MOCK TEST-2

Test-I
Quantitative Aptitude

Directions (Q. 1-5): What will come in place of the question mark (?) in each of the following series ?

1. 17 9 ? 16.5 35 90
   1) 5 2) 15 3) 10
   4) 20 5) None of these
2. 6 13 38 ? 532 2675
   1) 129 2) 123 3) 172
   4) 164 5) None of these
3. 286 142 ? 34 16 7
   1) 66 2) 72 3) 64
   4) 74 5) None of these
4. 17 52 158 477 ? 4310
   1) 1433 2) 1432 3) 1435
   4) 1434 5) None of these
5. 3 22 ? 673 2696 8093
   1) 133 2) 155 3) 156
   4) 134 5) None of these

Directions (Q. 6-10): For the two given equations I and II, give answer

1) if a is greater than b
2) if a is smaller than b
3) if a is equal to b
4) if a is either equal to or greater than b
5) if a is either equal to or smaller than b

9. **I.** $\sqrt{2304} = a$
   II. $b^2 = 2304$
7. **I.** $12a^2 - 7a + 1 = 0$
   II. $15b^2 - 16b + 4 = 0$
8. **I.** $a^2 + 9a + 20 = 0$
   II. $2b^2 + 10b + 12 = 0$
9. **I.** $3a + 2b = 14$
   II. $a + 4b - 13 = 0$
10. **I.** $a^2 - 7a + 12 = 0$
    II. $b^2 - 9b + 20 = 0$

Directions (Q. 11-15): What approximate value will come in place of the question-mark (?) in the following questions? (You are not expected to calculate the exact value).

11. $10^3 \times 100^3 + 999999999 = 10^? + 10^?$
    1) 6, 9 2) 9, 9 3) 6, 12
    4) 16, 9 5) 6, 18
12. 134% of 3894 + 38.94% of 134 = ?
    1) 5000 2) 5300 3) 5500
    4) 5270 5) 4900
13. $(21 + 99) \times (30 - 19.02) = ?$
    1) 3581 2) 131 3) 1290
    4) 1600 5) 1320
14. $\frac{2}{3} \times \frac{6}{8} \times \frac{2}{3} \times \frac{3}{5} = ?$
    1) 0.45 2) 0.5 3) 1.45
    4) 0.2 5) 0.55
15. $\sqrt{1000000.0000001} = ?$
    1) 1000 2) 100 3) 10000
    4) 999 5) 99

Directions (Q. 16-20): 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 even 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.

16. How many students are there in the school?
    I. The number of boys is 90 more than that of girls.
    II. The percentage of boys to the percentage of girls is 145.
17. What is a two-digit number?
    I. The sum and difference of digits are 9.
    II. The unit's digit is less than the ten's digit.
18. What is the rate of compound interest?
    I. The principal was invested for 4 years.
    II. The interest earned was Rs 1491.
19. What is the measure of the third angle of a triangle?
    I. The sum of the other two angles is 130º.
    II. The sum of second and third angles is 110º.
20. What is the distance between the points X and Y?
    I. A boat takes 4 hours in covering a distance from X to Y downstream and from Y to X in upstream.
    II. The speed of the boat in still water is 5 kmph.

21. A circle and a rectangle have the same perimeter. The sides of the rectangle are 18 cm and 26 cm. What is the area of the circle?

1) 88 cm^2 2) 1250 cm^2

3) 154 cm^2 4) Cannot be determined

5) None of these

22. N number of persons decide to raise Rs 3 lakhs by equal contributions from each. If they contributed Rs 50 each extra, the contribution would be Rs 3.25 lakhs. How many persons are there?

1) 600 2) 400

3) 450 4) Cannot be determined

5) None of these

23. The difference between a number and its three-fifths is 50. What is the number?

1) 75 2) 100

3) 125 4) Cannot be determined

5) None of these

24. A tank is filled in 5 hours by three pipes A, B and C. The pipe C is twice as fast as B and B is twice as fast as A. How much time will pipe A alone take to fill the tank?

1) 35 hours 2) 25 hours

3) 20 hours 4) Cannot be determined

5) None of these

25. Milk contains 5% water. What quantity of pure milk should be added to 10 litres of milk to reduce this to 2%?

1) 5 litres 2) 7 litres

3) 15 litres 4) Cannot be determined

5) None of these

Directions (Q. 26-30): What should come in place of the question mark (?) in the following questions ?

26. $\sqrt[3]{?} = (756 \times 67) \div 804$

1) 195112 2) 250047 3) 226981

4) 274625 5) None of these

27. $0.3 + 3 + 3.33 + 3.3 + 3.03 + 333 = ?$

1) 375.66 2) 345.99 3) 375.93

4) 355.96 5) None of these

28. $(73425 - 33267 - 22418 - 17650) \times \sqrt{11025} = ?$

1) 10165 2) 9785 3) 8370

4) 9450 5) None of these

29. $-76 \times 33 + 221 = ?$

1) -2287 2) -19304 3) 2287

4) 19304 5) None of these

30. $(34.12)^2 - \sqrt{7396} = ?$

1) 1080.1744 2) 1078.1474 3) 1078.1744

4) 1080.1474 5) None of these

31. What will be the difference between the simple interest and compound interest earned on a sum of Rs 985 @ 14 p.c.p.a. at the end of two years?

1) Rs 16.408 2) Rs 14.214 3) Rs 19.218

4) Rs 17.405 5) None of these

32. 4 men, 5 women and 3 children together can complete a piece of work in 16 days. In how many days can 10 women alone complete the piece of work if 10 men alone complete it in 24 days?

1) 18 2) 15 3) 12

4) Cannot be determined 5) None of these

Directions (Q. 33-34): Study the information carefully to answer the questions that follow:

A basket contains 3 blue, 2 green and 5 red balls.

33. If three balls are picked at random, what is the probability that at least one is red?

1) $\frac{1}{2}$ 2) $\frac{7}{12}$ 3) $\frac{11}{12}$

4) $\frac{1}{5}$ 5) None of these

34. If four balls are picked at random, what is the probability that two are green and two are blue?

1) $\frac{1}{18}$ 2) $\frac{1}{70}$ 3) $\frac{3}{5}$

4) $\frac{1}{2}$ 5) None of these

35. In how many different ways can the letters of the word 'FLEECED' be arranged?

1) 840 2) 2520 3) 1680

4) 49 5) None of these

Test-II
Reasoning Ability

Directions (Q. 36-40): Study the following information carefully to answer the given questions.

Seven actors H, I, J, K, L, M and N act in different types of drama, viz Action, Thriller, Romantic, Suspense, Comedy, Horror and Inspirational, but not necessarily in the same order. All the seven actors are engaged on three different days of the week, viz Monday, Tuesday and Friday.

H is engaged on Monday only with L and his drama is Thriller. K is acting in Horror drama and does not act on Friday. The one who is acting in Comedy acts on Tuesday. I and J do not act on the same day. Those who act on Monday do not perform Romantic drama. M acts in Suspense drama but does not act on Tuesday. N acts on the same day as M. J acts in Action drama.

36. Who acts in Comedy?

1) L 2) M 3) N

4) I 5) None of these

37. Which of the following combinations of actor-day-drama is definitely correct?
1) M – Friday – Romantic
2) N – Friday – Romantic
3) K – Tuesday – Action
4) L – Tuesday – Inspirational
5) None of these

38. Which of the following groups of actors performs on Friday?
1) JM 2) LMN
3) JMN 4) MN
5) None of these

39. I and K act on which of the following days of the week?
1) Tuesday 2) Friday
3) Monday 4) Monday or Friday
5) None of these

40. L acts in which type of drama?
1) Suspense 2) Romantic
3) Action 4) Can't be determined
5) None of these

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

In a family of ten persons – A, B, C, D, E, F, G, H, I and J – there are five males and five females. All of them are sitting for evening snacks, viz Pizza, Cola, Lemonade, Chocolate (Temptation), Coffee, Tea, Burger, Ice Cream (Strawberry), Icecream (Vanilla), Chocolate (Nestle), but not necessarily in the same order. No couple eat the flavour of the same eatable.

In the family of three generations, each female member, except B and H, has two sisters and one brother. The grandson of J does not like Pizza. B has no sister-in-law. A is not drinking tea. No male member eats Chocolate (Temptation) and takes Tea. I is father-in-law of F and he eats Ice cream of Vanilla flavour. G, who eats Chocolate (Nestle), is the son-in-law of B. D, who drinks Coffee, is the unmarried sister of E, who does not like Cola. C is sister-in-law of F but she does not like Cola, Lemonade or Tea. E is G's brother-in-law. B's father is H's husband, who does not like Pizza. The grandparents neither drink any beverages nor eat any sweet stuff.

41. Who among the following likes Chocolate (Temptation)?
1) C 2) A 3) F
4) Can't say 5) None of these

42. F has which of the following drinks/eatables?
1) Icecream (Strawberry) 2) Cola
3) Lemonade 4) Can't say
5) None of these

43. Which of the following pairs of persons do not represent a couple?
1) B and I 2) A and F 3) G and C
4) H and J 5) E and D

44. How many grandsons does J have?
1) Two 2) Three 3) One
4) Can't say 5) None of these

25. How is A related to E?
1) Mother 2) Sister 3) Wife
4) Can't say 5) None of these

Directions (Q. 46-50): 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 the input and its rearrangement.

Input: 33 cent group 50 but 10 way 63 sun 69
Step I: 69 33 cent group 50 10 way 63 sun but
Step II: 69 63 33 group 50 10 way sun cent but
Step III: 69 63 50 33 10 way sun group cent but

Step III is the last step of the above input. As per the rules followed in the above steps, find out for each of the following questions the appropriate step for the given input.

Input: 81 vital 13 leap plunge 24 fall 78 19 arid glib 90 dusty

46. Which step number is the following output?
90 81 78 24 vital 13 plunge 19 leap glib fall dusty arid
1) Step II 2) Step IV
3) Step III 4) Step V
5) There is no such step

47. Which of the following represents the position of '19' in Step V?
1) Fifth from the right
2) Third from the left
3) Eighth from the left
4) Ninth from the right
5) None of these

48. Which word/number would be at the 5th position from the left in Step IV?
1) leap 2) 13 3) plunge
4) 19 5) None of these

49. Which step would be the last but one?
1) V 2) VI 3) IV
4) VII 5) None of these

50. How many elements (words or numbers) are there between '24' and 'fall' in the last step?
1) Three 2) Four 3) Five
4) Six 5) None of these

Directions (Q. 51-56): 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.

(51-52):

Statements: Some doors are handles.
All handles are threads.
Some threads are windows.

51. **Conclusions:** **I.** Some doors are threads.
II. Some handles are windows.

52. **Conclusions:** **I.** All handles being windows is a possibility.
II. All windows being doors is a possibility.

(53-54):

Statements: Some states are villages.
No village is a forest.
All forests are towns.

53. **Conclusions:** **I.** Some villages are definitely not towns.
II. Some forests are not states.

54. **Conclusions:** **I.** Some forests being villages is a possbility.
II. Some towns are forests.

(55-56):

Statements: All milk is butter.
All butter is curd.
No curd is milkshake.

55. **Conclusions:** **I.** At least some butter is milkshake.
II. Some milkshakes are definitely not curd.

56. **Conclusions:** **I.** All curd being milk is a possibility.
II. All butter being milkshakes is a possibility.

Directions (Q. 57-62): Study the following information carefully and answer the given questions.

A committee has nine members A, B, C, D, E, F, G, H and I and it is divided into three groups, viz Play group, Entertainment group and Food group – with three members in each group. There are certain conditions for the formation of the groups.

Only three members will be selected in each group. One person cannot be selected for more than one group. A is in the Play group. H is in the Entertainment group. C and D are in the same group but not in the group of I. A and B are not in the same group. E is not in the same group as I but is in the Food group. F is in the group in which either H or B or both of them are present. I and H are not in the same group. F is neither with E nor with I.

57. C and D are in which of the following groups?
1) Play group
2) Entertainment group
3) Food group
4) Both Play and Food group
5) Can't be determined

58. Which of the following statements is true about G?
1) G is in the Play group with H.
2) G is in the Food group with A.
3) G is in the Play group with C and D.
4) Can't be determined
5) None of these

59. Which of the following members represents the Food group?
1) ECD 2) AHG 3) CDI
4) HBF 5) None of these

60. F is associated with which of the following groups?
1) Play group
2) Food group
3) Both Play and Food group
4) Entertainment group
5) Can't be determined

61. A can he grouped with who among the following?
1) GH 2) IG 3) CD
4) CH 5) None of these

62. Which of the following combinations is true?
1) Play group – ABF
2) Food group – ECB
3) Entertainment group – HFB
4) Food group – AIG
5) None of these

63. Which of the following expressions is true if the given expression is true?
$G \geq H = I > J \leq K < L$
1) $J > H$ 2) $G > K$ 3) $L > I$
4) $J < H$ 5) None of these

64. What will come in place of question mark (?) to make the expression $T > G$ as well as $Q \geq P$, definitely true?
$G \leq S < P$? $R = T \leq Q$
1) < 2) Either ≤ or = 3) ≥
4) > 5) None of these

65. Which of the following symbols should be placed in the blank spaces respectively in the given expression to make $D = W$ and $C \leq V$ definitely false?
V _ W _ X _ C _ D
1) ≥, =, ≥, ≥ 2) <, ≤, =, < 3) ≤, =, =, =
4) ≥, =, =, = 5) None of these

Direction (Q. 66-70): Read the following information in the questions and answer them.

66. Recently India has recognised the sovereign rights of the Arctic countries. India has also recognised the law of the sea set up by the United Nations Convention on the Law of the Sea and honoured the local people, culture, and traditions of the Arctic States.
Which of the following has been **assumed** in the given statement? (An assumption is something that is not directly stated but supposed or taken for granted from the given fact.)
1) India respects the sovereignty of a state.
2) India has keen interest in the Arctic region as it is full of biodiversity.

3) India was forced by the developed countries of the world to be recognised by the Arctic states.
4) India wants to set up a permanent base in the Arctic region so that it can perform scientific research there.
5) None of these

67. People of India are quite angry with the rising prices of oil – four times in last one month. On the other hand the government is giving its own explanation for the rising oil prices.
What could be the **main reason** behind the hike in the oil prices?
1) Continuous devaluation of the Indian Rupee
2) Government is spending more money on the imports.
3) Rising prices of crude oil in the international market
4) Rising demand of dollars in the international market
5) None of these

68. For the last two years India has been facing continuous increases in inflation, and despite all the efforts made by the Central Government and the RBI, inflation is still not under full control, due to which the government is facing the threat that it will lose the 2014 Lok Sabha Elections.
What is the **main reason** behind the govt being apprehensive about losing the 2014 Lok Sabha Elections?
(A) Rising corruption in India
(B) Excess supply of money in the market
(C) Decrease in the supply of commodities
(D) Government is unable to control inflation.
1) Only A 2) Only A and B 3) Only D
4) Only C 5) Only B

69. The threat of Naxalism is increasing day by day. Despite all efforts the situation has not improved in the last decade. Rather it has increased in the last few years due to the local support of the people in the area. They don't have any hope from the government and are bound to support the Naxals.
What **course of action** should the Government of India take to overcome the problem?
(A) There should be social and economic development in the Naxal areas.
(B) The Army should be ordered to launch a deadly operation to kill the Naxals.
(C) Employment should be provided to the local people of that area.
(D) Powerful countries like USA should be urged for help in such matter.
1) Only A 2) Only B
3) Only D 4) Only A and C
5) All of these

70. The Supreme Court in July 2013 struck down a particular provision of the Representation of People's Act as unconstitutional and gave a landmark judgement that MPs and MLAs will face immediate disqualification from holding the membership of the Parliament and state legislature if they are convicted in criminal cases and get punishment of two years or above.
Which of the following is the **main conclusion** that can be drawn from the given passage?
1) The Supreme Court wants to show its power to the Government of India.
2) The Supreme Court wants to clean the political system of the country.
3) The Supreme Court wants to correct the provisions of the Representation of People's Act.
4) The Supreme Court being the guardian of the constitution wants to protect the Constitution of India.
5) None of these

Test-III
English Language

Directions (Q. 71-79): Read the passage carefully and answer the questions given below it.

"Which came first, the chicken or the egg?" This existential question has perplexed philosophers since time began, and annoyed the rest of us since school began. And just when most of us dismissed metaphysical debate as a colossal waste of time — along with colonoscopy and the new Shah Rukh Khan-starrer Jab Tak Hai Jaan — British scientists came up with the definitive answer: The chicken came first.

Their keen scientific minds aided by a lot of research funds have identified a protein found only in chicken's ovaries that is vital for egg formation. The protein speeds up the development of the egg's hard shell, which protects the chick growing inside. This means the egg can exist only if it is created inside a chicken. This brings me to the other conundrum that has befuddled humans for generations: does winter air make viruses hyperactive, or does the cold weather make immunity sluggish, making us susceptible to infection?

Contradicting the belief that flu spreads because the cold makes the immune system weak, virologists have established that you cannot catch flu just by sitting out in the cold. Flu viruses spread differently from cold viruses. While cold viruses spread mainly through direct contact, such as when a person touches a contaminated surface with residue of cold viruses, or when an infected person shakes hands. In contrast, flu viruses are transmitted through air, in the form of aerosol droplets of coughs and sneezes.

Winter conditions make the flu virus more stable as cold, dry air pulls the moisture out of infected droplets released through coughs and sneezes. This allows the virus to linger in the air much longer, making it more likely for someone to breathe them in. When the air is more humid, these droplets

pick up water, get bigger, and fall to the ground, where they can't cause infection.

Winter air also dries out the nasal mucosa, which makes the nasal passage and airways crack and allows virus to enter the body more easily.

Add to this the winter cold leading to people spending more time indoors coughing and sneezing on each other and the chances of you getting infected rise rapidly, with flu season peaking from November through March. The proximity argument holds best among children, who have at least six to seven bouts of flu in a year, largely because they have suspect hygiene and share germs with each other generously.

More than the weather, what lowers immunity is the lack of sleep, an erratic diet, smoking and alcohol. Seasonal fluctuations also depend on vitamin deficiencies, such as reduced levels of sunlight—with heavy smog compounding shorter daylight hours — causing the body to produce less vitamin D, which increases susceptibility to the flu.

Flu symptoms are unpleasant — fever, cough, sneezing, headache, aching muscles and tiredness — but not life-threatening. However, flu weakens the immune system, making the body vulnerable to more serious infections, such as pneumonia. Because the flu is caused by a virus and not bacteria, antibiotics cannot be used to treat them. Like the common cold, flu can be treated only by bed rest, drinking fluids, and taking over-the-counter medicines to ease symptoms of fever and pain till the virus runs its course in five days to a week.

The best defence is avoiding direct contact with infected people, coughing or sneezing in a tissue or fabric instead of your hand, and washing hands frequently to avoid infection from contaminated surfaces, such as doorknobs and keyboards. People with compromised immunity — pregnant women, people recovering from a surgery or an illness, and people over 65 years — should consider getting vaccinated as they are the most vulnerable to flu complications, such as pneumonia. That done, you are all set to embrace the cold without fear of the flu.

71. In a reply to a perplexing question 'Which came first, the chicken or the egg?' which of the following arguments has/have been placed to justify that the chicken came first?
    1) Researchers have identified a protein found only in chicken's ovaries that is vital for egg formation.
    2) This protein is responsible for the development of egg's protective hard shell.
    3) The hard shell formed inside a chicken protects the chick growing inside.
    4) The formation of hard shell inside the chicken establishes that there must have been a chicken for the purpose.
    5) All the above
72. In the context of the passage, find the correct statement.
    1) For the spread of flu viruses, humid air is more favourable than cold, dry air.
    2) In humid region people are more likely to be infected with cold viruses.
    3) In winter flu viruses easily enter our body through the cracks in nasal passage.
    4) In winter, people prefer to stay indoors and this reduces their chances of getting infected by flu viruses.
    5) All the above are correct
73. Why do children often get infected by flu? Select the most suitable answer.
    1) Children have weak immune system.
    2) Children most of the time remain in physical contact with someone else and thus receive the germ very easily.
    3) Children avoid taking a bath in winter, which makes them more susceptible to cold viruses.
    4) Children have to get up early in the morning for their schools, which makes them bad sufferer of cold.
    5) All the above
74. Find the correct statement regarding flu.
    1) Symptoms of flu are fever, cough, sneezing, headache, aching muscles and tiredness.
    2) A flu patient can be cured by giving appropriate antibiotics.
    3) Flu weakens our respiratory system.
    4) Pneumonia is as dangerous as flu because both of them are caused by viruses.
    5) All the above
75. Which of the following can be inferred from the passage?
    (A) A common perception that flu spreads in cold because of weakening of immune system during cold has been proved wrong by the virologists.
    (B) Flu viruses are transmitted through exhaled air in the form of small water droplets.
    (C) When you shake hands with a person having cold virus there is a strong possibility of you getting infected with the cold virus.
    1) Only (A) and (B)
    2) Only (B) and (C)
    3) Only (A) and (C)
    4) Only (B)
    5) All (A), (B) and (C)
76. Which of the following is/are incorrect in the context of the given passage?
    (A) It is an established fact that due to flu our immune system becomes weaker.
    (B) Researchers have found that cold viruses become very active in winter.
    (C) Cold viruses spread mainly through direct contact.
    1) Only (A) and (C)
    2) Only (B) and (C)

3) Only (C)
4) Only (A) and (B)
5) All (A), (B) and (C)

77. Which of the following is the reason of lower immunity?
1) Reduced hours of sound sleep
2) Smoking habits and alcoholism
3) Deficiency of vitamin D
4) Shorter day light hours and heavy smog
5) All the above

78. Who among the following is the most likely to get infected by flu viruses? Give your answer in the context of the passage.
1) People living in humid regions such as hill stations
2) People living in dense forests
3) People living in close proximity of hospital
4) Pregnant women, people over 65 years
5) Doctors who are busy with treatment of the flu patients

79. What suggestions have been made to avoid flu?
(A) Using a piece of cloth on nose or mouth just before sneezing or coughing
(B) Frequent washing of hands to avoid getting infected from contaminated surface
(C) Avoid association with infected people
1) Only (A) and (B)
2) All (A), (B) and (C)
3) Only (B) and (C)
4) Only (A) and (C)
5) None of these

Directions (Q. 80-85): In each sentence below four words that the printed in bold have been lettered (1), (2), (3), (4) and (5). One of them may be wrongly spelt or inappropriate in the context of the sentence. Find out the word, which is wrongly spelt or inappropriate if there is any. The letter of that word is the answer. If all the words, which are printed in bold, are correctly spelt and appropriate in the context of the sentence, mark (5) as the answer ie All orrect.

80. A **major** 1)/ **disadvantage** 2)/ of this deal is that we shall have to **bear** 3)/ the **cost** 4)/ of training. All correct 5)

81. The bank's **fluctuating** 1)/ performance over the **prior** 2)/ year has been a **major** 3)/ **cause** 4)/ for concern. All correct 5)

82. An economy **relies** 1)/ on its **access** 2)/ to **dependable** 3)/ and **affordable** 4)/ sources of energy. All correct 5)

83. Researches have used data **prevalent** 1)/ to manufacturing companies to **illustrate** 2)/ the **harmful** 3)/ **impacts** 4)/ of technology on the environment. All correct 5)

83. Such a **situation** 1)/ is neither **feasible** 2)/ nor **desirable** 3)/ in a democratic country like **ours** 4)/. All correct 5)

85. The **gradual** 1)/ **withdrawal** 2)/ of such **safety** 3)/ **mechanisims** 4)/ will affect small and medium industries the most. All correct 5)

Directions (Q. 86-90): Rearrange the following six sentences (A), (B), (C), (D), (E) and (F) in the proper sequence to form a meaningful paragraph and then answer the questions given below.

(A) This particularly occurred in the early thirties.
(B) According to socialism, birth had nothing to do with superiority or inferiority, merit or lack of it in an individual.
(C) Jawaharlal Nehru brought the National Movement led by Gandhi still closer to the hearts and minds of people.
(D) Socialism was a new humanist doctrine that swore by equality, freedom and social justice.
(E) Lastly, and most importantly, socialism stood for classlessness and equality.
(F) Similarly, it did not matter whether the colour of skin of a person was black, white or brown.

86. Which of the following will come **FIRST** after rearrangement of sentences?
1) C 2) A 3) B
4) E 5) D

87. Which of the following will come **SECOND** after rearrangement of sentences ?
1) D 2) B 3) C
4) A 5) F

88. Which of the following will come **FOURTH** after rearrangement of sentences?
1) A 2) B 3) D
4) C 5) E

89. Which of the following will come **LAST** after rearrangement of sentences?
1) A 2) B 3) D
4) C 5) E

90. Which of the following will come **THIRD** after rearrangement of sentences?
1) A 2) E 3) D
4) C 5) F

Directions (Q. 91-100): In the following passage, some of the words have been left out, each of which is indicated by a number. Find the suitable word from the options given against each number and fill up the blanks with appropriate words to make the paragraph meaningful.

Forty-year-old Vijay Kumar, a regional head at a private sector life insurance company, quit his job two months ago after a 10-year **(91)** with the firm. Every three months, the number of policies Kumar and his colleagues were asked to sell would go **(92)** till it reached a point when targets became almost **(93)** to achieve. In September, staring at the **(94)** of yet another failure to meet the target, Kumar decided to quit rather than get **(95)**. He now **(96)** to never return to the sector. Like Kumar, thousands of employees are leaving the private insurance sector as companies feel the heat of sliding growth and rising costs with premium **(97)** dropping. An estimated 10,000 people have quit the sector in the past two years and one out of every three is scouting for options outside the

industry, head-hunters and industry **(98)** say. The **(99)** among employees is down and most of them are looking out for jobs. Hiring is limited and the boom we **(100)** from 2000 to 2010 is over, says a senior executive at a mid-sized insurance firm.

91. 1) relation 2) shift 3) stint 4) task 5) performance
92. 1) on 2) up 3) down 4) out 5) for
93. 1) target 2) easier 3) tough 4) impossible 5) feasible
94. 1) prospect 2) idea 3) notion 4) chance 5) possibility
95. 1) punished 2) scolded 3) adorned 4) rewarded 5) chided
96. 1) accepts 2) swears 3) wishes 4) presumes 5) says
97. 1) calculation 2) amount 3) charge 4) collection 5) cost
98. 1) interns 2) employees 3) insiders 4) members 5) people
99. 1) perception 2) income 3) morality 4) faith 5) morale
100. 1) experienced 2) have 3) achieved 4) enjoyed 5) got

Answers and explanations

1. 3; $17 \times 0.5 + 0.5 = 9$
$9 \times 1 + 1 = 10$
$10 \times 1.5 + 1.5 = 16.5$
$16.5 \times 2 + 2 = 35$
$35 \times 2.5 + 2.5 = 90$

2. 1; $(6 + 7) \times 1 = 13$
$(13 + 6) \times 2 = 38$
$(38 + 5) \times 3 =$ **129**
$(129 + 4) \times 4 = 532$
$(532 + 3) \times 5 = 2675$

3. 5; The series is $\times\frac{1}{2} - 1, \times\frac{1}{2} - 1, \times\frac{1}{2} - 1, \ldots$

$\frac{142}{2} - 1 = 70$

4. 3; The series is $\times 3+1, \times 3+2, \times 3+3, \times 3+4, \times 3+5$
5th number is $477 \times 3 + 4 = 1435$

5. 4; The series is $\times 7+1, \times 6+2, \times 5+3, \times 4+4, \times 3+5 \ldots$
3rd number is $22 \times 6 + 2 = 132 + 2 = 134$

6. 4; **From I:**
If $\sqrt{2304} = a$
then a = 48 (Do not consider – 48 as value of a)
Again, **from II:**
If $b^2 = 2304$ then $b = \pm 48$
Hence $a \geq b$.

7. 2; **I.** $12a^2 - 7a + 1 = 0$

II. $15b^2 - 16b + 4 = 0$

Sum of the two values of a, ie $(a_1 + a_2)$

$$= \frac{-(-7)}{12} = \frac{7}{12}$$

Similarly,
Sum of the two values of b,

ie $(b_1 + b_2) = \frac{-(-16)}{15} = \frac{16}{15}$

Since $\frac{7}{12} < \frac{16}{15}$

Therefore, a < b,
Now check the equality of root

$(12 \times 4 - 15 \times 1)^2 = \{12 \times (-16) - 15 \times (-7)\}$

$\{(-7) \times 4 - (-16) \times 1\}$

$\Rightarrow 33^2 = \{-87\}\{-12\}$

$\Rightarrow 1089 = 1044$, which is not true.

Therefore, our answer should be a < b.

For details of the above method see page 117 of April 2002 issue. This method is useful when the equations are difficult to factorise and roots come in fractional value. Here the method has been used to make you aware of it.

8. 2; **I.** $a^2 + 9a + 20 = 0$

Break 9 as F_1 and F_2, so that $F_1 \times F_2 = 20$ and $F_1 + F_2 = 9$.

Therefore, $F_1 = 5$, $F_2 = 4$

Now one value of $a = \frac{-5}{1} = -5$

other value of $a = \frac{-20}{5} = -4$

II. $2b^2 + 10b + 12 = 0$

The two parts of 10, ie $F_1 = 6$ and $F_2 = 4$

$\therefore$ Value of $b = \frac{-6}{2} = -3$ and $\frac{-12}{6} = -2$

Obviously b > a.

If general form of quadratic equation is

$ax^2 + bx + c = 0$,

then split b into two parts so that $b_1 + b_2 = b$ and $b_1 \times b_2 = a \times c$

Now say b_1 as F_1 and b_2 as F_2. Then the values of 'x' will be

$$\frac{-F_1}{a} \text{ and } \frac{-C}{F_1} \quad \text{or} \quad \frac{-F_2}{a} \text{ and } \frac{-C}{F_2}$$

9. 1; **I.** $3a + 2b = 14$

II. $a + 4b = 13$

Substract equation I from equation II after multiplying II by 3.

We get $3a + 12b - 3a - 2b = 39 - 14$

$\Rightarrow 10b = 25$

$\Rightarrow b = 2.5$

Put value of b in equation II. We set $a + 4 \times 2.5 = 13$.

Therefore, $a = 3$. Thus, $a > b$.

10. 5; **I.** $a^2 - 7a + 12 = 0$

Here, $F_1 = -4$ and $F_2 = -3$

Now, values of $a = \frac{-(-4)}{1} = 4$ and $\frac{-12}{-4} = 3$

II. $b^2 - 9b + 20 = 0$

Here $F_1 = -5$ and $F_2 = -4$

Now, values of $a = \frac{-(-5)}{1} = 5$ and $\frac{-20}{-5} = 4$

Thus $b \geq a$.

11. 2; Here, $10^3 \times 100^3 + 999999999$

$= 10^3 \times (10^2)^3 + 10^9$

$= 10^3 \times 10^6 + 10^9$

$= 10^{3+6} + 10^9$

$= 10^9 + 10^9$

Therefore, question mark will be replaced by 9.

12. 4; $134\% \text{ of } 3894 + 38.94\% \text{ of } 134$

$= 134\% \text{ of } 3894 + 38945 \text{ of } 1.34$

$= 134\% \text{ of } 3894 + 1.34\% \text{ of } 3894$

$= 135.34\% \text{ of } 3894 = 5270.1396 = 5270$

13. 5; $(21 + 99) \times (30 - 19.02)$

$= 120 \times 10.98$

$= 120 \times 11 = 1320$

14. 4; $\frac{2}{3} \times \frac{6}{8} \times \frac{2}{3} \times \frac{3}{5} = \frac{72}{72 \times 5} = \frac{1}{5} = 0.2$

15. 1; $\sqrt{1000000.0000001} = \sqrt{1000000} = 1000$

16. 5; I alone is not sufficient because we do not know about the number of girls. Similarly, II alone is not sufficient because the given information merely gives the ratio of boys and girls (145 : 100). Now combining I and II, we get 90 = 45% of total girls.

Obviously, total strength = 245% of total girls

$$= \frac{90}{45} \times 245 = 490$$

Thus, both the statements are necessary.

17. 1; Suppose the digit at unit's place be x and the digit at unit's place by y.

Then the number = 10y + x

From I: We get

$x + y = 9$ ....(i)

and $x - y = 9$ ....(ii)

Obviously, the value of either x or y must be zero. But if we consider zero at ten's place then the value will be considered as a single-digit number. Hence, the number is 90.

Statement II merely says x > y. With the help of this information we can't get the number.

18. 4; We know

$$P + I = P\left(1 + \frac{r}{100}\right)^t$$

where P = Principal

I = Interest

t = Time for which amount is invested

r = Rate of compound interest (annual)

From I: t = 4 years

From II: I = Rs 1491

Still we need the principal. Hence, both I and II even together are not sufficient.

19. 1; We know the sum of the three angles of a triangle is 180º.

From I: We get sum of the other two angles is 130º. Obviously, the third angle is (180º – 130º =) 50º.

From II: We can't say about the proportion of the third angle if we have been given the sum of the second and the third angles.

20. 4; Suppose the distance through the boat route be D km. And the speed of the boat in still water be a km/h and the speed of the current be b km/h.

Then

From I: $\frac{D}{a+b} + \frac{D}{a-b} = 4$

From II: a = 5 km/h

Still we need 'b'. Hence, both the statements even together are not sufficient.

21. 5; We know
Perimeter of a rectangle = 2(length + breadth)
$= 2(26+18) = 88\ cm^2$
Now, since perimeter of a circle = $2\pi r$
Therefore $2\pi r = 88$ ie $r = \frac{44}{\pi}$
Now, the area of the circle = πr^2
$= \pi \times \frac{44}{\pi} \times \frac{44}{\pi} = \frac{44 \times 44}{22} \times 7 = 616\ cm^2$

22. 5; Required persons = $\frac{325000 - 300000}{50} = 500$

23. 3; Suppose the number is N.
Then $N - \frac{3}{5}N = 50$
$\Rightarrow \frac{2N}{5} = 50$
$\therefore N = \frac{50 \times 5}{2} = 125$

24. 1; Here ratio of efficiencies of pipes A, B and C are as follows:

C	B	A
2		1
2		1
4	: 2	: 1

Suppose the efficiencies of pipes C, B and A are 4K, 2K and K.
Since, the tank is filled in 5 hours by the three pipes having combined efficiency equal to 7K,
the time required to fill the tank by A alone = $\frac{7K \times 5}{K}$
= 35 hours

25. 3; Here required quantity of pure milk
$= \frac{10 \times (5-2)}{2} = \frac{10 \times 3}{2} = 15$ litres

26. 2; $\left(\frac{756 \times 67}{804}\right)^3 = 250047$

27. 5; Sum = 345.96

28. 4

29. 1

30. 3

31. 5; We know that for 2 years the difference in CI from SI is due to interest on interest of first year. That is, the difference
= 14% of 14% of 985
$= \frac{14 \times 14 \times 985}{100 \times 100} = Rs\,19.306$
Note: You may use direct formula:
Difference for 2 years = $P\left(\frac{r}{100}\right)^2$

32. 4; Since work done by children in a day is not given (directly or indirectly) we can't get the required value.

33. 3; P(at least one red) = 1 – P(no red)
$= 1 - \frac{^5C_3}{^{10}C_3} = 1 - \frac{10}{120} = 1 - \frac{1}{12} = \frac{11}{12}$

34. 2; P(2 green + 2 blue) = $\frac{^2C_2 \times {}^3C_2}{^{10}C_4} = \frac{1 \times 3}{210} = \frac{1}{70}$

35. 1; Required no. of ways = $\frac{7!}{3!} = 840$

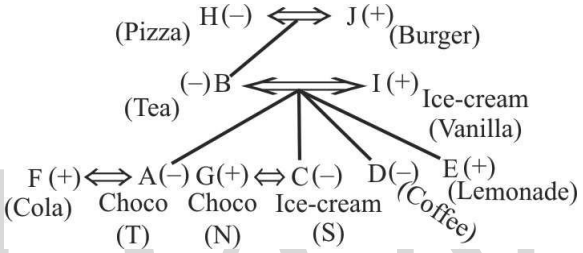
(36-40):

Actor	Day	Type of drama
H	Monday	Thriller
I	Tuesday	Comedy
J	Friday	Action
K	Tuesday	Horror
L	Monday	Inspirational
M	Friday	Suspense
N	Friday	Romantic

36. 4 37. 2 38. 3 39. 1

40. 5; Inspirational

(41-45):



41. 2 42. 2 43. 5 44. 3 45. 2

(46-50): The machine rearranges the numbers and words in such a way that the numbers are rearranged in descending order from left to right and the words are arranged in alphabetical order from right to left in each step.

Input: 81 vital 13 leap plunge 24 fall 78 19 arid glib 90 dusty
Step I. 90 81 vital 13 leap plunge 24 fall 78 19 glib dusty arid
Step II. 90 81 78 vital 13 leap plunge 24 19 glib fall dusty arid
Step III. 90 81 78 24 vital 13 plunge 19 leap glib fall dusty arid
Step IV. 90 81 78 24 19 vital 13 plunge leap glib fall dusty arid
Step V. 90 81 78 24 19 13 vital plunge leap glib fall dusty arid

46. 3 47. 4 48. 4 49. 3 50. 4

51. 1; Some doors are handles (I) + All handles are threads (A) = I + A = I = Some doors are threads. Hence, conclusion I follows. Again, All handles are threads (A) + Some threads are windows (I) = A + I = No conclusion. Hence, conclusion II does not folllow.

52. 5; There are no negative statements. So, the possibilities exist. Hence, both conclusions I and II follow.

53. 4; No village is a forest (E) + All forests are towns (A) = E + A = O* = Some towns are not villages. Hence, conclusion I does not follow. Again, Some states are villages (I) + No village is a forest (E) = I + E = O = Some states are not forests. Hence, conclusion II does not follow.

54. 2; No village is a forest → conversion → No forest is a village. Hence, conclusion I does not follow. Again, All forests are towns → conversion → Some towns are forests. Hence, conclusion II follows.

55. 2; All butter is curd (A) + No curd is milkshake (E) = A + E = E = No butter is milkshake. Hence conclusion I does not follow. Again, No curd is milkshake → conversion → No milkshake is curd. Hence, conclusion II follows.

56. 1; All milk is butter (A) + All butter is curd (A) = A + A = A = All milk is curd. So, the possibility in I exists. Hence, conclusion I follows. Again, All butter is curd (A) + No curd is milkshake (E) = A + E = E = No butter is milkshake. Hence, conclusion II does not follow.

(57-62):

Person	Group		
	Food	Play	Entertainment
A	×	√	×
B	×	×	√
C	√	×	×
D	√	×	×
E	√	×	×
F	×	×	√
G	×	√	×
H	×	×	√
I	×	√	×

Now, we get,

Group	Persons
Play	AIG
Food	ECD
Entertainment	HFB

57. 3 58. 5 59. 1
60. 4 61. 2 62. 3

63. 4; **Given statement:**
$G \geq H = I > J \leq K < L$
Thus, we can't compare G and K or L and I.
Hence, options 2) and 3) do not follow.
Again, H > J or J < H is true.
Hence, option 1) does not follow. But option 4) follows.

64. 2; **Option 1)** $G \leq S < P < R = T \leq Q$
Thus, T > G is true. But P < Q or Q > P.
Hence, does not follow.
Option 2) $G \leq S < P \leq R = T \leq Q$
Hence, G < T is true and P ≤ Q or Q ≥ P is true.
Again, $G \leq S < P = R = T \leq Q$
Hence, G < T and P ≤ Q or Q ≥ P are true.
Hence, option 2) follows.
Option 3) $G \leq S < P \geq R = T \leq Q$
Hence, we can't compare T and G or P and Q.
Hence, option 3) does not follow.
Option 4) $G \leq S < P > R = T \leq Q$
We can't compare T and G or P and Q. Hence, 4) does not follow.

65. 2; Check options one by one.
Option 1) $V \geq W = X \geq C \geq D$
This leads to W ≥ D and V ≥ C or C ≤ V.
Hence, 1) does not follow.
Option 2) $V < W \leq X = C < D$
This leads to W < D and V < C or C > V.
Hence, 2) follows.
Option 3) $V \leq W = X = C = D$
This leads to W = D and V ≤ C or C ≥ V.
Hence, 3) does not follow.
Option 4) $V \geq W = X = C = D$
This leads to V ≥ C or C ≤ V and D = W. Hence, 4) does not follow.

66. 1; It is this respect for sovereignty of a state that has led India to recognise the rights of the Arctic countries.

67. 5; Nothing has been said about the factual cause of price rise of oil.

68. 3; Due to continuous increase in inflation government is facing problems, and losing public support. That is why the govt has become apprehensive of losing the 2014 Lok Sabha elections.

69. 4; This is how the govt can win local support.

70. 2; In fact, this may well be the summary of the long sentence.

71. 5 72. 3 73. 2 74. 1 75. 5
76. 4 77. 5 78. 4 79. 2

80. 5; All correct.

81. 2; The appropriate word is '*previous'*.

82. 5; All correct.

83. 1; The appropriate word is '*relevant'*.

84. 5; All correct.

85. 4; The correct spelling is *'mechanisms'*.

(86-90): CADBFE

86. 1 87. 4 88. 2 89. 5 90. 3
91. 3 92. 2 93. 4 94. 1 95. 5
96. 2 97. 4 98. 3 99. 5 100. 1

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