Que. 1 In a mixture, the initial ratio of A and B is 1 ∶ 4, If 25% of the mixture is taken out and 20 litres of B is added, then the amount of B becomes 44 litres then find the initial amount of A.

1. 8 litre
2. 6 litre
3. 5 litre
4. 4 litre
5. None of these

Correct Option **- 1**

Given:

The initial ratio of A and B is 1 : 4

Amount of B becomes 44 litres

Concept used:

When some fraction of mixture is taken out then the ratio of the remaining mixture is the same

Calculation:

Let the initial ratio of the mixture be x and 4x respectively

And, 25% of the mixture is taken out then the quantity of mixture becomes 3x/4 and 3x

Now, According to the question:

3x + 20 = 44

⇒ 3x = 24

⇒ x = 8

∴ **The initial Amount of A is 8 litre**

Que. 2 A and B start a business by investing a capital Rs. 3000 and Rs. 2000. After 6 months, C joins the business with the capital of Rs. 5000 and A doubles its investment. If their profit is Rs. 36000 after one year, then find the difference between the profit of A and C.

1. Rs. 10,000
2. Rs. 18,000
3. Rs. 24,000
4. Rs. 8,000
5. Rs. 9,000

Correct Option **- 4**

Given:

Investment of A = Rs. 3000

Investment of B = Rs. 2000

Profit = Rs. 36000

Concpet used:

Profit = Investment × Time

Calculations:

⇒ A × 6 + 2A × 6 : B × 12 : C × 6

⇒ 3000 × 6 + 6000 × 6 : 2000 × 12 : 5000 × 6

⇒ A : B : C = 9 : 4 : 5

Let the ratio be 9x, 4x and 5x respectively

⇒ 9x + 4x + 5x = 36000

⇒ 18x = 36000

⇒ x = 2000

⇒ Difference between A and C = 9x – 5x = 4x

⇒ Difference between A and C = 4 × 2000

⇒ Difference between A and C = Rs. 8000

∴ **The difference between the profit of A and C is Rs. 8000**

Que. 3 The cost price of the two articles A and B are Rs. 500 and Rs. 600 respectively. If both the articles were sold at the same price and the profit earned by both the articles were 2x% and x% respectively, then find the selling price article A.

1. Rs. 550
2. Rs. 650
3. Rs. 750
4. Rs. 850
5. Rs. 950

Correct Option **- 3**

Given:

Cost price of article A and article B is Rs. 500 and Rs. 600 respectively

Both the articles were sold at the same price

The profit earned by both the articles were 2x% and x% respectively

Formula used:

Selling price = Cost price + Profit%

Profit is always calculated on C.P

Calculation:

Selling price of article A = 500 + 2x% of 500

Selling price of article B = 600 + x% of 600

According to the question, the selling price is the same

⇒ 500 + 2x% of 500 = 600 + x% of 600

⇒ 10x - 6x = 600 - 500

⇒ 4x = 100

⇒ x = 25

∴ The selling price of article A = 500 + 2x% of 500 = 500 + 50% of 500

∴ The selling price of article A is Rs. 750

Que. 4 What value should come in place of question mark(?) in the question?

$\sqrt{289} + \sqrt{361} - \sqrt{225} = ?$

1. 17
2. 21

3. 19
4. 23
5. 15

Correct Option **- 2**

Concept Used:

Follow BODMAS rule to solve this question, as per the order given below,

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation:

$\sqrt{225} = 15$, $\sqrt{289} = 17$, $\sqrt{361} = 19$

Considering the given equation,

$\sqrt{289} + \sqrt{361} - \sqrt{225} = ?$

$\Rightarrow 17 + 19 - 15 = ?$

$\Rightarrow 36 - 15 = ?$

$\Rightarrow 21 = ?$

$\therefore$ **The value of ? is 21.**

Que. 5 What value should come in place of question mark(?) in the question?

25% of 240 + 50 = ?

1. 100
2. 110
3. 80
4. 120
5. 90

Correct Option **- 2**

Concept Used:

Follow BODMAS rule to solve this question, as per the order given below,

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation:

Considering the given equation,

25% of 240 + 50 = ?

⇒ 25/100 × 240 + 50 = ?

⇒ 1/4 × 240 + 50 = ?

⇒ 60 + 50 = ?

⇒ 110 = ?

∴ **The value of ? is 110.**

Que. 6 What value should come in place of question mark(?) in the question?

17 × 6 – 30% of ? = 42

1. 100
2. -100
3. 200
4. -200
5. 50

Correct Option **- 3**

Given:

17 × 6 – 30% of ? = 42

Concept Used:

Follow BODMAS rule to solve this question, as per the order given below,

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation:

Solving the given equation using the concept of BODMAS,

⇒ (17 × 6) – [(30/100) × ?] = 42

⇒ 102 – (3/10)? = 42

⇒ (3/10)? = 60

⇒ (?/10) = 20

⇒ ? = 200

∴ **200 would come at the place of the question mark in the question**

Que. 7 What value should come in place of question mark(?) in the question?

11 × (-4) + 189 ÷ 7 = ?

1. 8
2. 12
3. -8
4. -17
5. 17

Correct Option **- 4**

Given:

11 × (-4) + 189 ÷ 7 = ?

Concept Used:

Follow BODMAS rule to solve this question, as per the order given below,

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation:

Solving the given equation using the concept of BODMAS,

⇒ [11 × (-4)] + (189/7)

⇒ -44 + 27

⇒ -17

∴ -17 would replace the question mark in the question

Que. 8 What value should come in place of question mark(?) in the question?

60% of 500 ÷ 0.25 + √169 = ?

1. 1162
2. 1262
3. 1194
4. 1213
5. 1254

Correct Option **- 4**

Concept Used:

Follow BODMAS rule to solve this question, as per the order given below,

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation:

60% of 500 ÷ 0.25 + √169 = ?

⇒ 60 × 5 ÷ 0.25 + 13 = ?

⇒ 60 × 5 × 4 + 13 = ?

⇒ 1200 + 13 = ?

⇒ 1213 = ?

∴ **The value of ? is 1213**

Que. 9 What value should come in place of question mark(?) in the question?

2/3 of (15 - 6) - (- 9) = ?

1. 3
2. - 3
3. - 15
4. -12
5. 15

Correct Option **- 5**

Given-

2/3 of (15 - 6) - (- 9)

Concept Used-

Follow BODMAS rule to solve this question, as per the order given below,

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation-

2/3 of (15 - 6) - (- 9)

⇒ 2/3 of 9 + 9

⇒ 6 + 9

⇒ 15

∴ 15 should come in the place of (?).

Que. 10 What should come in place of question mark (?) in the following question?

40% of 1500 - 276 = $(?)^2$

1. 22
2. 12
3. 18
4. 8

5. 20

Correct Option **- 3**

Concept Used:

Follow BODMAS rule to solve this question, as per the order given below,

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation:

40% of 1500 - 276 = $?^2$

⇒ 600 - 276 = $?^2$

⇒ 324 = $?^2$

⇒ ? = $\sqrt{324}$

⇒ ? = 18

∴ The value of ? will be 18

Que. 11 What value should come in place of question mark(?) in the question?

$$\sqrt{43+\sqrt{33+\sqrt{4+\sqrt{25}}}}=?$$

1. 12
2. - 9
3. 7
4. 11
5. - 6

Correct Option **- 3**

Given-

$$\sqrt{43+\sqrt{33+\sqrt{4+\sqrt{25}}}}$$

Concept Used:

Follow BODMAS rule to solve this question, as per the order given below,

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation:

Calculation-

$\sqrt{43 + \sqrt{33 + \sqrt{4 + \sqrt{25}}}}$

$\Rightarrow \sqrt{43 + \sqrt{33 + \sqrt{4 + 5}}}$

$\Rightarrow \sqrt{43 + \sqrt{33 + 3}}$

$\Rightarrow \sqrt{43 + 6}$

$\Rightarrow \sqrt{49}$

$\Rightarrow + 7$

Note:

∵ value coming out of square root is always positive.

Que. 12 What value should come in place of question mark(?) in the question?

$12 \times 2 - \sqrt{25} + 6 = ?$

1. 25
2. 35
3. 12
4. 6
5. 15

Correct Option **- 1**

Concept Used:

Follow BODMAS rule to solve this question, as per the order given below,

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation:

$12 \times 2 - \sqrt{25} + 6$

$\Rightarrow 24 - 5 + 6$

$\Rightarrow 25$

$\therefore$ **The required result is 25.**

Que. 13 What will come in the place of the question mark '?' in the following question?

$0.25 \times ? + 121 \div 11 = 111$

1. 350
2. 450
3. 420
4. 400
5. 500

Correct Option **- 4**

Given:

The given equation is:

$0.25 \times ? + 121 \div 11 = 111$

Concept Used:

Follow BODMAS rule to solve this question, as per the order given below,

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation:

$0.25 \times ? + 121 \div 11 = 111$

$\Rightarrow 0.25 \times ? + 11 = 111$

$\Rightarrow 0.25 \times ? = 100$

$\Rightarrow 0.25 \times ? = 100$

$\Rightarrow ? = 100/0.25$

$\Rightarrow ? = 400$

∴ The required value of "?" in the given equation is 400

Que. 14 What value should come in place of question mark(?) in the question?

$\sqrt{144} + \sqrt{36} - 15 = ?$

1. 1
2. 3
3. 8
4. 9
5. 11

Correct Option **- 2**

Concept Used:

Follow BODMAS rule to solve this question, as per the order given below,

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation:

$\sqrt{144} + \sqrt{36} - 15$

$\Rightarrow 12 + 6 - 15$

$\Rightarrow 18 - 15$

$\Rightarrow 3$

∴ **The required result is 3.**

Que. 15 What will come in the place of the question mark '?' in the following question?

25% of 48 + 9 × 11 - ? + 44 = 3

1. 152
2. 140

3. 150
4. 160
5. 170

Correct Option **- 1**

Given:

The given equation is:

25% of 48 + 9 × 11 - ? + 44 = 3

Concept Used:

Follow BODMAS rule to solve this question, as per the order given below,

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation:

25% of 48 + 9 × 11 - ? + 44 = 3

⇒ 12 + 9 × 11 - ? + 44 = 3

⇒ 12 + 99 - ? + 44 = 3

⇒ 155 - ? = 3

⇒ ? = 155 - 3

⇒ ? = 152

∴ The required value of "?" in the given equation is 152

Que. 16 What value should come in place of question mark(?) in the question?

(2 ÷ 5 ÷ 7) × 14 + 112 = ?

1. 110
2. 109.5
3. 112.8
4. 115
5. 120.6

Correct Option **- 3**

Concept:

We have to follow the BODMAS rule

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation:

$(2 \div 5 \div 7) \times 14 + 112 = ?$

$\Rightarrow 2/(5 \times 7) \times 14 + 112 = ?$

$\Rightarrow 2/35 \times 14 + 112 = ?$

$\Rightarrow 4/5 + 112 = ?$

$\Rightarrow 112.8 = ?$

∴ 112.8 will come in place of the question mark

Que. 17 What value should come in place of question mark(?) in the question?

25% of 480 + 200 + ? = 800

1. 360
2. 520
3. 240
4. 480
5. 500

Correct Option **- 4**

Concept:

We have to follow the BODMAS rule

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

Calculation:

25% of 480 + 200 + ? = 800

⇒ 120 + 200 + ? = 800

⇒ 320 + ? = 800

⇒ ? = 800 – 320

⇒ ? = 480

∴ 480 will come in place of question mark

Que. 18 A starts a business with the investment of Rs.10,000. After 4 months, B invests Rs. 20,000 and A also doubles his investment. If after one year, the total profit is Rs.45000, then find the share of A in the total profit.

1. Rs. 25,000
2. Rs. 20,000
3. Rs. 30,000
4. Rs. 15,000
5. Rs. 23,000

Correct Option **- 1**

Given:

A invest Rs. 10,000 for 4 months and Rs. (2 × 10,000) for 8 months.

B invest Rs. 20,000 for 8 months.

Total profit after 1 year is Rs. 45,000.

Concept:

Ratio of profit = Amount invested by one partner × time period of investment ∶ Amount invested by other partner × time period of investment

Calculation:

Ratio of share of profit = A ∶ B

⇒ Amount invested by A × time period of investment ∶ Amount invested by B × time period of investment

⇒ (10,000 × 4 + 20,000 × 8) ∶ (20,000 × 8)

⇒ (40,000 + 1,60,000) ∶ (1,60,000)

⇒ 2,00,000 ∶ 1,60,000

⇒ 5 ∶ 4

A's share in total profit = 5 × (45,000/9)

⇒ 5 × 5,000

⇒ 25,000

∴ The share of A in the total profit is Rs. 25,000.

Que. 19 Two years hence, the ages of A and B are in the ratio of 3 ∶ 4 and 8 years ago the ratio of ages of A and B were in the ratio of 2 ∶ 3. Find the present age of A.

1. 28 years
2. 30 years
3. 24 years
4. 38 years
5. 26 years

Correct Option **- 1**

Given:-

Two years hence, the ages of A and B are in the ratio of 3 ∶ 4

8 years ago the ratio of ages of A and B were in the ratio of 2 ∶ 3

Calculation:-

Let 8 years ago the age of A be 2x years and

Also, let 8 years ago the age of B = 3x years

Now the present age of A = 2x + 8

And the present age of B = 3x + 8

Then,

Two years hence the age of A = (2x + 10) years

Two years hence the age of B = (3x + 10) years

Now, Two years hence the ratio of age of A and B = 3 ∶ 4

⇒ (2x + 10) ∶ (3x + 10) = 3 ∶ 3

⇒ (2x + 10)/(3x + 10) = 3/4

⇒ 8x + 40 = 9x + 30

⇒ x = 10

Now the present age of A = 2x + 8

⇒ 2 × 10 + 8 = 20 + 8 = 28 years

∴ **Present age of A = 28 years**

Que. 20 The ratio of time taken by A, B and C to complete a work alone is 4 ∶ 6 ∶ 3. If they together complete a work in 8 days, then in how many days A will complete 3/4th of the work?

1. 9 days
2. 18 days
3. 27 days
4. 13 days
5. None of the above

Correct Option **- 2**

Given:

Ratio of time taken by A, B and C to complete a work alone = 4 ∶ 6 ∶ 3

Time taken by them to together complete the work = 8 days

Formula used:

Efficiency = Total work/Time taken

Calculation:

Let time taken by A, B and C be 4x, 6x and 3x respectively

L.C.M of (4x, 6x and 3x) = 12x = Total work

Efficiency of A = 12x/4x = 3 units/day

Efficiency of B = 12x/6x = 2 units/day

Efficiency of C = 12x/3x = 4 units/day

Total efficiency of A, B and C = (3 + 2 + 4) units/day

⇒ 9 units/day

Actual work = Total efficiency × Time taken

⇒ 9 × 8 = 72 units

Now, 3/4th of total work = (3/4) × 72 units

⇒ 54 units

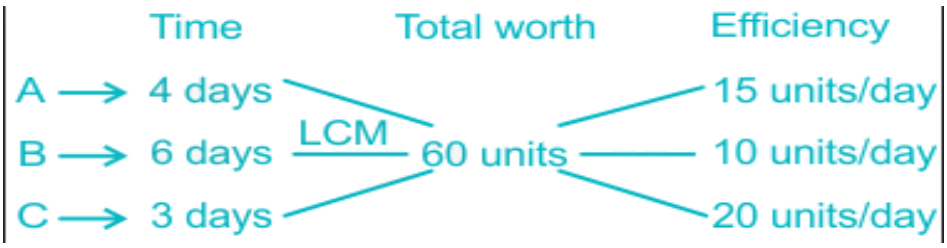
Time taken by A to complete the work = (54/3) days

⇒ 18 days

∴ **The required time is 18 days**

Alternate Method

Let the number of days taken by A, B and C be 4, 6 and 3 respectively.



Actual work = 8 × (15 + 10 + 20)

⇒ 360 units

Time taken by A to complete three-fourth of the work = {(3/4) × 360}/15

⇒ 18 days.

∴ **The number of days required by A to complete three-fourth of the work is 18.**

Que. 21 In the given question, two equations numbered l and II are given. You have to solve both the equations and mark the appropriate answer-

I. $x^2 = 4$

II. $y^2 - 6y + 8 = 0$

1. $x > y$
2. $x \geq y$
3. $x < y$
4. $x \leq y$
5. $x = y$ or the relation cannot be determined

Correct Option **- 4**

Given:

I. $x^2 = 4$

II. $y^2 – 6y + 8 = 0$

Concept used:

Using factorization method.

Calculation:

$x^2 = 4$

⇒ $x^2 – 4 = 0$

⇒ $(x – 2)(x + 2) = 0$

⇒ $(x – 2) = 0$ or $(x + 2) = 0$

⇒ x = 2 or x = -2

⇒ x = -2, 2

$y^2 – 6y + 8 = 0$

⇒ $y^2 – 4y – 2y + 8 = 0$

⇒ $y(y – 4) – 2(y – 4) = 0$

⇒ $(y – 4)(y – 2) = 0$

⇒ $(y – 4) = 0$ or $(y – 2) = 0$

⇒ y = 4 or y = 2

⇒ y = 2, 4

∴ x ≤ y.

Comparison between x and y (via Tabulation):

Value of x	Value of y	Relation
2	2	x = y
2	4	x < y
-2	4	x < y
-2	2	x < y

∴ x ≤ y.

Que. 22 In the given question, two equations numbered l and II are given. You have to solve both the equations and mark the appropriate answer-

I. $x^2 + 10x + 21 = 0$

II. $y^2 + 11y + 28 = 0$

1. x > y
2. x ≥ y
3. x < y
4. x ≤ y
5. x = y or the relation cannot be determined

Correct Option **- 5**

Given:

I. $x^2 + 10x + 21 = 0$

II. $y^2 + 11y + 28 = 0$

Concept used:

Using factorization method.

Calculation:

$x^2 + 10x + 21 = 0$

⇒ $x^2 + 7x + 3x + 21 = 0$

⇒ $x(x + 7) + 3(x + 7) = 0$

⇒ $(x + 7)(x + 3) = 0$

⇒ $(x + 7) = 0$ or $(x + 3) = 0$

⇒ x = -7 or x = -3

⇒ x = -3, -7

$y^2 + 11y + 28 = 0$

$\Rightarrow y^2 + 7y + 4y + 28 = 0$

$\Rightarrow y(y + 7) + 4(y + 7) = 0$

$\Rightarrow (y + 7)(y + 4) = 0$

$\Rightarrow (y + 7) = 0$ or $(y + 4) = 0$

$\Rightarrow y = -7$ or $y = -4$

$\Rightarrow y = -4, -7$

Comparison between x and y (via Tabulation):

Value of x	Value of y	Relation
-3	-4	x > y
-3	-7	x > y
-7	-4	x < y
-7	-7	x = y

∴ The relation cannot be determined

Que. 23 In the given question, two equations numbered l and II are given. You have to solve both the equations and mark the appropriate answer-

I. $2x^2 – 19x + 44 = 0$

II. $y^2 -17y + 72 = 0$

1. $x > y$
2. $x \geq y$
3. $x < y$
4. $x \leq y$
5. x = y or the relation cannot be determined

Correct Option **- 3**

Given:

I. $2x^2 – 19x + 44 = 0$

II. $y^2 – 17y + 72 = 0$

Concept used:

Using factorization method.

Calculation:

$2x^2 – 19x + 44 = 0$

$\Rightarrow 2x^2 – 11x – 8x + 44 = 0$

$\Rightarrow x(2x – 11) – 4(2x – 11) = 0$

$\Rightarrow (2x – 11)(x – 4) = 0$

$\Rightarrow (2x – 11) = 0$ or $(x – 4) = 0$

$\Rightarrow x = 11/2$ or $x = 4$

$\Rightarrow x = 4, 11/2$

$y^2 – 17y + 72 = 0$

$\Rightarrow y^2 – 9y – 8y + 72 = 0$

⇒ y(y – 9) – 8(y – 9) = 0

⇒ (y – 9)(y – 8) = 0

⇒ (y – 9) = 0 or (y – 8) = 0

⇒ y = 9 or y = 8

⇒ y = 8, 9

∴ x < y.

Comparison between x and y (via Tabulation):

Value of x	Value of y	Relation
4	8	x < y
4	9	x < y
11/2	8	x < y
11/2	9	x < y

∴ The relation will be x < y

Que. 24 In the given question, two equations numbered l and II are given. Solve both the equations and mark the appropriate answer.

I. $3x^2 – 4x + 1 = 0$

II. $2y^2 – 5y + 3 = 0$

1. x > y
2. x < y
3. x ≥ y
4. x ≤ y
5. x = y or the relationship between x and y cannot be established.

Correct Option **- 4**

Calculation:

I. $3x^2 – 4x + 1 = 0$

⇒ $3x^2 – 3x – x + 1 = 0$

⇒ $3x \times (x – 1) – 1 \times (x – 1) = 0$

⇒ $(3x – 1) \times (x – 1) = 0$

⇒ x = 1 and x = 1/3

II. $2y^2 – 5y + 3 = 0$

⇒ $2y^2 – 2y – 3y + 3 = 0$

⇒ $2y \times (y – 1) – 3 \times (y – 1) = 0$

⇒ $(2y – 3) \times (y – 1) = 0$

⇒ y = 1 and y = 3/2

Value of x	Value of y	Relation
1	1	x = y
1/3	3/2	x < y
1	3/2	x < y
1/3	1	x < y

∴ x ≤ y

Que. 25 In the given question, two equations numbered I and II are given. Solve both the equations and mark the appropriate answer.

I. $x^2 + 2x - 15 = 0$

II. $y^2 + 9y + 20 = 0$

1. $y > x$
2. $y < x$
3. $y \leq x$
4. $y \geq x$
5. x = y or the relationship between x and y cannot be established.

Correct Option **- 5**

Calculation:

I. $x^2 + 2x - 15 = 0$

$\Rightarrow x^2 + 5x - 3x - 15 = 0$

$\Rightarrow x \times (x + 5) - 3 \times (x + 5) = 0$

$\Rightarrow (x - 3) \times (x + 5) = 0$

$\Rightarrow x = 3$ and $x = -5$

II. $y^2 + 9y + 20 = 0$

$\Rightarrow y^2 + 5y + 4y + 20 = 0$

$\Rightarrow y \times (y + 5) + 4 \times (y + 5) = 0$

$\Rightarrow (y + 4) \times (y + 5) = 0$

$\Rightarrow y = -4$ and $y = -5$

Value of x	Value of y	Relation
3	−4	x > y
−5	−5	x = y
3	−5	x > y
−5	−4	x < y

∴ x = y or the relationship between x and y cannot be established.

Que. 26 Train A running at the speed of 30 km/h can cross another train B running in opposite direction in 20 seconds. Find the speed of train B if sum of length of both trains is 600 m.

1. 72 km/h
2. 70 km/h
3. 60 km/h
4. 78 km/h
5. None of these

Correct Option **- 4**

Given:

Speed of train A = 30 km/h

Time taken by train A to cross train B = 20 seconds

Sum of length of both trains = 600 m

Concept used:

If two trains A and B are running in opposite direction at speed 'x' and 'y' respectively, then the relative speed of them will be (x + y)

Formula used:

Relative Speed = Total length of trains/Time taken

Calculations:

Let the speed of train B be x km/h.

Relative Speed = Total length of trains/Time taken

⇒ (30 + x)5/18 = 600/20

⇒ (30 + x)100 = 10800

⇒ 3000 + 100x = 10800

⇒ 100x = 10800 - 3000

⇒ 100x = 7800

⇒ x = 78 km/h

∴ **The speed of train B is 78 km/h.**

Que. 27 If the speed of the boat in still water is 9 km/h and the downstream speed is 6 km/h more than the upstream speed. Then find the distance covered by boat in 5 hours 20 min. downstream.

1. 56 km
2. 64 km
3. 48 km
4. 64.5 km
5. 48.7 km

Correct Option **- 2**

Given:

Speed of boat in still water = 9 km/h

Downstream speed = 6 km/h + Upstream speed

Formula used:

Distance = Speed × Time

Calculation:

Let the speed of the stream be x km/h.

Downstream speed = (9 + x) km/h

Upstream speed = (9 – x) km/h

According to the question,

Downstream speed = 6 km/h + Upstream speed

⇒ (9 + x) = 6 + (9 – x)

⇒ 2x = 6

⇒ x = 3 km/h

Downstream speed = (9 + x) km/h

⇒ Downstream speed = 9 + 3

⇒ Downstream speed = 12 km/h

Time = 5 hours 20 min.

⇒ Time = (5 + 1/3) hours

⇒ Time = 16/3 hours

Required distance = Downstream speed × Time

⇒ Required distance = 12 × 16/3

⇒ Required distance = 64 km

∴ **The distance covered by boat in 5 hours 20 min. downstream is 64 km.**

Que. 28 The sum of the sides of a square and a rectangle is 208 cm. If the perimeter of the rectangle is 164 cm, then find the length of the side of the square.

1. 8 cm
2. 11 cm
3. 15 cm
4. 6 cm
5. 21 cm

Correct Option **- 2**

Given :

The sum of the sides of a square and a rectangle = 208 cm

The perimeter of the rectangle = 164 cm

Formula used :

Perimeter of rectangle = 2(l + b) unit

Perimeter of square = 4a unit

Solution :

Let the side of the square be a

Let the length of the rectangle be l

Let the breadth of the rectangle be b

A.T.Q.,

4a + 2(l + b) = 208

⇒ 4a + 164 = 208

⇒ 4a = 208 - 164

⇒ 4a = 44

⇒ a = 44/4

⇒ a = 11

∴ **The length of the side of the square is 11 cm.**

Que. 29 A person spends 10% of his income on medical, 20% of his income spend on traveling, and the rest of his income spend on others. If the left expenditure is Rs. 3500 then, find the total income?

1. Rs. 6000
2. Rs. 4000
3. Rs. 4500
4. Rs. 5000

5. None of these

Correct Option **- 4**

Given:

Expenditure on medical = 10% of his income

Expenditure on traveling = 20% of his income

The expenditure left = Rs. 3500

Calculation:

Let the total income be 100%

The left expenditure = 100% – (10% + 20%)

⇒ 100% – 30%

⇒ 70%

Now,

By using unitary method

70% = 3500

⇒ 1% = 3500/70

⇒ 1% = 50

⇒ 100% = 100 × 50

⇒ 100% = 5000

∴ **The total income of person will be Rs. 5000**

Que. 30 A person invests a sum of money in the two banks in the ratio of 2 : 3 at 10% and 20% rate of interest respectively. If the interest earned in the second part of the amount is 6000 then what is the interest in the first part of the amount.

1. Rs. 2,000
2. Rs. 3000
3. Rs. 1500
4. Rs. 2500
5. None of these

Correct Option **- 1**

Given:

Interest on the second part of money = Rs. 6,000

Rate of interest is 10% and 20%

Formula used:

S.I = (P × R × T)/100

Here, S.I, P, R and T is simple interest, Principle, Rate and Time respectively

Calculation:

Let the investment in two banks be 2x and 3x

S.I = (3x × 20 × 1)/100

⇒ 6,000 = 3x/5

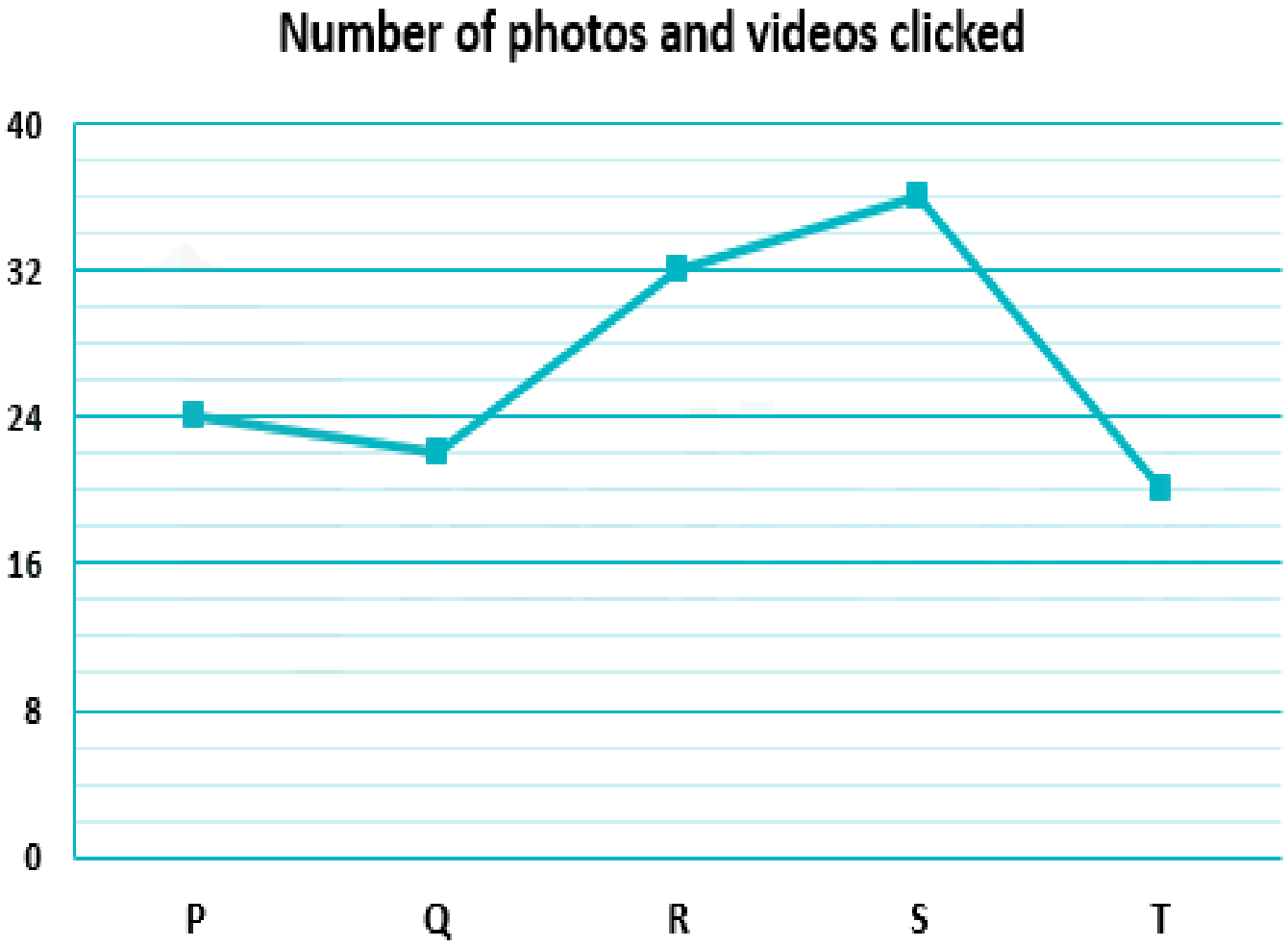
⇒ x = 10,000

Now, Investment of A = 20,000

S.I = (20,000 × 10 × 1)/100 = 2,000

∴ **The interest in the first part is Rs. 2,000**

Que. 31 **Direction:** Based on the given line graph answer the following question given below:
The following line graph shows the number of photos and videos clicked by 5 persons in 2019.



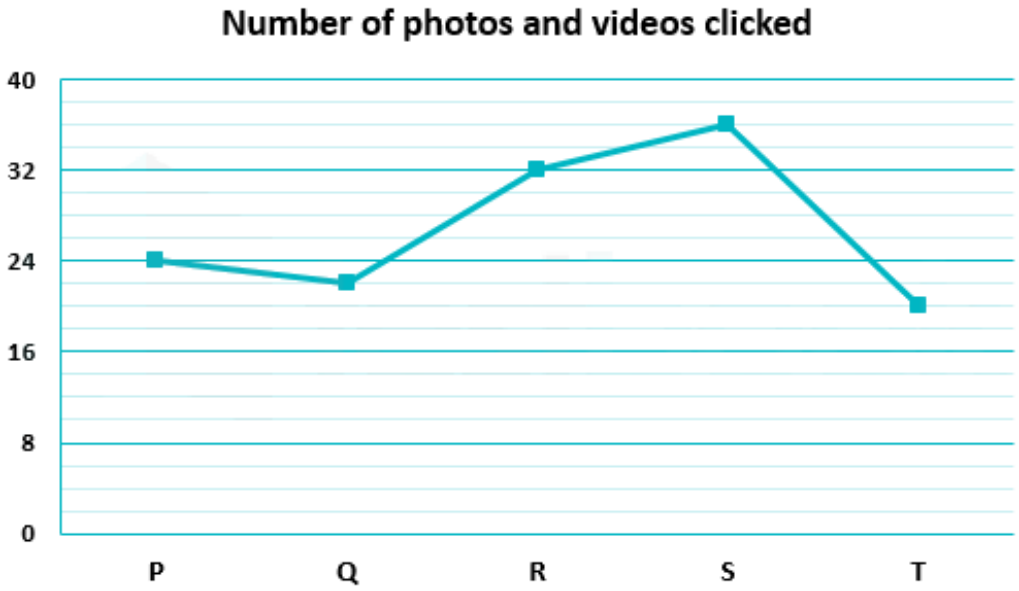
Find the total number of photos and videos clicked by all the five persons.

1. 124
2. 146
3. 134
4. 136
5. 138

Correct Option **- 3**

Given:

Direction: The following line graph shows the number of photos and videos clicked by 5 persons in 2019. Based on the given line graph answer the following question given below:



Calculations:

Total number number of photos and videos clicked by all 5 persons = Sum of photos and videos clicked by all individually

⇒ (P + Q + R + S + T)

⇒ (24 + 22 + 32 + 36 + 20)

⇒ 134

∴ **The number number of photos and videos clicked by all 5 persons is 134.**

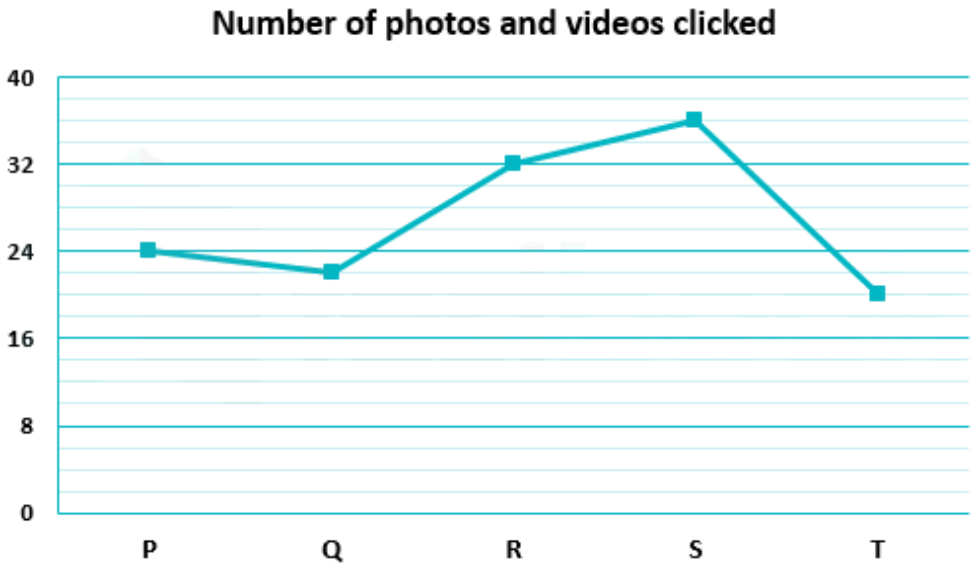
Que. 32 If R clicked the number of photos and videos in the ratio of 9 : 7 then find the number of videos clicked by R.

1. 18
2. 16
3. 20
4. 12
5. 14

Correct Option **- 5**

Given:

Direction: The following line graph shows the number of photos and videos clicked by 5 persons in 2019. Based on the given line graph answer the following question given below:



R clicked the number of photos and videos in the ratio of 9 : 7

Formula used:

Number of videos clicked = Total number of photos and videos clicked - Number of photos clicked

Calculations:

Let the number of photos and videos clicked by R be 9x and 7x respectively.

From the given line graph,

⇒ Total number of photos and videos clicked by R = 32

⇒ Number of photos clicked + Number of videos clicked = 32

⇒ 9x + 7x = 32

⇒ x = 2

⇒ 9x = 18

So,

Number of videos clicked = Total number of photos and videos clicked - Number of photos clicked

⇒ 32 - 18

⇒ 14

∴ **The number of videos clicked by R is 14.**

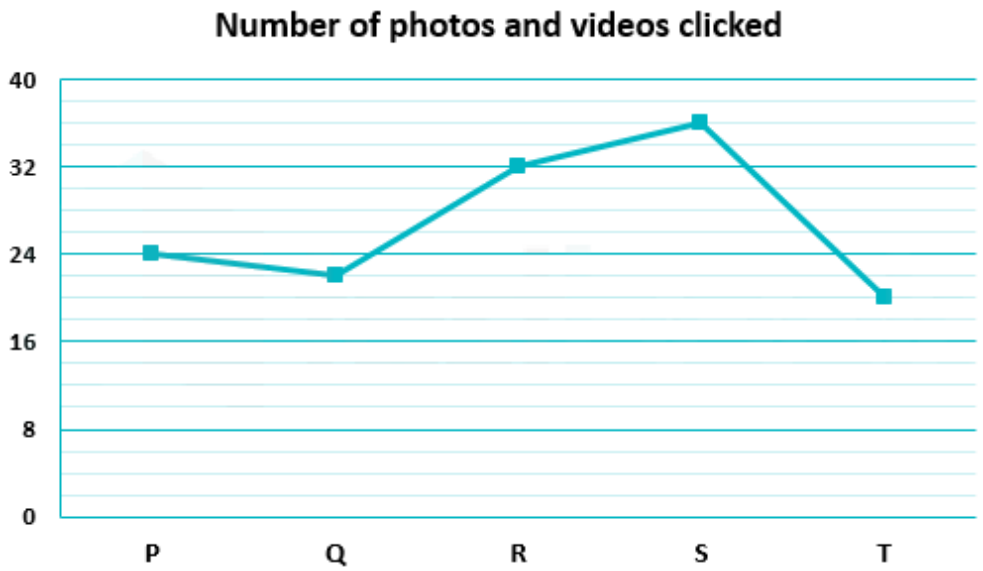
Que. 33 Find the number of photos and videos clicked by S is how much more or less than the photos and videos clicked by T.

1. 40% more
2. 60% more
3. 60% less
4. 40% less
5. 80% more

Correct Option **- 5**

Given:

Direction: The following line graph shows the number of photos and videos clicked by 5 persons in 2019. Based on the given line graph answer the following question given below:



Formula used:

Percentage of photos and videos clicked by S more than T = (Difference of number of photos and videos clicked by S and T)/(Number of photos and videos clicked by T) × 100

Calculations:

Number of photos and videos clicked by S = 36

Number of photos and videos clicked by T = 20

Difference of number of photos and videos clicked by S and T = 16

Now,

Percentage of photos and videos clicked by S more than T = (16/20) × 100

⇒ 80

∴ **The percentage of photos and videos clicked by S more than T is 80%.**

Que. 34 Find the ratio between the average number of photos and videos clicked by P and S together to the average number of photos and videos clicked by Q and R together.

1. 11 : 5
2. 7 : 9
3. 7 : 5
4. 10 : 9
5. 8 : 5

Correct Option **- 4**

Calculation:

Total number of photos and videos clicked by P = 24

Total number of photos and videos clicked by S = 36

Total number of photos and videos clicked by P and S = (24 + 36)

⇒ 60

Total number of photos and videos clicked by Q = 22

Total number of photos and videos clicked by R = 32

Total number of photos and videos clicked by Q and R = (22 + 32)

⇒ 54

Required ratio = 60 : 54

⇒ 10 : 9

∴ **The required ratio is 10 : 9**

Que. 35 If the next year R clicked 12 more photos and S clicked 8 more videos the find the ratio of total number of photos and videos clicked by R and S.

1. 1 : 1
2. 7 : 9
3. 2 : 3
4. 3 : 2
5. 5 : 6

Correct Option **- 1**

Calculation:

Number of photos clicked by R in 2019 = 32

Number of photos clicked by R in 2020 = (32 + 12) = 44

Number of photos clicked by S in 2019 = 36

Number of photos clicked by S in 2020 = (36 + 8) = 44

Required ratio = 44 : 44

⇒ 1 : 1

∴ **The required ratio is 1 : 1**

Que. 36 **Directions:-** In the following question assuming the given statement to be true, find which of the conclusions among the given conclusions is / are definitely true and then give your answer accordingly.

Statements: P ≥ R < S < T < E = F

Conclusions:

I. S ≥ E

II. F > R

1. Only conclusion I follows
2. Only conclusion II follows
3. Either I or II follows
4. Neither conclusion I nor II follows
5. Both I and II are follow

Correct Option **- 2**

Combined Statement: P ≥ R < S < T < E = F

I. S ≥ E – False (As, S < T < E = F, we get < sign between S and E)

II.F > R - True (As, **R < S < T < E = F**)

Hence, **Only conclusion II follows**.

Que. 37 **Directions:-** In the following question assuming the given statement to be true, find which of the conclusions among the given conclusions is / are definitely true and then give your answer accordingly.

Statements: $X = Y \geq Z > P \geq Q < S$

Conclusions:

I. $Z < S$

II. $Y \geq Q$

1. Only conclusion I is follows
2. Only conclusion II is follows
3. Either I or II follows
4. Neither I not II follows
5. Both conclusions I and II follow

Correct Option **- 4**

Combined Statement: $X = Y \geq Z > P \geq Q < S$

I. $Z < S$ – False (As, $Z > P \geq Q < S$, so definite relation between Z and S cannot be determined)

II. $Y \geq Q$ – False (As, $Y \geq Z > P \geq Q$, we get > sign i.e. between Y and Q, so it definitely holds false)

Hence, **Neither I nor II follows.**

Que. 38 **Directions:-** In the following question assuming the given statement to be true, find which of the conclusions among the given conclusions is / are definitely true and then give your answer accordingly.

Statements: $P \leq Q < R > S \geq U < X$

Conclusions:

I. $P < R$

II. $Q < X$

1. Only conclusion I follows
2. Only conclusion II follows
3. Either I or II follows
4. Neither I nor II is follows
5. Both conclusions I and II follow

Correct Option **- 1**

I. $P < R$ – True (As, $P \leq Q < R$)

II. $Q < X$ – False (As, $Q < R > S \geq U < X$, so definite relation between Q and R cannot be determined)

Hence, **Only Conclusion I True.**

Que. 39 **Directions:** Study the following given information carefully and answer the questions.

Eight persons A, B, C, D, E, F, G and H are purchasing some items for the different occasions but not necessarily in the same order.Two persons purchase items between A and D. Only one person purchase item between H and G, who purchases just after D. Only one person purchases between F and B where, F purchases before B. Only three persons purchase after G. The number of people who purchase before C and after F are the same.

Who among the following purchases just after C?

1. B
2. A
3. D
4. E
5. F

Correct Option **- 3**

Eight persons: A, B, C, D, E, F, G and H.

1. Two persons purchase items between A and D.

2. From this sentence we have two cases.

Case 1: When A purchase before D.

Case 1
A
D

Case 2: When D purchase before A.

Case 2
D
A

3. Only one person purchase item between H and G, who purchases just after D.

From this line we have 3 cases:

Case 1: When H purchase after G.

Case 1
A
D
G
H

Case 1a: When H purchase before G.

Case 1a
A

H
D
G

Case 2: When H purchase before G.

Case 2
H
D
G
A

4. Only one person purchases between F and B where F purchases before B.

5. Only three persons purchase after G.

On combining these two sentences we get,

Case 1: In this case F will purchase immediately after G.

Case 1
A
D
G
F
H
B

Case 1a: In this case F will purchase immediately after G.

Case 1a
A
H
D
G
F
B

Case 2: In this case F will purchase immediately after G.

Case 2

H
D
G
F
A
B

6. The number of people who purchase before C and after F are the same.

From this line our Case 1a and Case 2 is eliminated, as

In Case 1a, there are two persons who purchases after F but there is only one person or six persons who purchases before C, so this case is not possible.

In Case 2, there are two persons who purchases after F but there is no person or only one person who purchases before C, so this case is also not possible.

In Case 1, C will purchase just before D then there will be equal number of people who bought before C and bought after F will become same.

Now, only one person is left i.e. E, E bought just after A.

Case 1
A
E
C
D
G
F
H
B

The final ordering is:

A
E
C
D
G
F
H
B

Hence, **D** purchases just after C.

Que. 40 How many people purchase items between E and H?

1. Three

2. Four
3. Two
4. Five
5. One

Correct Option **- 2**

Eight persons: A, B, C, D, E, F, G and H.

1. Two persons purchase items between A and D.

2. From this sentence we have two cases.

Case 1: When A purchase before D.

Case 1
A
D

Case 2: When D purchase before A.

Case 2
D
A

3. Only one person purchase item between H and G, who purchases just after D.

From this line we have 3 cases:

Case 1: When H purchase after G.

Case 1
A
D
G
H

Case 1a: When H purchase before G.

Case 1a
A
H

D
G

Case 2: When H purchase before G.

Case 2
H
D
G
A

4. Only one person purchases between F and B where F purchases before B.

5. Only three persons purchase after G.

On combining these two sentences we get,

Case 1: In this case F will purchase immediately after G.

Case 1
A
D
G
F
H
B

Case 1a: In this case F will purchase immediately after G.

Case 1a
A
H
D
G
F
B

Case 2: In this case F will purchase immediately after G.

Case 2

H
D
G
F
A
B

6. The number of people who purchase before C and after F are the same.

From this line our Case 1a and Case 2 is eliminated, as

In Case 1a, there are two persons who purchases after F but there is only one person or six persons who purchases before C, so this case is not possible.

In Case 2, there are two persons who purchases after F but there is no person or only one person who purchases before C, so this case is also not possible.

In Case 1, C will purchase just before D then there will be equal number of people who bought before C and bought after F will become same.

Now, only one person is left i.e. E, E bought just after A.

Case 1
A
E
C
D
G
F
H
B

The final ordering is:

A
E
C
D
G
F
H
B

Hence, **four** people purchase item between E and H.

Que. 41 Who among the following people bought the item first?

1. H
2. E

3. D
4. A
5. G

Correct Option **- 4**

Eight persons: A, B, C, D, E, F, G and H.

1. Two persons purchase items between A and D.

2. From this sentence we have two cases.

Case 1: When A purchase before D.

Case 1
A
D

Case 2: When D purchase before A.

Case 2
D
A

3. Only one person purchase item between H and G, who purchases just after D.

From this line we have 3 cases:

Case 1: When H purchase after G.

Case 1
A
D
G
H

Case 1a: When H purchase before G.

Case 1a
A
H
D

G

Case 2: When H purchase before G.

Case 2
H
D
G
A

4. Only one person purchases between F and B where F purchases before B.
5. Only three persons purchase after G.

On combining these two sentences we get,

Case 1: In this case F will purchase immediately after G.

Case 1
A
D
G
F
H
B

Case 1a: In this case F will purchase immediately after G.

Case 1a
A
H
D
G
F
B

Case 2: In this case F will purchase immediately after G.

Case 2
H

D
G
F
A
B

6. The number of people who purchase before C and after F are the same.

From this line our Case 1a and Case 2 is eliminated, as

In Case 1a, there are two persons who purchases after F but there is only one person or six persons who purchases before C, so this case is not possible.

In Case 2, there are two persons who purchases after F but there is no person or only one person who purchases before C, so this case is also not possible.

In Case 1, C will purchase just before D then there will be equal number of people who bought before C and bought after F will become same.

Now, only one person is left i.e. E, E bought just after A.

Case 1
A
E
C
D
G
F
H
B

The final ordering is:

A
E
C
D
G
F
H
B

Hence, **A** bought the item first.

Que. 42 How many persons purchase after E?

1. Five
2. Six
3. Seven

4. Three
5. Four

Correct Option **- 2**

Eight persons: A, B, C, D, E, F, G and H.

1. Two persons purchase items between A and D.

2. From this sentence we have two cases.

Case 1: When A purchase before D.

Case 1
A
D

Case 2: When D purchase before A.

Case 2
D
A

3. Only one person purchase item between H and G, who purchases just after D.

From this line we have 3 cases:

Case 1: When H purchase after G.

Case 1
A
D
G
H

Case 1a: When H purchase before G.

Case 1a
A
H
D
G

Case 2: When H purchase before G.

Case 2
H
D
G
A

4. Only one person purchases between F and B where F purchases before B.

5. Only three persons purchase after G.

On combining these two sentences we get,

Case 1: In this case F will purchase immediately after G.

Case 1
A
D
G
F
H
B

Case 1a: In this case F will purchase immediately after G.

Case 1a
A
H
D
G
F
B

Case 2: In this case F will purchase immediately after G.

Case 2
H
D

G
F
A
B

6. The number of people who purchase before C and after F are the same.

From this line our Case 1a and Case 2 is eliminated, as

In Case 1a, there are two persons who purchases after F but there is only one person or six persons who purchases before C, so this case is not possible.

In Case 2, there are two persons who purchases after F but there is no person or only one person who purchases before C, so this case is also not possible.

In Case 1, C will purchase just before D then there will be equal number of people who bought before C and bought after F will become same.

Now, only one person is left i.e. E, E bought just after A.

Case 1
A
E
C
D
G
F
H
B

The final ordering is:

A
E
C
D
G
F
H
B

Hence, **Six** persons purchase after E.

Que. 43 Choose the incorrect pair:

1. AE
2. DG
3. DC
4. FH

5. EC

Correct Option **- 3**

Eight persons: A, B, C, D, E, F, G and H.

1. Two persons purchase items between A and D.

2. From this sentence we have two cases.

Case 1: When A purchase before D.

Case 1
A
D

Case 2: When D purchase before A.

Case 2
D
A

3. Only one person purchase item between H and G, who purchases just after D.

From this line we have 3 cases:

Case 1: When H purchase after G.

Case 1
A
D
G
H

Case 1a: When H purchase before G.

Case 1a
A
H
D
G

Case 2: When H purchase before G.

Case 2
H
D
G
A

4. Only one person purchases between F and B where F purchases before B.

5. Only three persons purchase after G.

On combining these two sentences we get,

Case 1: In this case F will purchase immediately after G.

Case 1
A
D
G
F
H
B

Case 1a: In this case F will purchase immediately after G.

Case 1a
A
H
D
G
F
B

Case 2: In this case F will purchase immediately after G.

Case 2
H
D

G
F
A
B

6. The number of people who purchase before C and after F are the same.

From this line our Case 1a and Case 2 is eliminated, as

In Case 1a, there are two persons who purchases after F but there is only one person or six persons who purchases before C, so this case is not possible.

In Case 2, there are two persons who purchases after F but there is no person or only one person who purchases before C, so this case is also not possible.

In Case 1, C will purchase just before D then there will be equal number of people who bought before C and bought after F will become same.

Now, only one person is left i.e. E, E bought just after A.

Case 1
A
E
C
D
G
F
H
B

The final ordering is:

A
E
C
D
G
F
H
B

Let's check each option:

AE: E bought immediately after A.

DG: G bought immediately after D.

DC: C bought immediately before D.

FH: H bought immediately after F.

EC: C bought immediately after E.

Hence, **DC** is incorrect pair.

Que. 44 **Direction:** Read the following information carefully and answer the given questions given below:

9 2 7 5 2 1 3 9 8 6 4 1 3 6 4 7 8 2 1 5 9 7 6 3 2 1 4 8 5 2 9 7 3 1 7 6

If all the even numbers are removed from the above series, which number will be 17th from the left end?

1. 3
2. 7
3. 5
4. 9
5. 1

Correct Option **- 4**

Given information:

Series: 9 2 7 5 2 1 3 9 8 6 4 1 3 6 4 7 8 2 1 5 9 7 6 3 2 1 4 8 5 2 9 7 3 1 7 6

If all the even numbers are removed which number will be 17th from the left end.

9 7 5 1 3 9 1 3 7 1 5 9 7 3 1 5 **9** 7 3 1 7

9 is the 17th letter from the left end.

Hence, the answer is **9**.

Que. 45 How many odd numbers are there between the 7th letter from the right end and 14th letter from the left end?

1. 5
2. 8
3. 9
4. 10
5. 6

Correct Option **- 2**

Given information:

Series: 9 2 7 5 2 1 3 9 8 6 4 1 3 6 4 7 8 2 1 5 9 7 6 3 2 1 4 8 5 2 9 7 3 1 7 6

7th letter from the right end and 14th letter from the left end.

9 2 7 5 2 1 3 9 8 6 4 1 3 **6** 4 7 8 2 1 5 9 7 6 3 2 1 4 8 5 **2** 9 7 3 1 7 6

Odd letter between them.

9 2 7 5 2 1 3 9 8 6 4 1 3 **6** 4 7 8 2 1 5 9 7 6 3 2 1 4 8 5 **2** 9 7 3 1 7 6

There are 8 odd numbers between 7th letter from the right end and 14th letter from the left end.

Hence, the answer is **8**.

Que. 46 Which of the following numbers comes exactly in between the numbers of 16th from the right end and 19th from the left end?

1. 1
2. 9
3. 7

4. 6
5. 5

Correct Option **- 5**

Given information:

Series: 9 2 7 5 2 1 3 9 8 6 4 1 3 6 4 7 8 2 1 5 9 7 6 3 2 1 4 8 5 2 9 7 3 1 7 6

16^{th} from the right end and 19^{th} from the left end.

9 2 7 5 2 1 3 9 8 6 4 1 3 6 4 7 8 2 **1** 5 **9** 7 6 3 2 1 4 8 5 2 9 7 3 1 7 6

5 comes exactly between the numbers of 16^{th} from the right end and 19^{th} from the left end.

Hence, the answer is **5.**

Que. 47

Directions: Read the following information carefully and answer the questions given below.

Eight persons A, B, C, D, E, F, G, and H were born on the same day of the same month but in different years which are 1951, 1955, 1963, 1976, 1985, 1997, 2001, and 2004. All their ages are to be considered from the base year i.e. 2020.

The difference between the age of A and B is twice the age of B. Difference between the age of B and D is 4 years. The age of E is not less than G's age and he is 9 years older than H. Difference between the age of C and F is not more than 5 years.

Who is the second youngest person?

1. C
2. B
3. F
4. G
5. Either A or C

Correct Option **- 2**

(1) The difference between the age of A and B is twice the age of B which implies that age of A is thrice of B's age, therefore we have two cases here.

A – B = 2*B

A = 3*B

(2) Difference between the age of B and D is 4 years.

Year	**Age**	**Case I**	**Case II**
1951	69	A	
1955	65		
1963	57		A
1976	44		
1985	35		
1997	23	B	D

2001	19	D	B
2004	16		

(3) Age of E is not less than G's age and he is 9 years older than H.

Year	Age	Case I	Case II
1951	69	A	
1955	65		
1963	57		A
1976	44	E	E
1985	35	H	H
1997	23	B	D
2001	19	D	B
2004	16	G	G

(4) Difference between the age of C and F is not more than 5 years. Case I eliminate here.

Year	Age	Case II
1951	69	C/F
1955	65	C/F
1963	57	A
1976	44	E
1985	35	H
1997	23	D
2001	19	B
2004	16	G

Hence, **B** is the second youngest person.

Que. 48 What is the difference between the age of A and G?

1. 31 years
2. 53 years
3. 41 years
4. 28 years
5. 7 years

Correct Option **- 3**

(1) The difference between the age of A and B is twice the age of B which implies that age of A is thrice of B's age, therefore we have two cases here.

A – B = 2*B

A = 3*B

(2) Difference between the age of B and D is 4 years.

Year	Age	Case I	Case II
1951	69	A	
1955	65		
1963	57		A
1976	44		
1985	35		
1997	23	B	D
2001	19	D	B
2004	16		

(3) Age of E is not less than G's age and he is 9 years older than H.

Year	Age	Case I	Case II
1951	69	A	
1955	65		
1963	57		A
1976	44	E	E
1985	35	H	H
1997	23	B	D
2001	19	D	B
2004	16	G	G

(4) Difference between the age of C and F is not more than 5 years. Case I eliminate here.

Year	Age	Case II
1951	69	C/F
1955	65	C/F
1963	57	A
1976	44	E
1985	35	H

1997	23	D
2001	19	B
2004	16	G

Age of A = 57 years

Age of G = 16 years

Hence, the difference between the age of A and G is **41 years.**

Que. 49 Whose ages are the prime numbers?

1. B and H
2. C and F
3. B and D
4. Only D
5. B and C

Correct Option **- 3**

(1) The difference between the age of A and B is twice the age of B which implies that age of A is thrice of B's age, therefore we have two cases here.

A – B = 2*B

A = 3*B

(2) Difference between the age of B and D is 4 years.

Year	**Age**	**Case I**	**Case II**
1951	69	A	
1955	65		
1963	57		A
1976	44		
1985	35		
1997	23	B	D
2001	19	D	B
2004	16		

(3) Age of E is not less than G's age and he is 9 years older than H.

Year	**Age**	**Case I**	**Case II**
1951	69	A	
1955	65		
1963	57		A
1976	44	E	E

1985	35	H	H
1997	23	B	D
2001	19	D	B
2004	16	G	G

(4) Difference between the age of C and F is not more than 5 years. Case I eliminate here.

Year	Age	Case II
1951	69	C/F
1955	65	C/F
1963	57	A
1976	44	E
1985	35	H
1997	23	D
2001	19	B
2004	16	G

Hence, the age of **B and D** is a prime number.

Que. 50 If C is the oldest person then who among the following is just younger to F?

1. E
2. A
3. G
4. B
5. C

Correct Option **- 2**

(1) The difference between the age of A and B is twice the age of B which implies that age of A is thrice of B's age, therefore we have two cases here.

A – B = 2*B

A = 3*B

(2) Difference between the age of B and D is 4 years.

Year	**Age**	**Case I**	**Case II**
1951	69	A	
1955	65		
1963	57		A
1976	44		
1985	35		

1997	23	B	D
2001	19	D	B
2004	16		

(3) Age of E is not less than G's age and he is 9 years older than H.

Year	**Age**	**Case I**	**Case II**
1951	69	A	
1955	65		
1963	57		A
1976	44	E	E
1985	35	H	H
1997	23	B	D
2001	19	D	B
2004	16	G	G

(4) Difference between the age of C and F is not more than 5 years. Case I eliminate here.

Year	**Age**	**Case II**
1951	69	C/F
1955	65	C/F
1963	57	A
1976	44	E
1985	35	H
1997	23	D
2001	19	B
2004	16	G

If C is the oldest person then,

Year	**Age**	**Case II**
1951	69	C
1955	65	F
1963	57	A
1976	44	E

1985	35	H
1997	23	D
2001	19	B
2004	16	G

We can see that A is just younger to F.

Hence, **A** is the correct answer.

Que. 51 Which of the following statements is not correct according to the arrangement?

1. D was born in an odd year
2. H is 16 years older than B
3. Three people born between A and B
4. B was born in year 1997
5. A is younger than C

Correct Option **- 4**

(1) The difference between the age of A and B is twice the age of B which implies that age of A is thrice of B's age, therefore we have two cases here.

A – B = 2*B

A = 3*B

(2) Difference between the age of B and D is 4 years.

Year	**Age**	**Case I**	**Case II**
1951	69	A	
1955	65		
1963	57		A
1976	44		
1985	35		
1997	23	B	D
2001	19	D	B
2004	16		

(3) Age of E is not less than G's age and he is 9 years older than H.

Year	**Age**	**Case I**	**Case II**
1951	69	A	
1955	65		
1963	57		A
1976	44	E	E

1985	35	H	H
1997	23	B	D
2001	19	D	B
2004	16	G	G

(4) Difference between the age of C and F is not more than 5 years. Case I eliminate here.

Year	Age	Case II
1951	69	C/F
1955	65	C/F
1963	57	A
1976	44	E
1985	35	H
1997	23	D
2001	19	B
2004	16	G

Hence, **B was born in 1997** is not correct according to the arrangement.

Que. 52 If in the word 'SOFTWARE', all the vowels are first arranged alphabetically and then all the consonants are arranged alphabetically and then all the vowels are replaced by the next letters and the consonants are replaced by the previous letters from English alphabet. Which letter will be fourth from the left end?

1. E
2. P
3. Q
4. R
5. F

Correct Option **- 1**

Word is- S O F T W A R E

Vowels and then consonants arranged alphabetically- A E O F R S T W

Vowels are replaced by next letter and consonants replaced by the previous letter- B F P **E** Q R S V

Hence, fourth letter from the left end is **E.**

Tips and Tricks:

In the given word 'SOFTWARE' there are three vowels so just take these three vowels and then find out the first consonant according to English alphabetical order. This consonant is the fourth one from left. so, no need to write all remaining consonants in English alphabetical order just find out previous letter for that consonant.

For example:

Word is- S O F T W A R E

Vowels arranged alphabetically- A E O

Fourth letter of consonant is - F

So, previous letter of consonant F is **E.**

Que. 53 **Directions:** Read the instructions carefully and answer the question below.

There are Five persons – A, B, C, D and E. They have different weights and total weight is 160. The weight of the second heaviest person is 35 kg and the weight of the second lightest person is 28 kg. Sum of the weight of A and B is 52 kg and A is lighter than B. Sum of the weight of C and D is 63 kg and C is heavier than D. D is the second lightest person. A is the lightest person and his weight is 22 kg.

What will be the weight of E?

1. 34
2. 56
3. 54
4. 45
5. 22

Correct Option **- 4**

Persons: A, B, C, D and E.

Total weight: 160 kg

1) D is the second lightest person. .

2) the weight of the second lightest person is 28 kg. So, weight of D is 28 kg

The possible arrangement is as follows,

___ > ___ > ___ > D(28) > ___

3) A is the lightest person and his weight is 22 kg.

4) Sum of the weight of C and D is 63 kg and C is heavier than D.

5) The weight of the second heaviest person is 35 kg.

C + D = 63

C + 28 = 63

C = 63 - 28 = 35 kg

Therefore C is the second heaviest person.

___ > C(35) > ___ > D(28) > A(22)

5) Sum of the weight of A and B is 52 kg and A is lighter than B.

A + B = 52

22 + B = 52

B = 52 - 22 = 30 kg

As given A + B + C + D + E = 160

22 + 30 + 35 + 28 + E = 160

115 + E = 180

E = 180 - 115

E = 45 kg

The final arrangement is as follows,

E(45) > C(35) > B(30) > D(28) > A(22)

Hence, **the weight of E is 45 kg.**

Que. 54 Who is the third lightest person?

1. E
2. B
3. A
4. C
5. D

Correct Option **- 2**

Persons: A, B, C, D and E.

Total weight: 160 kg

1) D is the second lightest person. .

2) the weight of the second lightest person is 28 kg. So, weight of D is 28 kg

The possible arrangement is as follows,

___ > ___ > ___ > D(28) > ___

3) A is the lightest person and his weight is 22 kg.

4) Sum of the weight of C and D is 63 kg and C is heavier than D.

5) The weight of the second heaviest person is 35 kg.

C + D = 63

C + 28 = 63

C = 63 - 28 = 35 kg

Therefore C is the second heaviest person.

___ > C(35) > ___ > D(28) > A(22)

5) Sum of the weight of A and B is 52 kg and A is lighter than B.

A + B = 52

22 + B = 52

B = 52 - 22 = 30 kg

As given A + B + C + D + E = 160

22 + 30 + 35 + 28 + E = 160

115 + E = 180

E = 180 - 115

E = 45 kg

The final arrangement is as follows,

E(45) > C(35) > B(30) > D(28) > A(22)

Hence, **third lowest is B.**

Que. 55 What is the possible weight of C?

1. 46
2. 54
3. 35
4. 39
5. 28

Correct Option **- 3**

Persons: A, B, C, D and E.

Total weight: 160 kg

1) D is the second lightest person. .

2) the weight of the second lightest person is 28 kg. So, weight of D is 28 kg

The possible arrangement is as follows,

___ > ___ > ___ > D(28) > ___

3) A is the lightest person and his weight is 22 kg.

4) Sum of the weight of C and D is 63 kg and C is heavier than D.

5) The weight of the second heaviest person is 35 kg.

C + D = 63

C + 28 = 63

C = 63 - 28 = 35 kg

Therefore C is the second heaviest person.

___ > C(35) > ___ > D(28) > A(22)

5) Sum of the weight of A and B is 52 kg and A is lighter than B.

A + B = 52

22 + B = 52

B = 52 - 22 = 30 kg

As given A + B + C + D + E = 160

22 + 30 + 35 + 28 + E = 160

115 + E = 180

E = 180 - 115

E = 45 kg

The final arrangement is as follows,

E(45) > C(35) > B(30) > D(28) > A(22)

Hence, **the weight of C is 45 kg.**

Que. 56 **Direction:** In each of the questions below are given three statements followed by two conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statements:

Some slippers are sandals.

All shoes are pillows.

Only a few pillows are sandals.

Conclusions:

I. Some pillows are not sandals.

II. At Least some shoes are slippers.

1. Only I follows
2. Only II follows
3. Either I or II follows

4. Neither I nor II follows
5. Both I and II follow

Correct Option **- 1**

The least possible Venn diagram for the given statements is as follow:

Conclusions:

I. Some pillows are not sandals → True

II. At Least some shoes are slippers → False (It is possible but not definite)

Important points

Only a few means **some** and **some not.**

Atleast means **some.**

Hence, **only I follows.**

Que. 57 **Direction:** In each of the questions below are given three statements followed by two conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statements:

All keys are tattoo.

Only a few wires are desk.

Some keys are not desk.

Conclusions:

I. Some keys are not wire.

II. Few wires can be tattoo.

1. Only I follows
2. Only II follows
3. Either I or II follows

4. Neither I nor II follows
5. Both I and II follow

Correct Option **- 2**

The least possible Venn diagram for the given statements is as follow:

Conclusions:

I. Some keys are not wire → False (It is possible but not definite)

II. Few wires can be tattoo → True

Important points

Only a few means **some** and **some not.**

Few means **some.**

Hence, **only II follows.**

Que. 58 **Direction:** In each of the questions below are given three statements followed by two conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statements:

All pens are boxes.

Only a few boxes are bats.

All tables are boxes.

Conclusions:

I. Few tables are bat.

II. Some bats are not pens.

1. Only I follows
2. Only II follows
3. Either I or II follows

4. Neither I nor II follows
5. Both I and II follow

Correct Option **- 4**

The least possible Venn diagram for the given statements is as follow:

Conclusions:

I. Few tables are bat → False (It is possible but not definite)

II. Some bats are not pens → False (It is possible but not definite)

Important points

Only a few means **some** and **some not.**

Few means **some.**

Hence, **neither I or II follows.**

Que. 59 **Direction:** In each of the questions below are given three statements followed by two conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statements:

Some chapatis are parathas.

Some chargers are mobile.

Only a few chapatis are mobile.

Conclusions:

I. Some chapatis are not chargers.

II. All chapatis can be parathas.

1. Only I follows
2. Only II follows
3. Either I or II follows
4. Neither I nor II follows

5. Both I and II follow

Correct Option **- 2**

The least possible Venn diagram for the given statements is as follow:

Conclusions:

I. Some chapatis are not chargers → False (It is possible but not definite)

II. All chapatis can be parathas → True

Important points

Only a few means **some** and **some not.**

Hence, **only II follows.**

Que. 60 **Direction:** Read the given information carefully and answer the questions given below:

Eight family members Raja, Anita, Komal, Simran, Mohit, Arpit, Pratima and Neha, have their birthday on either 4^{th} or 23^{rd} of four different months among April, May, June and July but not necessarily in the same order.

Komal has a birthday on the 23rd of the month of 30 days. As many people have birthdays before Pratima as after Simran. Neha and Arpit have their birthday in the same month having 31^{st} days but not in May. Two people have birthdays between Komal and Raja. Mohit has a birthday before Anita. Anita does not have a birthday in May. Neha having birthday before Arpit. Simran having Birthday in the Month of june.
Who has a birthday on 23^{rd} June?

1. Anita
2. Komal
3. Pratima
4. Arpit
5. None of these

Correct Option **- 2**

Given Information,

Eight family members Raja, Anita, Komal, Simran, Mohit, Arpit, Pratima and Neha.

Having birthday on either 4^{th} or 23^{rd}

Month- April, May, June, July

1) Komal has birthday on 23rd of a month of 30 days.

2) Two person have birthday between Komal and Raja.

3) Neha and Arpit have their birthday on same month having 31st days but not in May.

4) Neha having birthday before Arpit.

Days	Month	Date	Case 1 Person	Case 2 Person
30	April	4th		
		23rd	Komal	
31	May	4th		Raja
		23rd		
30	June	4th	Raja	
		23rd		Komal
31	July	4th	Neha	Neha
		23rd	Arpit	Arpit

5) As many people having birthday before Pratima as after Simran.

6) Mohit has birthday before Anita.

7) Simran having birthday in the month of June.

Days	Months	Date	Case 1 Person	Case 2 Person
30	April	4th	Mohit	Mohit
		23rd	Komal	Anita
31	May	4th	Pratima	Raja
		23rd	Anita	Pratima
30	June	4th	Raja	Simran
		23rd	Simran	Komal
31	July	4th	Neha	Neha
		23rd	Arpit	Arpit

8) Anita does not have birthday on May.

(Case 1 is eliminated as Anita does not have their birthday on May)

Days	Months	Date	Case 2 Person
30	April	4th	Mohit
		23rd	Anita
31	May	4th	Raja

30	June	23rd	Pratima
		4th	Simran
		23rd	Komal
31	July	4th	Neha
		23rd	Arpit

Final Solution:

Days	Months	Date	Case 2 Person
30	April	4th	Mohit
		23rd	Anita
31	May	4th	Raja
		23rd	Pratima
30	June	4th	Simran
		23rd	Komal
31	July	4th	Neha
		23rd	Arpit

Komal have birthday on 23rd June.

Hence, the answer is **Komal.**

Que. 61 Who among the following has a birthday between 23rd May and 4th July?

1. Pratima
2. Komal
3. Arpit
4. Both Pratima and Komal
5. Both Komal and Arpit

Correct Option **- 2**

Given Information,

Eight family members Raja, Anita, Komal, Simran, Mohit, Arpit, Pratima and Neha.

Having birthday on either 4th or 23rd

Month- April, May, June, July

1) Komal has birthday on 23rd of a month of 30 days.

2) Two person have birthday between Komal and Raja.

3) Neha and Arpit have their birthday on same month having 31st days but not in May.

4) Neha having birthday before Arpit.

Days	Month	Date	Case 1	Case 2

			Person	Person
30	April	4th		
		23rd	Komal	
31	May	4th		Raja
		23rd		
30	June	4th	Raja	
		23rd		Komal
31	July	4th	Neha	Neha
		23rd	Arpit	Arpit

5) As many people having birthday before Pratima as after Simran.

6) Mohit has birthday before Anita.

7) Simran having birthday in the month of June.

Days	Months	Date	Case 1 Person	Case 2 Person
30	April	4th	Mohit	Mohit
		23rd	Komal	Anita
31	May	4th	Pratima	Raja
		23rd	Anita	Pratima
30	June	4th	Raja	Simran
		23rd	Simran	Komal
31	July	4th	Neha	Neha
		23rd	Arpit	Arpit

8) Anita does not have birthday on May.

(Case 1 is eliminated as Anita does not have their birthday on May)

Days	Months	Date	Case 2 Person
30	April	4th	Mohit
		23rd	Anita
31	May	4th	Raja
		23rd	Pratima
30	June	4th	Simran
		23rd	Komal
31	July	4th	Neha
		23rd	Arpit

Final Solution:

Days	Months	Date	Case 2 Person
30	April	4th	Mohit
		23rd	Anita
31	May	4th	Raja
		23rd	Pratima
30	June	4th	Simran
		23rd	Komal
31	July	4th	Neha
		23rd	Arpit

Only Komal have their birthday between 23rd May and 4th July.
Hence, the answer is **Komal.**

Que. 62 How many people have their birthday between Anita and Neha?

1. Two
2. Three
3. Four
4. One
5. None

Correct Option **- 3**

Given Information,
Eight family members Raja, Anita, Komal, Simran, Mohit, Arpit, Pratima and Neha.
Having birthday on either 4th or 23rd
Month- April, May, June, July
1) Komal has birthday on 23rd of a month of 30 days.
2) Two person have birthday between Komal and Raja.
3) Neha and Arpit have their birthday on same month having 31st days but not in May.
4) Neha having birthday before Arpit.

Days	Month	Date	Case 1 Person	Case 2 Person
30	April	4th		
		23rd	Komal	
31	May	4th		Raja
		23rd		
30	June	4th	Raja	

31	July	23rd		Komal
		4th	Neha	Neha
		23rd	Arpit	Arpit

5) As many people having birthday before Pratima as after Simran.

6) Mohit has birthday before Anita.

7) Simran having birthday in the month of June.

Days	**Months**	**Date**	**Case 1 Person**	**Case 2 Person**
30	April	4th	Mohit	Mohit
		23rd	Komal	Anita
31	May	4th	Pratima	Raja
		23rd	Anita	Pratima
30	June	4th	Raja	Simran
		23rd	Simran	Komal
31	July	4th	Neha	Neha
		23rd	Arpit	Arpit

8) Anita does not have birthday on May.

(Case 1 is eliminated as Anita does not have their birthday on May)

Days	**Months**	**Date**	**Case 2 Person**
30	April	4th	Mohit
		23rd	Anita
31	May	4th	Raja
		23rd	Pratima
30	June	4th	Simran
		23rd	Komal
31	July	4th	Neha
		23rd	Arpit

Final Solution:

Days	**Months**	**Date**	**Case 2 Person**
30	April	4th	Mohit
		23rd	Anita

31	May	4th	Raja
		23rd	Pratima
30	June	4th	Simran
		23rd	Komal
31	July	4th	Neha
		23rd	Arpit

Only four people have their birthday between Anita and Neha.
Hence, the answer is **Four**.

Que. 63 On which date Raja has his birthday?

1. 4th April
2. 23rd July
3. 4th June
4. 23rd May
5. 4th May

Correct Option **- 5**

Given Information,
Eight family members Raja, Anita, Komal, Simran, Mohit, Arpit, Pratima and Neha.
Having birthday on either 4th or 23rd
Month- April, May, June, July
1) Komal has birthday on 23rd of a month of 30 days.
2) Two person have birthday between Komal and Raja.
3) Neha and Arpit have their birthday on same month having 31st days but not in May.
4) Neha having birthday before Arpit.

Days	**Month**	**Date**	**Case 1 Person**	**Case 2 Person**
30	April	4th		
		23rd	Komal	
31	May	4th		Raja
		23rd		
30	June	4th	Raja	
		23rd		Komal
31	July	4th	Neha	Neha
		23rd	Arpit	Arpit

5) As many people having birthday before Pratima as after Simran.
6) Mohit has birthday before Anita.
7) Simran having birthday in the month of June.

Days	Months	Date	Case 1 Person	Case 2 Person
30	April	4th	Mohit	Mohit
		23rd	Komal	Anita
31	May	4th	Pratima	Raja
		23rd	Anita	Pratima
30	June	4th	Raja	Simran
		23rd	Simran	Komal
31	July	4th	Neha	Neha
		23rd	Arpit	Arpit

8) Anita does not have birthday on May.

(Case 1 is eliminated as Anita does not have their birthday on May)

Days	Months	Date	Case 2 Person
30	April	4th	Mohit
		23rd	Anita
31	May	4th	Raja
		23rd	Pratima
30	June	4th	Simran
		23rd	Komal
31	July	4th	Neha
		23rd	Arpit

Final Solution:

Days	Months	Date	Case 2 Person
30	April	4th	Mohit
		23rd	Anita
31	May	4th	Raja
		23rd	Pratima
30	June	4th	Simran
		23rd	Komal
31	July	4th	Neha
		23rd	Arpit

Raja have their birthday on 4th May.

Hence, the answer is **4th May.**

Que. 64 How many persons have their birthday before Neha?

1. 2
2. 4
3. 1
4. 6
5. 7

Correct Option **- 4**

Given Information,

Eight family members Raja, Anita, Komal, Simran, Mohit, Arpit, Pratima and Neha.

Having birthday on either 4th or 23rd

Month- April, May, June, July

1) Komal has birthday on 23rd of a month of 30 days.

2) Two person have birthday between Komal and Raja.

3) Neha and Arpit have their birthday on same month having 31st days but not in May.

4) Neha having birthday before Arpit.

Days	Month	Date	Case 1 Person	Case 2 Person
30	April	4th		
		23rd	Komal	
31	May	4th		Raja
		23rd		
30	June	4th	Raja	
		23rd		Komal
31	July	4th	Neha	Neha
		23rd	Arpit	Arpit

5) As many people having birthday before Pratima as after Simran.

6) Mohit has birthday before Anita.

7) Simran having birthday in the month of June.

Days	Months	Date	Case 1 Person	Case 2 Person
30	April	4th	Mohit	Mohit
		23rd	Komal	Anita
31	May	4th	Pratima	Raja
		23rd	Anita	Pratima

30	June	4th	Raja	Simran
		23rd	Simran	Komal
31	July	4th	Neha	Neha
		23rd	Arpit	Arpit

8) Anita does not have birthday on May.

(Case 1 is eliminated as Anita does not have their birthday on May)

Days	**Months**	**Date**	**Case 2 Person**
30	April	4th	Mohit
		23rd	Anita
31	May	4th	Raja
		23rd	Pratima
30	June	4th	Simran
		23rd	Komal
31	July	4th	Neha
		23rd	Arpit

Final Solution:

Days	**Months**	**Date**	**Case 2 Person**
30	April	4th	Mohit
		23rd	Anita
31	May	4th	Raja
		23rd	Pratima
30	June	4th	Simran
		23rd	Komal
31	July	4th	Neha
		23rd	Arpit

There are 6 people.

Hence, the answer is **6**.

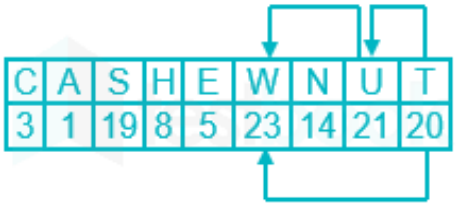
Que. 65 How many pairs of letters are there in the word "CASHEWNUT" that have the same number of letters between them in the word (in both forward and backward directions), as they have in the English alphabetical series?

1. Three

2. One
3. Four
4. Two
5. More than three

Correct Option - **1**

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



Thus there are 3 pairs: Backward: WU, UT, WT

Mistake Point

1: Forward direction means mapping the letters from A to Z from the left end to the right end and backward direction means mapping the letters from A to Z from right end to left end.

2: Alphabetical series is from A to Z and reverse alphabetical series is from Z to A. The series does not occur in a cycle so we either take A to Z (A, B, C...) or Z to A (Z, Y, X…) as per the question.

Hence, three is the correct answer.

Que. 66 **Directions:** Read the information carefully and answer the question given below.

Eight persons A, B, C, D, E, F, G and H are living in an eight floor building but not necessarily in the same order. The lowermost floor is 1 and the topmost floor is 8.

G lives on an odd numbered floor and only one person lives between G and E. F lives on the topmost floor. Two persons lives between F and D. Number of persons below C is equal to the number of persons above A. G lives below the floor of D but not immediately below. E does not live on the lowermost floor. A and B both live above D.

Who lives on the second floor?

1. A
2. F
3. C
4. E
5. H

Correct Option - **3**

1) F lives on the topmost floor.

2) Two persons lives between F and D.

So, the possible arrangement for the given information is as,

Floor	**Person**

8	F
7	
6	
5	D
4	
3	
2	
1	

3) A and B both live above D..

4) Number of persons below C is equal to the number of persons above A.

Case 1		**Case 2**	
Floor	**Person**	**Floor**	**Person**
8	F	8	F
7	B	7	A
6	A	6	B
5	D	5	D
4		4	
3	C	3	
2		2	C
1		1	

5) G lives on an odd numbered floor and only one person lives between G and E. This is not possible in case 1.

6) G lives below the floor of D but not immediately below.

7) E does not live on the lowermost floor. Imply that G lives on the lowermost floor H lives on the remaining floor number 4.

So, the final arrangements is as follows.

Floor	**Person**
8	F
7	A
6	B
5	D
4	H
3	E
2	C
1	G

Hence, **C lives on second floor.**

Que. 67 Who lives immediately above H?

1. C
2. D
3. G
4. B
5. A

Correct Option **- 2**

1) F lives on the topmost floor.

2) Two persons lives between F and D.

So, the possible arrangement for the given information is as,

Floor	Person
8	F
7	
6	
5	D
4	
3	
2	
1	

3) A and B both live above D..

4) Number of persons below C is equal to the number of persons above A.

Case 1		Case 2	
Floor	**Person**	**Floor**	**Person**
8	F	8	F
7	B	7	A
6	A	6	B
5	D	5	D
4		4	
3	C	3	
2		2	C
1		1	

5) G lives on an odd numbered floor and only one person lives between G and E. This is not possible in case 1.

6) G lives below the floor of D but not immediately below.

7) E does not live on the lowermost floor. Imply that G lives on the lowermost floor H lives on the remaining floor number 4.

So, the final arrangements is as follows.

Floor	Person
8	F
7	A
6	B

5	D
4	H
3	E
2	C
1	G

Hence, **D lives immediately above H.**

Que. 68 Who lives on lowermost floor?

1. C
2. D
3. G
4. E
5. A

Correct Option **- 3**

1) F lives on the topmost floor.

2) Two persons lives between F and D.

So, the possible arrangement for the given information is as,

Floor	**Person**
8	F
7	
6	
5	D
4	
3	
2	
1	

3) A and B both live above D..

4) Number of persons below C is equal to the number of persons above A.

Case 1		**Case 2**	
Floor	**Person**	**Floor**	**Person**
8	F	8	F
7	B	7	A
6	A	6	B
5	D	5	D
4		4	
3	C	3	
2		2	C
1		1	

5) G lives on an odd numbered floor and only one person lives between G and E. This is not possible in case 1.

6) G lives below the floor of D but not immediately below.

7) E does not live on the lowermost floor. Imply that G lives on the lowermost floor H lives on the remaining floor number 4.

So, the final arrangements is as follows.

Floor	Person
8	F
7	A
6	B
5	D
4	H
3	E
2	C
1	G

Hence, **G lives lowermost floor.**

Que. 69 Four of the five are alike in a certain way hence form a group. Find which one of the following does not belong to this group?

1. C
2. B
3. H
4. F
5. G

Correct Option **- 5**

1) F lives on the topmost floor.

2) Two persons lives between F and D.

So, the possible arrangement for the given information is as,

Floor	Person
8	F
7	
6	
5	D
4	
3	
2	
1	

3) A and B both live above D..

4) Number of persons below C is equal to the number of persons above A.

Case 1		Case 2	
Floor	**Person**	**Floor**	**Person**
8	F	8	F
7	B	7	A
6	A	6	B
5	D	5	D
4		4	
3	C	3	
2		2	C
1		1	

5) G lives on an odd numbered floor and only one person lives between G and E. This is not possible in case 1.

6) G lives below the floor of D but not immediately below.

7) E does not live on the lowermost floor. Imply that G lives on the lowermost floor H lives on the remaining floor number 4.

So, the final arrangements is as follows.

Floor	Person
8	F
7	A
6	B
5	D
4	H
3	E
2	C
1	G

In the given options C, B, F and H all are lives on even numbered floor but G lives on floor number 1 which is odd number floor.

Hence, **G does not belongs to this group.**

Que. 70 How many persons live above G?

1. Seven
2. Six
3. Four
4. Five
5. Two

Correct Option **- 1**

1) F lives on the topmost floor.

2) Two persons lives between F and D.

So, the possible arrangement for the given information is as,

Floor	Person

8	F
7	
6	
5	D
4	
3	
2	
1	

3) A and B both live above D..

4) Number of persons below C is equal to the number of persons above A.

Case 1		**Case 2**	
Floor	**Person**	**Floor**	**Person**
8	F	8	F
7	B	7	A
6	A	6	B
5	D	5	D
4		4	
3	C	3	
2		2	C
1		1	

5) G lives on an odd numbered floor and only one person lives between G and E. This is not possible in case 1.

6) G lives below the floor of D but not immediately below.

7) E does not live on the lowermost floor. Imply that G lives on the lowermost floor H lives on the remaining floor number 4.

So, the final arrangements is as follows.

Floor	**Person**
8	F
7	A
6	B
5	D
4	H
3	E
2	C
1	G

Hence, **seven persons lives above G.**

Que. 71

Directions: In the following question, some part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from errors, select option 'No error'.

We interviewed fourteen /(A) applicants for /(B) the post, none /(C) of who we thought suitable. /(D) No error/(E)

1. A
2. B
3. C
4. D
5. E

Correct Option **- 4**

The correct answer is **'D' i.e. error lies in part D of the sentence.**

In part D of the sentence, the usage of **'Who'** is incorrect Instead, use **'whom'**

- **According to the rule of grammar,** We often use modifiers, such as **'all of, many of, none of, several of'** before which or whom in a non-defining relative clause to refer to the subject or object of the clause.
- **In the given sentence,** we need to write 'whom' to refer to the object of the sentence which is 'applicants'.
- Also, **'of'** is the preposition and we usually write a prepositional object after it hence the objective case is **'whom'**
- Let's see an example-
    - The college entered over a hundred students for the exams, all of whom passed.

So the correct sentence is→ *We interviewed fourteen applicants for the post,* ***none of whom*** *we thought suitable*.

Que. 72 Directions: In the following question, some part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from errors, select the option 'No error'.

We got fewer (A)/ dollars this week (B)/ because the drop (C)/ in the exchange rate. (D)/ No error (E)

1. A
2. B
3. C
4. D
5. E

Correct Option **- 3**

The correct answer is **'C' i.e. error lies in part C of the sentence.**

In part C of the sentence, the usage of **'Because'** is incorrect. Instead, use **'Because of'.**

- Because of and because are both used to introduce reasons.
- **Because of** is a **preposition**, it is generally followed by a verb+ing or a noun.
- **Because** is a **conjunction**, it is followed by a subject and a verb.
- Here is an **example of Because :**
    - Because Maria was feeling sick, she didn't go to the supermarket.

In this example, we have:
'Maria' the **subject,**
'was feeling' the **verb.**

- And here is an **example of Because of :**
  - Because of her sickness, Maria didn't go to the supermarket.
    In this example, we have:
    'her sickness' a **noun.**
- Another example of Because of :
  - Because of feeling sick, Maria didn't go to the supermarket.
    In this example, we have:
    'feeling sick' a **verb+ing**.
- In the given sentence 'drop' is the noun and there is no verb after it, so we will use 'because of'.

So the correct sentence is→ *We got fewer dollars this week **because of** the drop in the exchange rate.*

Que. 73 Directions: In the following question, some part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from errors, select option 'No error'.

They are sending /(A) the new consignment /(B) over for /(C) Tom and I to check. /(D) No error/(E)

1. A
2. B
3. C
4. D
5. E

Correct Option **- 4**

The correct answer is **'D' i.e. error lies in part D of the sentence.**

Key-Points

In part D of the sentence, the usage of **'I'** is incorrect Instead, use **'Me'**

- **According to the rule of grammar,** We should use object pronouns after a preposition, in other words whenever we use a preposition we need a prepositional object and it can be a noun/pronoun/gerund.
- In the given sentence, 'Tom' is a proper noun 'and' is coordinating conjunction hence we need an objective case of 'I' which is 'me'

So the correct sentence is→ *They're sending the new consignment over **for Tom and me** to check.*

Que. 74 Directions: In the following question, some part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from errors, select option 'No error'.

Either my brother (A)/ or my parents is (B)/ going to bring (C)/ the sleeping bags. (D)/ No error(E)

1. A
2. B
3. C
4. D
5. E

Correct Option **- 2**

The correct answer is **'B' i.e. error lies in part B of the sentence.**

Key-Points

In part B of the sentence, the usage of **'is'** is incorrect Instead, use **'are'**

- **According to the rule of grammar,** When we use *'either...or, neither...nor, not only...but also'* we generally use the verb according to the nearest subject.
- In the given sentence, the nearest subject is 'parents' which is in plural form hence use the plural verb.
- Let's see an example-
  - Either the father or the mother has to attend the meeting.

So the correct sentence is→ *Either my brother or **my parents are** going to bring the sleeping bags.*

Que. 75 Directions: In the following question, some part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from errors, select option 'No error'.

Both the doctor and the (A)/ surgeon has advised (B)/ me to have (C)/ my gall bladder out. (D)/ No error (E)

1. A
2. B
3. C
4. D
5. E

Correct Option **- 2**

The correct answer is **'B' i.e. error lies in part B of the sentence.**

Key-Points

In part B of the sentence, the usage of **'has'** is incorrect Instead, use **'have'**

- **According to grammar,** whenever we have a plural subject use a plural verb. In the given sentence, there are two subjects i.e. 'the doctor and the surgeon' hence use the plural verb.
- Let's see an example-
  - Mum and Dad were hoping that you'd join them this evening.

So the correct sentence is→ *Both the doctor and the surgeon **have** advised me to have my gall bladder out.*

Que. 76 The given question has one blank indicating that something has been omitted. Choose the word from the given options that could fit in the blank correctly.

The little girl chained herself to the tree as a form of peaceful protest against _____.

1. Illusion
2. Deforestation
3. Plantation
4. Trafficking
5. Consumption

Correct Option **- 2**

The correct answer is **deforestation**

Key-Points

- **Deforestation:** The act of clearing a large area of all trees - usually in order to build something else.

It should read as:

The little girl chained herself to the tree as a form of peaceful protest against deforestation.

Important Point

The mention of a **'tree'** earlier in the sentence should **divert the reader's attention to the answer being something related to trees and maybe even forests.**

Additional Information

Let's look at the meaning of the other words:

- **Illusion:** A think that is likely to be represented by the senses, a deceptive occurrence.
- **Plantation:** An area on which trees have been planted, usually for commercial purposes.
- **Trafficking:** Dealing or trading in something that is illegal.
- **Consumption:** The eating, drinking or ingesting of something.

Confusion Points

The reader may be **confused between 'plantation' and 'deforestation'** since both of them relate to 'trees' and 'forests' in some way. However, the context of the sentence talks about the **'girl chaining herself to a tree', this would make more sense if she wants to go against the cutting down of the tree rather than the planting of new trees.**

Que. 77 The given question has one blank indicating that something has been omitted. Choose the word from the given options that could fit in the blank correctly.

The bank robbers planned the _____ with the utmost precision but no one could have expected what happened.

1. Heist
2. Poaching
3. Kidnapping
4. Sacrifice
5. Ultimatum

Correct Option **- 1**

The correct answer is **heist**

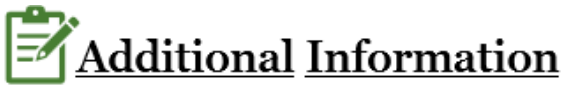
Key-Points

- **Heist:** A planned robbery (usually involving big amounts)

It will read as:

The bank robbers planned the heist with the utmost precisions but no one could have expected what happened.

The point to focus on here is **'bank robbers',** this would act as **a hint for the readers as to the crime taking place in the context of the sentence.** This would help eliminate options that are non-robbery related.



Let's look at the meaning of the other words:

- **Poaching:** Illegally hunting or catch animals or fishing from a place that is not one's own or under protection.
- **Kidnapping:** Holding someone against their will through abduction - usually in exchange for something.
- **Sacrifice:** The act of killing or slaughtering an animal as an offering to a deity or some religious entity.
- **Ultimatum:** A final demand or statement in some discussion, which if failed to be met would lead to deteriorating relations.

Que. 78 The given question has one blank indicating that something has been omitted. Choose the word from the given options that could fit in the blank correctly.

Casey had been having recurring _____ for 3 nights in a row and she was extremely scared.

1. Joke
2. Paranormal
3. Daydream
4. Nightmare
5. Dream

Correct Option **- 4**

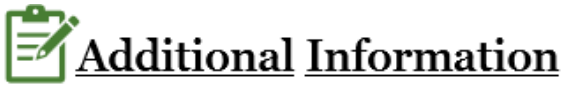
The correct answer is **nightmare.**

- **Nightmare:** A frightening or unpleasant dream that usually occurs during one's nighttime sleep.

It is read as:

Casey has been having recurring nightmares for 3 nights in a row and she was scared.

The usage of the adjective **'scared'** is important in this context as it **lets the reader know whether what has been happening for 3 nights in a row has been unpleasant and scary.** This would help them eliminate options that have a pleasant or positive connotation.



Let's look at the meaning of the other words:

- **Joke:** A thing that someone says in order to create amusement and laughter.
- **Paranormal:** Occurrences or instances that happen beyond normal, scientific understanding.
- **Daydream:** A series of pleasant thoughts that distract one from reality.
- **Dream:** A series of thoughts, images and sensations happening to a person while they're asleep.

Que. 79 The given question has one blank indicating that something has been omitted. Choose the word from the given options that could fit in the blank correctly.

The researches were provided with a hefty grant to study magnetic fields in the _____ cold of Antarctica.

1. Scorching
2. Flooded
3. Formative
4. Primitive
5. Sub-Zero

Correct Option **- 5**

The correct answer is **sub-zero**

Key-Points

- **Sub-zero:** Below the '0' on the Fahrenheit scale, below -18 degree Celsius.

The sentence should read as:

The researchers were provided with a hefty grant to study the magnetic fields in the sub-zero cold of Antarctica.

Important Point

The reader should pay special attention to the **context of the sentence,** the reference to the location of '**Antarctica**' should help with an understanding of **what kind of adjective one is looking for.**

Additional Information

Let's look at the meaning of all the words:

- **Scorching:** Become burned when exposed to extreme heat or flames.
- **Flooded**: Covered or submerged in water.
- **Formative:** In reference to a person's development; something that affects how a person develops.
- **Primitive:** Relating to a previous, undeveloped culture of people.

Que. 80 The given question has one blank indicating that something has been omitted. Choose the word from the given options that could fit in the blank correctly.

The lions and cheetahs poached from the _____ were enclosed in tiny spaces and transported.

1. Sanctuary
2. Aquarium
3. North Pole
4. Pandemic
5. Podium

Correct Option **- 1**

The correct answer is **sanctuary**

Key-Points

- **Sanctuary:** A natural, wildlife reserve.

The sentence should read as:

The lions and cheetahs poached from the sanctuary were enclosed in tiny spaces and transported.

Important Point

The reader should be mindful of the hints provided in the sentence, which talks about **'lions and cheetahs', these are terrestrial animals** and thus are **unlikely to be found in the 'aquarium' or on the 'North Pole'.**

Additional Information

Let's look at the meaning of the other words:

- **Aquarium:** A transparent tank of water, filled with fish and other aquatic animals.
- **North Pole:** The northernmost location on Earth, a cold and frigid environment.
- **Pandemic:** A type of disease that is prevalent across the world.
- **Podium:** A small platform on which a person may stand in order to be seen by or to address an audience.

Que. 81 A sentence/a part of the sentence is underlined. Five alternatives are given to the underlined part which will improve the meaning of the sentence. Choose the correct alternative. In case no improvement is needed, click the option corresponding to "No improvement".

The plastic has to be compatible of the body tissues that make contact with it.

1. Compatible with
2. Compatible at
3. Compatible
4. Compatible by
5. No Improvement

Correct Option **- 1**

The correct answer is **'Compatible with'**

Key-Points

The given phrase is to be replaced with **'Compatible with'**

- **'Compatible'** is an adjective *'able to exist, live, or work successfully with something or someone else'*
- This adjective always used after the linking verb and is followed by the preposition **'with'**
- Let's see an example-
  - *Such policies **are** not **compatible with** a democratic government.*

***So the correct sentence is→** The plastic has to **be compatible with** the body tissues that make contact with it.*

Additional Information

- *Some other adjectives are preceded by the linking verbs and are followed by the preposition 'with' are-*
  - *Consonant, conversant, fraught, riddled, tinged, filled.*
- *Let's see an example-*
  - *This way of life is fraught with danger.*

Que. 82 A sentence/a part of the sentence is underlined. Five alternatives are given to the underlined part which will improve the meaning of the sentence. Choose the correct alternative. In case no improvement is needed, click the option corresponding to "No improvement".

If either parent has the disease, there is a much higher chance that the child will develop it.

1. If neither parent has the disease
2. If or not either parent has the disease
3. Whether either parent has the disease
4. If either parent have the disease
5. No improvement

Correct Option **- 5**

The correct answer is **'No improvement'**

Key-Points

The given phrase doesn't need any improvement. Hence the correct answer is **'No improvement'**

- **'Either'** is used to talk about two things, but usually indicates that only one of the two is involved. You use either with a singular countable noun. When it is a part of the subject or a clause, the verb should be singular in number.
- Let's see an example-
  - No argument could move **either old gentleman** from this decision.

So the correct sentence is→ ***If either parent has the disease****, there is a much higher chance that the child will develop it.*

Que. 83 A sentence/a part of the sentence is underlined. Five alternatives are given to the underlined part which will improve the meaning of the sentence. Choose the correct alternative. In case no improvement is needed, click the option corresponding to "No improvement".

The parents are not afraid to be firm about those matters that seems important to them.

1. these matters that seems
2. those matters that seem
3. those matter that seem
4. these matter who seems
5. No Improvement

Correct Option **- 2**

The correct answer is **'those matters that seem'**

Key-Points

The given phrase is to be replaced with **'those matters that seem'**

- **According to the rule of grammar,** *'that' is a relative pronoun hence whenever we use a relative pronoun we need to write a verb according to the antecedent of the pronoun.*
- **In the given sentence,** the antecedent is in a plural form hence we need to use the verb in the plural form. So the correct verb is 'Seem'
- When we use 'those', the plural form of 'that', it means 'it specifies exactly which group of people or things are being referred to.'

So the correct sentence is→ *The parents are not afraid to be firm about* ***those matters that seem*** *important to them.*

Que. 84 A sentence/a part of the sentence is underlined. Five alternatives are given to the underlined part which will improve the meaning of the sentence. Choose the correct alternative. In case no improvement is needed, click the option corresponding to "No improvement".

The astonishing waiter was now watching from the other end of the room.

1. The astonished waiter
2. The waiter astonishing
3. The astonishes waiter
4. The waiter astonished
5. No improvement

Correct Option **- 1**

The correct answer is **'The astonished waiter'**

Key-Points

The given phrase is to be replaced with **'The astonished waiter'**

- **In the given sentence,** the waiter is *'astonished' by something and the part through which he has astonished is not written hence because of this we need to write a past participle form instead of the present participle form.*
- We use a past participle form when the doer is not mentioned.
- Let's see an example-
  - An Amazed Spider-man. (Spider-man is amazed by something that's why it is written in the past participle form.)

So the correct sentence is→ ***The astonished waiter*** *was now watching from the other end of the room.*

Que. 85 A sentence/a part of the sentence is underlined. Five alternatives are given to the underlined part which will improve the meaning of the sentence. Choose the correct alternative. In case no improvement is needed, click the option corresponding to "No improvement".

Psychosis is also part of this debate, even although problems arising from it affect a relatively small number of people.

1. even though problems arising
2. even problems arising
3. even but problems arising
4. even so problems arising
5. No improvement

Correct Option **- 1**

The correct answer is **'even though problems arising'**

Key-Points

The given phrase is to be replaced with **'even though problems arising.'**

- **According to grammar, 'even though'** is used to emphasize the subordinate clause or **use 'even though'** to indicate that a particular fact does not make the rest of your statement untrue.

- **we can't use 'even although' to emphasize** the subordinate clause and also, we can not use 'even' to emphasize the subordinate clause.
- Let's see an example-
    - She loves him, even though he is violent.

So the correct sentence is→ *Psychosis is also part of this debate,* ***even though problems arising*** *from it affect a relatively small number of people.*

Que. 86 Below in each question some sentences are given, find the sentence which is not really contributing to the main theme and that of the passage or find the odd sentence out and rearrange the remaining sentences to make a coherent paragraph. If none of the options is correct as it is then choose option (E). If the sequence is the one which is not given, then choose option (D) as your choice.

(A)The demand for gold is falling/ (B) and the metal's fading appeal / (C) partly as a result of government measures, higher local prices (D) among more youthful customers/(E) thus available in India.

1. AEBD
2. ACBD
3. ABDE
4. None of the above
5. No improvements required.

Correct Option **- 2**

The correct answer is **ACBD.**

Key-Points

- Reading the above sentence we find that:
    - The statement talks about gold's falling prices.
    - **Part E** talks about **availability in India** which is out of context here.
    - Thus, we find that the **odd part** is **E**.
    - Now looking at the rest of the options, we find that **Part A** should be the first part of the sentence. **PART C** lists the reason for the falling prices. Also, it starts with 'as a result of' and follows it with the reasons for the fall.
    - **Part B** starts with 'and' and provides the final reason. Therefore, it should follow **Part C** which too provides the reasons for fall. Finally, the **segment D** tells the audience among whom the demand is falling.
- Only, **ACBD** is able to make a coherent sentence.

Therefore, the correct answer is ACBD.

Thus the **correct sentence** will be**:** ***The demand for gold is falling partly as a result of government measures, higher local prices and the metal's fading appeal among more youthful customers.***

Additional Information

- **Fading:** lose colour, brightness, or strength gradually
- **Appeal:** a serious, urgent, or heartfelt request
- **Youthful:** having the qualities that are typical of young people
- **Demand:** refers to a consumer's desire to purchase goods and services and willingness to pay a price for a specific good or service

Que. 87 **Below in each question some sentences are given, find the sentence which is not really contributing to the main theme and that of the passage or find the odd sentence out and rearrange the remaining sentences to make a coherent paragraph. If none of the options is correct as it is then choose option (E). If the sequence is the one which is not given, then choose option (D) as your choice.**

(A)The U.S. government is concerned about India's revised/ (B) plans of Amazon.com and Walmart Inc / (C)e-commerce regulations and has told that the/ (D) the budget highlights/ (E) policy will hinder the Indian investment.

1. ABDE
2. ACBD
3. ACEB
4. None of the above.
5. No improvements required.

Correct Option **- 3**

The correct answer is **ACEB.**

Key-Points

- Reading the above sentence we find that:
  - The statement talks about India's investment plans of Amazon and Walmart.
  - **Part D** talks about **budget highlights** which is completely out of context here.
  - Thus, we find that the **odd part** is **D**.
  - Now looking at the rest of the options, we find that **Part A** should be the first part of the sentence. The next fragment should talk about something being revised and **PART C** talks about that thing.
  - The next part should talk about the Indian investment plans and **Part B** concludes the sentence by stating those plans thereby forming a logical and coherent sentence.
- Only, **ACEB** is able to make a coherent sentence.

Therefore, the correct answer is ACEB.

Thus the **correct sentence** will be**:** ***The U.S. government is concerned about India's revised e-commerce regulations and has told that the policy will hinder the Indian investment plans of Amazon.com and Walmart Inc.***

Additional Information

- **Concern:** a matter of interest or importance to someone
- **Regulations:** an official rule or the act of controlling something
- **Hinder:** make it difficult for (someone) to do something or for (something) to happen

Que. 88 **Below in each question some sentences are given, find the sentence which is not really contributing to the main theme and that of the passage or find the odd sentence out and rearrange the remaining sentences to make a coherent paragraph. If none of the options is correct as it is then choose option (E). If the sequence is the one which is not given, then choose option (D) as your choice.**

(A) and public statements of support for the comedian/ (B) these prompted a social media campaign/ (C) from the likes of Katy Perry, Kevin Hart, Alec Baldwin and Ashton Kutcher/ (D) at the party/ (E) calling for her replacement.

1. AEBD
2. ABDE

3. BEAC
4. None of the above.
5. No improvements required.

Correct Option - **3** The correct answer is **BEAC.**

Key-Points

- Reading the above sentence we find that:
  - The statement talks about a social media campaign.
  - **Part D** talks about *some party* which is completely out of context here.
  - Thus, we find that the **odd part** is **D**.
  - Now looking at the rest of the options, we find that **Part B** should be the first part of the sentence as it is talking about a social media campaign. It should be followed by **Part E** which states the purpose of the campaign.
  - The next part should be talking about the statements for the support of comedians and **Part C** concludes the sentence thereby mentioning some names of the comedians.
- Only, **BEAC** is able to make a coherent sentence.

Therefore, the correct answer is BEAC.

Thus the **correct sentence** will be**:** ***These prompted a social media campaign calling for her replacement and public statements of support for the comedian from the likes of Katy Perry, Kevin Hart, Alec Baldwin and Ashton Kutcher.***

Additional Information

- **Prompted:** (of an event or fact) cause or bring about (an action or feeling)
- **Campaign:** work in an organized and active way towards a particular goal, typically a political or social one
- **Replacement:** a thing or person that takes the place of something or someone else

Que. 89 **Directions:** Read the passage given below and answer the following questions:

Many observational and epidemiological studies have shown a connection between obesity and sleep deprivation in Americans. Alarmingly, 28% of American adults sleep less than six hours a night. One common reason for this connection is that sleep **restriction** affects the regulation of appetite hormones like ghrelin and leptin. Energy balance is tightly regulated by a hormonal system, involving ghrelin and leptin, which conveys information from the body to brain centers that control energy intake and expenditure. Restricted sleep is thought to increase ghrelin and decrease leptin, which **promotes** hunger. Sleep restriction is also thought to increase cortisol release, increasing eating behavior. Another proposed mechanism is that people, who stay awake longer, are exposed to a higher energy intake, specifically by snacking. Nevertheless, these explanations have been questioned.

The effect of neuronal activity on food stimuli, an increase in energy intake, and the effect on energy expenditure will be reviewed in relation to sleep deprivation and obesity. In one study published in The American Journal of Clinical Nutrition, researchers examined the effect on brain response to food stimuli in habitual and restricted sleep normal-weight individuals. The neuronal pattern found in the restricted sleep group was similar to one that would occur when the body is at low body weight and is trying to restore body stores. This study **concluded** that the restricted sleep group had a greater food intake and greater brain stimuli to areas that are linked with motivation and desire. The stimulated brain areas were the orbitofrontal cortex, insula, thalamus, precuneus, cingulate, gyrus, and supramarginal gyrus. With food being widely accessible, this could be one reason associated with weight gain during sleep restriction. However, studies have shown that there are differences

between brain responses to satiety and food stimulation in obese and lean individuals. Further research needs to be conducted to see if sleep restriction affects this difference.

What is the opposite of the word **restriction**?

1. Curtail
2. Stringent
3. Liberation
4. Curb
5. Impede

Correct Option **- 3** The correct answer is **Liberation**

Key-Points

Let's see the meaning of the given words-

- **Restriction** → A limiting condition or measure.
- **Curtail** → Restrict someone.
- **Stringent** → Strict, precise, or exacting.
- **Liberation** → Set free, especially from imprisonment.
- **Curb** → Restrict.
- **Impede** → Obstruct someone.

So according to the meaning of the given words the nearest antonym is **'Liberation'**

Que. 90 Choose the correct synonym of the word **promote**.

1. Obstruct
2. Calibrate
3. Digress
4. Advocate
5. Demote

Correct Option **- 4**

The correct answer is **Advocate**

Key-Points

Let's see the meaning of the given words-

- **Promote** → Support or encouragement.
- **Obstruct** → be in the way of, block, prevent or hinder.
- **Calibrate** → Measure something.
- **Advocate** → A person who publicly supports or recommends.
- **Digress** → Leave the main subject temporarily in speech or writing.
- **Demote** →Give a lower rank or less senior position to somebody.

So according to the meaning of the given words **'Advocate' is the correct answer.**

Que. 91 Choose the correct synonym for the word **Conclude**.

1. Commence
2. Afresh
3. Ongoing
4. Start
5. Culminate

Correct Option **- 5**

The correct answer is **Culminate**

Key-Points

Let's see the meanings of the given words-

- **Conclude** → Bring or come to an end.
- **Commence** → Start or cause to start.
- **Afresh** → In a new or different way.
- **Ongoing** → Continuing still in progress.
- **Start** → Begin something.
- **Culminate** → Reach to the climax.

So according to the meaning of the given word, the correct answer is **'Culminate'**

Que. 92 Restricted sleep is thought to:

1. Increase leptin to make one active
2. Provide a huge surge in energy
3. Decrease ghrelin in the brain
4. Lower leptin and make one hungry
5. Promotes more food stimuli

Correct Option **- 4**

The correct answer is **Lower leptin and makes one hungry**.

Key-Points

- **According to the sentence which is written in the first paragraph of the passage-** Restricted sleep is thought to increase ghrelin and decrease leptin, which **promotes** hunger.
- Hence according to the above line, the correct answer is option 4.

Que. 93 Which of the following statement is **true** as per the passage?

1. People who stay awake take in low energy.
2. A major portion of American adults sleep eight hours a day.
3. Neuronal patterns during less sleep are similar to the ones while having low body weight.
4. High calorie intakes at night without sleeping helps productivity.
5. None of the above.

Correct Option **- 3**

The correct answer is **Neuronal patterns during less sleep are similar to the ones while having low body weight.**

Key-Points

According to the line of the second paragraph- *The neuronal pattern found in the restricted sleep group was similar to one that would occur when the body is at low body weight and is trying to restore body stores.*

Hence because of this statement, we can say that option 3 is the true statement.

Que. 94 The hormones ghrelin and leptin are responsible for the regulation of?

1. The amount of food we eat.
2. The energy balance in the body.
3. Brain responses to our memories.
4. Much needed sleep cycles.
5. All of the above.

Correct Option **- 2**

The correct answer is **The energy balance in the body.**

Key-Points

According to the line written in the first paragraph of the passage- Energy balance is tightly regulated by a hormonal system, **involving ghrelin and leptin**, which conveys information from the body to brain centers that control energy intake and expenditure.

Hence, from this statement, we can say that ***option 2 is the correct answer.***

Que. 95 Sleep restriction is thought to increase which hormone?

1. Cingulate
2. Leptin
3. Cortisol
4. Cholesterol
5. Precuneus

Correct Option **- 3**

The correct answer is **Cortisol**

Key-Points

According to the line written in the first paragraph of the passage- Sleep restriction is also thought to increase **cortisol release**, increasing eating behavior.

Hence, from this statement, we can say that the correct answer is **'Option 3.'**

Que. 96 The restricted sleep group had greater brain stimuli linked to:

1. Desire and Motivation
2. Responses and Reaction
3. Energy expenditure
4. General awareness and sensitivity

5. None of the above

Correct Option **- 1**

The correct answer is **Desire and Motivation**

Key-Points

According to the statement written in the second paragraph of the passage- This study **concluded** that the **restricted sleep** group had a greater food intake and greater brain stimuli to areas that are linked with **motivation and desire.**

Hence, from this statement, we can say that the correct answer is 'Option 1'

Que. 97 Directions: In the following question, a sentence is given with four words marked as (A), (B), (C) and (D). These words may or may not be placed in their correct order. Four options with different arrangements of these words have been provided. Mark the option with the correct arrangement as the answer. If no rearrangement is required, mark option (5) as your answer.

An **brought (A)** kitten was **abandoned (B)** to the **veterinarian (C)** after it was hit by a truck and **broke (D)** its leg.

1. A-C
2. C-D
3. A-B
4. D-B
5. No Rearrangement

Correct Option **- 3**

The correct answer is **option 3 i.e. A-B**

We can look at the sentence in the following way:

The _____(A) kitten was _____(B) in to the _____(C) after it was hit by a truck and _____(D) its leg.

Explanation:

- **Brought:** Past participle of 'bring' which means 'to take something(here, the kitten) and go to someplace'. **This cannot be used after the article 'an' as that is used for words that begin with a vowel/vowel sound, and 'brought' starts with a consonant.**
- **Abandoned:** Past participle of 'abandon' which means 'to stop looking after something, to neglect it'. It is also an **adjective**. **A thing (living or non-living) cannot be 'abandoned to' a place, it can be 'abandoned at' a place (like the veterinarian') as it is a location and not a container that one can put things 'in'.**
- **Veterinarian:** A person qualified to treat diseased or hurt animals.
- **Broke:** Past participle of 'break' which means 'to shatter or separate into different pieces upon impact'.

Thus, we need to **interchange A and B** in order to make the sentence contextually correct.

While the reader has to focus on the words and their meanings it also helps to look at the articles that surround the words as they may provide a hint about what kinds of words are permissible in the blank spaces.

Correct Sentence: The **abandoned (A)** kitten was **brought (B)** into the **veterinarian (C)** after it was hit by a truck and **broke (D)** its leg.

Que. 98 **Directions: In each of the questions given below, four words are given in bold. These four words may or may not be in their correct position. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of words that replace each other. If the sentence is correct as it is, select '5' as your option.**

News **responsibility (A)** have a **channels (B)** to **make (C)** sure that the information to give the **public (D)** is true.

1. A-C and B-D
2. B-D
3. D-A and B-C
4. B-A
5. No Rearrangement

Correct Option **- 4**

The correct answer is **option 4 i.e. B-A.**

Explanation:

We can look at the sentence in the following way:

News _____ (A) have a _____ (B) to _____ (C) sure that the information they give to _____ (D) is true.

- **Responsibility:** The state of having a duty towards something. **This is a noun that cannot belong to anyone or anything like (news).** The phrase 'news responsibility' is grammatically and contextually incorrect.
- **Channels:** A band of frequencies used in radio and television used to transmit audio and video. **This is a plural term and cannot be preceded by the singular article 'a'.**
- **Make:** Refers to the action of creating and producing something.
- **Public:** Concerning the people as a whole.

Hence, we need to **interchange B-A** in order to make the sentence contextually correct.

So the Correct Sentence is:

*News **channels** have a **responsibility** to **make** sure that the information to give the **public** is true.*

Que. 99 **In each of the questions given below, four words are given in bold. These four words may or may not be in their correct position. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of words that replace each other. If the sentence is correct as it is, select '5' as your option.**

Lucky (A) has **dreams, (B)** but not everyone is **everyone (C)** to have their dreams **realized (D).**

1. C-D and A-B
2. A-C
3. D-B
4. B-D and C-A
5. No Rearrangement

Correct Option **- 2**

The correct answer is **option 2 i.e. A-C**

Explanation:

We can look at the sentence in the following way:

_____ (A) has _____ (B) but not everyone is _____ (C) to have their dreams _____ (D).

- **Lucky:** Fortunate; blessed.
- **Dreams:** A series of thoughts, images, and sensations that occur in a person's mind during sleep.
- **Everyone:** A pronoun that is used to refer to every person.
- **Realized:** Achieved (something desired or anticipated); fulfilled

'**Lucky**' is not a noun here, it is an **adjective**. Also the phrase 'everyone is everyone' is grammatically and contextually incorrect. Hence, we need to **interchange A and C** in order to make the sentence contextually correct.

So the correct sentence is:
***Everyone** has **dreams** but not is **lucky** to have their dreams **realized**.*

Que. 100 In each of the questions given below, four words are given in bold. These four words may or may not be in their correct position. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of words that replace each other. If the sentence is correct as it is, select '5' as your option.

Since (A) she could not **decided (B)** a visit to the **salon, (C)** she **afford (D)** to cut her own hair.

1. A-C and B-D
2. D-B
3. A-D and B-C
4. A-C
5. No Rearrangement

Correct Option **- 2**

The correct answer is **option 2 i.e. D-B.**

Explanation:

We can look at the sentence in the following way:

_____ (A) she could not _____ (B) a visit to the _____ (C), she _____ (D) to cut her own hair.

- **Since:** For that reason, 'because'.
- **Decided:** Past tense of 'decide', it means 'to come to a conclusion about something'. **"Could not decided" is grammatically incorrect.**
- **Salon:** An establishment where hairdressers and beauticians work.
- **Afford:** To have enough money to pay for something. **The sentence is in the past tense and so the verb 'afford', which is in its base form, is incorrect here. A verb in the past tense has to be used here.**

Hence, we need to **interchange D and B** in order to make the sentence contextually correct

So the Correct Sentence is:
***Since** she could not **afford** to visit the **salon**, she **decided** to cut her own hair.*