Q.1)

Ans) c

Exp) Option c is the correct answer.

Option a is incorrect: While the passage discusses time's role in clarifying priorities, it does not explicitly mention prioritizing between life goals, making this option less aligned with the central message.

Option b is incorrect: While personal growth is mentioned in the passage, it does not fully capture the broader theme of treasures revealed over time, as emphasized in the passage.

Option c is correct: This statement closely aligns with the central message of the passage, highlighting how time unveils life's true treasures, including enduring sources of meaning and fulfillment.

Option d is incorrect: While gratitude and humility are mentioned as virtues in the passage, they are not the central focus of the message, which revolves around the revelation of life's treasures through time's passage.

Q.2)

Ans) a

Exp) Option a is the correct answer

Statement 1 is incorrect: The passage does not claim that the mapping of the human genome has eradicated genetic diseases. Instead, it discusses the continued presence of diseases and the complexity involved in linking specific genes to specific diseases, indicating that the decoding of the genome did not lead to a simple cure-all solution.

Statement 2 is incorrect: The passage explicitly states that the necessary medicines, if discovered, were usually too expensive for those in need, contradicting the assumption that personalized medicine has become universally accessible and affordable following the Human Genome Project.

Statement 3 is correct: The passage mentions that only a small fraction of diseases are monogenic, highlighting that the majority of diseases are not caused by a single gene but potentially by multiple genes, thus complicating treatment efforts.

Q.3)

Ans) c

Exp) Option c is the correct answer

Option a is incorrect: The passage suggests that virtual identities may not always accurately reflect a person's true self, indicating a potential disconnect between virtual and real identities.

Option b is incorrect: The passage highlights the significant role of social media platforms in shaping individuals' perceptions of themselves, contradicting this statement.

Option c is correct: The passage emphasizes the importance of virtual identities in today's digital age, suggesting they often hold more significance than real-life identities.

Option d is incorrect: The passage does not explicitly state that authenticity is valued more in virtual interactions compared to real-life interactions. It rather focuses on the significance of virtual identities.

Q.4)

Ans) a

Exp) option a is the correct answer.

If distance from the corner is d, distance from three adjacent faces is x, y and z.

$d^2 = x^2 + y^2 + z^2$

Now as per the given information

$9^2 = 8^2 + 4^2 + z^2$

$81 = 64 + 16 + z^2$

=> z = 1 m
Thus, distance from the ceiling is 1 m.
Hence option a is the correct answer.

Q.5)
Ans) c
Exp) Option c is the correct answer.
Given the series: 2, 3, 7, 22, 89, 445, 2677, 18740
Let's analyse the pattern:
a. 2×1+1=3
b. 3×2+1=7
c. 7×3+1=22
d. 22×4+1=89
e. 89×5+1=**446**
f. 446×6+1=2677
g. 2677×7+1=18740
From this, we see that the correct series should be: 2, 3, 7, 22, 89, 446, 2677, 18740.
Thus, **the wrong term in the given series is 445 (which should be 446**).
Hence, **P=445**
Statement 1 is correct: 20% of P is equal to one of the terms of the given series
1) 20% of 44=89
2) This matches one of the terms in the series (89).
Statement 2 is correct: P + 4 is a prime number
1) 445+4=449
2) 449 is a Prime number
Hence, the correct answer is Both 1 and 2

Q.6)
Ans) c
Exp) option c is the correct answer
Option a is incorrect. Yogesh's statement does not imply that running ability has very little impact on the quality of cricket. He acknowledges Raghav's improvement but attributes it primarily to his enhanced batting technique.
Option b is incorrect. Yogesh does not compare the level of improvement in running ability to batting technique. He focuses on the significant impact of the improved batting technique on Raghav's overall performance as a cricketer.
Option c is correct. Yogesh's statement reflects his belief that the improvement in Raghav's batting technique is the primary reason for his enhanced performance as a cricketer. This suggests that Yogesh considers batting technique to be a more critical determinant for a cricket player.
Option d is incorrect. Yogesh does not claim that Raghav cannot be called a better cricketer. Instead, he recognizes Raghav's overall improvement, attributing it mostly to the improvement in batting technique.

Q.7)
Ans) c
Exp) option c is the correct answer
Using total work units- efficiency method
Total work units = LCM of 12, 15 and 18 = 180

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Efficiency of A = 180/12 = 15 units per day
Efficiency of B = 180/15 = 12 units per day
Efficiency of C = 180/18 = 10 units per day

5 days of A's work = 15 x 5 = 75 work units done.
Remaining units = 180 – 75 = 105.
Efficiency when B and C are working together = 12 + 10 = 22 work units per day
More time required = 105/22 days
Units contributed by B = 12 x 105/22 = 630/11
Money share of B = (630/11) / 180 x 4400 = 63 x 400/18 = Rs 1400
Hence option c is the correct answer.

Q.8)
Ans) d
Exp) Option d is the correct answer.
Conclusion 1 is incorrect: If B is true their are two cases either A can be true / false.
If A is false, then C has to be false. (Statement 1)
But if A is true, we cannot conclude what C can be even if B is true.
This conclusion is not necessarily correct.
Conclusion 2 is incorrect: if E is false then we have no information as to what happens.
The conditional statements are read straight and cannot be inverted in their sense.
This conclusion is incorrect.
Hence, option (d) is correct

Q.9)
Ans) a
Exp) option a is the correct answer.
1, 2 is not possible as middle digits
For middle digits
3 -> 132, 231
4 -> 143, 341
5 -> 154, 451, 253, 352
6 -> 165, 561, 264, 462
7 -> 176, 671, 275, 572, 374, 473
8 -> 187, 781, 286, 682, 385, 583
9 -> 198, 891, 297, 792, 396, 693, 495, 594
So, in total there are 32 such numbers.
Hence a is the correct answer.

Q.10)
Ans) d
Exp) Option d is the correct answer.
Suppose initially the germs level is L.
After once use of sanitizer, germs level = x – 30/100 x = 0.7 L
After second use of sanitizer, germ level = 0.7^2 x L
After three-time use of sanitizer, germ level = 0.7^3 x L = 0.343 L
So, the remaining percentage of germs = 0.343 L/ L x 100 = 34.30 %
Hence option d is the correct answer.

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Q.11)

Ans) c

Exp) option c is the correct answer

Option a is incorrect: This option suggests prioritizing the interests of a specific group rather than focusing on equitable distribution to the disadvantaged, as emphasized in the passage.

Option b is incorrect: The passage advocates for fairness and equality, challenging existing social hierarchies and power structures, rather than maintaining them.

Option c is correct: It accurately reflects the essence of justice described in the passage, emphasizing equitable distribution of rights and opportunities, especially to those who are disadvantaged or marginalized.

Option d is incorrect: While laws and regulations may play a role, the passage emphasizes broader principles of fairness and equality rather than strict control of societal behavior.

Q.12)

Ans) d

Exp) option d is the correct answer

Option a is incorrect: While it acknowledges the need for a focus on modern men alongside modern women, it does not encompass the broader message of gender equality and mutual development.

Option b is incorrect: While it emphasizes the importance of collective advancement, it does not specifically address the need for redefining the ideals of both genders.

Option c is incorrect: While it highlights the influence of men on the perception and space of modern women, it does not fully capture the reciprocal nature of gender dynamics and the necessity of mutual progression.

Option d is correct: This option encompasses the central message of the passage, emphasizing the interconnectedness of modern men and women and the importance of redefining their respective ideals for achieving gender equality.

Q.13)

Ans) d

Exp) option d is the correct answer

Option a is incorrect: this option is describing the impact on artistic integrity and quality only, while the passage begins with a broader scope- that of the impact of commerce on various domains.

Option b is incorrect: While it acknowledges the shift in focus towards mass appeal, it does not explicitly mention the trade-off between quality and profitability. This is only one of the challenges caused by commercialization of music.

Option c is incorrect: While it discusses the impact of profit pursuit on artistic authenticity, it does not emphasize the sacrifice of quality for profitability. This is also only one of the challenges caused by commercialization of music.

Option d is correct: This option succinctly captures the central message of the passage, highlighting the compromise in quality driven by the pursuit of profit in commercial endeavours. It is the broadest of the options given, which align with the scope of the passage.

Q.14)

Ans) b

Exp) Option b is the correct answer.

To determine the values of P and Q for the number 5432Q1749P to be divisible by 72, we must consider the divisibility rules for both 8 and 9. **As a number is divisible by 72 if it is divisible by 8 and 9 both.**

Step 1: Check divisibility by 8
A number is divisible by 8 if its last three digits form a number that is divisible by 8. Therefore, we need the number 49P to be divisible by 8.
For **P=6:   496:8=62 (divisible**).
P=6 is the only value making 49P divisible by 8.
Hence P=6

Step 2: Check divisibility by 9
A number is divisible by 9 if the sum of its digits is divisible by 9.
 Let's sum the digits of 5432Q17496:
5+4+3+2+Q+1+7+4+9+6=41+Q
We need 41+Q to be divisible by 9.
Let's find a value of Q that satisfies this:
To make 41+Q divisible by 9, we need:
41+Q=45(since 45 is the nearest multiple of 9 greater than 41)
Hence, Q=45-41=4
Final Calculation: Now, we calculate 5P-4Q:
5P−4Q=5(6) −4(4) =14

Q.15)
Ans) c
Exp) option c is the correct answer.
Let the speed of A and B in still water be S km/hr
Speed of A in river along the flow = S + 2 km/hr
Speed of B in river along the flow = S - 2 km/hr

As it takes 6 hours to meet,
Distance covered by A = 6S + 12 km
Distance covered by B = 6S - 12 km

A travels more than B by 6S + 12 - (6S −12) = 24 km
Hence option c is the correct answer.

Q.16)
Ans) c
Exp) option c is the correct answer.
The rectangle has 24 squares
Let the number of squares along the length of rectangle is a and along breadth of rectangle is b.
If the length of side of square is k, length of rectangle = ak, breadth of rectangle = bk.
Then total number of squares = a x b = 12
As so possible values of a,b are 4 x3, 6 x 2, 12 x 1

Now as the rectangle diagonal is 10 cm
$(ak)^2 + (bk)^2 = 10^2$

$(a^2 + b^2) \times k^2 = 100$
As k is also a natural number, this implies $a^2 + b^2$ is a factor of 100.
So, only value of a, b satisfying this is 4,3 where $a^2 + b^2 = 25$

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$K^2 = 100/25 = 4$
$K = 2$

Thus, the area of each square = 2 x 2 = 4 sq. Cm

Hence option c is the correct answer.

Q.17)
Ans) b
Exp) Option b is the correct answer.
If A, B, C, D and E are written in ascending order as per their weight.
Then C will be at last as C is heaviest.
Total number cases = only can rearrange 4 (A, B, D, E) = 4! = 24
As, B is heavier than A and D, B is either second or third.
If B is second
ADE BC – A, D and E can be arranged by 3 ! = 6 ways

If B is third, E has to be second, then
AD BEC – A and D can be arranged in 2 ways

Number of cases where B is ahead of A and D = 6 + 2 = 8
Total number of cases = 24

Probability = 8 / 24 = 1 / 3.

Hence option b is the correct answer.

Q.18)
Ans) b
Exp) option b is the correct answer.
Let the number of students in class 8 be x, class 9 be y and class 10 be z.
Average weight of students in class 8 = 43 kg
Total weight of class 8 = 43x
Similarly
Total weight of class 9 = 48y
Total weight of class 10 = 50z.

As average weight of class 8 and 9 = 45 kg
=> 43x + 48y = 45 (x+y)
=> 2x = 3y => y = 2x/3

Similarly
As average weight of class 9 and 10 = 50 kg
48y + 51z = 50 y + 50 z
=> z = 2y
So, z = 4x/3

Now average of all classes = total weight/ total students

= (43x + 48y + 51z) / (x + y + z)
Putting y = 2x/3 and z = 4x/3

(43 x + 32x + 68 x) / 3x

143/3 = 47.67 kg.

Hence option b is the correct answer.

Q.19)
Ans) c
Exp) option c is the correct answer.
As, A cannot work alone So, the work assigned to A will also be assigned to another person who is not B. Similarly, B cannot work alone. So, the work assigned to will also be assigned to another person from the remaining two people.

A's task – 3C1 ways to select one of the three tasks.
A's companion with same task– 3C1 to select from remaining (B cannot work with A)

B's task – 2C1 ways to select one of the two remaining tasks.
A's companion with same task – 2C1 to select from remaining 2 (B cannot work with A)

The last single remaining task will be assigned to the last single person in 1 way.

So, total number of ways = 3C1 X 3C1 X 2C1 X 2C1 = 36

Hence option c is the correct answer.

Q.20)
Ans) b
Exp) Option b is the correct answer.
Total distance travelled by the trains to cross each other = 200m + 300m + 2km = 2.5km
Total speed of approach of the trains when moving towards each other = 10 + 10 = 20 km/ hr
Time taken = distance / speed
Time to cross = 2.5/20 hr = 1/8 hour
1/8 x 60 = 7.5 minutes

Hence option b is the correct answer.

Q.21)
Ans) c
Exp) option c is the correct answer
Option a: incorrect. While the passage mentions the influence of popular opinions on human understanding, it does not focus solely on this aspect. The broader message is that deeper insights into existence are often overshadowed by prevailing beliefs.
Option b: incorrect. Although the passage acknowledges the existence of individuals with profound insights, it does not solely emphasize their inaccessibility to the masses.

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Option c: correct. This option captures the central message of the passage, highlighting how the depth and significance of human existence are often obscured by prevailing beliefs and mainstream discourse.

Option d: incorrect. While the passage mentions esoteric knowledge, it does not suggest that true understanding requires transcending popular opinions. Instead, it emphasizes the challenge of accessing deeper insights within the constraints of mainstream discourse.

Q.22)

Ans) a

Exp) option a is the correct answer

Option a is correct: This option aligns with the core message of the passage, emphasizing the interconnectedness of global affairs and the importance of diplomatic engagement.

Option b is incorrect: While energy security concerns and economic interests are mentioned in the passage, they are not presented as the primary lesson for future global engagement.

Option c is incorrect: Although strategic partnerships are mentioned, they are not identified as the most important lesson for future global engagement according to the passage.

Option d is incorrect: While historical conflicts and ethnic tensions are discussed, they are not highlighted as the central lesson for future global engagement in the passage.

Q.23)

Ans) c

Exp) Option c is the correct answer.

Situational pressures and authoritative commands can diminish personal accountability is correct because it aligns with the passage's claim that situational pressures and obedience to authority can lead to evil acts without malevolent intent, thus not weakening but supporting the passage's view. In contrast, options a, b, and d suggest that evil is a result of inherent personal traits or deliberate intent, which contradicts the passage's discussion of the "Banality of Evil" as a product of environmental and systemic factors.

Q.24)

Ans) d

Exp) Option d is the correct answer.

1) Cubes with white colour on one face

There are 3 white faces i.e. (6 x 5, 5 x 4, 4 x 6)

For only one face white we have taken cubes on white face excluding the cubes on white – white edges

No of such cubes on the face 6 x 5 is (6-1) x (5-1) = 20

No of such cubes on the face 5 x 4 is (5-1) x (4-1) = 12

No of such cubes on the face 4 x 6 is (6-1) x (4-1) = 15

As, there is no overlap in this groups, so total number of such cubes = 20 + 12 + 15 = 47

So, statement 1 is incorrect

2) For no face painted we need to find number of internal cubes.

Number of internal cubes = (6-2) x (5-2) x (4-2) = 4 x 3 x 2 = 24 cubes

So, statement 2 is incorrect.

Hence, option d is the correct answer.

Q.25)

Ans) c

Exp) Option c is the correct answer.

Let:

1) A be the set of members who **volunteered to organize activities during the fair.**

2) B be the set of members who **volunteered to provide snacks for the fair.**

Given:

1) The total number of members is $|A \cup B| = 84$

2) $|A| = 35$

3) $|A \cap B| = 11$

We need to find $|B|$ (the number of members who volunteered to provide snacks).

Also given:

1) The number of members who volunteered to provide snacks ($|B|$) is 1.5 times the number of members who neither volunteered to organize activities during the fair nor volunteered to provide snacks.

Let x represent the number of members who neither volunteered to organize activities during the fair nor volunteered to provide snacks.

Thus: $|B| = 1.5x$

To find x, we use the principle of inclusion-exclusion for the total number of members: $|A \cup B| = |A| + |B| - |A \cap B| + x$

Substituting the known values: $84 = 35 + |B| - 11 + x$

This simplifies to: $84 = 24 + |B|$.

$|B| + x = 60$

Given $|B| = 1.5x$, substitute 1.5x for $|B|$ in the equation:

$1.5x + x = 60$

$x = 24$

Thus: $|B| = 1.5 \times 24 = 36$

Therefore, the number of members who volunteered to provide snacks is: 36

Q.26)

Ans) d

Exp) Option d is the correct answer.

Given:

1) The farmer has 945 buffalos and 2475 goats**.**

2) He wants to form flocks, keeping buffalos and goats separate, with the same number of animals in each flock.

3) We need to find the maximum number of animals in each flock and the total number of flocks required.

Find the Greatest Common Divisor (GCD):

1) The greatest common divisor (GCD) of 945 and 2475 will give us the **maximum number of animals in each flock.**

2) GCD (945, 2475) = 45.

Number of Flocks:

1) Divide the total number of animals for each type by the GCD to find the number of flocks.

2) For buffalos: 945/45=21 flocks.

3) For goats: 2475/45=55 flocks.

Check the Statements:

Statement 1 is incorrect: "The maximum number of animals in each flock is at least 50."

1) Since the GCD is 45, which is less than 50, this statement is false.

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Statement 2 is incorrect: "The total number of flocks required is a multiple of 25."

1) The total number of flocks required is 21 (buffalos) + 55 (goats) = 76.

2) 76 is not a multiple of 25.

Hence, the correct answer is: d) Neither 1 nor 2.

Q.27)

Ans) d

Exp) option d is the correct answer.

Let the number Y be 100.

As, X is 20 % smaller than Y,

X = Y − 20/100 Y = 0.8 Y

X = 0.8 x 100 = 80

As, X is 25 % greater than Z,

X = Z + 125/100 Z = 1.25 Z

Z = 80/1.25 = 64

Now, Z decreases by 25 %

Z' = 0.75 x 64 = 48

Now as Y increases by 20 %

Y' = 1.20 x 100 = 120

Now Y' - Z' = 120 − 48 = 72

% by which Y is greater than Z = (Y' - Z')/Z' x 100 = 72/48 x 100 = 150 %

Hence option d is the correct answer.

Q.28)

Ans) d

Exp) option d is the correct answer.

Cost price of one Avocado = 5/6 = 0.833

Selling price of one Avocado = 6/5 = 1.2
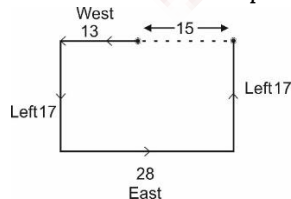
Profit percentage = (SP − CP) / CP x 100

= 44 %

Hence option d is the correct answer.

Q.29)

Ans) a

Exp) option a is the correct answer.

The movement is depicted below through the arrow diagram

The final distance is 28 − 13 = 15 km.

Hence option a is the correct answer.

Q.30)

Ans) a

Exp) option a is the correct answer.

Total number of ways without any conditions = 6 x 5 = 30

Now, numbers to travel by train on both parts = 3 x 2 = 6

Except for these 6 ways, all other ways are permitted.

So, number of ways with given condition = 30 – 6 = 24

Hence option a is the correct answer.

Q.31)

Ans) b

Exp) option b is the correct answer

Option a is incorrect: While traditional economics focuses on maximizing utility and wealth through rational decision-making, behavioral economics challenges this assumption by recognizing deviations from rationality.

Option b is correct: The passage highlights how behavioral economics integrates insights from psychology to understand human behavior in economic contexts.

Option c is incorrect: While cognitive biases and emotions are important in behavioral economics, they are not deemed more important than other factors like social factors and heuristics.

Option d is incorrect: Behavioral economics acknowledges that individuals often deviate from rationality in their decisions, contrary to the assumption of always making rational choices.

Q.32)

Ans) c

Exp) Option c is the correct answer.

Option a is incorrect: The passage does not claim that crop stubble burning is the sole cause, only that it is a significant contributor.

Option b is incorrect: The passage suggests that the discussions are unhelpful and adversarial, not effective in addressing the complexities.

Option c is correct: The correct inference from the passage is that the public discourse around air quality issues in North India, particularly concerning crop stubble burning, tends to oversimplify the issue by unfairly targeting farmers. The passage suggests that blaming farmers alone for poor air quality due to stubble burning ignores broader, systemic factors and the complexities involved in environmental stewardship, which includes understanding the socio-economic conditions and constraints faced by the farmers.

Option d is incorrect: While the passage mentions the use of satellite images, it does not suggest that this has eliminated difficulties in tracking and managing the issues.

Q.33)

Ans) b

Exp) Option b is the correct answer.

Statement a is incorrect because the passage argues against valuing biodiversity primarily for utilitarian benefits.

Statement b is correct as the passage discusses the philosophy of 'Deep Ecology,' which fundamentally values every living being for its intrinsic worth, rather than for any utilitarian or economic benefits it may provide. This principle extends to all life forms, emphasizing that every organism plays a role in its ecosystem, regardless of human understanding of its utility. The given statement directly captures this

central idea by highlighting that 'Deep Ecology' respects all life for its own sake, aligning perfectly with the passage's discussion about valuing life beyond just monetary or obvious ecosystem services.

Statement c is incorrect since it incorrectly suggests keystone species should be the sole focus of conservation.

Statement d is incorrect because it misrepresents 'Deep Ecology' by implying it values species only for their economic benefits.

Q.34)

Ans) c

Exp) option c is the correct answer

Option a is incorrect: While the passage highlights the importance of embracing the transient nature of life, it emphasizes the need for individuals to confront mortality directly rather than simply embracing life's impermanence.

Option b is incorrect: Although the inevitability of death and its transformative potential are discussed, they are not identified as the most significant lesson imparted by the passage.

Option c is correct: This option aligns with the central message of the passage, emphasizing the importance of confronting mortality head-on to reassess priorities and pursue intrinsic values.

Option d is incorrect: The passage does not advocate for avoiding contemplation of death but rather emphasizes the necessity of confronting it directly for personal growth and fulfillment.

Q.35)

Ans) a

Exp) option a is the correct answer

Assumption 1: Incorrect. While the passage suggests that individuals tend to relegate thoughts of mortality to the periphery of their consciousness, it does not explicitly mention heightened anxiety or existential dread as a result of acknowledging death. Therefore, assuming such emotional responses may not be entirely valid.

Assumption 2: Valid. The passage implies that avoidance of contemplating mortality is influenced by societal norms and cultural taboos surrounding discussions of death, supporting this assumption.

Assumption 3: Incorrect. While the passage mentions that embracing the reality of death leads to a deeper appreciation for life's fleeting moments, it does not explicitly mention adopting despondent attitude towards life's challenges and uncertainties as a result. Therefore, assuming such an attitude may not be entirely valid.

Q.36)

Ans) b

Exp) option b is the correct answer.

For maximum value of (a x b) - 16, we need maximum value of a x b.

As, arithmetic mean >= geometric mean

$$=> (a+b)/2 >= (axb)^{1/2}$$

So, maximum a x b = $(16/2)^2$ = 64

So maximum value of a x b − 16 = 64 − 16 = 48

Hence option b is the correct answer.

Q.37)

Ans) b

Exp) option b is the correct answer.

Using total work units and efficiency method.
Let the total capacity of tank be LCM of 8, 10 and 12 = 120 liters.
Efficiency of tap A = 120/10 = 12 liters/ hr
Efficiency of tap B = 120/12 = 10 liters/hr

But when both the taps are working along with leakage efficiency = 120/8 = 15 liters/hr

If the efficiency of leakage to empty the tank is C.
10 + 12 − C = 15
=> C = 7 liters/hr

Time taken to empty the tank = 120/ 7 = 17.14 hours
Hence option b is the correct answer.

Q.38)
Ans) c
Exp) option c is the correct answer.
In any one attempt Probability of surgery to be successful = 1/3
In any one attempt Probability of surgery to be unsuccessful = 1- 1/3 = 2/3

There are three ways the patient can be cured.
1) Surgery is successful in 1st attempt
Probability = P1 = 1/3

2) Surgery is successful in 2nd attempt
For this case surgery was unsuccessful in 1st attempt and then successful in 2nd attempt.
Probability = P2 = 2/3 x 1/3 = 2/9

3) Surgery is successful in 3rd attempt
For this case surgery was unsuccessful in 1st and 2nd attempt and then successful in 3rd attempt.
Probability = P3 = 2/3 x 2/3 x 1/3 = 4/27

Finally for patient to be cured in any attempts, we add the probability of different cases
P1 + P2 + P3 = 1/3 + 2/9 + 4/27 = 19/27

Hence option c is the correct answer.

Q.39)
Ans) a
Exp) option a is the correct answer.
Let Rahul age today be x.
Rahul's mother age at Rahul birth = 3x
Rahul's mother age today = 3x + x = 4x

20 years later, mother will double as Rahul
=> 4x + 20 = 2 (x + 20)
=> 2x = 20
=> x = 10 years

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Rahul age = 10 years
Mothers age today = 40 years

For Rahul's mother to be 70, we need to go 30 years later than today.
Rahul age 30 years later = 10 + 30 = 40

As Rahul's son is 10 years when he is 40, Rahul became father at the age of 30 years.

Hence option a is the correct answer.

Q.40)
Ans) c
Exp) option c is the correct answer.
As, each student has submitted a different answer key.
Maximum number of students = total number of different ways question can be answered.
There are 5 questions, for each question there are 3 options
So total number of ways = 3 x 3 x 3 x 3 x 3 = 3^5 = 243.
So, maximum number of students = 243
Hence option c is the correct answer.

Q.41)
Ans) c
Exp) option c is the correct answer
Option A is incorrect: The passage emphasizes that decision-makers often settle for satisfactory solutions given their constraints, rather than striving for optimality.
Option B is incorrect: The passage acknowledges the bounded nature of human cognition, contrary to the notion of limitless cognitive abilities.
Option C is correct: It accurately reflects the core principle described in the passage, highlighting how individuals rely on simplified models and heuristics due to cognitive limitations.
Option D is incorrect: While bounded rationality recognizes cognitive limitations, it does not advocate for prioritizing speed over accuracy in decision-making.

Q.42)
Ans) b
Exp) Option b is the correct answer
Statement 1 is correct: The passage mentions that "most historical evidence is not in a form that can be easily verified today," indicating that the lack of verifiable evidence contributes to history being more interpretative.
Statement 2 is correct: The passage states, "The role of narrative and perspective is significant in the interpretation of history," which highlights the importance of narrative and perspective in interpreting historical events.
Statement 3 is incorrect: The passage does not directly mention that historical accounts are influenced by the historian's viewpoint. It discusses narrative and perspective but does not explicitly state that these are the historian's personal viewpoints.
Statement 4 is correct: The passage points out that interpretation "depends heavily on the limited evidence available," indicating that the scarcity of evidence is a key factor in the interpretive nature of history. Therefore, the correct answer is (b) 1, 2, and 4 only.

Q.43)

Ans) b

Exp) Option b is the correct answer

Option a is incorrect: While moderation is mentioned in the passage, it does not fully capture the main message that embracing the Middle Path requires more than just intellectual understanding.

Option b is correct: This statement closely aligns with the central message of the passage, highlighting the challenge of embodying the Middle Path beyond mere intellectual comprehension.

Option c is incorrect: While materialism and excess are mentioned as challenges, they do not encompass the main message of the passage.

Option d is incorrect: While achieving harmony is mentioned as a goal of the Middle Path, it does not address the disparity between discussion and practical application emphasized in the passage.

Q.44)

Ans) d

Exp) option d is the correct answer.

If the coin is tossed N times,

Number of ways head can appear twice is $NC2$

Now $NC2 = 15$

$\Rightarrow N(N-1)/2 = 15$

$\Rightarrow N(N-1) = 30$

$\Rightarrow N = 6$

Now, for number of ways head appears thrice = $NC3 = 6C3$

$6C3 = 6 \times 5 \times 4 / 3 \times 2 \times 1 = 20$

Hence option d is the correct answer.

Q.45)

Ans) c

Exp) Option c is the correct answer.

Let the Marked price be 100.

Selling price after one time 10 % discount = $100 \times 0.9 = 90$

Selling price after two-time 10 % discount = $90 \times 0.9 = 81$

Selling price after thrice 10 % discount = $81 \times 0.9 = 72.9$

As after thrice 10 % discount, there is no profit no loss

Cost price = selling price after thrice discount = 72.9

Selling price if item is sold only after one time discount = 90

Profit percentage = $(90 - 72.9)/72.9 \times 100 = 23.45$ %

Hence option c is the correct answer.

Q.46)

Ans) b

Exp) Option b is the correct answer

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The question is whether the Sum x + y is odd or not.

X + y will be odd if one of the is odd other is even.

X+ y will even if both even or both are odd.

Now, from Statement 1

x- y = 1/3(x + y)

=> x = 2y

This implies that x is an even number. But y can be both even or odd number.

So, can be both even or odd.

So, statement 1 alone is not sufficient to answer the question.

Statement 2: x^2 – y is an even number

This is possible only either both x^2 and y are even or both are odd.

If x^2 is even x is even and vice versa.

So, this statement provides that either both are even or both odd.

If both are even sum is even if both are odd sum is odd.

So, this statement alone provides that the sum will be even.

So, statement 2 alone is sufficient to answer the question.

Hence option b is the correct answer.

Q.47)

Ans) d

Exp) Option d is the correct answer.

Conclusion I is wrong: From statements 2 and 4 we get that there are cats which are black in color and they are tiger. From statement 3 no tiger can be dog. So, there are some cats which are black in color but not dog.

Conclusion II is wrong: From statement 1: Dogs which are cats are black. This does not imply that dogs which are not black are cats. They can be cats or not. So, this conclusion is not bound to be correct.

Hence option d is the correct answer.

Q.48)

Ans) a

Exp) option a is the correct answer.

The pattern followed in the 1st transformation is

S -> 5 backward = N

A -> 5 forward = F

T -> 5 backward = O

U -> 5 forward = Z

R -> 5 backward = M

N -> 5 forward = S

Similarly, we can apply the same in second word to get the code.

J -> 5 backward = E

U -> 5 forward = Z

P -> 5 backward = K

I -> 5 forward = N

T -> 5 backward = O

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E -> 5 forward = J
R -> 5 backward = M

So, the code for JUPITER is EZKNOJM

Hence option a is the correct answer.

Q.49)
Ans) c
Exp) option c is the correct answer.
Let ABC be any three digit number.
Given, A + B + C = 15
As, A, B and C can be arranged in 3! ways, there are 6 different numbers that can be made.
If A is unit place as BCA and CBA, two numbers can be formed.
So, each digit is used twice at each place in 6 numbers.

ABC = 100 A + 10 B + C
Any digit if appears
1) once at unit place adds 1 x digit
2) Once at tenth place then adds 10 x digit
3) Once at hundredth place adds 100 x digit
As all the digits appear twice at all places
Sum = 2 x (100 + 10 + 1) x (A + B + C)
= 2 x 111 x 15
= 3330
Hence option c is the correct answer.

Q.50)
Ans) b
Exp) option b is the correct answer.
The ratio between two angles is 1: 3
As we know that the sum of two angles = 360
So let the smaller angle be x.
Then the other angle will be 3x.
Now, X + 3x = 360
=> x = 90.

So, one angle has to be 90.
At 4 pm the angle 4 x30 = 120
The angle will be 90 when minute hand gains 30 degrees over hour hand.
In one minute, the minute hand travels 6° and hour hand travels 0.5^o.
So minute hand will gain 5.5^o in one minute.
To gain 30°, time taken = 30 /5.5 = 60/11 = $5\frac{5}{11}$ minutes
Hence option b is the correct answer.

Q.51)

Ans) b

Exp) option b is the correct answer

Statement 1 is correct: The passage states, "Tax rates are higher because a relatively small portion of the population actually pays taxes." This clearly indicates that the higher tax rates are due to the small number of taxpayers.

Statement 2 is incorrect: The passage does not mention that higher tax rates are meant to discourage people from tax evasion. It suggests that broadening the tax base could reduce tax evasion, but this is not the reason given for the current high tax rates.

Statement 3 is incorrect: Although higher government revenue is a goal, the passage does not specifically state that this is the reason for higher tax rates. It focuses on the limited tax base as the primary reason. Therefore, the correct answer is (b) 1 only.

Q.52)

Ans) b

Exp) option b is the correct answer

Option a is incorrect: While calls for better governance are mentioned in the passage, they do not represent the main message, which focuses on the challenges posed by over governance.

Option b is correct: This statement aligns with the central message of the passage, highlighting how over governance can impede effective governance by causing inefficiencies.

Option c is incorrect: While excessive bureaucracy and red tape are discussed in the passage, they are presented as consequences of over governance rather than the main message.

Option d is incorrect: While achieving the right balance in governance is important, it is not the primary focus of the passage, which emphasizes the negative impact of over governance.

Q.53)

Ans) c

Exp) Option c is the correct answer.

Option a is incorrect: While immigration policies are discussed in the passage, the main message emphasizes the shared responsibility towards humanity, rather than prioritizing national interests.

Option b is incorrect: While economic disparities and political unrest are mentioned as drivers of migration, they are not the central message of the passage.

Option c is correct: This statement aligns with the core message of the passage, emphasizing the moral obligation of individuals towards humanity beyond national boundaries.

Option d is incorrect: While migration is discussed as a pressing issue, the main focus of the passage is on the ethical imperative of addressing global humanitarian challenges.

Q.54)

Ans) d

Exp) option d is the correct answer.

ABAB = AB x 100 + AB = AB x (100 + 1) = AB x 101

24 x ABAB = 24 x 101 x AB

Now as AB is a prime number 101 is also a prime number.

N = 2^3 x 3 x 101 x AB

Total number of factors = (3+1) x (1 +1) x (1 +1) x (1 +1) = 4 x 2 x 2 x 2 = 32

Hence option d is the correct answer.

Q.55)

Ans) b

Exp) option b is the correct answer.

Let the number be N.

Now if N is divided by 18 let the reminder by x

So, N^2 divided by 18 remainder is same as reminder when x^2 is divided 18 (remainder rule)

As, N^2 leaves remainder 7 when divided by 18.

=> x^2 = 7 or 7 + multiple of 18

As, 7 is not a perfect square, we check for higher numbers

X^2 = 7 + 18 = 25 which is a perfect square. -> so valid

X= 5

N leaves a reminder 5 when divided by 18.

N = k x 18 + 5

Now if N is divided by 9

Again, the remainder is 5

Hence option b is the correct answer.

Q.56)

Ans) c

Exp) Option c is the correct answer.

As chocolates are identical, so different number of chocolates will lead to different cases.

Case 1 – each friend has 2, 2, 2 chocolates

As all have same, no other arrangement possible – only 1 way

Case 2 – one friend has 4, other 2 have 1, 1

As there are 3 ways to choose that one person who will have 4 chocolates – 3 ways

Case 3 – chocolates distributed as 3, 2, 1

As all are different in this case, arrangement can be changed in 3 ! = 6 ways

Total number of ways = 1 + 3 + 6 = 10

Hence option c is the correct answer.

Q.57)

Ans) b

Exp) Option b is the correct answer.

The pattern followed in 8 @ 9 @ 11 = 10 is

8 + 9 + 11 = 28 -> 2 + 8 = 10

Similarly, for 9 @ 12 @ 6 = 9

9 + 12 + 6 = 27 -> 2 + 7 = 9

So, for 27 @ 9 @ 3

27 + 9 + 3 = 39 -> 3 + 9 = 12

Hence option b is the correct answer.

Q.58)

Ans) c

Exp) option c is the correct answer.

Let P be the principal for compound interest

For calculating compound interest which compounded half yearly

20 % percent per annum = 10 % per half yearly

CI = P x $(1 + R/100)^n$ – P

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$CI = P \times 1.1^2 - P = 0.21\,P$

For simple interest
$SI = p \times R \times t\,/100$
Principal $(p) = P/2$
$SI = P/2 \times 3 \times R/100$

For $CI = SI$
$0.21\,P = 3/2 \times P \times R/100$
$\Rightarrow R = 14\%$
Hence option c is the correct answer.

Q.59)
Ans) d
Exp) option d is the correct answer.
Run Scoring rate per ball for match
= (runs in innings 1 + runs in innings 2) / (balls faced in innings 1 + balls faced in innings 2)

Matches	Total runs	Total balls	Scoring rate
Match 1	44	90	0.49
Match 2	54	115	0.47
Match 3	60	104	0.57
Match 4	48	80	0.6

Highest scoring rate is in Match 4
Hence option d is the correct answer.

Q.60)
Ans) c
Exp) option c is the correct answer.
For making a quadrilateral, we need to select any 4 points given 12 points, except that any of 3 points should not lie on the same side.
Number of ways to take any 4 points from 12 points = $^{12}C_4 = 12 \times 11 \times 10 \times 9\,/(4 \times 3 \times 2 \times 1) = 495$
Number of ways 3 points can be on same side = $^4C_1 \times {}^9C_1 = 36$
So total number of distinct quadrilaterals = $495 - 36 = 459$
Hence option c is the correct answer.

Q.61)
Ans) a
Exp) option a is the correct answer
Statement 1 is correct: The passage states, "One major issue is the current lack of charging infrastructure, especially in rural areas." This clearly indicates that the lack of charging infrastructure is a significant challenge.
Statement 2 is incorrect: The passage contrasts EVs with traditional vehicles by stating that EVs are powered by electricity, "which can be generated from renewable sources, unlike traditional vehicles that rely on fossil fuels." This means that EVs are not dependent on fossil fuels, so this statement is incorrect.

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Statement 3 is correct: The passage mentions, "the production of EV batteries involves mining rare earth metals, which has its own environmental and ethical concerns." This indicates that environmental concerns related to battery production are a recognized challenge.

Therefore, the correct answer is (a) 1 and 3 only.

Q.62)

Ans) c

Exp) Option c is the correct answer

Option a is incorrect: While the passage acknowledges the challenges in understanding climate, it does not explicitly state that poor understanding has impacted climate mitigation measures. Rather, it emphasizes the ongoing complexity and uncertainties surrounding the topic.

Option b is incorrect: The passage highlights the complexity and challenges in understanding climate, suggesting that our understanding is not yet comprehensive, which contradicts the assertion that scientific progress has provided a comprehensive understanding.

Option c is correct: This statement aligns with the core message of the passage, emphasizing the ongoing complexity and uncertainties surrounding the topic of climate despite research advancements.

Option d is incorrect: The passage mentions the difficulty in accurately predicting future climate scenarios due to uncertainties, but it does not suggest that only future technologies can enable such predictions. Therefore, this statement is not the most logical inference from the passage.

Q.63)

Ans) c

Exp) option c is the correct answer

Option a is incorrect: While the passage mentions India's non-alignment policy during the Cold War, it focuses on the shift in policy rather than the effectiveness of non-alignment in preventing entanglements.

Option b is incorrect: The passage states that India now engages actively with all countries, including antagonistic powers, but it doesn't imply that relations are equally good with all major powers.

Option c is correct: The passage highlights that the shift in India's foreign policy reflects its global ambitions and the need to foster strategic partnerships for economic and security interests.

Option d is incorrect: The passage does not claim that maintaining equal distance ensures better sovereignty and independence; rather, it discusses how India's approach has evolved from that strategy to a more engaged stance.

Q.64)

Ans) d

Exp) Option d is the correct answer

The given statement is correct because it directly supports the key idea presented in the passage, which asserts that all possible knowledge is within the power of humanity and that our faculties can be developed to understand the universe comprehensively. This statement aligns with the passage's emphasis on the potential for human intellectual expansion and contradicts the notion that there are absolute barriers to our understanding.

Option a is incorrect as it claims that human intellectual development has reached its peak, which directly opposes the passage's assertion that the potential for knowledge and understanding is fundamentally limitless.

Option b is incorrect because it states that inherent limitations in the human brain prevent full comprehension of the universe, contradicting the passage's idea that all knowable things can be understood through the development of our faculties.

Option c is incorrect as it suggests that external systems are crucial for development, whereas the passage emphasizes internal capability and choice in developing our understanding of the universe.

Q.65)

Ans) c

Exp) option c is the correct answer.

From condition 3 and 6

E and C are male.

So, there can be only one more male member.

A and B are of opposite genders

A and F are married. So, they are also opposite genders

So, B and F are of the same gender.

As only one more male is needed, so, B and F are female.

And A is male.

Thus, D is a female.

As D is sibling of C whose father is E.

So, D is the daughter of E.

Hence option C is the correct option.

Q.66)

Ans) c

Exp) Option c is the correct answer.

From statement 1

X^2 is an integer. So, x can/cannot be an integer.

So, statement 1 is not sufficient to answer the question.

From statement 2

2X is an integer -> 2X is either an odd integer or even integer.

If 2x is even -> 2x/2 = x is an integer.

If 2x is odd -> 2x/2 = x is not an integer. But is of the form (a.5) where a is any integer.

So, statement 2 is not sufficient to answer the question.

But if we combine the two statements

From statement 2 either x is of the form (a) or (a.5), where a is an integer.

From statement 1

If x is of the form a.5 where a is an integer

$(a.5)^2 = a^2 + a + 0.25$ which can never be an integer.

So, for x^2 to be integer, x is always of the form of a which an integer.

Hence option c is the correct answer.

Q.67)

Ans) c

Exp) option c is the correct answer.

Two hour = 120 minutes

Alarm 1 will ring 120/3 = 40 times

Alarm 2 will ring 120/7 = 17 times

LCM of 3 and 7 is 21.

Both will ring together at times multiples of 21.

Both will ring together 120/21= 5 times

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Even when ring it will be counted one distinct ring

Total distinct rings = 40 + 17 − 5 = 52

Hence option c is the correct answer.

Q.68)

Ans) c

Exp) Option c is the correct answer.

<u>Conclusion I</u>

As, the HCF of all numbers is 45.

=> as, 45 = 9 x 5

9 and 5 are common factors of all the numbers.

But for all numbers to be divisible by 18, all numbers need 9 and 2 as factors, which is not given.

So, conclusion I is wrong

<u>Conclusion II</u>

As 360 is the LCM of all numbers, all the common multiples will be a multiple of 360.

As 480 is not a multiple of 360, this conclusion is also wrong.

So, conclusion II is wrong

Hence option d is the correct answer.

Q.69)

Ans) b

Exp) Option b is the correct answer

Given sequence:

B A C G H E U J G K I O P E A D C U F I K O P K L E A U

For vowels are followed by the consonants, but are NOT preceded by consonants,

We must take part where [vowel, vowel, consonant] occurs.

We highlight such vowels occurring between vowels and consonants.

B A C G H E **U** J G K I **O** P E **A** D C U F I K O P K L E A U

So, there are 3 such vowel letters.

Hence option b is the correct answer.

Q.70)

Ans) c

Exp) Option c is the correct answer

Let x = 3.6727272...

10 x = 36.727272...

1000x = 3672.7272...

Now 1000 x − 10 x = 3672.7272... - 36.727272...

=> 990 x = 3636

=> x = 3636/990 = 404/110

Hence option c is the correct answer.

Q.71)

Ans) b

Exp) option b is the correct answer

Option a is incorrect: While democracy aims to ensure equal rights and opportunities, the passage highlights its failure to fully achieve inclusivity and representation for minority communities.

Option b is correct: It accurately reflects the passage's main message regarding the marginalization and oppression experienced by minority communities under the majority rule in democratic systems.

Option c is incorrect: The passage acknowledges democracy's importance but also highlights its shortcomings in safeguarding the rights of marginalized groups, suggesting that alternative systems may also be needed.

Option d is incorrect: While the passage discusses the empowerment of minorities as an ideal, it primarily focuses on the challenges and injustices they face within democratic societies.

Q.72)

Ans) c

Exp) option c is the correct answer

Option a is incorrect: The passage highlights Gorbachev's policies of openness and restructuring which reduced Soviet control over Eastern Europe rather than strengthening it.

Option b is incorrect: The passage focuses on the political leadership of Gorbachev and his diplomatic efforts rather than economic factors as the primary reasons for the end of the Cold War.

Option c is correct: The passage emphasizes Gorbachev's significant contributions to reducing Cold War tensions and fostering a peaceful post-Cold War world through diplomacy and non-violence.

Option d is incorrect: The passage suggests that the fall of the Berlin Wall was a direct and intended result of Gorbachev's policies, particularly his decision not to use force to maintain Soviet control. But this is not the crux of the above passage.

Q.73)

Ans) c

Exp) Option c is the correct answer

Assumption 1: Valid. The passage explicitly states that Gorbachev's policies of glasnost and perestroika were instrumental in reducing tensions between the East and West and helped to end the arms race, supporting this assumption.

Assumption 2: Valid. The passage mentions that Gorbachev's decision not to use force in Eastern Europe allowed for the peaceful revolutions of 1989, indicating that this assumption is correct.

Assumption 3: Incorrect. The passage notes that Gorbachev faced considerable opposition at home, implying that his leadership was not universally supported within the Soviet Union during the transition period.

Hence option c is the correct answer.

Q.74)

Ans) d

Exp) Option d is the correct answer.

All possible outcomes of the match

1) Messi scores, Ronaldo does not score

2) Messi does not score, Ronaldo scores

3) Messi scores, Ronaldo scores

4) Messi does not score, Ronaldo does not score

In all the first three conditions spectators will see a goal from any of these two players.
Only in the 4th case, spectators will not see a goal from any of these two players.

Probability of Messi scoring = 0.6
Probability of Messi not scoring = 1 - 0.6 = 0.4
Probability of Ronaldo scoring = 0.4
Probability of Ronaldo not scoring = 1- 0.4 = 0.6
Probability of both not scoring = 0.6 x 0.4 = 0.24(rule of multiplication)

Probability of anyone scoring = 1- Probability of both not scoring
= 1- 0.24 = 0.76

Percentage chances = 76 %

Hence option d is the correct answer.

Q.75)
Ans) a
Exp) Option a is the correct answer.
For a month to have more than 4 Sundays i.e. altleast 5 Sundays
The month of 30 days should begin from Saturday/Sunday.
The month of 31 days should begin from Friday/Saturday/Sunday.

From 1st of a month to 1st next month, shift in day = 2 days if month is of 30 or 3 days if month is of 31.
June −1st − Saturday + (30 days) −> 5 Sundays
July − 1st − (last month 1st Day + 2)-> Monday + 31 days =   4 Sundays
August −1st − (last month 1st Day + 3)-> Thursday + (31 days) −> 4 Sundays
September−1st − (last month 1st Day + 3) - >Sunday + (30 days) −> 5 Sundays
October −1st − (last month 1st Day + 2)-> Tuesday + (31 days) −> 4 Sundays
November −1st − (last month 1st Day + 3) -> Friday + (30 days) −> 4 Sundays
December −1st − (last month 1st Day + Sunday) + (31 days) −> 5 Sundays

So, June, September, and December are the 3 months which have 5 Sundays.

Hence option a is the correct answer.

Q.76)
Ans) b
Exp) option b is the correct option.
When ABC is added to DEF

A	B	C
D	E	F
5	9	8

As C + F has unit digit = 8,
As, C + F cannot be 18, 28, 38 etc. as C, F as distinct digits, for sum = 18 = 9 + 9.
So, C + F = 8

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As there is no carry from previous addition,
B + E has unit digit 9,
Similarly, again B + E = 9 (as 19, 29 not possible for any B, E as distinct digits)

Now, A + D = 5 (as there is no carry from previous addition).

This means (A + D) x (B + E) x (C + F) = 5 x 8 x 9 = 360
Hence b is the correct option.

Q.77)
Ans) d
Exp) Option d is the correct answer.
Weights on can be put both sides, if put on same sides they are added, if put on other side they are subtracted.
To measure 91 kg
We can use 5 x 20 − 5 x1 - 2x 2 = 91 kg
So, it can be measured using 8 weights.
So, statement 1 is wrong.

To measure 98 kg
We can use 4 x 20 + 4 x 5 − 2 x1 = 98
No. Of weights used is 4 + 4 + 1 = 9
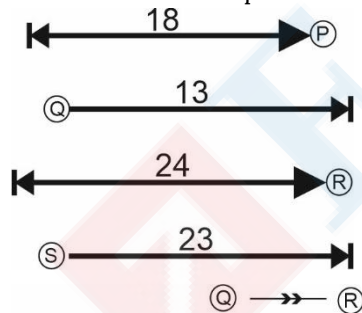Hence statement 2 is incorrect.

Hence option d is the correct answer.

Q.78)
Ans) b
Exp) option b is the correct answer.
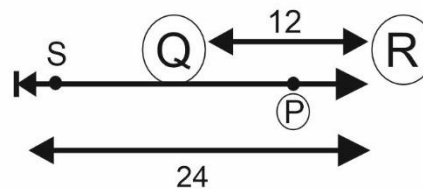The conditions and possible formations are as shown below.

From the diagrams R is not in between P and Q.

And S is not in between P and R.

But, the maximum number of students = 37

Minimum number of students = 25

Hence only 2 statements are correct.

So, option b is the correct answer.

Q.79)

Ans) c

Exp) option c is the correct answer.

As A is coming down at a rate of 4 steps/jumps and B is climbing a rate of 3 steps/step

As, A jump time is same as B step time.

So, combined together their speed of approach = 4 + 3 = 7 steps/ jump

Total gap between them = 91 steps

Jumps reqiured = 91/7 = 13

So, in 13 seps B will be at 13 x 3 = 39th step

Also, in 13 jumps A will be at 91 – 4 x 13 = 39th step.

So, they will meet at the 39th step.

Hence option c is the correct answer.

Q.80)

Ans) a

Exp) Option a is the correct answer.

Efficiency:

1) 1 girl takes 192 days to complete the work.

2) 1 boy takes 96 days to complete the same work.

3) Hence, a boy is twice as efficient as a girl.

LCM of work:

The total work (LCM) = 192 units.

Daily work rate:

1) Work done by 1 boy in one day = 192/96=2 units.

2) Work done by 1 girl in one day = 192/192=1 unit.

Work done by 16 boys in 3 days:

Work done = 2×16×3=96 units.

Remaining work:

Total work - Work done by 16 boys in 3 days = 192 units - 96 units = 96 units.

Work done in the next 4 days by 10 boys and some girls (let gg):

1) Work done by 10 boys in 4 days = 10×2×4=80 units.

2) Let g be the number of girls.

3) Work done by g girls in 4 days = g×1×4=4g units.

Total work done in 4 days = 96 units:

80+4g = 96

4g = 16;

g = 4

Required percentage:

1) Number of girls as a percentage of the number of boys who left (6 boys):

2) 4/6×100%=66.67%

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