individuals from choosing government-funded education.
- D. They ensure that all sections of society gain equal access to quality education.

Answer: B

Sol: The correct option is (b).

Explanation

According to the passage, tax rate reductions allow individuals to enjoy a higher marginal income after investing in their education, making the decision economically sound. The text states: "It is a sound decision... if, after tax rate reductions, people can enjoy a certain income marginally higher..."

Context of Passage

The passage discusses the economic rationale behind educational investment, emphasizing that such decisions are heavily influenced by the ability to keep the financial rewards (economic freedom) rather than having them taxed away by the government.

Other options are incorrect because

- **Option A:** Tuition fees are not mentioned in the passage as a primary factor.
- **Option C:** This is mentioned as a factor that discourages, not encourages, investment.
- **Option D:** While true in a general economic sense, the passage specifically links the incentive to the role of tax reductions.

So the correct answer is (b)

Q.72 How does the passage treat parents who invest in their children's education?

Read the following passage carefully and answer the question based on it:

People will invest in education if they are given the economic freedom to fully enjoy the benefits. As has become the norm, people invest in education because the marginal return on education increases their economic freedom. It is a sound decision to invest in education if, after tax rate reductions, people can enjoy a certain income marginally higher than the income they derive from improving educational levels. However, it makes

no significant sense to invest in education if the government taxes the income of educated people at a very high rate. The same applies to parents who wish to improve their children's educational standards.

- A. As individuals motivated purely by social ambition and status.
- B. As exceptions to the general economic logic discussed in the passage.
- C. As rational agents whose behaviour mirrors the same economic incentive structure as individual investors.
- D. As people who are unaffected by government taxation policies.

Answer: C

Sol: The correct option is (c).

Explanation

The passage states: "The same applies to parents who wish to improve their children's educational standards." This indicates that parents follow the same rational economic logic regarding tax rates and returns as individual students do.

Context of Passage

The author generalizes the economic behavior to include anyone making the investment decision, including parents, asserting they are motivated by the same incentives.

Other options are incorrect because

- **Option A:** The text focuses on economic freedom, not social ambition.
- **Option B:** Parents are explicitly mentioned as being subject to the *same* logic, not as exceptions.
- **Option D:** The passage suggests they are very much affected by government taxation policies.

So the correct answer is (c)

Q.73 The tone and content of the passage most closely align with which of the following perspectives?

Read the following passage carefully and answer the question based on it:

People will invest in education if they are given the economic freedom to fully enjoy the benefits. As has become the norm, people invest in education because the marginal return on education increases their economic freedom. It is a sound decision to invest in education if, after tax rate reductions, people can enjoy a certain income marginally higher than the income they derive from improving educational levels. However, it makes no significant sense to invest in education if the government taxes the income of educated people at a very high rate. The same applies to parents who wish to improve their children's educational standards.

- A. Education is a cultural obligation that transcends monetary considerations.
- B. Investment in education is primarily governed by rational cost-benefit analysis and economic incentives.
- C. The government must unconditionally subsidise education irrespective of tax policies.
- D. Emotional and social factors are the strongest predictors of educational investment decisions.

Answer: B

Sol: The correct option is (b).

Explanation

The passage approaches education from a purely economic standpoint, using terms like "marginal return," "tax rate reductions," and "economic freedom." It argues that people act based on financial benefits, which is a rational cost-benefit analysis.

Context of Passage

The author uses logic and financial incentives to explain human behavior regarding educational choices, suggesting that investment is a calculated response to potential gains.

Other options are incorrect because

- **Option A:** The passage specifically notes that the decision is based on economic freedom, not just cultural obligation.
- **Option C:** The passage doesn't suggest unconditional subsidies; it focuses on tax policy and individual returns.
- **Option D:** The passage focuses on rational economic factors rather than emotional or social ones.

So the correct answer is (b)

Q.74 Four idioms are given below. Identify the one that conveys the following meaning:

To assist a person in continuing their work or daily operations during a challenging time, typically by providing a loan.

- A. Float someone through
- B. Pull someone along
- C. Tide someone over
- D. Bridge someone across

Answer: C

Sol: The correct option is (c).

Explanation

Option (C) is the correct meaning of the given idiom. **Tide someone over** means to help someone through a difficult period, especially by lending them money or providing temporary assistance. (किसी की मुश्किल समय में सहायता करना)

Example: Could you lend me fifty pounds to tide me over until pay day?

Other related idioms and their meanings

- **Keep one's head above water:** To just manage to survive financially.
- **Hand to mouth:** Satisfying only one's immediate needs because of a lack of money.
- **Rainy day:** A time in the future when money might be needed unexpectedly.

So the correct answer is (c)

Q.75 The sentences below are taken from a paragraph. S1 and S2 are the opening and closing sentences. Sentences A, B, C, and D are jumbled. Rearrange them to form a logically coherent paragraph and choose the correct sequence.

S1 The explorer arrived at the edge of the dense forest and paused to observe his surroundings.

- A. He noted that the path ahead was overgrown and largely untouched by human presence.
- B. With his compass and map in hand, he made a calculated decision to proceed northward.
- C. The silence was broken only by the distant cry of a bird and the rustling of leaves overhead.
- D. He took a deep breath, adjusted his backpack, and stepped into the shadows of the canopy.

S2 Hours later, he emerged on the other side, exhausted but triumphant.

- A. ACBD
- B. CABD
- C. ABCD
- D. CBAD

Answer: B

Sol: The correct option is (b).

Explanation

Option B is the correct order of the given sentences.

- **C:** Follows S1 by providing sensory details of the "surroundings" mentioned in the first sentence (the silence and bird cry).
- **A:** Follows C as the explorer moves from hearing to seeing, noting the specific condition of the "path ahead."
- **B:** Follows A as he uses his tools (compass/map) to make a "decision" based on what he noted about the path.
- **D:** Is the final step in the sequence, describing the physical action of stepping into the forest, which leads directly to the result in S2.

So the correct answer is (b)

Q.76 Fill in the blank with the appropriate preposition.

The young officer was reprimanded _____ neglecting his duties during the night shift.

- A. about
- B. on
- C. at
- D. for

Answer: D

Sol: The correct option is (d).

Explanation

The correct option to fill in the blank is (D) **for**. In English grammar, the verb 'reprimand' is typically followed by the preposition 'for' when indicating the reason or cause for the scolding. (किसी कारण से फटकारना)

Example: The student was reprimanded for coming late to class.

Why other options are incorrect

- **about:** 'About' is used for topics, not usually as a direct cause for a reprimand.
- **on:** 'On' is used for positions or specific days/dates.
- **at:** 'At' is used for specific locations or times.

So the correct answer is (d)

Q.77 A part of the following sentence is highlighted. Choose the option that best replaces it. If no change is needed, select Option D: "No Improvement Required."

The principal spoke to the students in regards to their declining performance in the annual examinations.

- A. with regards to their declining performance
- B. No improvement required
- C. in regard to their declining performance
- D. as regards of their declining performance

Answer: C

Sol: The correct option is (c).

Explanation

The correct substitution of the highlighted words is (C) **in regard to**. The phrase 'in regards to' is generally considered non-standard or incorrect in formal writing. The correct idiomatic expressions are either 'in regard to' or 'with regard to'.

Grammatical Rule used

Prepositional idioms involving 'regard' must use the singular form 'regard'. However, when sending good wishes, the plural 'regards' is used (e.g., "Give him my regards").

Example: I am writing to you in regard to your recent inquiry.

Information Booster

Avoid mixing these up with 'as regards' (which does not take 'of' or 'to') and 'with regard to'. Both are acceptable, but 'in regards to' should be avoided.

So the correct answer is (c)

Q.78 One of the four highlighted words in the sentence below is misspelt. Select the option that contains the misspelt word.
The government has announced new legislation to regulate the construction of commercial buildings in ecologically sensitive zones.

- A. regulate
- B. legislation
- C. ecologically
- D. sensitive

Answer: B

Sol: The correct option is (b).

Explanation

Option (B) is the incorrectly spelt word. The correct spelling is **Legislation**, which refers to laws, considered collectively, or the process of making laws. (कानून या विधान)

Example: New legislation was passed to improve road safety.

Meanings of all the given options

- **Regulate:** To control or maintain the rate or speed of a machine or process so that it operates properly. (नियंत्रित करना)
- **Ecologically:** Relating to the relation of living organisms to one another and to their physical surroundings. (पारिस्थितिक रूप से)
- **Sensitive:** Quick to detect or respond to slight changes, signals, or influences. (संवेदनशील)

So the correct answer is (b)

Q.79 Select the most appropriate single word for the expression given below.

A place where the dead bodies are kept before burial or cremation.

- A. Mortuary
- B. Pantry
- C. Granary
- D. Apiary

Answer: A

Sol: The correct option is (a).

Explanation

The correct one-word for the given group of words is **Mortuary**. It is a room or building (usually in a hospital) where dead bodies are kept before burial or cremation. (शवागार)

Example: The body was taken to the hospital mortuary for identification.

Meanings of the given other options

- **Pantry:** A small room or closet in which food, dishes, and utensils are kept. (भोजन रखने का कमरा)
- **Granary:** A storehouse for threshed grain. (अन्न भंडार)
- **Apiary:** A place where bees are kept; a collection of beehives. (मधुमक्खी पालन स्थान)

So the correct answer is (a)

Q.80 The sentence below is divided into four parts (A), (B), (C), and (D). One part contains a grammatical error. Identify the part with the error.

The board of directors has shown a keen interest to understand the long-term implications of the new policy on exports.

- A. The board of directors has shown
- B. a keen interest to understand
- C. the long-term implications

D. of the new policy on exports.

Answer: B

Sol: The correct option is (b).

Explanation

Option (B) contains an error. The noun 'interest' is idiomatically followed by the preposition 'in' + a gerund (V-ing form), rather than a 'to-infinitive'. Therefore, "interest to understand" should be replaced with "interest in understanding".

Grammatical Rule used

Specific nouns require specific prepositions. 'Interest' + 'in' + 'Noun/Gerund' is the standard construction.

Example: He has no interest in playing football (Not: to play football).

Information Booster

Note that 'The board of directors' is a collective noun often treated as singular (using 'has'), which is correct in part (A).

So the correct answer is (b)

Q.81 Select the word that is most nearly opposite in meaning to the word "jubilant".

- A. Elated
- B. Crestfallen
- C. Ecstatic
- D. Exultant

Answer: B

Sol: The correct option is (b).

Explanation

The correct antonym of the given word is **Crestfallen**.

Jubilant: Feeling or expressing great happiness and triumph. (प्रफुल्लित/आनंदोत्सव मनाने वाला)

Example: The fans were jubilant after their team won the championship.

Crestfallen: Sad and disappointed, especially after a failure. (हतोत्साह/निराश)

Example: He looked crestfallen after he failed his driving test.

Synonyms and Antonyms of Jubilant

Synonyms: Joyful, Triumphant, Elated, Thrilled.

Antonyms: Depressed, Sorrowful, Crestfallen, Despondent.

Meanings of all the other given options

- **Elated:** Extremely happy and excited. (उत्तेजित/प्रफुल्लित)
- **Ecstatic:** Feeling or expressing overwhelming happiness or joyful excitement. (अति प्रसन्न)
- **Exultant:** Triumphantly happy. (उल्लसित)

So the correct answer is (b)

Q.82 Select the most suitable Active Voice conversion of the sentence given below.

Let the patients not be disturbed during consultation hours.

- A. Let us not disturb the patients during consultation hours.
- B. We should not disturb the patients during consultation hours.
- C. Do not disturb the patients during consultation hours.
- D. Nobody must disturb the patients during consultation hours.

Answer: C

Sol: The correct option is (c).

Explanation

The given sentence is in the Passive Voice of an Imperative (Negative) sentence. The typical structure for converting an imperative passive sentence starting with 'Let' back into active voice is to use the base verb directly as a command.

Structure

Active Voice (Imperative): Do not + Verb (V1) + Object.

Passive Voice: Let + Object + not + be + Verb (V3).

Comparison of options

- **Option C:** Correctly follows the imperative format "Do not disturb..."
- **Option A:** Incorrect because it introduces "Let us," which changes the focus of the command.
- **Option B:** Incorrect because it uses "We should," making it a suggestion rather than a command.
- **Option D:** Incorrect because it uses "must," which changes the modal intensity and structure.

So the correct answer is (c)

Q.83 A part of the following sentence is highlighted. Choose the option that best replaces the highlighted part. If no replacement is needed, choose Option D: "No Improvement Required."

The committee decided to look into the matter with a view of resolving the dispute amicably.

- A. with a view to resolving the dispute amicably
- B. with the view of resolving the dispute amicably
- C. with a view of resolution of the dispute amicably
- D. No improvement required

Answer: A

Sol: The correct option is (a).

Explanation

The correct substitution of the highlighted words is (A) **with a view to resolving**. In English grammar, the phrase 'with a view to' is a fixed idiom which is followed by the gerund (V1 + ing) form of the verb, not the infinitive or a prepositional 'of'.

Grammatical Rule used

Phrase 'With a view to' + V-ing. Although 'to' usually signals an infinitive, in certain fixed phrases (like 'look forward to', 'accustomed to', 'with a view to'), 'to' acts as a preposition and must be followed by a gerund.

Example: We visited the factory with a view to purchasing it.

Information Booster

Common errors include using the base form 'resolve' after 'to'. Always remember that in this specific phrase, the 'ing' form is mandatory.

So the correct answer is (a)

Q.84 Identify the incorrectly used homophone in the sentence below.
"She could not bare the thought of leaving her hometown forever."

- A. could
- B. bare
- C. leaving
- D. forever

Answer: B

Sol: The correct option is (b).

Explanation

Option (B) is the incorrectly used homophone. The correct word should be **Bear**. 'Bear' means to endure or tolerate, while 'Bare' means naked or uncovered. (सहन करना)

Example: I cannot bear to see you in pain.

Meanings of all the given options

- **Could:** Used to indicate possibility or past ability. (सक)
- **Bare:** Not clothed or covered. (नग्न/खुला)
- **Leaving:** Going away from a place. (छोड़ना)
- **Forever:** For all future time; for always. (हमेशा के लिए)

So the correct answer is (b)

Q.85 Identify the word that is opposite in meaning to "resort to".

- A. Turn away from
- B. Rely upon
- C. Fall back on
- D. Have recourse to

Answer: A

Sol: The correct option is (a).

Explanation

The correct antonym of the given phrase is **Turn away from**.

Resort to: To do something that you do not want to do because you cannot find any other way of achieving something. (सहाया लेना/किसी चीज़ का सहारा लेना)

Example: We hope they don't have to resort to violence.

Turn away from: To refuse to help or to stop being involved with something/someone. (मुख मोड़ना/त्याग देना)

Example: Many voters have turned away from the traditional parties.

Synonyms and Antonyms of Resort to

Synonyms: Use, Recourse to, Fall back on, Utilize.

Antonyms: Avoid, Shun, Turn away from, Abstain from.

Meanings of all the other given options

- **Rely upon:** To depend on someone or something. (भरोसा करना)
- **Fall back on:** To use something as a remedy or help when other things have failed. (सहारा लेना)
- **Have recourse to:** The use of someone or something as a source of help in a difficult situation. (शरण लेना)

So the correct answer is (a)

Q.86 Select the most accurate Active Voice conversion of the following sentence.

The ancient manuscript had been discovered by the archaeologist before the restoration work began.

- The archaeologist has discovered the ancient manuscript before the restoration work began.
- The archaeologist discovered the ancient manuscript before the restoration work began.
- The archaeologist had discovered the ancient manuscript before the restoration work began.
- The archaeologist will have discovered the ancient manuscript before the restoration work began.

Answer: C

Sol: The correct option is (c).

Explanation

The given sentence is in the Passive Voice of the Past Perfect tense. To convert it to Active Voice, the object of the 'by' phrase ('the archaeologist') becomes the subject, and the auxiliary verb 'had been' is changed to 'had'.

Structure

Active Voice: Subject + had + Verb (V3) + Object.

Passive Voice: Object (as subject) + had + been + Verb (V3) + by + Agent.

Comparison of options

- **Option C:** Correctly uses 'had discovered', maintaining the Past Perfect tense.
- **Option A:** Incorrect because it uses 'has discovered' (Present Perfect).
- **Option B:** Incorrect because it uses 'discovered' (Simple Past).
- **Option D:** Incorrect because it uses 'will have discovered' (Future Perfect).

So the correct answer is (c)

Q.87 Choose the correct preposition to fill in the blank in the sentence below.

The researcher insisted _____ conducting the experiment under strictly controlled laboratory conditions.

- A. about
- B. for
- C. on
- D. with

Answer: C

Sol: The correct option is (c).

Explanation

The correct option to fill in the blank is (C) **on**. In English grammar, the verb 'insist' is always followed by the preposition 'on' (or 'upon') when it is followed by a gerund or a noun. (ज़ोर देना/आग्रह करना)

Example: She insisted on paying for the meal.

Why other options are incorrect

- **about:** Incorrect because 'insist' does not take 'about'.
- **for:** Incorrect because 'insist' does not take 'for'.
- **with:** Incorrect because 'insist' does not take 'with'.

So the correct answer is (c)

Q.88 Choose the correctly spelt word that should replace the highlighted word in the sentence below. If the highlighted word is already correctly spelt, select "No replacement required".

The students were exhuberant when they heard that their school had won the national quiz competition.

- A. No replacement required
- B. exuberant
- C. exhuberent
- D. exuberent

Answer: B

Sol: The correct option is (b).

Explanation

Option (B) is the correctly spelt word. The correct spelling is **Exuberant**, which means full of energy, excitement, and cheerfulness. (अत्यधिक प्रसन्न/उल्लसित)

Example: The exuberant crowd cheered for the winning goal.

Information Booster

The word 'exuberant' is an adjective. A common mistake is to add an 'h' after the 'x' (as in 'exhuberant') or to use an 'e' in the last syllable (as in 'exuberent'). The correct spelling consists of 'ex' + 'uberant'.

So the correct answer is (b)

Q.89 Which of the options given below is the most accurate conversion of the sentence into Passive Voice?

The manager announces the results every Friday.

- A. The results are announced every Friday by the manager.
- B. The results were announced every Friday by the manager.
- C. The results have been announced every Friday by the manager.
- D. Every Friday the manager is announced the results.

Answer: A

Sol: The correct option is (a).

Explanation

The given sentence is in the Active Voice and follows the Present Indefinite (Simple Present) tense structure. To convert it into Passive Voice, the object 'the results' becomes the subject.

Structure

Active Voice: Subject + Verb (s/es) + Object.

Passive Voice: Object (as subject) + is/am/are + Verb (V3) + by + Agent.

Comparison of options

- **Option A:** Correctly uses 'are announced' (Present Indefinite Passive).
- **Option B:** Incorrect because it uses 'were announced' (Past Tense).
- **Option C:** Incorrect because it uses 'have been announced' (Present Perfect).
- **Option D:** Incorrect because it fundamentally misinterprets the meaning and structure.

So the correct answer is (a)

Q.90 The sentences below are taken from a paragraph. S1 and S2 are the opening and closing sentences. Sentences A, B, C, and D are jumbled. Rearrange them logically and choose the correct sequence.

S1 The old library stood at the end of the lane, its walls darkened by decades of rain and neglect.

A. Dusty shelves lined every wall, filled with volumes no one had touched in years.

B. A single reading lamp cast a pale glow over the cracked wooden table at the centre.

C. The door creaked open as the new librarian stepped inside for the first time.

D. She ran her fingers along the spines of the books, wondering what stories lay forgotten within them.

S2 That evening, she resolved to restore the library to its former glory.

- A. ABCD
- B. CABD
- C. ABDC
- D. CBAD

Answer: B

Sol: The correct option is (b).

Explanation

Option B is the correct order of the given sentences.

- **C:** Follows S1 as it introduces the protagonist (the new librarian) entering the setting described in the first sentence.
- **A:** Follows C as it describes what she first sees upon entering (the dusty shelves).
- **B:** Continues the description of the interior, moving from the walls/shelves to the center of the room (the lamp and table).
- **D:** Describes her physical interaction with the books she observed in 'A', leading logically to her emotional resolution in S2.

So the correct answer is (b)
