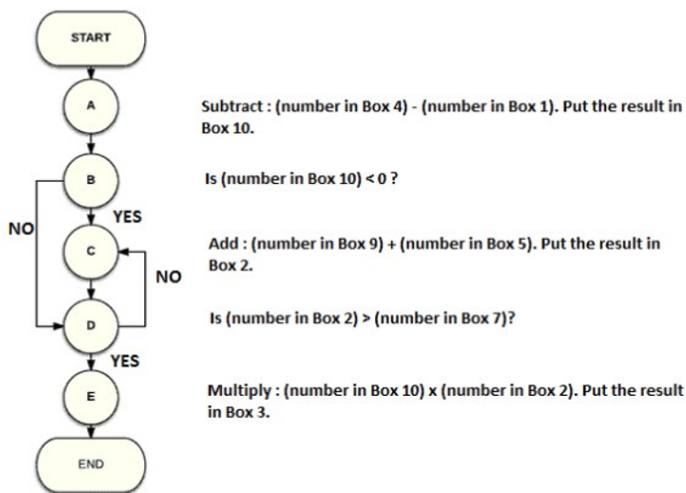**COMPANY SPECIFIC SERIES**
**ACCENTURE – CRITICAL REASONING, PROBLEM SOLVING AND ABSTRACT REASONING - TRAINER HANDOUT**

1. **Is the following statement True or False Statement:** If the condition in Step C updates the value in Box 3 instead of Box 2, then the flow chart will enter into infinite loop

**Box No.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
| 13 | 20 | 7 | 12 | 10 | 2 | 5 | 1 | 0 | 18 |

START

A — Subtract : (number in Box 4) - (number in Box 1). Put the result in Box 10.

B — Is (number in Box 10) < 0 ?

NO

YES

C — Add : (number in Box 9) + (number in Box 5). Put the result in Box 2.

NO

D — Is (number in Box 2) > (number in Box 7)?

YES

E — Multiply : (number in Box 10) x (number in Box 2). Put the result in Box 3.
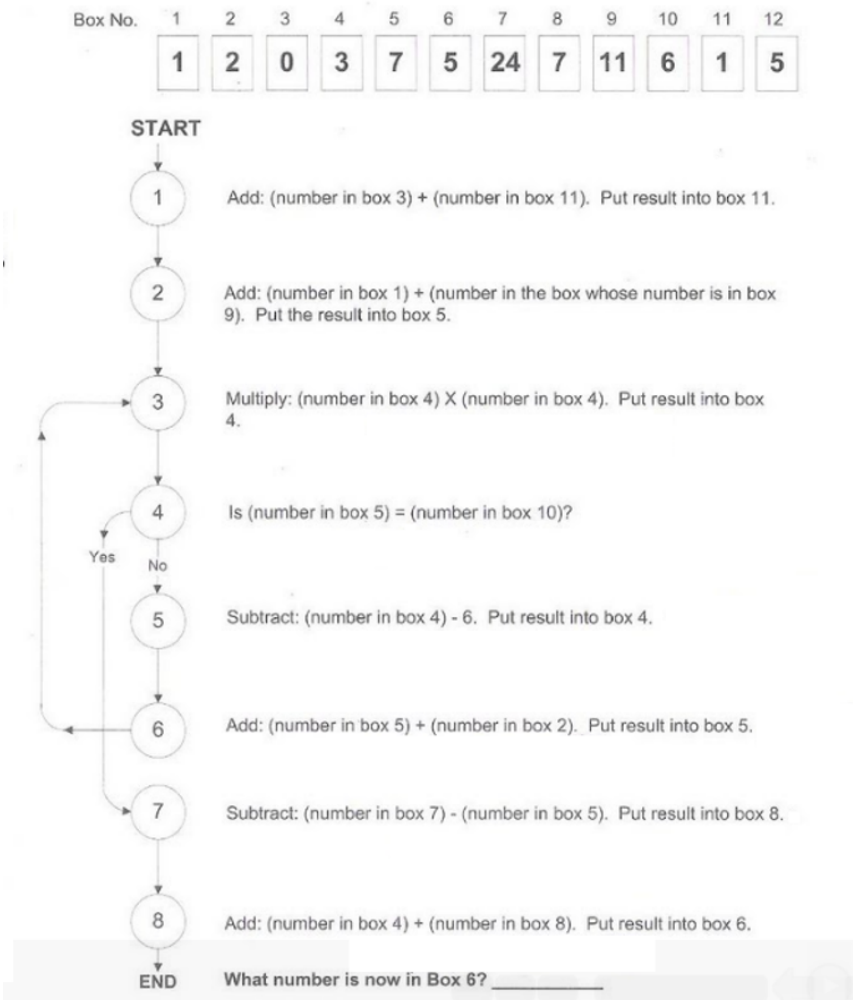
END

a. True                b. Cannot be determined                c. Zero                d. False

**Answer: D**
**Explanation:** Even if Box 3 is updated instead of Box 2 in instruction C,
In instruction D, Number in Box 2 is compared with Box 7, and the value is anyway greater, so the result is YES there and thus exiting and finishing the loop.

2. **Study the flowchart given below and the question that follows.**



| Box No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 0 | 3 | 7 | 5 | 24 | 7 | 11 | 6 | 1 | 5 |

START

1 — Add: (number in box 3) + (number in box 11). Put result into box 11.

2 — Add: (number in box 1) + (number in the box whose number is in box 9). Put the result into box 5.

3 — Multiply: (number in box 4) X (number in box 4). Put result into box 4.

4 — Is (number in box 5) = (number in box 10)?

Yes No

5 — Subtract: (number in box 4) - 6. Put result into box 4.

6 — Add: (number in box 5) + (number in box 2). Put result into box 5.

7 — Subtract: (number in box 7) - (number in box 5). Put result into box 8.

8 — Add: (number in box 4) + (number in box 8). Put result into box 6.

END    What number is now in Box 6? _____

a. 26                    b. 24                    c. 25                    d. 27

**Answer: d. 27**
**Explanation:**
Instruction 1 : 0 [Box 3] + 1 [Box 11] = 1 [Box 11]
Instruction 2 : 1 [Box 1] + 1 [Box 11] = 2 [Box 5]
Instruction 3 : 3 [Box 4] * 3 [Box 4] = 9 [Box 4]
Instruction 4 : IS 2 [Box 5] = 6 [Box 10] ? NO
Instruction 5 : 9 [Box 4] - 6 = 3 [Box 4]
Instruction 6 : 2 [Box 5] + 2 [Box 2] = 4 [Box 5]
Instruction 3 : 3 [Box 4] * 3 [Box 4] = 9 [Box 4]
Instruction 4 : IS 4 [Box 5] = 6 [Box 10] ? NO
Instruction 5 : 9 [Box 4] - 6 = 3 [Box 4]
Instruction 6 : 4 [Box 5] + 2 [Box 2] = 6 [Box 5]
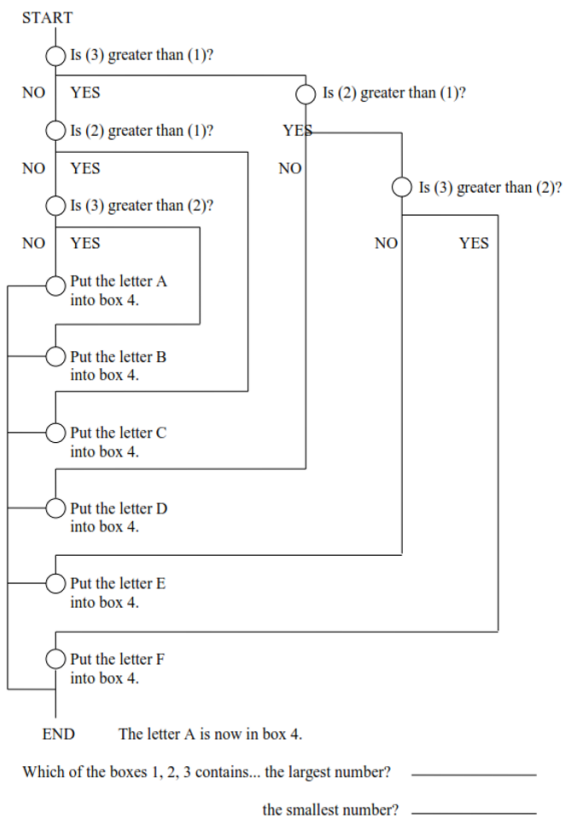Instruction 3 : 3 [Box 4] * 3 [Box 4] = 9 {box 4]

Instruction 4 : IS 6 [Box 5] = 6 [Box 10] ? YES
Instruction 7 : 24 [Box 7] - 6 [Box 5] = 18 [Box 8]
Instruction 8 : 9 [Box 4] + 18 [Box 8] = 27 [Box 6]
ANSWER Box 6 = 27

3. In the following problem, you are told something about the result, and you must determine what the contents of the boxes must have been, in order to obtain that result. In these problems, the expression (number in box X) is abbreviated as (X). For example: "Is (4) greater than (7)?" means "Is (number in box 4) greater than (number in box 7)?" In each of the following problems, no two boxes contain the same number. **Which of the boxes 1, 2, 3 CANNOT POSSIBLY contain the largest number, the smallest number?**



START
Is (3) greater than (1)?
NO | YES          Is (2) greater than (1)?
Is (2) greater than (1)?     YES
NO | YES          NO
Is (3) greater than (2)?          Is (3) greater than (2)?
NO | YES          NO | YES
Put the letter A into box 4.
Put the letter B into box 4.
Put the letter C into box 4.
Put the letter D into box 4.
Put the letter E into box 4.
Put the letter F into box 4.
END     The letter A is now in box 4.
Which of the boxes 1, 2, 3 contains... the largest number? _____
the smallest number? _____

a. Box 2, Box 1          b. Box 2, Box 3          c. Box 1, Box 3          d. Box 4, Box 3

**Answer:** c. Box 1, Box 3
Explanation:
Given Box 4 = EITHER C or F
Also, (1) means number in Box 1.
For C,
IS (3) > (1) ? NO --(1)
IS (2) > (1) ? YES --(2)
For F,

IS (3) > (1) ? YES --(3)
IS (2) > (1) ? YES --(4)
IS (3) > (2) ? YES --(5)

**ANSWER**
**Number in BOX 1 cannot be largest(refer (1), (2), (3) and (4)),**
**And, Number in BOX 3 cannot be smallest(refer (1), (3) and (5)).**

4. **Study the flowchart shown below to answer the given question. For an individual who works for a government organization and owns a house, it is given that he is 35 years old and earns Rs. 15,000 per month. What would be the approved_amt (in Rs.) for him?**
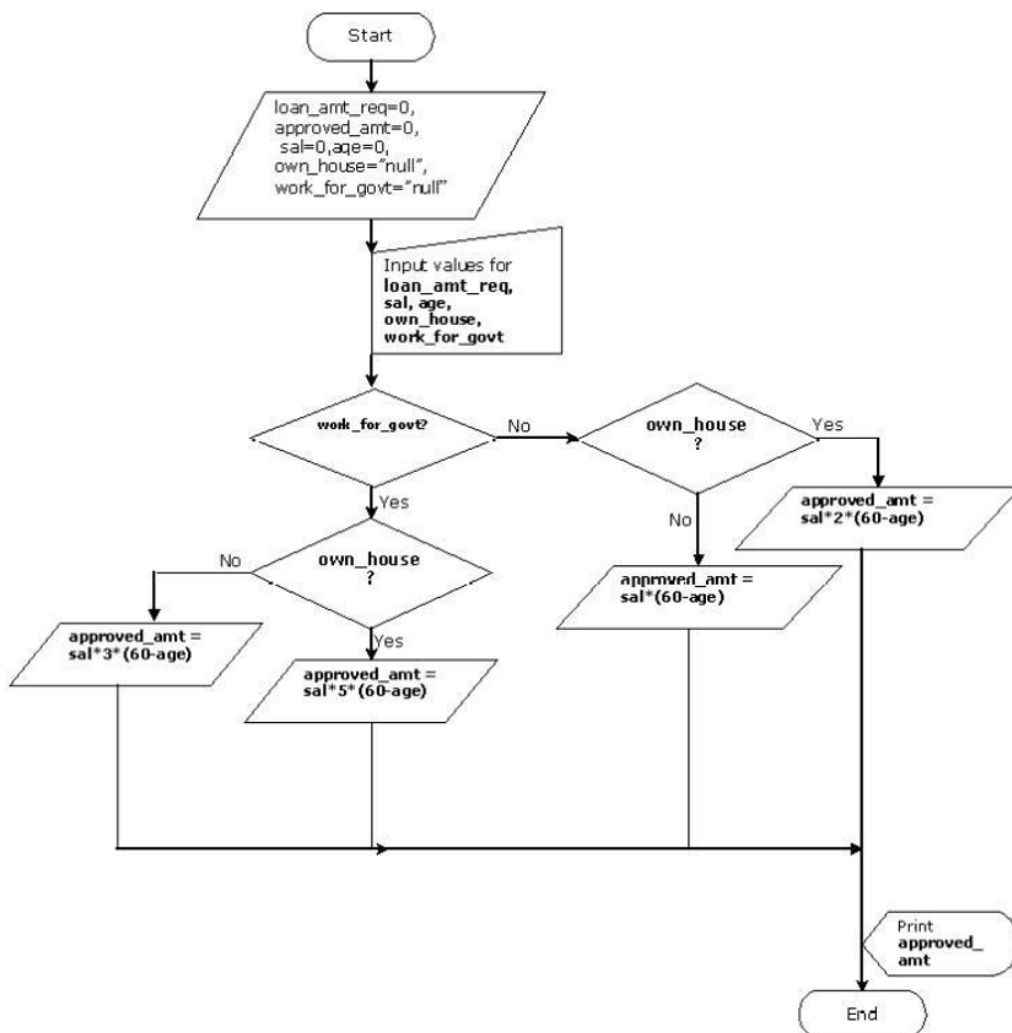


a. Rs. 18,75,000          b. Rs. 19,75,000          c. Rs. 18,25,000          d. Rs. 20,75,000

**Answer: a. Rs. 18,75,000**
**Explanation: approved_amt = sal * 5 * (60 - age) = 15,000 * 5 * (60 - 35) = Rs. 18,75,000**

5. **Study the flowchart shown below to answer the given question. Which of the following values will be printed if the value of N = 0?**
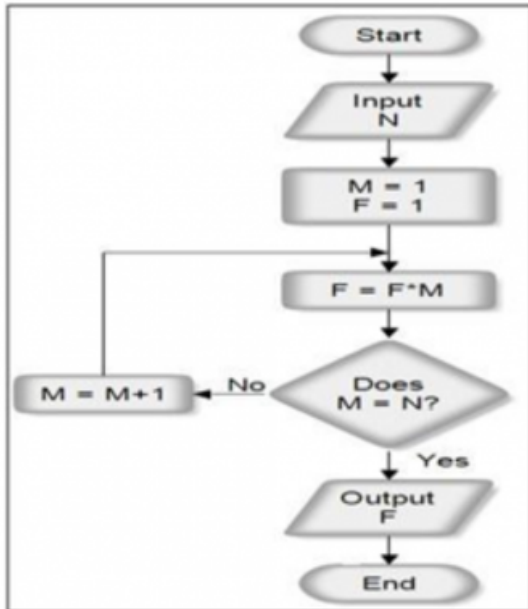


a. Zero            b. 720            c. 5040            d. None of these

**Answer: d. None of these**

Explanation: For value of N equal to 0, the flowchart gets struck in an infinite loop. Hence answer to this question is option D (none of these)

6. **Study the flowchart shown below to answer the given question. At the end of the flowchart execution, what would be the values of I and M?**
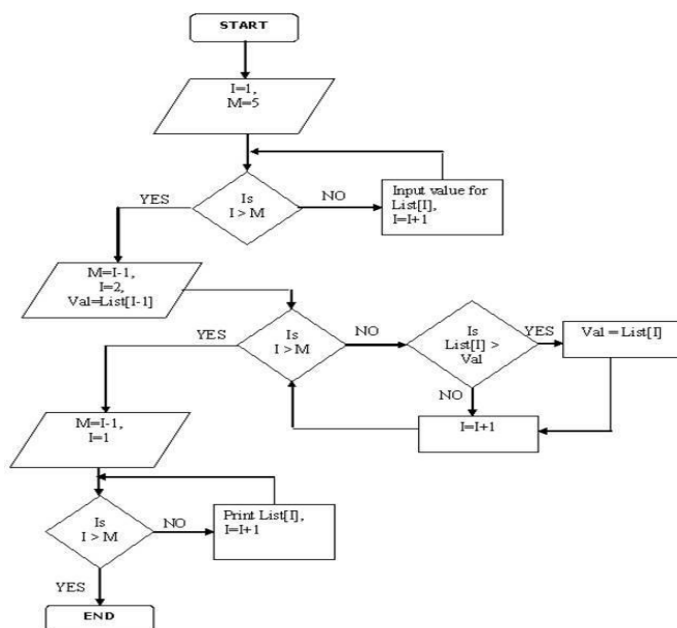
a. I=1, M=1          b. I=6, M=5          c. I=5, M=5          d. I=5, M=6

**Answer: b. I=6, M=5**

7. Find the missing term in the series: 3, 8, 17, 30, ? , 68
   a. 47                    b. 16                    c. 18                    d. 25

   **Solution:** Difference between consecutive terms is +5, +9, +13
   Difference of different between consecutive terms is +4
   Hence the next number should be +17 (13 + 4)
   30 + 17 = 47

8. In the numbers given below, how many digits are there which are immediately followed by a digit divisible by 5 and immediately preceded by a digit divisible by 3?
   2 3 7 5 6 5 4 6 8 3 2 5 4 6 3 8 0
   a. 3                    b.2                    c. 1                    d. 0

   **Solution:** In the given series, the numbers satisfying the criteria are: 2 3 **7** 5 6 5 4 6 8 3 **2** 5 4 6 3 **8** 0 (the 3rd number, the 11th number and the 16th number). Hence, option a

9. Study the following arrangement carefully and answer the question given below.
   **Q 2 E 4 2 6 # Z @ ! 8 K P A S % ^ & 1 7 G H $ J * < F C M > B V / 0**
   What should come in place of the question mark (?) in the following series based on the above arrangement?
   **6# @! PA &1 (?)**
   a. $J                    b. >*                    c. *<                    d. J*

   **Solution:**
   6# @! PA &1 (?)
   Observe the series: Q 2 E 4 2 6 # Z @ ! 8 K P A S % ^ & 1 7 G H $ J * < F C M > B V / 0
   6# to @! is +1 (there is only letter Z between 6# and @!)
   @! to PA is +2 (there are 2 characters i.e. 8 K)
   PA to &1 is +3 (there are 3 characters i.e. S % ^)
   &1 to J* is +4 (7 G H $)
   **OPTION D**

10. Identify the correct match for the series from the options given below:
    **w m w w w w m w w w w w w w m w w w w w w m w m**
    a.  w m w w m w m w w w w w w w m w w w w w w m w m
    b.  w w m w w w m w w w w m w w m w w w w w w m w m
    c.  w m w w w w m w w w w w w w m w w w w w m w m

d.  w w m w w w m w w w w m w w m w w w w w w w m

**Solution: w m w w w w m w w w w w w w m w w w w w w m w m - option c**

11. **In the following question symbols @, &, #, $, ! and % are used with different meanings as follows:**
    'M # N' means 'M is not smaller than N'
    'M $ N' means 'M is neither smaller than nor equal to N'
    'M % N' means 'M is neither smaller than nor greater than N'
    'M @ N' means 'M is not greater than N'
    'M & N' means 'M is neither greater than nor equal to N'
    'M ! N' means 'M is equal to N'
    **Now assuming in the following question the given statements to be true, find out which of the given conclusions is / are definitely true.**
    **Statements:**
    I. A $ B
    II. B # C
    III. C & D
    **Conclusions:**
    I. B # D
    II. A $ C
    a.  Neither Conclusion I nor conclusion II follows
    b.  Only Conclusion II follows
    c.  Only Conclusion I follows
    d.  Both Conclusion I and Conclusion II follow

    **Solution:**
    Statement I: A $ B means A is greater than B
    Statement II: B # C means B is greater than or equal to C
    Statement III: C & D means C is less than D
    Conclusion I: B # D means B is greater than or equal to D
    Conclusion II: A $ C means A is greater than C
    Between 1st and 2nd statement, B is the common term and between 2nd and 3rd statement,
    C is the common term. We can infer as follows:
    A is greater than B, B is greater than or equal to C, C is lesser than D.
    Solving, we get; Conclusion I is not definitely true. Conclusion II is true.
    **Hence, only Conclusion II follows.**

12. **In the following question symbols @, -, #, ! and %  are used with different meanings as follows:**
    'M # N' means 'M is not smaller than N'

'M % N' means 'M is neither greater than nor equal to N'

'M @ N' means 'M is not greater than N'

'M - N' means 'M is neither smaller than nor greater than N'

'M ! N' means 'M is neither smaller than nor equal to N'

**Now assuming in the following question the given statements to be true, find out which of the given conclusions is / are definitely true.**

**Statements:**

I. C % G

II. G - Y

III. Y # I

**Conclusions:**

I. Y ! C

II. I % G

III. I - G

a. Only conclusion I follows

b. Only conclusion I, and either conclusion II or III follows

c. Only conclusion II follows

d. Either conclusion II or III follows

**Solution:**

Statement I: C % G means C is less than G

Statement II: G - Y means G is equal to Y

Statement III: Y # I means Y is greater than or equal to I

Conclusion I: Y ! C means Y is greater than C

Conclusion II: I % G means I is less than G

Conclusion III: I - G means I is equal to G

Taking 1st and 2nd statements, we can conclude that C is less than Y or Y is greater than C.

So Conclusion I holds good.

Taking 2nd and 3rd statements, we can conclude that G is greater than or equal to I. We can also say that I is less than G or equal to G. Looking at conclusions II and III, we can infer that either II or III will hold good. **OPTION B**

13. **The question given below is followed by two statements I and II. Determine if the statements are, individually or together, sufficient to answer the question.**

**Question:** What is the percentage of students who are not taller than 180 cm?

**Statements:**

I. The ratio of the number of boys and girls is 4 : 3.

II. 30% of the boys and 30% of the girls are taller than 180 cm.

a. Both statements I and II together are sufficient to answer the question

b. Statement I alone is sufficient to answer the question

c. Statement II alone is sufficient to answer the question

d. Neither statement I nor statement II is sufficient to answer the question

**Solution:**
Statement I mentions only about the ratio of boys and girls. Hence, it is not sufficient to answer the question

Statement II:
70% of boys and 70% of girls are shorter than 180 cm. Let the number of boys be x and the number of girls be y.

0.7x + 0.7y / x + y

= 0.7 (x+y) / x+y

= 0.7 = 70%

Hence, from statement II we can conclude that 70% of the students are not taller than 180 cm.

14. **The question given below is followed by two statements I and II. Determine if the statements are, individually or together, sufficient to answer the question.**

**Question:** What is the Cost Price of bananas?

**Statements:**

I. Phyllis mixes banana and cream in the ratio of 2 : 5 to make her famous 'Banana whipped cream'.

II. The ratio of price of cream and banana is 7 : 3 (per kg) and she earns 25% profit.

a. Each statement alone is sufficient to answer the question

b. Statements I and II together are not sufficient to answer the question asked and additional data to the problem is needed.

c. Both statements I and II together are sufficient to answer the question asked but neither statement alone is sufficient

d. Only one of the statements alone is sufficient to answer the question but the other statement is not sufficient

**Solution:**
Statement I mentions only about the ratio of banana and cream. Hence, Statement I alone is not sufficient to answer the question.

Statement II mentions the ratio of price of cream and banana. But, it does not specify whether it is the cost price or selling price. Hence, Statement II alone is not sufficient to answer the question.

Combining Statement I and Statement II, we will not be able to determine the cost price or selling price. Hence, Statements I and II together are not sufficient to answer the question asked and additional data to the problem is needed

15. **The question given below is followed by two statements I and II. Determine if the statements are, individually or together, sufficient to answer the question.**

**Question:** Was the discount percentage offered on an item greater than 18%?

**Statements:**

I. The marked price was at least $350 and the profit made was $100

II. The cost price was $200

a. Each statement alone is sufficient to answer the question

b. Both statements I and II together are sufficient to answer the question asked but neither statement alone is sufficient

c. Statements I and II together are not sufficient to answer the question asked and additional data to the problem is needed

d. Only one of the statements alone is sufficient to answer the question but the other statement is not sufficient

**Solution:**

Given in statement I, Marked Price is greater than or equal to $350. Profit = $100.

Discount % = (Marked Price - Selling Price / Marked Price) x 100

From statement I alone, we cannot determine the discount percentage.

Given in statement II, Cost Price = $200

From statement II alone, we cannot determine the discount percentage.

Combining statements I and II.

Selling Price = Cost Price + Profit

SP = 200 + 100

Taking Marked Price as $350,

Discount % = (350 - 300) / 350 x 100

= 50/350 x 100

=14.28%

But it's given that the Marked Price is greater than or equal to $350. Hence, we cannot conclusively state that the discount percentage offered on an item is greater than 18%.

**16. Read the information given below and answer the question that follows.**

Sir persons - Adam, Sam, Benjamin, Charles, Tom and Victor are of different heights and weights. They are given ranks according to the heights and weights such that the heaviest person is the first ranker and the lightest person is the sixth ranker in the weight category and the tallest person is the first ranker and the shortest person is the sixth ranker in the height category.

i) The rank of Benjamin in each of the categories is the same as the rank of Tom in the other category.

ii) Victor is heavier as well as taller than both Sam and Charles.

iii) No person got the same rank in both the categories.

iv) Adam is the second tallest and Charles is the fourth heaviest.

v) Sam is taller than at least two persons.

vi) Tom is shorter than Sam, and Benjamin is heavier than Adam.

**What is the rank of Victor in the weight category?**

a. 3                     b. 2                     c. 1                     d. 4

**Solution:**

Ranking in the height category (Tallest to Shortest): Benjamin, Adam, Victor, Sam, Tom and Charles.

Ranking in the weight category (Heaviest to Lightest): Tom, Victor, Sam, Charles, Benjamin and Adams.

**17. Read the information given below and answer the question that follows.**

Five friends - Rachel, Mindy, Courtney, Jan and Joey (not necessarily in the same order), decided to trek the mighty El Camino de Santiago. They started on the same day and reached the final base camp on five different days. - Day 1, Day 2, Day 3, Day 4 and Day 5.

Joey was the fastest to trek to the final base camp and Courtney didn't reach at the last day. Jan reached on Day 3 - one day later than Mindy.

**On which day did Courtney reach the final base camp?**

a. Day 3                   b. Day 1                   c. Day 4                   d. Day 2

**Solution:**

Day 1 - Joey

Day 2 - Mindy

Day 3 - Jan

Day 4 - Courtney

Day 5 - Rachel

**18. Read the information given below and answer the question that follows.**

Five friends - Dana, Dylan, Frankie, Evan and Finn (not necessarily in the same order) are celebrating reunion in a cafe. Each one of them has one of these professions - Chef, Painter, Pilot, Astronaut and Secret Agent. They all play different sports - Golf, Swimming, Boxing, Table Tennis and Cycling. They were born in one of these 5 months of 1996 - March, December, May, February and April. Each one of them has travelled to different countries around the world. No two friends have the same profession, birth month, sports or the number of countries travelled to.

**The following information is known about them:**

i) Dana, who is a chef and plays golf, has her birthday exactly one month after that of Finn, who is not a pilot.

ii) Dylan, who has travelled to six countries and prefers cycling as a sport, is a painter and was not born in May.

iii) The person who plays table tennis was born in the last month of the year.

iv) Dana has travelled one less country than Dylan, and doesn't prefer swimming and table tennis as a sport.

v) The person who swims is an astronaut and was born first in the group.

vi) Evan, who is a secret agent, was born two months after Dana. Frankie was born last.

**Who was born in February 1996?**

a. Finn          b. Dylan          c. Evan          d. Frankie

**Solution:**
Dana - Chef - Golf - March - 5 countries
Dylan - Painter - Cycling - April - 6 countries
Finn - Astronaut - Swimming - February
Evan - Secret Agent - Boxing - May
Frankie - Pilot - Table Tennis – December

19. **The statements given below are followed by some conclusions. Assume the statements to be true, even if they contradict commonly known facts and determine the conclusion(s) that follows from the statements logically.**
**Statements:**
I. All soaps are toothbrushes
II. No toothbrush is a toothpaste
III. Some showers are toothpastes
**Conclusions:**
I. No toothpaste is a soap
II. All toothbrushes are showers
a. Neither I nor II follows          b. Both I and II follow
c. Only I follows                     d. Only II follows

**Solution:**
**Only I follows**
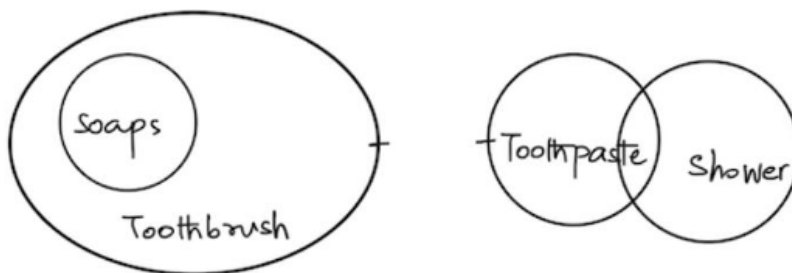


20. **The statements given below are followed by some conclusions. Assume the statements to be true, even if they contradict commonly known facts and determine the conclusion(s) that follows from the statements logically.**
**Statements:**
I. No mobile phone is a tablet
II. All tablets are laptops
III. Some laptops are computers
**Conclusions:**
I. Some computers are tablets
II. No laptop is a mobile phone

a. Only I follows

b. Only II follows

c. Neither I nor II follows

d. Both I and II follow

**Solution:**
**Neither I nor II follows**
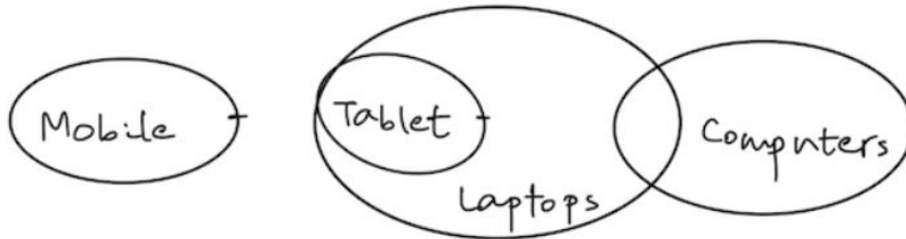


21. **The statements given below are followed by some conclusions. Assume the statements to be true, even if they contradict commonly known facts and determine the conclusion(s) that follows from the statements logically.**

**Statements:**
I. Some pencils are not pens
II. All pens are erasers
III. No eraser is sharpener

**Conclusions:**
I. No pencil is sharpener
II. All pens are not sharpeners

a. Neither I nor II follows

b. Both I and II follow

c. Only I follows

d. Only II follows

**Solution: Only II follows**
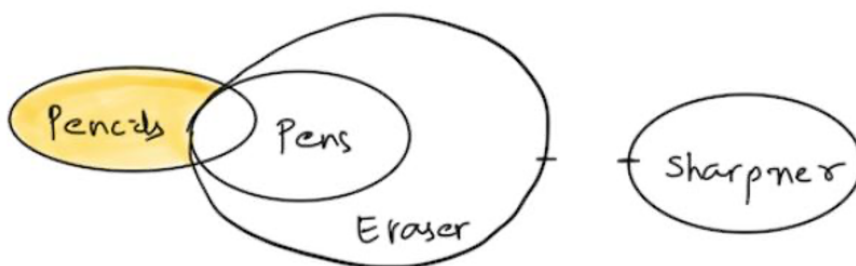


22. **If in a certain code language, 'FURNISH' is coded as 'GWURNYO', then how would 'MYSTERY' be coded in the same code language?**

a. MAUXJXF          b. NAVXHXE          c. NAVXJXF          d. NBFXJXE

**Solution:** The series follows the pattern +1, +2, +3, +4, +5, +6 and +7. Hence F becomes G (+1), U becomes W (+2), R becomes U (+3) and so on. Solving for MYSTERY we get NAVXJXF

**23.** If in a certain code language, 'ABASHMENTS' is coded as 'BDDWIOHRUU', then how would 'WATCHWOMAN' be coded in the same code language?

a. XDWHIYRQBP          b. XCURIYRQBP

c. XDUGHURQCP          d. XCWGIYRQBP

**Solution:** The series follows the pattern +1, +2, +3, +4, +1, +2 and +3, +4, +1 and +2. Hence A becomes B (+1), B becomes D (+2), A becomes D (+3), S becomes W (+4), H becomes I (+1), M becomes O (+2), and so on. Solving for WATCHWOMAN we get XCWGIYRQBP

**24.** In a certain code language, letters with an even position in the alphabet are replaced by '$' and those with odd positions are replaced by their position numbers. What is the sum of the numbers in the code for the word 'CONSCIENCE'?

a. 78          b. 77          c. 56          d. 62

**Solution:** C 3, O 15, N $, S 19, C 3, I 9, E 5, N $, C 3, E 5. 3 + 15 + 19 + 3 + 9 + 5 + 3 + 5 = 62

**25. Read the information given below and answer the question that follows.**

A farmer, an engineer, a professor, a mason and a manager are the five persons seated in a row. All of them are facing north.

i) The farmer does not wish to sit immediately next to the manager or the engineer.

ii) The manager and the mason sit immediately next to each other.

iii) The professor is at the right end of the row, and the farmer is immediately to the left of the professor.

**Who is sitting second to the right of the manager?**

a. Farmer          b. Professor          c. Mason          d. Engineer

**Solution:** Seating Order: Engineer, Manager, Mason, Farmer and Professor

**26. Read the information given below and answer the question that follows.**

Four boxes - X, Y, Z, W and three files - M, N, O are kept on a table one after the other in a row from left to right.

i) File O has as many items to its left as to its right.

ii) No box is at either end of the row.

iii) Box X is kept to the immediate right of file M, while file O is kept to the immediate left of box Z.

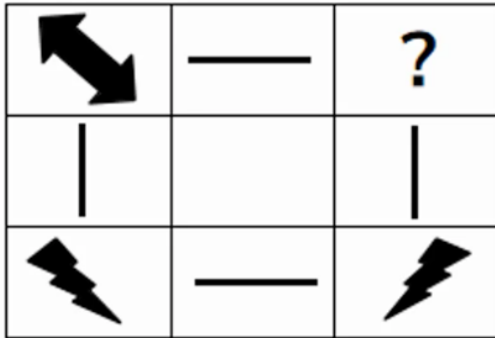**What is kept at the extreme left of the row on the table?**

a. X          b. W          c. M          d. N

**Solution:** Correct Order: M, X, Y or W, O, Z, Y or W, N

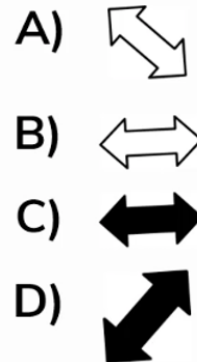27. **From the response figures identify which should complete the sequence given in the problem figure.**

Problem Figure:                                  Response Figures:
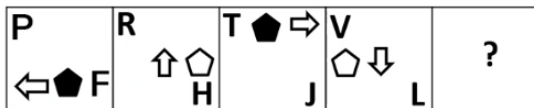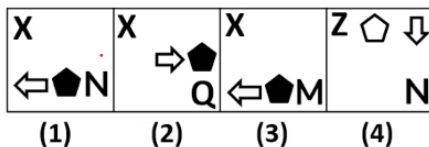


a. A                    b. B                    c. C                    d. D

**Solution:** The given set is a series of Mirror images. Hence, the answer is option D.

28. **From the response figures identify which should complete the sequence given in the problem figure.**

Problem Figure:



Response Figure:



(1)      (2)      (3)      (4)

a. 1                    b. 2                    c. 3                    d. 4

**Solution:**
i) Letters in the top left hand corner of each image in the problem figure: P +2 = R +2 = T +2 = V +2 = X. Hence, option D is eliminated.
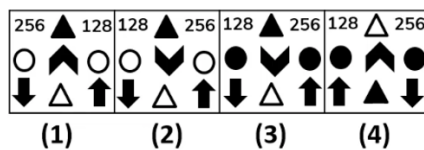ii) Letters in the bottom right hand corner of each image in the problem figure: F +2 = H +2 = J +2 = L +2 = N. Hence, options B and C are eliminated. Correct Answer is option A - Response figure 1.

29. **From the response figures identify which should complete the sequence given in the problem figure.**
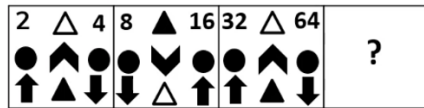
Problem Figures:



Response Figures:



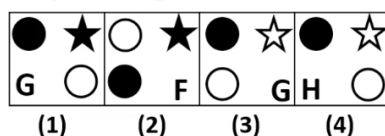a.1                   b. 2                          c. 3                          d. 4

**Solution:**

i) Numbers in the top left hand corner of each image in the problem figure: 2, 8 and 32 follow the pattern x 4. So, 2 x 4 = 8, 8 x 4 = 32, 32 x 4 = 128. Hence, option A is eliminated.

ii) Numbers in the top right hand corner of each image in the problem figure: 4, 16 and 64 follow the pattern x 4. So, 4 x 4 = 16, 16 x 4 = 64, 64 x 4 = 256.

iii) The triangles in the problem figure are shaded alternatively. With this, we can eliminate option D as well.

iv) All the circles in the problem figure are shaded. In the remaining two options, response figure 2 is not shaded. Hence, Option B is also eliminated. Correct Answer is option C - Response figure 3.

30. **From the response figures identify which should complete the sequence given in the problem figure.**

Problem Figure:
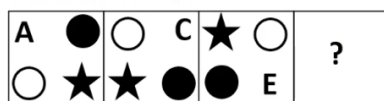


Response Figure:



a. 1                   b. 2                          c. 3                          d. 4

**Solution:**

i) A +2 = C, C +2 = E, E +2 = G. Hence, options B and D are eliminated.

ii) The letters move one step in a clockwise direction. Hence, option C is eliminated. Correct Answer is option A - Response figure 1.

31. **From the response figures identify which should complete the sequence given in the problem figure.**

Problem figures:

| | | |
|---|---|---|
| 3 △ ▲ | 6 ↑ ▲ | ? |
| ▲ ↑ ↑ | △ △ 9 | |

Response figures:

| | | | |
|---|---|---|---|
| ▲ ↑ △ | ↑ △ ▲ | ↑ ↑ | △ |
| 12 △ 12 | ▲ 10 △ | 10 | ▲ |
| (1) (2) | (3) | (4) | |

a. 1                b. 2                c. 3                d. 4

**Solution:**
i) Numbers are 3, 6 and 9. Next number should be 12. Hence, options C and D are eliminated
ii) The figures move one step in a clockwise direction. Hence, option A is eliminated. Correct Answer is option B - Response figure 2.

32. **The six members of a family M, N, O, P, Q and R are travelling together. N is the son of O but O is not the mother of N. M and O are a married couple. Q is the brother of O. P is the daughter of M. R is the brother of N. Which of the following is a pair of females?**
a. MQ                b. MP                c. NP                d. PR

**Solution:**
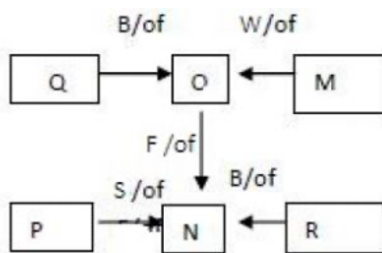


The wife M and daughter P are the 2 females.

33. **A family has a man, his wife, their four sons and their wives. The family of every son also has 3 sons and one daughter. Find out the total number of male members in the whole family.**
a. 4                b. 8                c. 12                d. 17

**Solution:** The male members in the family are:
(i) the man himself

(ii) his four sons; and

(iii) his (3 × 4) =12 grandsons.

Hence, total number of male members = (1+4+12) = 17

**34. Andy is the brother of Binoy and Cindy. Daisy is Cindy's mother. Eliot is Andy's father. Which of the following statements cannot be definitely true?**

a. Eliot is Binoy's father

b. Daisy is Andy's Mother

c. Binoy is Eliots's son

d.Andy is Daisy's son

**Solution:** Gender of B is not there in the question. Therefore, (c) is the correct option

**35. A ● B means A is the brother of B; A ★ B means A is the daughter of B; A ▪ B means A is the sister of B. If A ▪ B ▪ C ★ D ★ E ● F ● G, then how many males and females are there respectively?**

a. 4, 3        b. 3, 4        c. 5, 2        d. Cannot be determined

**Solution:** Here, G's sex is indeterminable. Hence, the answer cannot be determined. Option (d) is the answer.

**36. A girl, running after her pet dog, covered 20 ft westward. She found the dog, and then turned left and she ran another 15 ft distance. The dog got into another lane on the left and she followed for 25 ft. she succeeded in catching the dog, only after it ran for another 8 ft on the right side. She walked straight for 23 ft in the opposite direction. How far, and in which direction, has she to go in order to reach her home?**

a. 5 ft towards west

b. 7 ft towards south-east

c. 8 ft towards north

d. 15 ft towards south-west

**Solution:**



Distance travelled south 15+8 = 23 = distance travelled north

Distance travelled east = 20

Distance travelled west = 25

Therefore, she would have to travel 25-20 = 5 ft westwards

**37. A man starts walking in north-easterly direction from a particular point. After walking a distance of 500 metres. He turns southwards and walks a distance of 400 metres. At the end of this walk, he is situated**

a. 300 metres north of the starting point.  b. 300 metres east of the starting point
c. 100 metres east of the starting point  d. 100 metres north-east of the starting point
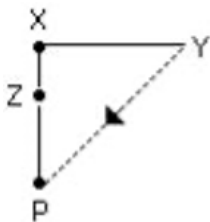
**Solution:** Distance from starting point = $\sqrt{0.5^2 - 0.4^2}$ = $\sqrt{0.25 - 0.16}$ = $\sqrt{0.09}$ = 0.3 km = 300 m
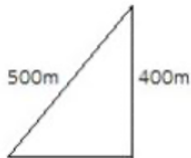


**38. Y is in the East of X which is in the North of Z. If P is in the South of Z, then in which direction of Y, is P?**
a. North  b. South  c. South-East  d. None of these

**Solution:** P is in South-West of Y



**39. In the question below are given two statements followed by four conclusions numbered I, II, III and IV. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.**

**Statements:**
All rats are cows.
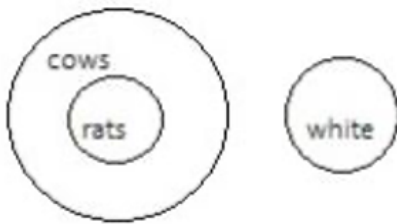No cow is white.
**Conclusions:**
I. No white is rat.
II. No rat is white.
III. Some whites are rats.
IV. All cows are rats.
a. Only II and IV follow  b. Only IV follows
c. Only I and II follow  d. None follows

**Solution:**



From the above figure, we can see that only conclusions I and II follow.

40. **The question below has a few statements, followed by four conclusions numbered I, II, III and IV. You have to consider every given statements as true, even if it does not conform to the well known facts. Read the conclusions and then decide which of the conclusions can be logically derived.**

**Statements:**
All acs are dcs.
Some dcs are ecs.
All ecs are yys.

**Conclusions:**
I. Some acs are ecs.
II. Some yys are dcs.
III. No acs is ecs.
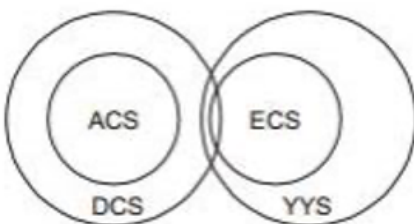IV. All dcs are acs.

a. Only II
b. Only I and II
c. Only I and III
d. Only II and either I or III

**Solution:**
II definitely follows, and either I or III follow.



41. **In a certain coded language each English alphabet denotes the letter that comes two positions earlier than it i.e. C = A, D= B, J = H, L =J, W = U, B = Z, A = Y etc. on the basis of this code find what would CKTDWU indicate?**

a. BROKER          b. AIRBUS          c. DEVISE          d. DEVOTE

**Solution:** Each letter of the word is moved two steps backward to obtain the code.
C-2 = A

K-2 = I
T-2 = R
D-2 = B
W-2 = U
U-2 = S
So CKTDWU indicates AIRBUS.

**42. The given question is followed by two statements, (A) and (B). Answer the question using the following instructions. Mark your answer as**

1. If the question can be answered by using statement A alone but not by using B alone.
2. If the question can be answered by using statement B alone but not by using A alone.
3. If the question can be answered by using either statement alone.
4. If the question can be answered by using both the statements together but not by either statement.

**Question:** Jindal Singh, Bhanu Singh and Pratap Singh together have ten cows. If each has at least one cow, how many cows does each person have?
(A) Jindal Singh has 5 more than Pratap Singh.
(B) Bhanu Singh has half as many as Jindal Singh.

a. 3                     b. 1                     c. 2                     d. 4

**Solution:**

Statement (A) => Jindal Singh = Pratap Singh + 5 =>Pratap Singh 1, Jindal Singh 6 or Pratap Singh 2, Jindal Singh 7. Statement (B) => Bhanu Singh = Jindal Singh/2 => (1, 2); (2, 4); (3, 6). Combining the two we get Pratap Singh = 1, Jindal Singh = 6, Bhanu Singh = 3.

**43. In the following problem has a question and two statements which are labeled as I and II. Use the data given in statements I and II together with common place knowledge to decide whether these statements are sufficient to answer the question.**

**Does light travel faster than sound?**
I. Light can travel in vacuum.
II. Sound cannot travel in vacuum.

a) If you can get the answer from statements I and II together, although neither statement by itself suffices.
b) If you can get the answer from statement II alone but not from statement I alone
c) If either statement I or II above is sufficient to answer the question.
d) If you cannot get the answer from statements I and II together, but need even more data.

**Solution:** Details about the speeds of light and sound are not given in the 2 statements. Therefore, the question cannot be answered.

**44. A, B, C, D and E are sitting on a bench. A is sitting next to B, C is sitting next to D, D is not sitting with E who is on the left end of the bench. C is on the second position from the right. A is to the right of B and E. A and C are sitting together. A is sitting between whom?**

a. B and D                 b. B and C                 c. E and D                 d. C and E

**Solution:**
Therefore, A is sitting in between B and C.

**45. Read the following information carefully answer the question given below:**
i. In a family of six members - A,B,C,D,E, and F there are three married couples
ii. Each of them reads a different news paper - Times of India, Indian Express, Economic Times, Free Press Journal, The Hindu and Financial Times.
iii. No lady reads either Economic times or The Hindu.
iv. A reads Indian Express and her husband reads Times of India.
v. D the father of F, reads The Hindu.
vi. C is the wife of F and E is her mother-in law.
**Who reads Times of India?**

a.C                 b. B                 c. D                 d. E

**Solution:** Looking at the information given in the question, we can deduce the following: A(wife)-Indian Express B(husband)-Times of India E(wife)-Free Press Journal/Financial Times D(husband)-The Hindu C(wife)- Free Press Journal/Financial Times F(husband)- Economic Times B reads Times of India.

**46. Geetha is the mother-in-law of Seetha who is the sister-in-law of Shyam. Kishore is father of Aditya, the only brother of Shyam. How is Geetha related to Shyam?**

a. Mother-in-law                 b. Aunt                 c. Wife                 d. Mother

**Solution:**
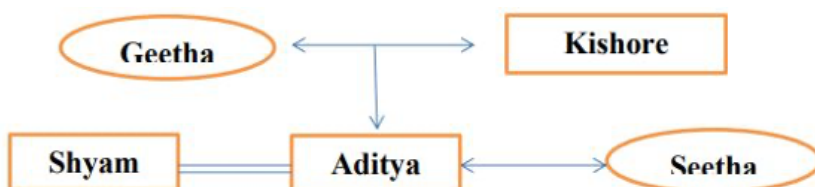


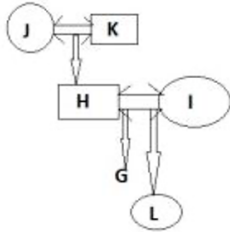**47. Read the information and answer the question:**
In a family of six persons G, H, I, J, K and L, there are two married couples. J is the grandmother of G and mother of H. I is the wife of H and mother of L. L is the granddaughter of K.
**What is I to G?**

a. Daughter                 b. Grandmother                 c. Mother                 d. Cannot be determined

**Solution:**



**Answer: Mother**

**Directions (Q48 to Q52): In each question below is given a statement followed by two assumptions numbered I and II. You have to consider the statement and the given assumptions and decide which of the assumptions is implicit in the statement.**

48. **Statement:** The school authorities have decided to increase the number of students in each classroom to seventy from the next academic session to bridge the gap between the income and the expenditure to a large extent.

**Assumptions:**

I. The income generated by way of fees of the additional students will be sufficient enough to bridge the gap.

II. The school will get all the additional students in each class from the next academic session.

A. Only assumption I is implicit          B. Only assumption II is implicit

C. Either I or II is implicit             D. Neither I nor II is implicit

**Answer: Option A**

Solution: Clearly, increasing the number of children in each class would increase the income and reduce the expenditure per child. But the response to the school's decision cannot be deduced. So, only I is implicit

49. **Statement:** The two countries have signed a fragile pact, but the vital sovereignty issue remains unresolved.

**Assumptions:**

I. The two countries cannot have a permanent peace pact.

II. The two countries may become hostile again after a short spell of time.

A. Only assumption I is implicit          B. Only assumption II is implicit

C. Either I or II is implicit             D. Neither I nor II is implicit

**Answer: Option B**

Solution: From the fact that the present pact is not a lasting one, the possibility of a permanent pact cannot be ruled out. So, I is not implicit. The statement mentions that the present pact is a

'fragile' one and the vital sovereignty issue still remains unresolved. So the same issue may rise again in the future. Thus, II is implicit.

**50. Statement: Government aided schools should have uniformity in charging various fees.**
**Assumptions:**
I. The Government's subsidy comes from the money collected by way of taxes from people.
II. The Government while giving subsidy may have stipulated certain uniform conditions regarding fees.
A. Only assumption I is implicit
B. Only assumption II is implicit
C. Either I or II is implicit
D. Neither I nor II is implicit

**Answer: Option B**
Solution: Nothing about the source of Government's subsidy can be deduced from the statement. So, I is not implicit. However, II follows from the statement and so it is implicit.

**51. Statement:** To investigate the murder of the lone resident of a flat, the police interrogated the domestic servant, the watchman of the multi-storied buildings and the liftman.
**Assumptions:**
I. The domestic servant, watchman and the liftman can give a clue about the suspected murder.
II. Generally in such cases the persons known to the resident are directly or indirectly involved in the murder.
A. Only assumption I is implicit
B. Only assumption II is implicit
C. Either I or II is implicit
D. Neither I nor II is implicit

**Answer: Option A**
Solution: Clearly, in such cases, the police interrogate the domestic servant, watchman and liftman to work out the sequence of events just before the murder by tracing the persons who had come to meet the victim. So, I is implicit However, it is erroneous to assume that persons known to the victim are generally involved in the murder. So, II is not implicit.

**52. Statement:** Amongst newspapers, I always read the National Times.
**Assumptions:**
I. The National Times gives very comprehensive news.
II. Some people prefer other newspapers.
A. Only assumption I is implicit
B. Only assumption II is implicit
C. Either I or II is implicit
D. Neither I nor II is implicit

**Answer: Option B**
Solution: The statement does not mention any quality of the National Times. So, I is not implicit. According to the statement, amongst all newspapers, the narrator reads the National Times. This means that some people read other newspapers. So, II is implicit.

**Directions (Q53 to Q56):** Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

Read both the statements and mark answer as:

(A) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

(B) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.

(C) if the data either in statement I alone or in statement II alone are sufficient to answer the question.

(D) if the data given in both the statements I and II together are not sufficient to answer the question.

(E) If the data in both the statements I and II together are necessary to answer the question.

**53. What is the number?**

I. The sum of the two digits is 8. The ratio of the two digits is 1 : 3.

II. The product of the two digit of a number is 12. The quotient of two digits is 3.

**Answer: Option C**

Explanation: Let the tens and units digit be x and y respectively. Then, I. x + y = 8 andx/y = 1 /3 I gives, 4y = 24 y = 6 So, x + 6 = 8 x = 2 II. xy = 12 and?? = 3 1 II gives,?2 = 36 x = 6 So, 3y = 6 y = 2

**54. How much profit an organisation earned in 1995?**

I. The organisation earned 30% more profit than in 1993.

II. The organisation earned 40% more profit than in 1994.

**Answer: Option D**

**55. How many students participated in the elocution?**

I. The students who participate in dancing were 150% more than that who participated in elocution.

II. 150 students participated in dancing.

**Answer: Option E**

Explanation: From both statements, number of students who participate in elocution = 150× (100 / 250) = 60

**56. How much marks did Shyam score in Hindi?**

I. He scored 15 marks more in History than Geography.

II. He scored 20 marks more in Hindi than Geography.

**Answer: Option D**

57. **Length of the hypotenuse of a right-angled triangle is 40% of its perimeter. If the perimeter of the triangle is 65 cm, then find the length of its hypotenuse.**
A. 32 cm          B. 28 cm          C. 23 cm          D. 26 cm

**Answer: D**

**Direction (Q58 to Q60): The graph given below represents the quantity of exports of a country(in million tonnes).**
**Study the graph carefully and answer the question that follows.**



Quantity of exports of a country (in million tonnes)
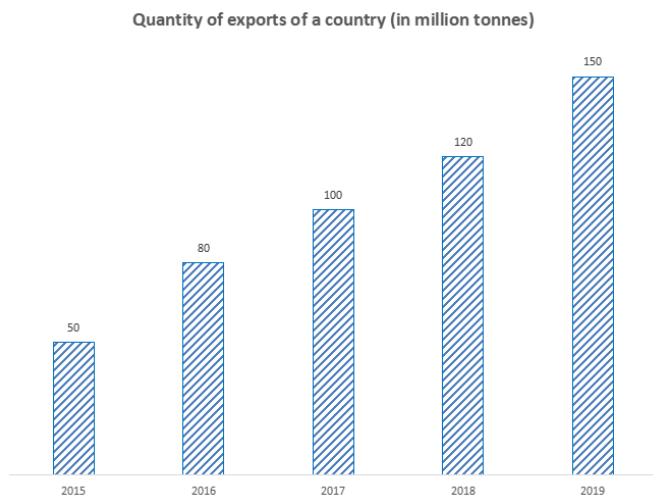
58. **What is the percentage growth in quantity of exports from 2015 to 2018?**
A. 150%          B. 140%          C. 82.5%          D. 87.5%

**Answer: B**

59. **Find the ratio of exports in the year 2016 to those in 2019.**
A. 12 : 17          B. 5 : 6          C. 8 : 15          D. 6 : 5

**Answer: C**

60. **The ratio of the monthly incomes of Andy and Ben is 6 : 7. If the sum of their monthly income is $26,000, then find Ben's monthly income.**
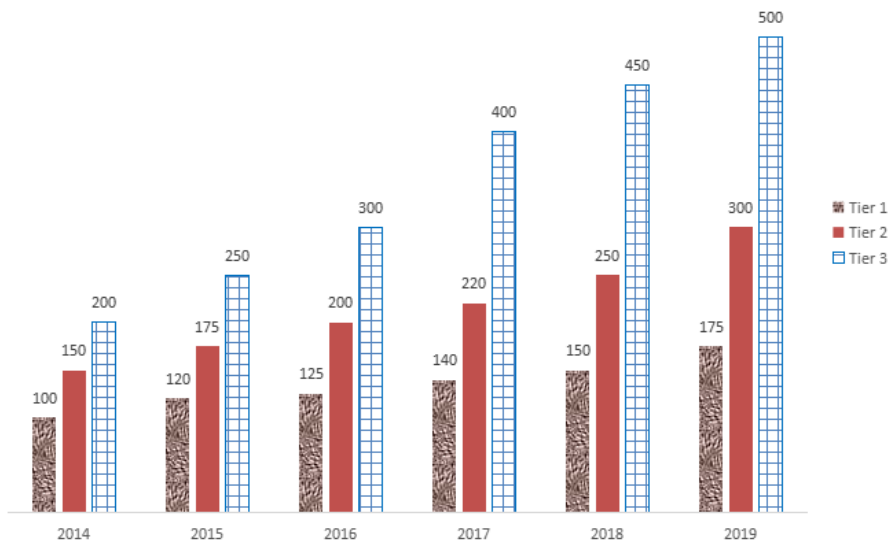A. $12,000          B. $14,000          C. $18,000          D. $8,000

**Answer: B**

**Direction (Q61 to Q63): The graph given below represents the number of engineering students (in thousands) at institutions of different kinds for the years 2014 to 2019.**
**Study the graph carefully and answer the question that follows.**



Numer of Engineering Students (in '000s) in a city

**61. In 2016, what percent of that total engineering students were studying in Tier 1 Colleges?**
A. 20%          B. 18%          C. 25%          D. 31%

**Answer: A**

**62. What is the percentage growth of total number of engineering students across the different institutions from 2014 to 2018?**
A. 88.88%       B. 85.67%       C. 95.67%       D. 92.33%

**Answer: A**

**63. If the total number of engineering students in 2013 was 40% lower than that in 2016, then find the total number of engineering students in 2013?**
A. 425000       B. 375000       C. 410000       D. 350000

**Answer: B**

**64. Find the value of 11x + 7y at (-2, 3).**
A. 1            B. 2            C. 0            D. -1

**Answer: A**

**65. From among the Response Figures (1), (2), (3) and (4) identify the one which follows the sequence given in the Problem Figure.**

PROBLEM FIGURE:

| A ● ○ | C ★ ○ | |
|---|---|---|
| ○ ★ | ★ ● ● | E |

(with ? in the last box)

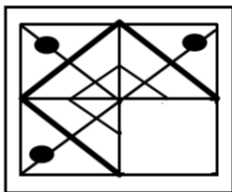RESPONSE FIGURE:

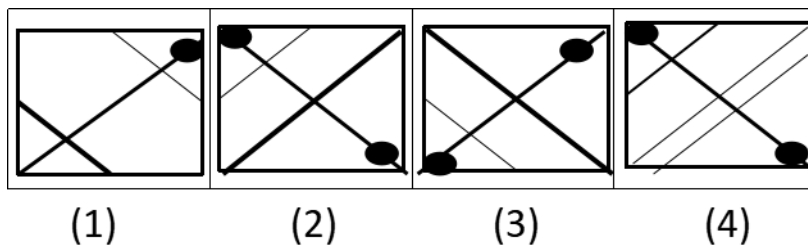| ● ★ ○ | ★ ● | ☆ ● | ☆ |
|---|---|---|---|
| G ○ F | ● H | ○ F | ● |
| (1) | (2) | (3) | (4) |

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

**Answer: A**

**66. From the Response Figure (1), (2), (3), (4) identify the one which completes the pattern given in the problem figure.**

Problem Figure:



Response Figure:



(1)          (2)          (3)          (4)

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

**Answer: C**

**Direction (Q67 and Q68): Read the instruction given below carefully and answer the question that follows.**

Michael's Company is hiring for Marketing Intern and have shortlisted five candidates - Angela, Jessica, Mindy, Karen, and Ivy (not necessarily in the same order). They all were called on one of these time slots - 10 AM, 10:30 AM, 11 AM, 11:30 AM and 12 PM.

The following information is known about their interview schedule.

- Angela and Karen's interview weren't scheduled in the last slot of the day.
- Mindy's interview was scheduled at 11 AM, and after that Jessica who was interviewed immediately after Angela.
- Karen's interview was not scheduled in first slot of the day.

**67. When was Karen interviewed?**

A. 11 AM                 B. 11:30 PM                 C. 10:30 AM                 D. 10:00 AM

**Answer: C**

**68. Who was interviewed at 12 PM?**

A. Karen                 B. Ivy                 C. Jessica                 D. Angela

**Answer: C**

**69. The statements given below are followed by some conclusions. Assume the statements to be true, even if they contradict commonly known facts and determine the conclusion(s) that follows from the statements logically.**

**Statements:**
I. All stamps are baskets
II. Some baskets are hamsters
**Conclusions:**
I. All baskets are hamsters
II. Some hamsters are stamps
a. Only I follows                           b. Only II follows
c. Neither I nor II follows                 d. Both I and II follow

**Solution: Neither I nor II follows**

**70. The statements given below are followed by some conclusions. Assume the statements to be true, even if they contradict commonly known facts and determine the conclusion(s) that follows from the statements logically.**
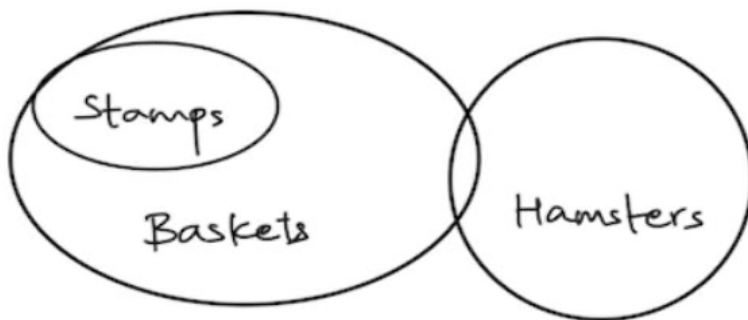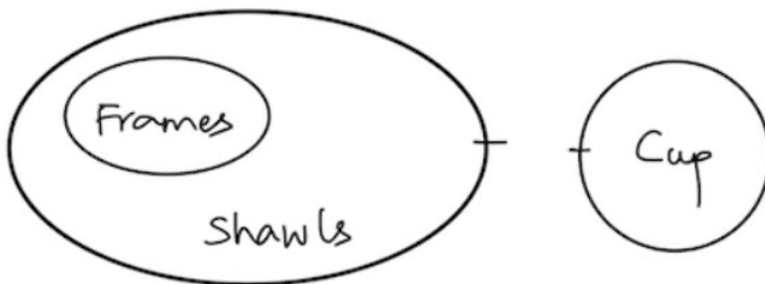
**Statements:**

I. All frames are shawls

II. No shawl is a cup

**Conclusions:**

I. All shawls are frames

II. No frame is a cup

a. Neither I nor II follows                     b. Both I and II follow

c. Only I follows                               d. Only II follows


**Solution: Only II follows**

**ADDITIONAL QUESTIONS:**

**1. Read the information given below and answer the question that follows.**
Sir persons - Adam, Sam, Benjamin, Charles, Tom and Victor are of different heights and weights. They are given ranks according to the heights and weights such that the heaviest person is the first ranker and the lightest person is the sixth ranker in the weight category and the tallest person is the first ranker and the shortest person is the sixth ranker in the height category.
i) The rank of Benjamin in each of the categories is the same as the rank of Tom in the other category.
ii) Victor is heavier as well as taller than both Sam and Charles.
iii) No person got the same rank in both the categories.
iv) Adam is the second tallest and Charles is the fourth heaviest.
v) Sam is taller than at least two persons.
vi) Tom is shorter than Sam, and Benjamin is heavier than Adam.
**Who among the following is the tallest?**
a. Tom                     b. Charles                     c. Benjamin                     d. Adam

**Solution:**
Ranking in the height category (Tallest to Shortest): Benjamin, Adam, Victor, Sam, Tom and Charles.
Ranking in the weight category (Heaviest to Lightest): Tom, Victor, Sam, Charles, Benjamin and Adams.

**2. Read the information given below and answer the question that follows.**
Five friends - Dana, Dylan, Frankie, Evan and Finn (not necessarily in the same order) are celebrating reunion in a cafe. Each one of them has one of these professions - Chef, Painter, Pilot, Astronaut and Secret Agent. They all play different sports - Golf, Swimming, Boxing, Table Tennis and Cycling. They were born in one of these 5 months of 1996 - March, December, May, February and April. Each one of them has travelled to different countries around the world. No two friends have the same profession, birth month, sports or the number of countries travelled to.
**The following information is known about them:**
i) Dana, who is a chef and plays golf, has her birthday exactly one month after that of Finn, who is not a pilot.
ii) Dylan, who has travelled to six countries and prefers cycling as a sport, is a painter and was not born in May.
iii) The person who plays table tennis was born in the last month of the year.
iv) Dana has travelled one less country than Dylan, and doesn't prefer swimming and table tennis as a sport.
v) The person who swims is an astronaut and was born first in the group.
vi) Evan, who is a secret agent, was born two months after Dana. Frankie was born last.
**Who prefers Boxing as a sport?**

![logo]

31

| a. Evan | b. Dana | c. Frankie | d. Finn |

**Solution:**

Dana - Chef - Golf - March - 5 countries

Dylan - Painter - Cycling - April - 6 countries

Finn - Astronaut - Swimming - February

Evan - Secret Agent - Boxing - May

Frankie - Pilot - Table Tennis - December

3. **In a certain code language, if each vowel of the English alphabet is coded as 5 and each of the consonants is coded as 4, then what is the code for the word 'MANAGEMENT'?**

a.4545455544                                    b.454544544

c.4545454545                                    d.4545454544

**Solution: 4545454544**

4. **If in a certain code language, 'COMMENT' is coded as 'FQPOHPW', then how would 'VARIETY' be coded in the same code language?**

a. YBVKHVC                              b. YCUKWHB

c. YCUKHVB                              d. YDUKHVB

**Solution:** The series follows the pattern +3, +2, +3, +2, +3, +2 and +3. Solving for VARIETY, we get YCUKHVB

5. **Read the information given below and answer the question that follows.**

A farmer, an engineer, a professor, a mason and a manager are the five persons seated in a row. All of them are facing north.

i) The farmer does not wish to sit immediately next to the manager or the engineer.

ii) The manager and the mason sit immediately next to each other.

iii) The professor is at the right end of the row, and the farmer is immediately to the left of the professor.

**Who is sitting between the farmer and the manager?**

a. Engineer                    b. Professor                    c. Mason          d. None of the above

**Solution:** Seating Order: Engineer, Manager, Mason, Farmer and Professor

6. **Read the information given below and answer the question that follows.**

Four boxes - X, Y, Z, W and three files - M, N, O are kept on a table one after the other in a row from left to right.

i) File O has as many items to its left as to its right.

ii) No box is at either end of the row.

iii) Box X is kept to the immediate right of file M, while file O is kept to the immediate left of box Z.

**What is kept third from the left of the row on the table?**

a. Y                    b. Z                    c. W                    d. Y or W

**Solution:** Correct Order: M, X, Y or W, O, Z, Y or W, N. Third from the left can either be Y or W.

7. **Choose the odd one out in the given series.**

3, 6, 15, 45, 157, 630, 2835

a. 6            b. 157            c. 630            d. 2835

**Answer: b. 157**

8. **Choose the odd one out in the given series.**

6, 15, 41, 179, 839

a. 15            b. 41            c. 179            d. 839

**Answer: c. 179**

Explanation: Logic is $6 \times 2 + 3 = 15$, $15 \times 3 - 4 = 41$, $41 \times 4 + 5 = 169$, $169 \times 5 - 6 = 839$ Thus the wrong number is 179, it should be 169.

9. **Choose the odd one out in the given series.**

4, 2, 3, 7.5, 26.75

a. 2            b. 3            c. 7.5            d. 26.75

**Answer: d. 26.75**

Explanation: Logic is $4 \times .5 = 2$, $2 \times 1.5 = 3$, $3 \times 2.5 = 7.5$, $7.5 \times 3.5 = 26.25$
In place of 26.75, it should be 26.25.

**Directions (Q10 and Q11): Find the analogous pair:**

10. **Jeopardy : Peril :: Jealousy : ?**

a. Envy                    b. Secure                    c. Romance                    d. Anger

**Answer: a. Envy**

11. **Venerate : Worship :: Extol : ?**

a. Recommend            b. Compliment            c. Glorify            d. Homage

**Answer: c. Glorify**

**12. Lesle sold her tow bikes, one at 10% loss and the other at 20% profit. Find her overall profit percentage if she sold both the bikes at the same price.**

A. 2.857%

B. 2.625%

C. 2.425%

D. 1.687%

**Answer: A**

**13. Martha and Sarah leave block p and q towards q and p respectively simultaneously and travel in the same route. After meeting each other on the way, Sarah takes 3 hours to reach her destination, while Martha takes 5 hours to reach her destination. If the speed of Sarah is 40 km/hr, what is the average speed of Martha and Sarah?**

A. 24.92 km/hr

B. 24.8 km/hr

C. 35.1 km/hr

D. 34.92 km/hr

**Answer: D**

**14. Judith lost an amount of $32 when she sold an item at a loss of 8%. What is the cost price of the item?**

A. $700

B. $400

C. $600

D. $500

**Answer: B**

**15. Jack and Mark together, Mark and John together can do a work in 45 days and 60 days respectively. If Jack is thrice as efficient as John, then find the number of days taken by Jack and John together to complete the job.**

A. 120 days

B. 180 days

C. 60 days

D. 90 days

**Answer: D**

**16. Oscar is twelve years older than Jack. If the present age of Jack is 9 years, then find the present age of Oscar.**

A. 18 Years

B. 14 Years

C. 21 Years

D. 17 Years

**Answer: C**

**17. Mark, Ben and Tim can do a piece of work in 12, 24 and 36 respectively. Mark starts the work and Ben joins him after one-third of the work is done. Tim joins them after half the work is done. For how many days does Tim work in order to complete it?**

A. 23/7 days

B. 36/11 days

C. 21/11 days

D. 19/13 days

**Answer: B**

**18. In a company PQR Pvt. Ltd. there are 4500 employees. When the company offered a voluntary retirement scheme (VRS), 25% of the employees applied for the VRS. After scrutinizing, the company rejected 20% of the applicants. But only 200 employees took retirement through the scheme. What percentage of the employees did not take retirement even after their applicants not being rejected?**

A. 52.56%

B. 88.89%

C. 77.77%

D. 67.67%

**Answer: C**

**19. Bryce obtained 80, 75, 75 and 60 marks (out of 100) in Botany, Zoology, Chemistry and Physics respectively. Find his average marks.**

A. 72.5

B. 84

C. 85

D. 70.2

**Answer: A**

**20. Find the missing term in the series given below.**

**7, 14, 28, 49, 77, ?, 154**

A.    112
B.    111
C.    101
D.    102

**Answer: A**

**21. Find the missing term in the series given below.**

**14, 16, 20, 26 , ?, 44**

A. 42
B. 34
C. 32
D. 44

**Answer: B**

**22. In a certain code language, letters with an odd position in the alphabet are replaced by "%", and those with even-positions are replaced by their position numbers, then what is the sum of numbers in the code for the word PROJECTION"?**

**[Note: Position number starts from 1 for "A" and ends at 26 for "Z"]**

A.  80
B.  68
C.  78
D.  77

**Answer: C**

**23. In the following question, the symbols @, %, #, !, and - are used with the following meanings illustrated.**

'M @ N' means 'M is not greater than N'.

"M % N' means 'M is neither greater than nor equal to N'.

'M # N' means 'M is not smaller than N.'

"M ! N' means 'M is neither smaller than nor equal to N'.

'M - N means 'M is neither smaller than nor greater than N'.

**Now assuming in the following question the given statements to be true, find which of the conclusions given below them is/are definitely true and give your answer accordingly.**

 **Statements:**

I. C % G
II. G - Y
III. Y # I

**Conclusions**

I. Y ! C
II. I % G
III. I - G

A. Only conclusion I, and either conclusion II or conclusion III follow
B. Only conclusion II follows
C. Only either conclusion II or conclusion III follow
D. Only conclusion I follows

**Answer: A**

**24. The statements given below are followed by some conclusions. Assume the statements are true, even if they contradict commonly known facts, and determine the conclusion/s that follow/s from the statements logically.**
**Statements:**

I. **All stamps are baskets.**
II. **Some baskets are hamsters.**

**Conclusions:**

I. **All baskets are hamsters.**
II. **Some hamsters are stamps.**

A. Neither conclusion I nor conclusion II follows
B. Only conclusion I follows
C. Both conclusion I and conclusion II follow
D. Only conclusion II follows

**Answer: A**

**25. In which of the following sentences is the occurrence of vowels the most?**
A. I need everything on this list.
B. I want you to tell me this.
C. Look at the blackboard!
D. I did not expect it to be that big.

**Answer: D**

**26. The question given below is followed by two statements numbered I and II. Determine if the statements are, individually or together, sufficient to answer the question.**
**Question: What is the Cost Price of flour?**
**Statements:**

I. I. Kevin mixes flour and sugar in the ratio 3:5 to make pretzels. He sells pretzels at $10 per kg.
II. II. The ratio of price of sugar and flour is 9:4 (per kg) and he earns 66(⅔) % profit.
A. A. Statements I and II together are not sufficient to answer the question asked and additional data to the problem is needed
B. B. Each statement alone is sufficient to answer the question
C. C. Only one of the statements, alone, is sufficient to answer the question but other statement is not
D. D. Both statements I and II together are sufficient to answer the question asked but neither statement alone is sufficient

**Answer: D**

**27. If MAHESH is written as HHHHHH, how will KARNATAKA be written in that code?**
a. TIATIATIA                                    **b. RTARTARTA**
c. IATIATIAT.                                    d. ALDALDALD

**Solution:** The letters at the third and sixth places are repeated thrice to code. Example: BOMBAY as MYMYMY. Similarly, the letters at the third, sixth and ninth places are repeated thrice to code KARNATAKA as RTARTARTA.