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## Test-I

### English Language

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**Directions (Q. 1-10): Read the passage carefully and answer the questions given below it.**

The control of the amount of money in an economy is known as monetary policy. Monetary policy is the process by which a government, central bank, or monetary authority manages the money supply to achieve specific goals. Usually, the goal of monetary policy is to accommodate economic growth in an environment of stable prices.

A failed monetary policy can have significant detrimental effects on an economy and the society that depends on it. These include hyperinflation, stagflation, recession, high unemployment, shortages of imported goods, inability to export goods, and even total monetary collapse and the adoption of a much less efficient barter economy. Governments and central banks have taken both regulatory and free market approaches to monetary policy.

The money supply of a country is usually held to be the total amount of currency in circulation plus the total amount of checking and savings deposits in the commercial banks in the country. Public and private sector analysts have long monitored changes in money supply because of its possible effects on the price level, inflation and the business cycle.

That relation between money and prices is historically associated with the quantity theory of money. There is strong empirical evidence of a direct relation between long-term price inflation and money-supply growth, at least for rapid increases in the amount of money in the economy.

Different functions of money are associated with different empirical measures of the money supply. There is no single "correct" measure of the money supply: instead, there are several measures, classified along a spectrum or continuum between narrow and broad monetary aggregates.

Narrow measures include only the most liquid assets, the ones most easily used to spend (currency, checkable deposits). Broader measures add less liquid types of assets (certificates of deposit, etc. Narrow measures include those more directly affected and controlled by monetary policy, whereas broader measures are less closely related to monetary-policy actions.

The different types of money are typically classified as "M"s. The "M"s usually range from M0 (narrowest) to M3 (broadest) but which "M"s are actually used depends on the country's central bank.

The money supply is usually measured as these escalating categories (M1, M2 and M3). The categories grow in size with M1 being currency (coins and bills) and checking account deposits. M2 is currency, checking account deposits and savings account deposits, and M3 is M2 plus time deposits. M1 includes only the most liquid financial instruments, and M3 relatively illiquid instruments.

Another measure of money, M0, is also used, although unlike the other measures, it does not represent actual purchasing power by firm; and households in the economy. M0 is base money, or the amount of money actually issued by the central bank of a country. It is measured as currency plus deposits of banks and other institutions at the central bank. M0 is also the only money that can satisfy the reserve requirements of commercial banks.

1. What is meant by the term 'monetary policy'?
  - 1) A policy which decides the national income of an economy
  - 2) A policy which regulates the interest rates of banks
  - 3) The policy which helps in controlling money supply in the economy
  - 4) A process which monitors and controls inflation in an economy
  - 5) None of these
2. What may be the probable result of a failed monetary policy?
  - 1) Fall in prices
  - 2) Failure of banking system
  - 3) Devaluation of currency
  - 4) A total monetary collapse
  - 5) None of these
3. The relationship between price and money is associated with
  - 1) the quantity theory of money
  - 2) the production of goods and services
  - 3) the purchasing power of money
  - 4) the theory of balance of payments
  - 5) None of these
4. The different types of money are classified as
 

1) M's	2) M0	3) M1
4) M3	5) M4	
5. Different classifications of money range from
 

1) M to M3	2) M1 to M3	3) M5 to M3
4) M0 to M3	5) None of these	
6. The highest value of money at a given time is represented by
 

1) M4	2) M2	3) M3
4) M0	5) M	

7. The narrowest measure of money is represented by  
1) M                      2) M0                      3) M1  
4) M2                      5) M3
8. M0 is equal to  
1) total supply of money  
2) base money issued by the central bank of the country  
3) besides currency issued, it includes deposits of other banks or institutions with the central bank.  
4) hard cash circulation in the economy  
5) None of these
9. The type of money which can fulfil the reserve requirements of commercial banks is  
1) M0    2) M1    3) M2  
4) M3    5) None of these
10. M2 is equal to  
1) M0 + velocity of money    2) M0 + M1  
3) M3 - M1                      4) M1 + Savings deposits  
5) None of these

**Directions (Q. 11-15): Rearrange the following sentences in a proper sequence so as to make a meaningful paragraph and answer the questions given below it.**

- A. If the effect is real it will have a big effect on cosmology and space navigation.  
B. It could rewrite the laws of physics.  
C. A space probe launched 30 years ago has come under the influence of a force, baffling the scientists.  
D. The effect shows no sign of getting weaker as the spacecraft travels deeper into the space.  
E. Scientists are considering the possibility that the force has revealed a new force of nature.  
F. The Pioneer-10, which took the first pictures of the Jupiter, is being pulled back to the sun by an unknown force.
11. Which should be the **SIXTH** sentence?  
1) A                      2) C                      3) D  
4) F                      5) B
12. Which should be the **FOURTH** sentence?  
1) F                      2) E                      3) C  
4) D                      5) A
13. Which should be the **FIRST** sentence?  
1) B                      2) F                      3) C  
4) E                      5) A
14. Which should be the **THIRD** sentence?  
1) A                      2) E                      3) D  
4) C                      5) F
15. Which should be the **FIFTH** sentence?  
1) A                      2) B                      3) C  
4) D                      5) E

**Directions (Q. 16-25): In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blank appropriately. Find out the appropriate words.**

We are also looking (16) improving our agriculture production as this (17) to an overall improvement in the socio-economic (18) of our farmers. We are (19) the practice of (20) of the cropping systems and the (21) of agriculture (22) high-value and low-volume crops and value addition. Being a (23) state, Uttar Pradesh also offers tremendous (24) of investment in agro-processing sector. We have had (25) with various multinationals.

16. 1) at                      2) on                      3) for  
4) into                      5) to
17. 1) comes                      2) results                      3) leads  
4) culminates                      5) takes
18. 1) situation                      2) level                      3) fabric  
4) conditions                      5) sanctions
19. 1) incorporating                      2) including                      3) besides  
4) amalgamating                      5) adopting
20. 1) rotation                      2) intensification                      3) machination  
4) induction                      5) disinvestment
21. 1) division                      2) distribution                      3) investment  
4) diversification                      5) science
22. 1) in                      2) with                      3) for  
4) towards                      5) within
23. 1) agrarian                      2) vast                      3) major  
4) populous                      5) surplus
24. 1) potency                      2) budget                      3) policies  
4) infrastructure                      5) potential
25. 1) discussion                      2) talks                      3) conventions  
4) submits                      5) conference

**Directions (Q. 26-30): Read each sentence carefully and detect the error which may be in any one of the parts — 1), 2), 3), or 4). In case of 'No error', 5) will be the answer.**

26. 1) A towny man / 2) gets a lot of 3) comforts, that a villager / 4) only imagines of / 5) None of these
27. 1) A motor car / 2) which weighs / 3) less than two tons may be / 4) driven across the bridge. / 5) None of these
28. 1) When shall we / 2) arrive to our / 3) destination, if we / 4) drive without a break. 5) None of these
29. 1) Based on the newspaper reports / 2) we can conclude / 3) that many accidents caused / 4) by reckless driving. / 5) None of these
30. 1) Females are / 2) not appointed / 3) in our college / 4) as a matter of principle. / 5) None of these

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## Test-II

### Reasoning Ability

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**Directions (Q. 31-35): Study the following information carefully and answer the given questions.**

A, B, C, D, E, F, G and H are eight members in a family. Among them, four are males and four are females. There are three husbands, three wives, two daughters, and two sons in the family. They all have a different profession, viz. Lecturer,

Professor, Lawyer, Businessman, Beautician, Doctor, Housewife and CA. They all are sitting around a circular table, facing the centre. A is father of C and F, who is a male Doctor. The Housewife is married to a Businessman and neither A nor B is a Businessman. E is a Professor and is sitting between the Lawyer and the Housewife. No male is a Professor. G is father of B and is sitting between two male members. D is daughter of C, who is second to the right of her son. H is a Beautician and married to a Doctor. D is a CA and is sitting second to the left of her father. A and B cannot sit adjacent to each other. All females sit together.

31. Who among the following is the Lawyer?  
 1) A                      2) B                      3) C  
 4) Either A or B      5) G
32. Who is the Lecturer?  
 1) A                      2) B                      3) C  
 4) G                      5) None of these
33. Which of the following pairs is not correctly matched?  
 1) G – Businessman                      2) B – Lawyer  
 3) E – Professor      4) A – Housewife  
 5) None of these
34. Who is sitting second to the left of A?  
 1) B                      2) C                      3) D  
 4) H                      5) E
35. A is related to F, and G is related to B. Similarly, E is related to which of the following on the basis of their seating arrangements?  
 1) H                      2) C                      3) D  
 4) A                      5) G

**Directions (Q. 36-40): In these questions a relationship between different elements is shown in the statement(s). The statement(s) is/are followed by two conclusions numbered I and II. Give answer**

- 1) if only conclusion I is true.  
 2) if only conclusion II is true.  
 3) if either conclusion I or II is true.  
 4) if neither conclusion I nor II is true.  
 5) if both conclusions I and II are true.
36. **Statements:**  $A > B, C \geq D = E < B$   
**Conclusions:** I.  $C = E$   
 II.  $A > E$
37. **Statements:**  $K > L, M = P \geq Q < L$   
**Conclusions:** I.  $K < Q$   
 II.  $K = Q$
38. **Statements:**  $R \leq N < P, P \geq M$   
**Conclusions:** I.  $N > M$   
 II.  $R \leq M$
39. **Statement:**  $M > R = A \leq K$   
**Conclusions:** I.  $K > M$   
 II.  $K \geq R$
40. **Statement:**  $Q \leq R > S = T$   
**Conclusions:** I.  $Q = R$   
 II.  $T > Q$

**Directions (Q. 41-45): Study the following information carefully to answer the given questions.**

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

**Input:** she 78 31 good 17 very 43 cricket played

**Step I:** 17 she 78 31 good very 43 cricket played

**Step II:** 17 very she 78 31 good 43 cricket played

**Step III:** 17 very 31 she 78 good 43 cricket played

**Step IV:** 17 very 31 she 43 78 good cricket played

**Step V:** 17 very 31 she 43 played 78 good cricket

Step V is the last step of the rearrangement.

41. If the first step of an input is '11 are you 22 boy clever very 35 17' then how many more steps will be required to complete the rearrangement?  
 1) Three                      2) Four                      3) Five  
 4) Six                      5) Seven
42. If 'are you 11 22 boy clever very 35 17' is the input then which of the following will be Step V?  
 1) 11 you 17 very are 22 boy clever 35  
 2) 11 you 17 very 22 are boy clever 35  
 3) 11 you 17 are 22 boy clever very 35  
 4) 11 you 17 very 22 clever are boy 35  
 5) None of these
43. If the input of an arrangement is 'may you go 21 23 now 33 47 right' then which step will be the last but one?  
 1) Third                      2) Fourth                      3) Fifth  
 4) Sixth                      5) Seventh
44. The last step of an input is '25 please 31 over 45 house 79 easily 82 come'. Then the third step of the arrangement will be  
 1) 79 82 come please home 43 25 easily 31 over  
 2) 25 79 82 come please home 43 easily 31 over  
 3) 25 please 31 79 82 come home 43 easily over  
 4) Can't be determined  
 5) None of these
45. The second step of an input is '15 to fight polio 21 51 eradicate by 27'. Then which step will be the final step of the arrangement?  
 1) Step III                      2) Step IV                      3) Step V  
 4) Step VI                      5) Step VII
- Directions (Q. 46-51): In each question below are given three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts. Give answer**
- 1) if only conclusion I follows.  
 2) if only conclusion II follows.  
 3) if either conclusion I or II follows.

- 4) if neither conclusion I nor II follows.  
5) if both conclusions I and II follow.

(46-47):

**Statements:** All politicians are men.  
Every man is wise.  
Some wise are experienced.

46. **Conclusions:** **I.** Some politicians are experienced.  
**II.** Some men being experienced is a possibility.
47. **Conclusions:** **I.** At least some wise are experienced.  
**II.** At least some men are experienced.

(48-49):

**Statements:** All actors are dancers.  
No dancer is a singer.  
Some singers are musicians.

48. **Conclusions:** **I.** No musician is a dancer.  
**II.** Some dancers being musicians is a possibility.
49. **Conclusions:** **I.** Some actors being musicians is a possibility.  
**II.** Some singers being actors is a possibility.

(50-51):

**Statements:** Some newspapers are magazines.  
All newspapers are books.  
Some books are journals.

50. **Conclusions:** **I.** No journal is a magazine.  
**II.** Some newspapers being journal is a possibility.
51. **Conclusions:** **I.** Some journals are newspapers.  
**II.** All magazines are books.

**Directions (Q. 52-55): Study the following information carefully to answer the given questions.**

Five friends – A, B, C, D and E – belong to five different cities, viz. Delhi, Chennai, Kolkata, Mumbai and Bangalore. They study in college X, taking History, Geography, Science, Maths and Management as their optional subjects.

A neither belongs to Bangalore nor studies Geography. C belongs to Mumbai and studies Science.

The one who studies Maths is neither from Delhi nor from Chennai, and the one who is from Kolkata studies History, but he is not B. The one who studies Geography is neither from Kolkata nor from Bangalore.

Neither A nor D is from Kolkata. B does not study Management. He is neither from Delhi nor from Chennai.

52. Who studies Maths as an optional subject?

- 1) A                      2) B                      3) C  
4) Either A or B      5) Either A or D

53. Whose optional subject is Geography?

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

54. The one who studies Management as an optional subject has his home town in

- 1) Delhi                      2) Chennai  
3) Bangalore              4) Data inadequate  
5) None of these

55. Bangalore is the home town of

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

**Directions (Q. 56-60): 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**

- 1) 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.  
2) 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.  
3) if the data either in statement I alone or in statement II alone are sufficient to answer the question.  
4) if the data given in both statements I and II together are not sufficient to answer the question.  
5) if the data in both statements I and II together are necessary to answer the question.
56. Office X is in which direction with respect to Office Y?  
**I.** X is to the east of Z, which is to the north of Y.  
**II.** W is to the east of Y and to the south of X.
57. How is L related to N?  
**I.** K is daughter of L, and N is daughter of M.  
**II.** K is mother of N, who is sister of O.
58. Who among P, Q, R, S and T stood first in a class test?  
**I.** Q is in the middle from either side and S is at the bottom.  
**II.** P, Q and T are immediate neighbours if they are made to sit according to their ranks.
59. What is the code for 'running' in a certain code language?  
**I.** In that code language 'ram running too fast' is written as 'po he chh to'.  
**II.** In that code language 'he is running very fast' is written as 'ha ni he ma po'.
60. Among Sanjeev, Rajeev, Gautam, Ranjit, Amit and Mithilesh, who is on the immediate left of Gautam?  
**I.** Gautam is sitting between Sanjeev and Amit, who is on the extreme right.  
**II.** Gautam is third to the right of Mithilesh and second to the left of Ranjit.
61. Despite provisions of legal punishment, child labour is prevalent in our society. Which of the following could be a logical **course of action** for the above mentioned phenomenon?  
1) Strict laws should be made by the parliament against child labour.  
2) Focus should be brought about on the proper execution of the legal provisions.

- 3) The youth should be persuaded to rebel against their parents who are involved in child labour.
- 4) All business establishments who are involved in child labour should be closed.
- 5) None of these
62. Statistics released by the National Crime Records Bureau show the maximum unnatural deaths recorded in 2012 were in road accidents.  
Which of the following **conclusions** can be drawn from the above statement?
- 1) Public transportation systems are no longer safe for travelling.
- 2) People are taking no precaution while driving.
- 3) In India, there are no proper safety measures for vehicles.
- 4) In India, people do not follow traffic rules and regulations.
- 5) None of these
63. Owing to delayed and weak south-west monsoon there is an alarming depletion in the water levels of important reservoirs.  
Which of the following **courses of action** could be taken by the government?
- 1) The Central Government should issue an advisory to the State Government to make judicious and regulated release of water.
- 2) The government should give preference to drinking water and irrigation, and enhance ground water use to meet current needs.
- 3) Farmers should be advised by the government to grow such crops as require less water.
- 4) All 1), 2) and 3)
- 5) None of these
64. The interest rates on small savings schemes such as the post office savings schemes, ROI Relief Bonds, Provident Fund and PPF continue to be administered at high levels in relation to market rates. These schemes also have a variety of tax schemes and tax incentives which result in much higher post-tax returns, and on the flip side more liability for the government.  
Which of the following inferences drawn from the facts stated in the above passage is **definitely true**?
- 1) Tax incentives are provided to benefit all sections of the society.
- 2) The interest rates on small savings have decreased considerably over the last few years.
- 3) Returns on different government-administered savings schemes are higher for the tax-paying individuals.
- 4) The government-administered savings schemes drain out the exchequer's money in the long run.
- 5) None of these

65. The Rail Ministry has decided to set up one-stop facility counters to attend the various needs of the passengers at all major stations.  
Which of the following **assumptions** is implicit in the above statement? (An assumption is something taken for granted)
- 1) Majority of the passengers will remain deprived of the variety of services during their journey.
- 2) The services provided by these counters will help all those passengers who are travelling alone.
- 3) This will lead to an extra burden on the Railways.
- 4) The services provided by these counters will result in better facilities to the passengers.
- 5) None of these

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### Test-III

## Quantitative Aptitude

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**Directions (Q. 66-70): What should come in place of question mark (?) in the following questions ?**

66.  $58.621 - 13.829 - 7.302 - 1.214 = ?$   
 1) 37.281                      2) 35.272                      3) 36.276  
 4) 31.254                      5) None of these
67.  $?% \text{ of } 450 + 46\% \text{ of } 285 = 257.1$   
 1) 34                              2) 32                              3) 21  
 4) 28                              5) None of these
68.  $(81)^4 \div (9)^5 = ?$   
 1) 6561                          2) 729                              3) 81  
 4) 9                                5) None of these
69.  $618 + 62 \times 0.50 - 29 = ?$   
 1) 625                              2) 660                              3) 640  
 4) 655                              5) None of these
70.  $282 \times 82 \times 0.2 = ?$   
 1) 4624.8                        2) 4734.6                        3) 4604.4  
 4) 4324.2                        5) None of these

**Directions (Q. 71-75): In the following number series only one number is wrong. Find out the wrong number.**

71. 3    7    16    35    72    153    312  
 1) 7                                      2) 153                              3) 35  
 4) 72                                      5) 16
72. 18    20    23    32    48    73    109  
 1) 20                                      2) 23                                      3) 32  
 4) 48                                      5) 73
73. 7    4    5    9    20    51    160.5  
 1) 4                                      2) 5                                      3) 9  
 4) 20                                      5) 51
74. 6    10    14    34    66    130    258  
 1) 10                                      2) 14                                      3) 34  
 4) 66                                      5) 130

75.  $2 \frac{7}{30} \times 138 \frac{524}{1557} \div 3102$   
 1) 7                      2) 30                      3) 138  
 4) 524                    5) 1557

**Directions (Q. 76-80): What approximate value will come in place of the question mark (?) in the following questions? (You are not expected to calculate exact value).**

76.  $1580.05 \times 23.98 = ?$   
 1) 36900                      2) 36800                      3) 37500  
 4) 37900                      5) 37200
77.  $77.077 \div 7.07 \times 6.08 = ?$   
 1) 57                      2) 46                      3) 48  
 4) 77                      5) 66
78.  $(16.01)^2 - (8.99)^2 = ?$   
 1) 175                      2) 180                      3) 170  
 4) 165                      5) 185
79.  $171\% \text{ of } 399 = ?$   
 1) 740                      2) 720                      3) 680  
 4) 640                      5) 620
80.  $\sqrt{224} \times \sqrt{785} = ?$   
 1) 400                      2) 420                      3) 440  
 4) 405                      5) 435
81. Population of a country increases every year by 10%. If the population in January 2006 was 15.8 lakhs, what was the population in January 2008?  
 1) 19,11,800                      2) 18,96,000  
 3) 19,11,600                      4) 18,94,000  
 5) None of these
82. Production of company A is 120% of the production of company B and 80% of the production of company C. What is the ratio between the productions of companies A, B and C respectively?  
 1) 6 : 5 : 9                      2) 6 : 5 : 4  
 3) 12 : 10 : 15                      4) 10 : 12 : 15  
 5) None of these
83. If the numerator of a fraction is increased by 10% and the denominator is increased by 20% the resultant fraction is  $\frac{11}{15}$ . What was the original fraction?  
 1)  $\frac{7}{12}$                       2)  $\frac{4}{5}$   
 3)  $\frac{3}{5}$                       4)  $\frac{5}{12}$   
 5) None of these
84. Giridhar purchased 100 sarees @ Rs. 450 per piece. While selling he offered 10% discount on the labelled price and earned a profit of 20%. What was the labelled price of each saree?  
 1) Rs. 540                      2) Rs. 650                      3) Rs. 590  
 4) Rs. 600                      5) None of these

85. Cost of 35 shirts and 28 trousers is Rs. 28,000. What will be the cost of 45 shirts and 36 trousers?  
 1) Rs. 32,500                      2) Rs. 36,000  
 3) Rs. 35,000                      4) Cannot be determined  
 5) None of these
86. Number of students in Arts and Science faculties in an institute are in the ratio of 5 : 8 respectively. If 150 more students join Arts faculty while 80 more students join Science faculty, the respective ratio becomes 3 : 4. Originally what was the total number of students in both faculties together?  
 1) 1200                      2) 1400  
 3) 1150                      4) Cannot be determined  
 5) None of these
87. Mr. X spends 20% of his monthly income on household expenditure. Out of the remaining 25% he spends on children's education, 15% on transport, 15% on medicine and 10% on entertainment. He is left with Rs. 9,800 after incurring all these expenditures. What is his monthly income?  
 1) Rs. 35,000                      2) Rs. 28,000                      3) Rs. 65,333  
 4) Rs. 48,400                      5) None of these
88. 75% of a number is equal to  $\frac{5}{8}$ th of another number. What is the ratio between the first number and the second number respectively?  
 1) 5 : 4                      2) 6 : 5                      3) 4 : 5  
 4) 5 : 6                      5) None of these
89. 10 men can complete a piece of work in 8 days. 20 women can complete the same piece of work in 6 days. In how many days 16 men and 18 women together can complete the same piece of work?  
 1)  $2\frac{5}{7}$                       2)  $3\frac{6}{7}$                       3)  $3\frac{3}{7}$   
 4)  $2\frac{3}{7}$                       5) None of these
90. A boat running at the speed of 34 kmph downstream covers a distance of 4.8 kms in 8 minutes. The same boat while running upstream at same speed covers the same distance in 9 minutes. What is the speed of the current?  
 1) 2.4 kmph                      2) 3 kmph                      3) 2 kmph  
 4) 3.2 kmph                      5) None of these
- Directions (Q. 91-95): In each of the following questions two equations are given. You have to solve them and give answer**  
 1) if  $x > y$   
 2) if  $x < y$   
 3) if  $x = y$   
 4) if  $x \geq y$   
 5) if  $x \leq y$

91. I.  $y^2 - 6y + 9 = 0$   
 II.  $x^2 + 2x - 3 = 0$
92. I.  $x^2 - 5x + 6 = 0$   
 II.  $2y^2 + 3y - 5 = 0$
93. I.  $x = \sqrt{256}$   
 II.  $y = (-4)^2$
94. I.  $x^2 - 6x + 5 = 0$   
 II.  $y^2 - 13y + 42 = 0$
95. I.  $x^2 + 3x + 2 = 0$   
 II.  $y^2 - 4y + 1 = 0$

**Directions (Q. 96-100):** 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**

- 1) 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.
- 2) 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.
- 3) if the data either in **statement I alone** or in **statement II alone** are sufficient to answer the question.

- 4) if the data in **both the statements I and II** together are **not sufficient** to answer the question.
  - 5) if the data in **both the statements I and II** together are **necessary** to answer the question.
96. What was the ratio between the ages of P and Q four years ago?  
 I. The ratio between the present ages of P and Q is 3 : 4.  
 II. The ratio between the present ages of Q and R is 4 : 5.
97. What was the cost price of the suitcase purchased by Samir?  
 I. Samir got 20 per cent concession on the labelled price.  
 II. Samir sold the suitcase for Rs 2000 with 25 per cent profit on the labelled price.
98. What is the height of a triangle?  
 I. The area of the triangle is 20 times its base.  
 II. The perimeter of the triangle is equal to the perimeter of a square of 10 cm side.
99. What percentage rate of simple interest per annum did Ashok pay to Sudhir?  
 I. Ashok borrowed Rs 8000 from Sudhir for four years.  
 II. Ashok returned Rs 8800 to Sudhir at the end of two years and settled the loan.
100. What is the speed of a running train?  
 I. The train crosses a signal post in 6 seconds.  
 II. The train crosses another train running in the opposite direction in 15 seconds.

### Answers and explanations

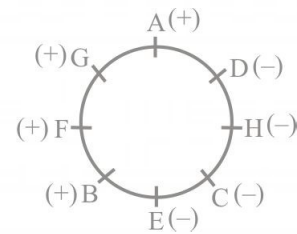
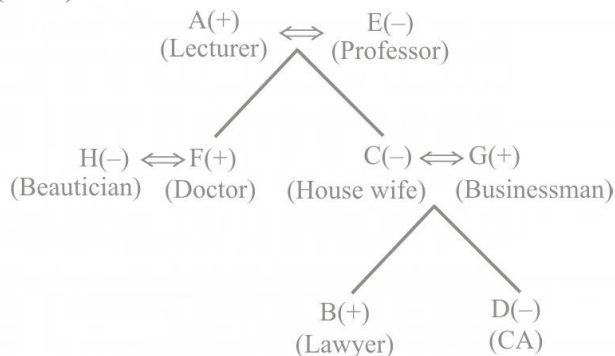
- |      |      |      |      |       |
|------|------|------|------|-------|
| 1. 3 | 2. 4 | 3. 1 | 4. 1 | 5. 4  |
| 6. 3 | 7. 2 | 8. 3 | 9. 1 | 10. 4 |

(11-15): CFEABD

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 11. 3 | 12. 5 | 13. 3 | 14. 2 | 15. 2 |
| 16. 1 | 17. 3 | 18. 4 | 19. 5 | 20. 1 |
| 21. 4 | 22. 4 | 23. 4 | 24. 5 | 25. 2 |

26. 1; 'A townsman'  
 27. 3; Replace 'then' by 'than'.  
 28. 2; arrive 'at' our  
 29. 3; accidents 'are' caused  
 30. 5

(31-35):



- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 31. 2 | 32. 1 | 33. 4 | 34. 4 | 35. 1 |
|-------|-------|-------|-------|-------|
36. 2; **Given statements:**  $A > B$  ... (i)  
 $C \geq D = E < B$  ... (ii)

From (i) and (ii), we have  
 $E < B < A$

Thus,  $E < A$  or  $A > E$   
 Hence, conclusion II is true.

Again, from (ii), we get  
 $C \geq D = E < B$

Here,  $C \geq E$ , which means either  $C > E$  or  $C = E$   
 Hence, conclusion I is not true.

37. 4; **Given statements:**  $K > L$  ... (i)  
 $M = P \geq Q < L$  ... (ii)

Combining (i) and (ii), we have

$$M = P \geq Q < L < K$$

Thus,  $Q < L < K$

So,  $Q < K$  or  $K > Q$

Hence, neither I nor II is true.

38. 4; **Given statements:**  $R \leq N < P$  ... (i)  
 $P \geq M$  ... (ii)

Combining (i) and (ii), we have

$$R \leq N < P \geq M$$

**Check for I.**  $N < P \geq M$

We can't compare N and M. Hence, conclusion I is not true.

**Check for II.**  $R \leq N < P \geq M$

We can't compare R and M. Hence, conclusion II is not true.

39. 2; **Given statement:**  $M > R = A \leq K$

$$M > R = A \leq K$$

**Check for I.** We can't compare M and K.

Thus, conclusion I is not true.

**Check for II.**  $R = A \leq K$

Hence,  $R \leq K$  or  $K \geq R$

Thus, conclusion II is true.

40. 4; **Given statement:**  $Q \leq R > S = T$

**Check for I.**  $Q \leq R$

Hence,  $Q < R$  or  $Q = R$

Thus, conclusion I is not true.

**Check for II.**

$$Q \leq R > S = T$$

We can't compare Q and T.

Thus, conclusion II is not true.

(41-45): The machine rearranges the words and numbers in such a way that numbers come first and are arranged in ascending order while words come after the number in the next step and are arranged in reverse alphabetical order.

41. 5; **Step I:** 11 are you 22 boy clever very 35 17  
**Step II:** 11 you are 22 boy clever very 35 17  
**Step III:** 11 you 17 are 22 boy clever very 35  
**Step IV:** 11 you 17 very are 22 boy clever 35  
**Step V:** 11 you 17 very 22 are boy clever 35  
**Step VI:** 11 you 17 very 22 clever are boy 35  
**Step VII:** 11 you 17 very 22 clever 35 are boy  
**Step VIII:** 11 you 17 very 22 clever 35 boy are  
Hence, seven more steps will be required.

42. 2; Same as above

43. 4; **Input:** may you go 21 23 now 33 47 right  
**Step I:** 21 may you go 23 now 33 47 right  
**Step II:** 21 you may go 23 now 33 47 right  
**Step III:** 21 you 23 may go now 33 47 right  
**Step IV:** 21 you 23 right may go now 33 47  
**Step V:** 21 you 23 right 33 may go now 47  
**Step VI:** 21 you 23 right 33 now may go 47  
**Step VII:** 21 you 23 right 33 now 47 may go

44. 4

45. 3; **Step II:** 15 to fight polio 21 51 eradicate by 27  
**Step III:** 15 to 21 fight polio 51 eradicate by 27  
**Step IV:** 15 to 21 polio fight 51 eradicate by 27  
**Step V:** 15 to 21 polio 27 fight 51 eradicate by  
Hence, Step V will be the last step.

46. 2; All politicians are men (A) + Every man is wise (A) =  
 $A + A = A =$  All politicians are wise. Now, All  
politicians are wise (A) + Some wise are experienced  
(I) =  $A + I =$  No conclusion. Hence, conclusion I  
does not follow. But conclusion II follows from  
second and third statements.

47. 4; Conclusion I does not follow because it is a  
restatement. Again, Every man is wise (A) + Some  
wise are experienced (I) =  $A + I =$  No conclusion.  
Hence, conclusion II does not follow.

48. 2; No dancer is a singer (E) + Some singers are  
musicians (I) =  $E + I = O^* =$  Some musicians are not  
dancers. Hence, conclusion I does not follow. But a  
possible relation may exist between 'dancers' and  
'musicians'. Hence, conclusion II follows.

49. 1; All actors are dancers (A) + No dancer is a singer  
(E) =  $A + E = E =$  No actor is a singer. Hence,  
conclusion II does not follow. Now, No actor is a  
singer (E) + Some singers are musicians (I) =  $E + I =$   
 $O^* =$  Some musicians are not actors. But a positive  
relation is possible between 'musicians' and 'actors'.  
Thus conclusion I follows.

50. 2; Since there is no negative statement a negative  
conclusion can not exist. Again, All newspapers are  
books (A) + Some books are journals (I) =  $A + I =$  No  
conclusion. But a possible relation exists between  
'newspapers' and 'journals'. Thus, conclusion II  
follows.

51. 4; All newspapers are books (A) + Some books are  
journals (I) =  $A + I =$  No conclusion. Hence,  
conclusion I does not follow. Again, Some  
newspapers are magazines  $\rightarrow$  conversion  $\rightarrow$  Some  
magazines are newspapers (I) + All newspapers are  
books (A) =  $I + A = I =$  Some magazines are books.  
Hence, conclusion II does not follow.



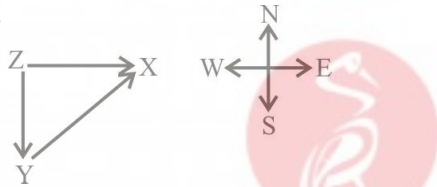
(52-55):

Student	City					Subject				
	Del	Che	Kol	Mum	Ban	Hist	Geog	Sc	Maths	Mgmt
A			×	×	×	×	×	×	×	√
B	×	×	×	×	√	×	×	×	√	×
C	×	×	×	√	×	×	×	√	×	×
D			×	×	×	×	√	×	×	×
E	×	×	√	×	×	√	×	×	×	×

Person	City	Subject
A	Delhi/Chennai	Management
B	Bangalore	Maths
C	Mumbai	Science
D	Delhi/Chennai	Geography
E	Kolkata	History

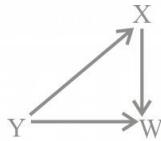
52. 2      53. 4      54. 4      55. 2

56. 3; **From I.**



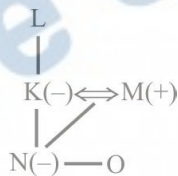
Hence, X is to the north-east of Y.

**From II.**



Hence, X is to the north-east of Y. Thus, either statement I or statement II alone is sufficient.

57. 4; From I and II, we get



L is either maternal grandfather or maternal grandmother of N. But we can't solve the question any further.

58. 5; **From I.** —

Q  
—  
S

**From II.** PQT or TQP

From I and II, we have

R  
P/T  
Q  
T/P  
S

Hence, R stood first among them.

59. 4; From I and II, we have running/fast → *he/po*

The code of running is either *he* or *po*. So, we can't determine the code of *running* from both the statements.

60. 1; **From I.**

— — — Sanjeev Gautam Amit

Hence, Sanjeev is on the immediate left of Gautam.

**From II.** Mithilesh — — Gautam — — Ranjit

61. 2; When the legal provisions are already there, the next logical step is "proper execution" of these laws.

62. 4; Accidents have a direct link to violation of traffic rules and regulations.

63. 1; Judicious and regulated release of water is the only way out. (2) does not make sense because absence of rains will also lead to scarcity of ground water. (3) is ruled out because it is not directly related.

64. 3; (1) is not true because the incentives would benefit only a particular section – the tax payers. (2) does not seem likely if we go by the concern shown in the statement. (3) is true because of the "tax incentives" associated with the schemes. (4) is not true because there may be other positive factors in the long run.

65. 4; Whenever a facility is provided to people, the assumption is that it would lead to better services to them.

66. 3      67. 4      68. 2      69. 5      70. 1

71. 4; The series is  $\times 2 + 1, \times 2 + 2, \times 2 + 3, \times 2 + 4, \times 2 + 5$

72. 1; The series is  
 $18 + 1^2 = 19$   
 $19 + 2^2 = 23$   
 $23 + 3^2 = 32$   
 $32 + 4^2 = 48$

- $48 + 5^2 = 73$   
 $73 + 6^2 = 109$
73. 5; The series is  $\times 0.5 + 0.5, \times 1 + 1, \times 1.5 + 1.5, \times 2 + 2, \times 2.5 + 2.5, \times 3 + 3$
74. 2; The series is  $\times 2 - 2, \times 2 - 2, \times 2 - 2, \times 2 - 2, \dots$
75. 3;  $(2-1) \times 7 = 7; (7-2) \times 6 = 30;$   
 $(30-3) \times 5 = 135; (135-4) \times 4 = 524; (524-5) \times 3 = 1557;$   
 $(1557-6) \times 2 = 3102$
76. 4;  $? = 1580 \times 24 = 37920$   
 $\therefore$  Approximate answer = 37900
77. 5;  $? \approx \frac{77}{7} \times 6 \approx 66$
78. 1;  $? \approx (16)^2 - (9)^2$   
 $\approx (16+9)(16-9)$   
 $\approx 25 \times 7 \approx 175$
79. 3;  $? = \frac{170 \times 400}{100} \approx 680$
80. 2;  $? \approx \sqrt{225} \times \sqrt{784}$   
 $\approx 15 \times 28 \approx 420$
81. 1; Required population  

$$= P \left( 1 + \frac{R}{100} \right)^T = 15.8 \left( 1 + \frac{10}{100} \right)^2 \text{ lakh}$$

$$= 15.8 \times \frac{11}{10} \times \frac{11}{10} \text{ lakh}$$

$$= 1911800$$
82. 3; Let the production of company B = 100 units  
 $\therefore$  Production of company A = 120 units  
 Production of Company C  

$$= \frac{120 \times 100}{80} = 150 \text{ units}$$
 $\therefore$  Required ratio =  $120 : 100 : 150 = 12 : 10 : 15$
83. 2; Let the original fraction be  $\frac{x}{y}$ .  

$$\therefore \frac{x \times 110}{y \times 120} = \frac{11}{15}$$

$$\Rightarrow \frac{x}{y} = \frac{11}{15} \times \frac{12}{11} = \frac{4}{5}$$
84. 4; Let the labelled price of each saree be Rs. x  
 According to the question,  

$$90\% \text{ of } x = \frac{120 \times 450}{100}$$

$$\Rightarrow \frac{90 \times x}{100} = \frac{120 \times 450}{100}$$

$$\Rightarrow x = \frac{120 \times 450}{90} = \text{Rs. } 600$$

85. 2; Let the cost of 1 shirt be Rs. x and that of 1 trouser be Rs. y  
 Now, according to the question,  
 $35x + 28y = 28000$   
 $\Rightarrow 5x + 4y = 4000 \quad \dots (i)$   
 Multiplying both sides by 9,  
 $45x + 36y = 36000$
86. 5; Let the original number of students in Arts and Science faculties be  $5x$  and  $8x$  respectively.  
 According to the question,  

$$\frac{5x + 150}{8x + 80} = \frac{3}{4}$$

$$\Rightarrow 24x + 240 = 20x + 600 \Leftrightarrow 4x = 360$$

$$\Rightarrow x = \frac{360}{4} = 90$$
 $\therefore$  Original number of students =  $5x + 8x = 13x$   
 $= 13 \times 90 = 1170$
87. 1; Let the monthly income of X be Rs. x  
 Expenditure on household articles = Rs.  $\frac{x}{5}$   
 Remaining amount = Rs.  $\frac{4x}{5}$   
 Total percentage expenditure in the remaining amount =  $(25 + 15 + 15 + 10)\% = 65\%$   
 $\therefore$  Remaining amount =  $35\%$  of Rs.  $\frac{4x}{5}$   

$$= \text{Rs. } \left( \frac{35}{100} \times \frac{4x}{5} \right) = \text{Rs. } \frac{7x}{25}$$

$$\therefore \frac{7x}{25} = 9800$$

$$\Rightarrow x = \text{Rs. } \left( \frac{9800 \times 25}{7} \right) = \text{Rs. } 35000$$
88. 4; Let the number be x and y respectively.  
 Now, according to the question,  

$$\frac{75x}{100} = \frac{5y}{8}$$

$$\Rightarrow \frac{x}{y} = \frac{5}{8} \times \frac{100}{75} = \frac{5}{6}$$
89. 5;  $\therefore$  10 men complete the work in 8 days.  
 $\therefore$  80 men will complete the work in 1 day.  
 Again,  
 $\therefore$  20 women complete the work in 6 days.  
 120 women will complete the work in 1 day.  
 $\therefore$  80 men = 120 women  
 $\therefore$  2 men = 3 women

$$\begin{aligned}\therefore 16 \text{ men} + 18 \text{ women} &= 16 \text{ men} + 18 \times \frac{2}{3} \text{ men} \\ &= 28 \text{ men}\end{aligned}$$

$\therefore$  10 men can do the work in 8 days

$$\therefore 28 \text{ men can do the work in } \frac{10 \times 8}{28} = \frac{20}{7} = 2\frac{6}{7}$$

days.

90. 3; Let the speed of boat in still water be  $x$  kmph and that of current be  $y$  kmph.

$$\therefore x + y = \frac{4.8}{8} = \frac{4.8 \times 60}{8}$$

$$\Rightarrow x + y = 36 \quad \dots (i)$$

$$\text{and, } x - y = \frac{4.8}{9} = \frac{4.8 \times 60}{9}$$

$$\Rightarrow x - y = 32 \quad \dots (ii)$$

On subtracting equ (ii) from equ (i), we have

$$x + y - x + y = 36 - 32 = 4$$

$$\Rightarrow 2y = 4 \Rightarrow y = \frac{4}{2} = 2 \text{ kmph}$$

91. 2; **I**  $y^2 - 6y + 9 = 0$

$$\text{or, } (y - 3)^2 = 0$$

$$\text{or, } y = 3$$

**II**  $x^2 + 2x - 3 = 0$  or,  $x = 1, -3$

Hence,  $y > x$

92. 1; **I**  $x^2 - 5x + 6 = 0$

$$\text{or, } (x - 3)(x - 2) = 0$$

$$\text{or, } x = 2 \text{ or } 3$$

**II**  $2y^2 + 3y - 5 = 0$

$$\text{or, } y = 1, -5/2$$

Hence,  $x > y$

93. 3; **I**  $x = \sqrt{256} = 16$

**II**  $y = (-4)^2 = 16$

Hence,  $x = y$

94. 2; **I**  $x^2 - 6x + 5 = 0$

$$\text{or, } x = 1, 5$$

**II**  $y^2 - 13y + 42 = 0$

$$\text{or, } (y - 7)(y - 6) = 0$$

$$\text{or, } y = 6, 7$$

Hence,  $y > x$

95. 2; **I**  $x^2 + 3x + 2 = 0$

$$\text{or, } (x + 2)(x + 1) = 0$$

$$\text{or, } x = -2$$

$$\text{or, } -1$$

**II**  $y^2 - 4y + 1 = 0$

$$\text{or, } y = 2 \pm \sqrt{3}$$

Hence,  $y > x$

96. 4; For solving this question, we want two equations in terms of P and Q.

97. 5; Combining both the statements together.

Let the labelled price be Rs 100.

Now, SP of the suitcase = 125% of 100 = Rs 125

$$\therefore \text{Labelled price} = \frac{2000}{125} \times 100 = \text{Rs } 1600$$

$$\therefore \text{CP of the suitcase} = 1600 \times \frac{3}{4} = \text{Rs } 1200$$

98. 4; Here, we do not know the type of triangle. If the triangle is right-angled, then the height can be determined with the help of statement I alone.

99. 5; Combining both the statements together,

$$\text{Rate of interest} = \frac{800}{2 \times 8000} \times 100 = 5\%$$

100. 4