

Data Sufficiency

Introduction:

Data Sufficiency is one of those few topics which is a part of both the reasoning ability and quantitative aptitude section. Most Government exams conducted in the country have data sufficiency as a common topic in their syllabus.

The biggest mistake that candidates tend to make while solving the data sufficiency questions is that they choose to guess rather than solve such questions, ultimately losing marks.

In this article, we bring to you data sufficiency questions for reasoning ability with respect to both maths and logical reasoning questions and also tips and tricks to solve them.

What is Data Sufficiency?

In questions based on Data Sufficiency, candidates are given a piece of information followed by a few conditions and then a few options where they have to answer which of the given conditions shall be necessary to answer the question.

As complicated as it may seem, the data sufficiency questions may be time taking at times because of their length and multiple options. Candidates need to ensure that they do not panic seeing the length of the question and guess the answer to the questions.

Candidates willing to learn more about the upcoming Government exams, can visit the linked article and start their preparation accordingly.

Tips and Tricks To Solve Data Sufficiency Questions

There are a few tips and tricks which can be followed to solve the data sufficiency questions. Candidates can refer to these tips given below:

1. Since the questions are lengthy, candidates must not panic and carefully read the entire question. At times, the different data sufficiency questions can also be solved verbally, especially for the quantitative aptitude questions
2. Do not look for the final answer (if not asked). You mostly have to only answer which conditions will satisfy your requirements to meet the answer to the question
3. Make sure that you do not make any assumptions. The information given in the question is the only fact that needs to be considered to answer the question
4. While going point by point, try solving the answer with the first condition given. Then, keep adding on the next conditions given until you get an answer
5. Generally, no data sufficiency question asked for a calculative answer. It mostly demands the candidates to know which conditions will help you reach the answer. So first read before answering

Aspirants can refer to the links given below to prepare themselves for the other sections of the Government exam syllabus as well:

Data Sufficiency for Reasoning

Data sufficiency is a part of Logical reasoning. It must be noted that other reasoning concepts are used to form data sufficiency questions. So, candidates must not just have strong command over answering the questions from this section but also have knowledge of the other reasoning topics.

Solving more and more questions based on this topic is the key to have a better understanding of the concept and also will help in apprehending the correct approach to answer questions from this topic. Candidates can visit the Data Sufficiency Questions page and get solved sample for logical reasoning questions which may help them with their preparation.

Candidates can check the detailed logical reasoning syllabus at the linked article.

The links mentioned below will help candidates prepare themselves for the other reasoning ability syllabus topics:

Directions for data sufficiency questions (1-10):

- A. If data in the statement I alone is sufficient to answer the question.
- B. If data in the statement II alone is sufficient to answer the question.
- C. If data either in the statement I alone or statement II alone are sufficient to answer the question.
- D. If data given in both I & II together are not sufficient to answer the question.
- E. If data in both statements I & II together are necessary to answer the question.

Question 1. Who is taller among P, Q, R, S & T?

- I. S is shorter than Q. P is shorter than only T.
- II. Q is taller than only S. T is taller than P and R.

Answer : (C)

Explanation:

From I : P is shorter than only T, this means that P is taller than all Q, R & S, so T is taller.

From II : Q only taller than S, so S is shortest, and Q is second shortest, Now T taller than P and R both, So tallest of all.

Question 2. What is the distance between point P and point Q?

- I. Point R is 10 m west of point P and point S is 10 m north of point P.
- II. Point Q is 10 m south-east of point R. Point S is 20 m north-west of point Q.

Answer : (D)

Explanation:

From I : No relation between points P and Q

From II : In this since we don't know the angles between sides of the triangle forming with points PQS and PQR, PQ cannot be determined.

Question 3. How is Shubham related to Shivani?

- I. Shubham is brother of Meenal. Shivani is niece of Pooja.
- II. Neeraj is Meenal's uncle and Preeti's brother

Answer : (D)

Explanation:

Either statement can't give the answer.

From both statements we can get the relationship as Pooja is Neeraj's sister but it cannot be clearly said that Shubham & Meenal are Pooja's children or not & Shivani is Neeraj's daughter, because there can be other siblings of Neeraj and Pooja also.

Question 4. How is PRODUCT written in that code language?

- I. In a certain code language, AIEEE is written as BJFFF.
- II. In a certain code language, GYPSY is written as FXORX

Answer : (E)Explanation:

From I: All vowels are coded as next alphabets

From II: All consonants are coded as previous alphabets

So from both the statements.

Question 5. How is 'face' written in that code language?

- I. In a certain code language, 'no one with face' is coded as 'fo to om sop' and 'no one has face' is coded as 'om sit fo sop'
- II. In a certain code language, 'face of no light' is coded as 'om mot fo kiz' and 'no one is smart' is coded as 'sop fo sip lik'.

Answer : (E)

Explanation:

From I : 'no one face' is coded as 'om fo sop'

From II : 'no' is 'fo'

Now from both – 'one face' is 'om sop' and now from II: 'face of no light' is written as 'om mot fo kiz', 'face' is 'om'

Question 6. What is Monica's position with respect to Rahul?

- I. In a row of 25 students, Monica is sitting 12th from right end of row and Rahul is sitting 20th from left end of the row.
- II. Monica is 4th from right end and Rahul is 8th from left end.

Answer : (A)

Explanation:

From I: The position of both of them in a row can be known, so Monica's position can be known.

From II: Since the total number of students is not known in this case, Monica's position with respect to Rahul cannot be known.

Question 7. Who has secured less marks among P, Q, R, S & T ?

- I. S has secured less marks than only R and T.
- II. Q secured more marks than P.

Answer : (A)

Explanation:

From I: S is at 3rd position from top, & R and T at 1st or 2nd.

From II : Q's marks more than P

From both, order in descending is R/T, T/R, S, Q, P

So P has secured less marks among all.

Question 8. On which floor is Shikha residing?

- I. In a six storey building (Ground floor is parking space), Rekha is on fourth floor. Shikha likes to reside only on even numbered floors. Reema is not on the topmost floor.
- II. Reema is two floors below Peter who is 3 floors above Shikha.

Answer : (E)

Explanation:

From I: 6 storey building has 2, 4 and 6 even numbered floors, out of which Rekha is on 4th, so Shruti is on either 2 or 6. Reema is not on 6 (top-most), but since it is not given Reema also stays on an even numbered floor, nothing can be known about Shikha

From II : Peter is 3 floors above Shikha, this means that Shikha will have to be at 1, 2 or 3 floor, so that Peter is at 3 above Shikha's floor.

From both, Shikha is at 2nd floor.

Question 9 : Amit is facing which direction?

- I. Shikha is facing east direction and if she turns to her right she will face Raj.
- II. Amit is facing opposite direction as that of Kiran who is facing Shikha.

Answer : (D)**Explanation:**

From I: Can't be found from I because no mention of Amit.

From II : Cannot be found because don't know the direction of either Kiran or Shikha.

From both also we cannot found because we don't know when Kiran is facing Shikha – when Shikha facing east or when Shikha after turning right faces south.

Question 10: In which month is Meena's birthday?

- I. Shikha remembers that Meena's birthday was 4 months ago.
- II. Raj remembers that after 2 months from now, Meena's birthday will be 6 months back.

Answer : (D)

Explanation:

Since in each statement we do not know that which month is going on right now, question cannot be answered.

Directions to Solve

In 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

Give answer

- (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 statements I and II together are not sufficient to answer the question and
- (E) If the data in both statements I and II together are necessary to answer the question.

1. **Question:** In which year was Rahul born ?

Statements:

- I. Rahul at present is 25 years younger to his mother.
- II. Rahul's brother, who was born in 1964, is 35 years younger to his mother.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option **E**

Explanation:

From both I and II, we find that Rahul is $(35 - 25) = 10$ years older than his brother, who was born in 1964. So, Rahul was born in 1954.

Question: What will be the total weight of 10 poles, each of the same weight ?

Statements:

- I. One-fourth of the weight of each pole is 5 kg.
- II. The total weight of three poles is 20 kilograms more than the total weight of two poles.

2.

- A** I alone is sufficient while II alone is not sufficient
- B** II alone is sufficient while I alone is not sufficient
- C** Either I or II is sufficient
- D** Neither I nor II is sufficient
- E** Both I and II are sufficient

Answer: Option **C**

Explanation:

From I, we conclude that weight of each pole = (4×5) kg = 20 kg.

So, total weight of 10 poles = (20×10) kg = 200 kg.

From II, we conclude that:

Weight of each pole = (weight of 3 poles) - (weight of 2 poles) = 20 kg.

So, total weight of 10 poles = (20×10) kg = 200 kg.

3. **Question:** How many children does M have ?

Statements:

- I. H is the only daughter of X who is wife of M.
- II. K and J are brothers of M.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option D

Explanation:

From I, we conclude that H is the only daughter of M. But this does not indicate that M has no son. The information given in II is immaterial.

4. **Question:** How much was the total sale of the company ?

Statements:

- I. The company sold 8000 units of product A each costing Rs. 25.
- II. This company has no other product line.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option E

Explanation:

From I, total sale of product A = Rs. $(8000 \times 25) = \text{Rs. } 200000$.

From II, we know that the company deals only in product A.

This implies that sale of product A is the total sale of the company, which is Rs. 200000.

5. **Question:** The last Sunday of March, 2006 fell on which date ?

Statements:

I. The first Sunday of that month fell on 5th.

II. The last day of that month was Friday.

A. I alone is sufficient while II alone is not sufficient

B. II alone is sufficient while I alone is not sufficient

C. Either I or II is sufficient

D. Neither I nor II is sufficient

E. Both I and II are sufficient

Answer: Option **C**

Explanation:

From I, we conclude that 5th, 12th, 19th and 26th of March, 2006 were Sundays.

So, the last Sunday fell on 26th.

From II, we conclude that 31st March, 2006 was Friday. Thus, 26th March, 2006 was the last Sunday of the month.

6. **Question:** What is the code for 'sky' in the code language ?

Statements:

- I. In the code language, 'sky is clear' is written as 'de ra fa'.
- II. In the same code language, 'make it clear' is written as 'de ga jo'.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option D

Explanation:

The only word common to I and II is 'clear' and as such, only the code for 'clear' can be ascertained from the given information.

7. **Question:** How many children are there between P and Q in a row of children ?

Statements:

- I. P is fifteenth from the left in the row.
- II. Q is exactly in the middle and there are ten children towards his right.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option E

Explanation:

From II, Q being in the middle, there are 10 children to his right as well as to his left. So, Q is 11th from the left. From I, P is 15th from the left.

Thus, from both I and II, we conclude that there are 3 children between P and Q.

8. **Question:** How is T related to K?

Statements:

- I. R's sister J has married T's brother L, who is the only son of his parents.
- II. K is the only daughter of L and J.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option E

Explanation:

From I, we know that L is T's brother and J's husband. Since L is the only son of his parents, T is L's sister.

From II, we know that K is L's daughter.

Thus, from I and II, we conclude that T is the sister of K's father i.e. T is K's aunt.

9. **Question:** How is J related to P ?

Statements:

- I. M is brother of P and T is sister of P.

II. P's mother is married to J's husband who has one son and two daughters.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option **B**

Explanation:

From II, we know that P's mother is married to J's husband, which means that J is P's mother.

10. **Question:** How is X related to Y ?

Statements:

- I. Y and Z are children of D who is wife of X.
- II. R's sister X is married to Y's father.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option C

Explanation:

From I, we conclude that Y is the child of D who is wife of X i.e. X is Y's father.

From II, X is married to Y's father. This implies that X is Y's mother.

11. **Question:** Who is to the immediate right of P among five persons P, Q, R, S and T facing North ?

Statements:

- I. R is third to the left of Q and P is second to the right of R.
- II. Q is to the immediate left of T who is second to the right of P.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option C

Explanation:

From I, we have the order: R, -, P, Q.

From II, we have the order: P, Q, T.

Clearly, each one of the above two orders indicates that Q is to the immediate right of P.

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12. **Question:** On which date of the month was Anjali born in February 2004 ?

Statements:

- I. Anjali was born on an even date of the month.
- II. Anjali's birth date was a prime number.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option E

Explanation:

From I and II, we conclude that Anjali was born in February 2004 on a date which is an even prime number. Since the only even prime number is 2, so Anjali was born on 2nd February, 2004.

13. **Question:** How is X related to Y?

Statements:

- I. Y says, "I have only one brother".
- II. X says, "I have only one sister".

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option **D**

Explanation:

The statements in I and II do not provide any clue regarding relation between X and Y.

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14. **Question:** How is F related to P?

Statements:

- I. P has two sisters M and N.
- II. F's mother is sister of M's father.

- A.** I alone is sufficient while II alone is not sufficient
- B.** II alone is sufficient while I alone is not sufficient
- C.** Either I or II is sufficient
- D.** Neither I nor II is sufficient
- E.** Both I and II are sufficient

Answer: Option **E**

Explanation:

From I and II, we conclude that P is M's brother and so M's father is P's father. So, F is the child of the sister of P's father i.e. F's mother is P's aunt or F is P's cousin.

15. **Question:** B is the brother of A. How is A related to B ?

Statements:

- I. A is the sister of C.
- II. E is the husband of A.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option C

Explanation:

B is A's brother means A is either brother or sister of B. Now, each one of I and II individually indicates that A is a female, which means that A is B's sister.

16. **Question:** How many children are there in the row of children facing North ?

Statements:

- I. Vishakha who is fifth from the left end is eighth to the left of Ashish who is twelfth from the right end.
- II. Rohit is fifth to the left of Nisha who is seventh from the right end and eighteenth from the left end.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option C

Explanation:

Since 8th to the left of 12th from the right is 20th from the right, so from I, we know that Vishakha is 5th from left and 20th from right i.e. there are 4 children to the left and 19 to the right of Vishakha. So, there are $(4 + 1 + 19)$ i.e. 24 children in the row.

From II, Nisha is 7th from right and 18th from left end of the row.

So, there are $(6 + 1 + 17) = 24$ children in the row.

17. **Question:** How many doctors are practising in this town ?

Statements:

- I. There is one doctor per seven hundred residents.

- II. There are 16 wards with each ward having as many doctors as the number of wards.
- A. I alone is sufficient while II alone is not sufficient
 - B. II alone is sufficient while I alone is not sufficient
 - C. Either I or II is sufficient
 - D. Neither I nor II is sufficient
 - E. Both I and II are sufficient

Answer: Option **B**

Explanation:

From I, total number of doctors in town = $(1/700 \times N)$, where N = total number of residents in town. But, the value of N is not known.

From II, total number of doctors in town

= (Number of wards in town) \times (Number of doctors in each ward)

= $16 \times 16 = 256$.

18. **Question:** On which day of the week was birthday of Sahil ?

Statements:

- I. Sahil celebrated his birthday the very next day on which Arun celebrated his birthday.
- II. The sister of Sahil was born on the third day of the week and two days after Sahil was born.

- A.** I alone is sufficient while II alone is not sufficient
- B.** II alone is sufficient while I alone is not sufficient
- C.** Either I or II is sufficient
- D.** Neither I nor II is sufficient
- E.** Both I and II are sufficient

Answer: Option **B**

Explanation:

I does not mention the day of the week on the birthday of either Arun or Sahil.

According to II, Sahil's sister was born on Wednesday and Sahil was born two days before Wednesday i.e. on Monday.

19. **Question:** How many pages of book X did Robert read on Sunday ?

Statements:

- I. The book has 300 pages out of which two-thirds were read by him before Sunday.
- II. Robert read the last 40 pages of the book on the morning of Monday.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option E

Explanation:

From I and II, we find that Robert read $(300 \times \frac{2}{3})$ i.e. 200 pages before Sunday and the last 40 pages on Monday.

This means that he read $[300 - (200 + 40)]$ i.e. 60 pages on Sunday.

20. **Question:** How is Tanya related to the man in the photograph ?

Statements:

- I. Man in the photograph is the only son of Tanya's grandfather.
- II. The man in the photograph has no brothers or sisters and his father is Tanya's grandfather.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option **B**

Explanation:

From I, we conclude that the man is the only son of Tanya's grandfather i.e. he is Tanya's father or Tanya is the man's daughter.

From II, we conclude that the man's father is Tanya's grandfather.
Since the man has no brothers or sisters, so he is Tanya's father or
Tanya is the man's daughter.

21. **Question:** Among T, V, B, E and C, who is the third from the top when arranged in the descending order of their weights ?

Statements:

- I. B is heavier than T and C and is less heavier than V who is not the heaviest.
- II. C is heavier than only T.

- A.** I alone is sufficient while II alone is not sufficient
- B.** II alone is sufficient while I alone is not sufficient
- C.** Either I or II is sufficient
- D.** Neither I nor II is sufficient
- E.** Both I and II are sufficient

Answer: Option **A**

Explanation:

From I, we have: $B > T$, $B > C$, $V > B$. Thus, V is heavier than each one of B, T and C. But V is not the heaviest. So, E is the heaviest.

Thus, we have the order. $E > V > B > T > C$ or $E > V > B > C > T$. Clearly, B is third from the top.

22. **Question:** Which word in the code language means 'flower' ?

Statements:

I. 'de fu la pane' means 'rose flower is beautiful' and 'la quiz' means 'beautiful tree'.

II. 'de la chin' means 'red rose flower' and 'pa chin' means 'red tea'.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option **D**

Explanation:

From the two statements given in I, the code for the only common word 'beautiful' can be determined.

From the two statements given in II, the code for the only common word 'red' can be determined.

In I and II, the common words are 'rose and 'flower' and the common code words are 'de' and 'la'. So, the code for 'flower' is either 'de' or 'la'.

23. **Question:** How many students in a class play football ?

Statements:

- I. Only boys play football.

II. There are forty boys and thirty girls in the class.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option **D**

Explanation:

It is not mentioned whether all the boys or a proportion of them play football.

24. **Question:** Who is C's partner in a game of cards involving four players A, B, C and D ?

Statements:

- I. D is sitting opposite to A.
- II. B is sitting right of A and left of D.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option C

Explanation:

Clearly, each of the given statements shows that B is sitting opposite to C or B is the partner of C.

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25. **Question:** On a T.V. channel, four serials A, B, C and D were screened, one on each day, on four consecutive days but not necessarily in that order. On which day was the serial C screened ?

Statements:

- I. The first serial was screened on 23rd, Tuesday and was followed by serial D.
- II. Serial A was not screened on 25th and one serial was screened between serials A and B.

- A.** I alone is sufficient while II alone is not sufficient
- B.** II alone is sufficient while I alone is not sufficient
- C.** Either I or II is sufficient
- D.** Neither I nor II is sufficient
- E.** Both I and II are sufficient

Answer: Option **E**

Explanation:

From I, we know that the serials were screened on 23rd, 24th, 25th and 26th.

Clearly, D was screened second i.e. on 24th, Wednesday.

From II, we know that one serial was screened between A and B.

So, A and B were screened first and third, i.e. on 23rd and 25th.

But, A was not screened on 25th.

So, A was screened on 23rd and B on 25th. Thus, C was screened on 26th, Friday.

26. **Question:** How is Sulekha related to Nandini ?

Statements:

I. Sulekha's husband is the only son of Nandini's mother.

II. Sulekha's brother and Nandini's husband are cousins.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option C

Explanation:

From I, we conclude that Sulekha is the wife of Nandini's mother's only son i.e. Nandini's brother. Thus, Sulekha is Nandini's sister-in-law.

From II, we conclude that Sulekha is the cousin of Nandini's husband, which implies that Sulekha is Nandini's sister-in-law.

27. **Question:** Can Ritesh retire from office X in January 2006, with full pension benefits ?

Statements:

- I. Ritesh will complete 30 years of service in office X in April 2000 and desires to retire.
- II. As per office X rules, an employee has to complete minimum 30 years of service and attain age of 60. Ritesh has 3 years to complete age of 60.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option E

Explanation:

Clearly, the facts given in I and II contain two conditions to be fulfilled to get retirement and also indicate that Ritesh fulfills only one condition out of them.

28. **Question:** What is the code for 'or' in the code language?

Statements:

I. 'nik sa te' means 'right or wrong', 'ro da nik' means 'he is right' and 'fe te ro' means 'that is wrong'.

II. 'pa nik la' means 'that right man', 'sa ne pa' means 'this or that' and 'ne ka re' means 'tell this there'.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option C

Explanation:

I. In 'right or wrong' and 'he is right', the common word is 'right' and the common code word is 'nik'. So 'nik' means 'right'. In 'right or wrong' and 'that is wrong', the common word is 'wrong' and the common code word is 'te'. So, 'te' means 'wrong'.

Thus, in 'right or wrong', 'sa' is the code for 'or'. II. In 'that right man' and 'this or that', the common word is 'that' and the common code word is 'pa'. So, 'pa' means 'that'. In 'this or that' and 'tell this there', the common word is 'this' and the common code word is 'ne'. So, 'ne' means 'this'. Thus, in 'this or that', 'sa' is the code for 'or'.

29. **Question:** Madan is elder than Kamal and Sharad is younger than Arvind. Who among them is the youngest ?

Statements:

I. Sharad is younger than Madan.

II. Arvind is younger than Kamal.

A. I alone is sufficient while II alone is not sufficient

B. II alone is sufficient while I alone is not sufficient

C. Either I or II is sufficient

D. Neither I nor II is sufficient

E. Both I and II are sufficient

Answer: Option **B**

Explanation:

As given, we have: $M > K, A > S$.

From II, $K > A$. Thus, we have: $M > K > A > S$.

So, Sharad is the youngest. From I, $M > S$. Thus, we have:

$M > K > A > S$ or $M > A > K > S$ or $M > A > S > K$.

30. **Question:** On which date in August was Kapil born ?

Statements:

- I. Kapil's mother remembers that Kapil was born before nineteenth but after fifteenth.
- II. Kapil's brother remembers that Kapil was born before seventeenth but after twelfth.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option E

Explanation:

From I, we conclude that Kapil was born on any one of the dates among 16th, 17th and 18th.

From II, we conclude that Kapil was born on any one of the dates among 13th, 14th, 15th and 16th.

Thus, from both I and II, we conclude that Kapil was born on 16th August.

31. **Question:** What is Gagan's age ?

Statements:

- I. Gagan, Vimal and Kunal are all of the same age.

II. Total age of Vimal, Kunal and Anil is 32 years and Anil is as old as Vimal and Kunal together.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option E

Explanation:

As given in I and II, we have: $G = V = K$, $V + K + A = 32$ and $A = V + K$.

Putting $V + K = A$ in $V + K + A = 32$, we have: $2A = 32$ or $A = 16$.

Thus, $V + K = 16$ and $V = K$. So, $V = K = 8$. Thus, $G = 8$.

-
32. **Question:** In a certain code, '13' means 'stop smoking' and '59' means 'injurious habit'. What do '9' and '5' mean respectively in that code ?

Statements:

- I. '157' means 'stop bad habit'.
- II. '839' means 'smoking is injurious'.

- A.** I alone is sufficient while II alone is not sufficient
- B.** II alone is sufficient while I alone is not sufficient
- C.** Either I or II is sufficient
- D.** Neither I nor II is sufficient
- E.** Both I and II are sufficient

Answer: Option C

Explanation:

'59' means 'injurious habit' and '157' means 'stop bad habit' (from I). Thus, the common code number '5' stands for common word 'habit'. So, '9' represents 'injurious'. Hence, I is sufficient.

Also, '59' means 'injurious habit' and '839' means 'smoking is injurious'. Thus, the common code number '9' stands for common word 'injurious'. So, '5' represents 'habit'. Thus, II is also sufficient.,

33. **Question:** How much money do Vivek and Suman have together ?

Statements:

I. Suman has 20 rupees less than what Tarun has.

II. Vivek has 30 rupees more than what Tarun has.

A. I alone is sufficient while II alone is not sufficient

B. II alone is sufficient while I alone is not sufficient

C. Either I or II is sufficient

D. Neither I nor II is sufficient

E. Both I and II are sufficient

Answer: Option **D**

Explanation:

From I, we have: $S = T - 20$.

From II, we have: $V = T + 30$.

Thus, from both I and II, we have: $V + S = (T + 30) + (T - 20) = (2T + 10)$.

So, to get the required amount, we need to know the amount that Tarun has.

34. **Question:** Among Monika, Anita, Sonal, Ratna and Tanvy, who came last for the programme ?

Statements:

I. Monika came after Anita but not after Tanvy.

II. Ratna came after Tanvy but not after Sonal.

A. I alone is sufficient while II alone is not sufficient

B. II alone is sufficient while I alone is not sufficient

C. Either I or II is sufficient

D. Neither I nor II is sufficient

E. Both I and II are sufficient

Answer: Option **E**

Explanation:

From I, we have the order : A, M, T.

From II, we have the order: T, R, S.

Combining the above two, we get the order: A, M, T, R, S.

Thus, Sonal came last for the programme.

35. **Question:** Who among P, Q, R, S and T is the lightest?

Statements:

- I. R is heavier than Q and T but lighter than S.
- II. S is not the heaviest.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option D

Explanation:

From I, we have: $R > Q$, $R > T$, $S > R$ i.e. $S > R > Q > T$ or $S > R > T > Q$.

From II, S is not the heaviest. So, P is the heaviest. Thus, we have:
 $P > S > R > Q > T$ or $P > S > R > T > Q$. Hence, either T or Q is the lightest

36. **Question:** How is T related to K?

Statements:

- I. K has two sons; one of the sons is A.
 - II. The mother of T has only two sons - A and B.
-
- A.** I alone is sufficient while II alone is not sufficient
 - B.** II alone is sufficient while I alone is not sufficient
 - C.** Either I or II is sufficient
 - D.** Neither I nor II is sufficient
 - E.** Both I and II are sufficient

Answer: Option **E**

Explanation:

From II, we know that T's mother has only two sons, A and B. This implies that T is the sister of both A and B. But, from I, A is also K's son. So, T is the daughter of K.

37. **Question:** What is the shortest distance between Devipur and Durgapur ?

Statements:

I. Durgapur is 20 kms away from Rampur.

II. Devipur is 15 kms away from Rampur.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option D

Explanation:

Clearly, the distance of each village from Rampur is given in I and II. But nothing about their relative positions is mentioned. So, the distance between the two villages cannot be calculated.

38. **Question:** How is A related to D ?

Statements:

I. B is the brother of A.

II. B is D's son.

A. I alone is sufficient while II alone is not sufficient

B. II alone is sufficient while I alone is not sufficient

C. Either I or II is sufficient

D. Neither I nor II is sufficient

E. Both I and II are sufficient

Answer: Option **D**

Explanation:

From I and II, we conclude that A is either son or daughter of D.

39. **Question:** Manoj, Prabhakar, Akash and Kamal are four friends.

Who among them is the heaviest ?

Statements:

I. Prabhakar is heavier than Manoj and Kamal but lighter than Akash.

II. Manoj is lighter than Prabhakar and Akash but heavier than Kamal.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient
- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

Answer: Option A

Explanation:

From I, we have: $P > M$, $P > K$, $A > P$.

Thus, $A > P > M > K$ or $A > P > K > M$. So, Akash is the heaviest.

From II, we have: $P > M$, $A > M$, $M > K$.

Thus, $A > P > M > K$ or $P > A > M > K$. So, either Akash or Prabhakar is the heaviest.

40. **Question:** Vinod's and Javed's salaries are in the proportion of 4 : 3 respectively. What is Vinod's salary ?

Statements:

- I. Javed's salary is 75% that of Vinod's salary.
- II. Javed's salary is Rs 4500.

- A.** I alone is sufficient while II alone is not sufficient
- B.** II alone is sufficient while I alone is not sufficient
- C.** Either I or II is sufficient
- D.** Neither I nor II is sufficient
- E.** Both I and II are sufficient

Answer: Option **B**

Explanation:

Statement I is merely an interpretation of the information contained in the question.

However, Vinod's salary can be ascertained from II as follows : Let Vinod's and Javed's salaries be $4x$ and $3x$ respectively. Then, $3x = 4500$ or $x = 1500$. Therefore Vinod's salary = $4x = \text{Rs. } 6000$.

Q 41. How many children are there between Priya and Rashmi in a row of children?

Statement I: Priya is fifteenth from the left in the row

Statement II: Rashmi is exactly in the middle and there are ten children towards his right

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

Answer: (3) E

Q 42. How is A related to B?

Statement I: Q's sister A is married to B's father

Statement II: B and X are children of P who is wife of A

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

Answer: (4) C

Q 43. When will Mohan celebrate his birthday this year?

Statement I: Mohan's birthday is between March 13 and 15, March 13 is Wednesday.

Statement II: It is not on Friday.

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

Answer: 5 (E)

Q 44. What is the code for 'clouds' in the code language?

Statement I: In the code language, 'clouds is blue' is written as 'se ra fa'.

Statement II: In the same code language, 'make it blue' is written as 'se ga zo'.

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

Answer: (4) D

Directions (Q45-Q48): For each of the questions given below, two statements I & II have been given. Analyse and answer whether the data provided in the two statements are sufficient to answer the question or not. Read the statements and choose from the options given below:

- A. If the data alone in statement I is sufficient to answer the question, while the data alone in statement II is not sufficient to answer the question
- B. If the data alone in statement II is sufficient to answer the question, while the data alone in statement I is not sufficient to answer the question
- C. Data in either statement I or statement II is sufficient to answer the question
- D. If data in the two statements together is also not sufficient to answer the question
- E. If data in both statements together is necessary to answer the question

Q 45. In which year was Rahul born?

Statement I: Rahul at present is 25 years younger to his mother.

Statement II: Rahul's brother, who was born in 1964, is 35 years younger to his mother.

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

Answer: (5) E

Q 46. If the current year is 2020, In which year was Gopal born?

Statement I: Gopal is 6 years older than Dev.

Statement II: Dev was born in 1982.

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

Answer: (4) E

Q 47. How much money was invested by Ajay?

Statement I: Total amount received by Bharat after 3 years is Rs.4800 at compound interest.

Statement II: Bharat and Ajay invested their amount at the rate of 10% per annum.

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

Answer: (5) D

Q 48. Number of females from village C in all the years together is what percent of the total number of employees from village C in all the years together?

Statement I: Total number of employees from village C in 2017 is 280 and the ratio of the number of females to males from C in 2017 is 4: 3.

Statement II: 60% of the total number of employees from village C in 2014 to 2017 is males.

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

Answer: (4) E

Q 49. What is the average (arithmetic mean) of a, b, and c ?

(1) $a + 2b + 3c = 10$

(2) $3a + 2b + c = 14$

Answer Choices:

A. Statement (1) ALONE is sufficient but statement (2) ALONE is not sufficient.

B. Statement (2) ALONE is sufficient but statement (1) ALONE is not sufficient.

C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

D. EACH statement ALONE is sufficient.

E. Statements (1) and (2) TOGETHER are not sufficient.

Answer: C

Answer Explanation: The average of a , b , and c is $\frac{a+b+c}{3}$. Statement (1) says that $a+2b+3c = 10$, but there is not enough information to determine the value of $a+b+c$. Thus, statement (1) alone is not sufficient. Similarly, the equation statement (2) also fails to give enough information, so statement (2) alone is not sufficient. If the equations in statements (1) and (2) are added together, term by term, the result is $4a+4b+4c=24$, which means that $a+b+c = 6$. The average is therefore $\frac{6}{3} = 2$. Thus, BOTH statements TOGETHER are sufficient to answer the question. The best answer is C.

Q 50. By what percent was the price of a certain candy bar increased?

(1)The price of the candy bar was increased by 5 cents.

(2)The price of the candy bar after the increase was 45 cents.

Answer Choices:

A. Statement (1) ALONE is sufficient but statement (2) ALONE is not sufficient.

B. Statement (2) ALONE is sufficient but statement (1) ALONE is not sufficient.

C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

D. EACH statement ALONE is sufficient.

E. Statements (1) and (2) TOGETHER are not sufficient.

Answer: C

Answer Explanation: In (1), only the increase in price is given, and both the original and final prices are unknown. Thus, the percent increase cannot be determined from (1) alone, and the answer must be B, C, or E. In (2), only the final price is given, so the percent increase cannot be determined from (2) alone, and the answer must be C or E. From (1) and (2) together, the amount of the increase is known and the price before the increase can be computed. Therefore, the percent increase can be determined, and the best answer is C.

Q 51. Is the integer n odd?

- (1) n is divisible by 3.
- (2) n is divisible by 5.

Answer Choices:

- A. Statement (1) ALONE is sufficient but statement (2) ALONE is not sufficient.
- B. Statement (2) ALONE is sufficient but statement (1) ALONE is not sufficient.
- C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
- D. EACH statement ALONE is sufficient.
- E. Statements (1) and (2) TOGETHER are not sufficient.

Answer: E

Answer Explanation: In statement (1), n is divisible by 3, but n may be even or odd as the examples $n = 6$ and $n = 9$ show. Similarly, in statement (2), n is divisible by 5, but it may be even or odd as the examples $n = 10$ and $n = 15$ show. Since neither statement alone is sufficient, the answer must be C or E. From (1) and (2) together, n must be divisible by 15, and the examples $n = 30$ and $n = 45$ show that n may be even or odd. Thus, the best answer is E.

Q 51. A shirt and a pair of gloves cost a total of \$41.70. How much does the pair of gloves cost?

(1)The shirt costs twice as much as the gloves.

(2)The shirt costs \$27.80.

Answer Choices:

A. Statement (1) ALONE is sufficient but statement (2) ALONE is not sufficient.

B. Statement (2) ALONE is sufficient but statement (1) ALONE is not sufficient.

C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

D. EACH statement ALONE is sufficient.

E. Statements (1) and (2) TOGETHER are not sufficient

Answer: D

Answer Explanation: From (1) it can be determined that the total cost of the shirt and gloves is three times the cost of the gloves alone; in other words, the gloves cost one third as much as the shirt and gloves together. Thus, (1) alone is sufficient, and the answer must be A or D. Since the cost of the gloves is the difference between the total cost, \$41.70, and the cost of the shirt, statement (2) alone is also sufficient. The best answer is therefore D.

Q 52. If on a fishing trip Jim and Tom each caught some fish, which one caught more fish?

(1) Jim caught $\frac{2}{3}$ as many fish as Tom.

(2) After Tom stopped fishing, Jim continued to fish until he caught 12 fish.

Answer Choices:

A. Statement (1) ALONE is sufficient but statement (2) ALONE is not sufficient.

B. Statement (2) ALONE is sufficient but statement (1) ALONE is not sufficient.

C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

D. EACH statement ALONE is sufficient.

E. Statements (1) and (2) TOGETHER are not sufficient.

Answer: A

Answer Explanation: Statement (1) indicates that Jim caught fewer fish than Tom. Therefore, (1) alone is sufficient to answer the question, and the

answer must be A or D. Statement (2) gives no information about the number of fish Tom caught. Therefore, (2) alone is not sufficient. And the best answer is A.

Q 53. From May 1, 1960 to May 1, 1975 the closing price of a share of stock X doubled. What was the closing price of a share of stock X on May 1, 1960?

(1) From May 1, 1975, to May 1, 1984, the closing price of a share of stock X doubled.

(2) From May 1, 1975, to May 1, 1984, the closing price of a share of stock X increased by \$4.50.

Answer Choices:

A. Statement (1) ALONE is sufficient but statement (2) ALONE is not sufficient.

B. Statement (2) ALONE is sufficient but statement (1) ALONE is not sufficient.

C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

D. EACH statement ALONE is sufficient.

E. Statements (1) and (2) TOGETHER are not sufficient.

Answer: C

Answer Explanation: Neither statement (1) alone nor statement (2) alone gives any information about the price from 1960 to 1975. Thus, the answer must be C or E. From statements (1) and (2) together, the closing price of a share of the stock on May 1, 1975, can be determined (\$4.50) and the closing price on May 1, 1960, can be determined (half of \$4.50). Therefore, (1) and (2) together are sufficient, and the best answer is C.

Q 54. If r and s are integers, is r divisible by 7?

(1) The product rs is divisible by 7.

(2) s is not divisible by 7.

Answer Choices:

A. Statement (1) ALONE is sufficient but statement (2) ALONE is not sufficient.

B. Statement (2) ALONE is sufficient but statement (1) ALONE is not sufficient.

C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

D. EACH statement ALONE is sufficient.

E. Statements (1) and (2) TOGETHER are not sufficient.

Answer: C

Answer Explanation: If a product rs is divisible by the prime number 7, then either r is divisible by 7 or s is divisible by 7. Hence, statement (1) alone implies that either r or s is divisible by 7, but it is not sufficient to determine that r is divisible by 7. Therefore, the answer must be B, C, or E. Statement (2) alone is clearly not sufficient, since no information is given about r . Hence, the answer must be C or E. The two statements together are sufficient: If rs is divisible by 7 and s is not divisible by 7, then r is divisible by 7. Thus, the best answer is C.

Q 55. Buckets X and Y contained only water and bucket Y was $\frac{1}{2}$ full. If all of the water in bucket X was then poured into bucket Y, what fraction of the capacity of Y was then filled with water?

- (1) Before the water from X was poured, X was $\frac{1}{3}$ full.
- (2) X and Y have the same capacity.

Answer Choices:

- A. Statement (1) ALONE is sufficient but statement (2) ALONE is not sufficient.
- B. Statement (2) ALONE is sufficient but statement (1) ALONE is not sufficient.
- C. BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
- D. EACH statement ALONE is sufficient.
- E. Statements (1) and (2) TOGETHER are not sufficient.

Answer: C

Answer Explanation: Statement (1) alone is not sufficient since it gives no information about the relative capacities of the two buckets. Thus, the answer must be B, C, or E. Statement (2) alone is not sufficient since it gives no information about the amount of water in bucket X. Thus, the

answer must be C or E. If (1) and (2) are considered together, it can be determined that bucket Y is filled to $(\frac{1}{2} + \frac{1}{3})$ of its capacity. Therefore, the best answer is C.