LIC ADO MOCK TEST 3

Q 1. In how many ways letters of the word ALLAHABAD can be arranged?

1. 5040
2. 7560
3. 1256
4. 2560

Q 2. Out of 5 women and 4 men, a committee of three members is to be formed in such a way that at least one member is a woman?

1. 20
2. 40
3. 80
4. 50

Q 3. A can run 2 km in 3 min 10 sec and B can cover the same distance in 3 min 20 sec. By what distance can A beat B?

1. 50
2. 75
3. 25
4. 100

Q 4. There is a wooden sphere of radius 30 cm. A cone of height 30 cm and base diameter 60 cm is carved out of the sphere. The percentage of wood wasted is

1. 10
2. 20
3. 50
4. 75

Q 5. A person lent out a certain sum on simple interest and the same sum on compound interest at a certain rate of interest per annum. He noticed that the ratio between the difference of compound interest and simple interest of 3 years and 2 years is 35:11. The rate of interest per annum is

1. 12.5
2. 17.71
3. 18.18

4. 21.21

Q 6. Suresh started a business investing Rs 15000. After 3 months, Pravin joined him with a capital of Rs 30000. After another 6 months, Ravi joined them with a capital of Rs 75000. At the end of the year, they made a profit of Rs 16,500/- Find the share of each.

1. 4400, 6600, 5500
2. 4500, 6600, 5000
3. 4000, 6000, 6500
4. 4200, 6800, 5600

Q 7. Complete the following series.

9, 12, 18, 30, 54, 102, ?

1. 198
2. 290
3. 164
4. 131

Q 8. The present age of Torres is three times the age of his son. Six years hence, the ratio of their ages will be 5:2. What is the present age of Torres?

1. 50
2. 45
3. 54
4. 28

Q 9. Find the missing number?

1. 101
2. 109
3. 111
4. 121

Directions (10 - 13): Study the information given below and answer the questions following.

There are 5 people A, B, C, D and E. One is a Soccer player, one is a Badminton player and one is a Handball player. A and D are unmarried ladies and do not participate in any game. None of the ladies plays Badminton or Soccer. There is a married couple in which E is the husband. B is the brother of C and is neither a Badminton player nor a Handball player?

Q 10. Who is the soccer player?

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

Q 11. Who is the handball player?

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

Q 12. Who is the badminton player?

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

Q 13. Who is the wife of E?

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

Directions (14 - 18): Study the following information carefully and answer the questions given below.

A, B, C, D, E, F and G are seven members of a family. There are 2 married couples among them belonging to 2 different generations. Each of them has a different choice of cuisine - Bengali, Continental, Marathi, Punjabi, South Indian, Rajasthani and Kashmiri. The Grandfather in the family likes Rajasthani food. None of the ladies like Continental or Marathi food. D is the son of A, who likes Bengali food. G is C's daughter-in-law and she likes South Indian food. B is the grandfather of F, who likes Punjabi food. C is the mother of E, who likes Continental food.

Q 14. How is E related to F?

1. Nephew
2. Uncle
3. Father

4. Brother

Q 15. How many male members are there in the family?

1. 4
2. 3
3. 1
4. Can't be determined

Q 16. Which of the following groups contains one each from three generations?

1. CED
2. CEG
3. AEF
4. AGD

Q 17. Which food does D like?

1. Marathi
2. Kashmiri
3. Continental
4. Rajasthani

Q 18. Which of the following combinations represents the favourite food of the two married ladies?

1. Kashmiri, South Indian
2. South Indian, Punjabi
3. Punjabi, Kashmiri
4. Data inadequate

Directions (19 - 23): Rearrange the given 5 sentences in a proper sequence so as to form a meaningful paragraph.

1. Capitalism has always excelled at creating new desires and cravings. But with Big Data and algorithms, tech companies have both accelerated and inverted this process.
2. The use and abuse of data by Facebook and other tech companies are finally garnering the official attention they deserve. With personal data becoming the world's most valuable commodity, will users be the platform economy's masters or its slaves?
3. Prospects for democratizing the platform economy remain dim. Algorithms are developing in ways that allow companies to profit from our past, present, and future behaviour - or what Shoshana Zuboff of Harvard Business School describes as our 'behavioural surplus.

4. In many cases, digital platforms already know our preferences better than we do and can nudge us to behave in ways that produce still more value.
5. Do we really want to live in a society where our innermost desires and manifestations of personal agency are up for sale?

Q 19. Which of the following is the 2nd sentence?

1. 2
2. 3
3. 5
4. 1

Q 20. Which of the following is the third sentence?

1. 4
2. 2
3. 3
4. 5

Q 21. Which of the following is the fourth sentence?

1. 4
2. 5
3. 1
4. 2

Q 22. Which of the following is the last sentence?

1. 2
2. 3
3. 1
4. 4

Q 23. Which of the following is the first sentence?

1. 3
2. 4
3. 1
4. 2

Directions (24 - 25): Fill in the blanks with the appropriate word.

The media spotlight on India-Pakistan tensions over the disputed territory of Jammu and Kashmir (J&K) has helped ---- obscure ---- the role of a key third party, China, which occupies one-fifth of this Himalayan region. Kashmir is only a small slice of J&K, whose control split is among China, India and Pakistan. Sino-Indian border tensions were exemplified by a reported September 11-12 clash between troops from the two countries in the Eastern section of Jammu and Kashmir, where Beijing's territorial revisionism has persisted for more than 6 decades. Meanwhile, ever since India revoked the statehood and autonomy of its part of Jammu and Kashmir in August, Pakistan has stepped up its ------ bellicose ------ rhetoric.

Q 24.

1. Obscure
2. Objective
3. Observe
4. Obey

Q 25.

1. Bellicose
2. Baffling
3. Bait
4. Baleful

Answer Keys

Q 1. 2	Q 2. 3	Q 3. 4	Q 4. 4	Q 5. 3
Q 6. 1	Q 7. 1	Q 8. 3	Q 9. 2	Q 10. 2
Q 11. 1	Q 12. 1	Q 13. 3	Q 14. 2	Q 15. 4
Q 16. 1	Q 17. 1	Q 18. 1	Q 19. 2	Q 20. 1
Q 21. 2	Q 22. 3	Q 23. 4	Q 24. 1	Q 25. 1

Solution 1:

In usual circumstances, as there are 9 letters, the answer is 9!

But in the above case, there are letters which are repeated more than once.

A is repeated 4 times.

L is repeated twice.

Hence the final answer will be given by,

$9! / (4! \times 2!)$

$= (9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1) / (4 \times 3 \times 2 \times 1 \times 2)$

$= 7560$

Solution 2:

When the question states at least 1 woman, there are 3 possibilities,

Case 1: Committee made by choosing 1 woman

Case 2: Committee made by choosing 2 women

Case 3: Committee made by choosing 3 women.

Case 3:

When 3 women are chosen it can be represented as $^5C_3$ since there are 5 women and we can choose 3 out of them.

Case 2:

When 2 women are chosen it can be represented as $^5C_2$ since there are 5 women and we can choose 2 out of them.
In the above case when 2 women are chosen in the committee, then the third member of the committee can be filled by men. As there are 4 men, and we are choosing 1 man, it can be represented as $^4C_1$

Hence case 2 can be finally represented as $^5C_2 \times {}^4C_1$

Case 1:

When only 1 woman is chosen in the committee, the rest of the committee can be filled by 2 men.

We can choose 1 out of 5 women, it can be represented as $^5C_1$

So the remaining 2 members of the committee are chosen from 4 men, it can be represented as $^4C_2$

Hence case 1 can be finally represented as $^5C_1 \times {}^4C_2$

Hence the final answer is

$(^5C_1 \times {}^4C_2) + (^5C_2 \times {}^4C_1) + {}^5C_3$

= 30 + 40 + 10 = 80 ways

Solution 3:

A covers the distance in 190 sec.

B covers the distance in 200 sec.

A beats B by 200 - 190 = 10 seconds.

Distance covered by B in 10 seconds =

Speed $\times$ time = Distance

Speed = distance travelled / time taken

Speed, when B travels 2 km, is given by

2 km = 2000 m

= 2000 / 200 = 10 m/sec

Therefore Distance covered in 10 seconds by B

= Speed ✕ time

= 10 ✕ 10 = 50 metres.

Hence A beats B by 100 metres.

Solution 4:

The volume of cone = ⅓ π r² h

Radius = Diameter / 2 = 60 / 2 = 30 cm

Height h = 30 cm

= ⅓ π 30² * 30

The volume of sphere = 4/3 * π * r³

Radius r = 30 cm

= 4/3 * π * 30³

Wastage of wood = (4/3 * π * 30³) - (⅓ π 30² * 30)

= π * 30³

Percentage wastage of wood = [(π * 30³) / (4/3 * π * 30³)] ✕ 100

= ¾ *100

= 75 %

Solution 5:

Let the principal be P, rate of interest r% per annum.

The difference between CI and SI for 2 years

= [P ✕ (1 + R/100)² - P] - [(P ✕ R ✕ 2) / 100]

= PR² / 10⁴

The difference between CI and SI for 2 years

= [P × (1+ R/100)³ - P] - [(P × R × 3) / 100]

= (PR² / 10⁴) / (300+R) / 100
[(PR² / 10⁴) / (300+R) / 100] / PR² / 10⁴ = 35/11

(300+R) / 100 = 35 / 11

R = 18.18 %

Solution 6:

Clearly, Suresh invested his capital for 12 months, Pravin for 9 months, and Ravi for 3 months.

So ratio of their capitals = (15000 × 12): (30000 × 9): (75000 × 3)

= 4:6:5

Suresh share = (16500 * 4/15) = Rs 4400

Pravin share = (16500 * 6/15) = Rs 6600

Ravi share = (16500 * 5/15) = Rs 5500

Solution 7:

9 + 3 = 12
12 + 6 = 18
18 + 12 = 30
30 + 24 = 54
54 + 48 = 102
102 + 96 = 198

Solution 8:

Let sons age be x years. Then Torres age = 3x

(3x + 6) / (x + 6) = 5/2

X = 12

The present age of Torres = 54 years.

Solution 9:

4, 21, 40, 61, 84,?

$21 = 4 + (4^2 + 1)$

$40 = 21 + (4^2 + 3)$

$61 = 40 + (4^2 + 5)$

$84 = 61 + (4^2 + 7)$

$84 + (4^2 + 9) = 109$

Solution 10:

Person	Gender	Interest in games	Relationships
A	Female	No	Unmarried
B	Male	Soccer	Brother of C
C	Female	Handball	Wife of E
D	Female	No	Unmarried
E	Male	Badminton	Husband of C

From the above table, we can find that B is a Soccer player.

Solution 11:

C is the handball player.

Solution 12:

E is the badminton player.

Solution 13:

C is the wife of E.

Solution 14:

Person	Gender	Choice of Food	Generation	Relationship
B	Male	Rajasthani	1st	Father of A and E, Grandfather of F and D
C	Female	Kashmiri	1st	Wife of B
A	Male	Bengali	2nd	Son of B and C
G	Female	South India	2nd	Wife of A
E	Male	Continental	2nd	Brother of A
F	Male/Female	Punjabi	3rd	Son/Daughter of A and G
D	Male	Marathi	3rd	Son of A

From the above table, E is the brother of A. A is the father of F. Hence E is the uncle of F.

Solution 15:

Gender of F can't be concluded. Hence data is insufficient.

Solution 16:

C belongs to 1st generation, E belongs to 2nd generation, D belongs to 3rd generation.

Solution 17:

From the table, we can find that D likes Marathi food.

Solution 18:

From the table, we can find that two married ladies are C and G. They like Kashmiri and South Indian food respectively.