

# SBI PO (PRE) EXAM-2018

## PREVIOUS YEAR PAPER

### WRITTEN EXAMINATION STRUCTURE

Sr. No.	Name of Tests (Objective)	No. of Questions	Maximum Marks	Allotted Time
1.	English Language	30	30	20 minutes
2.	Quantitative Aptitude	35	35	20 minutes
3.	Reasoning Ability	35	35	20 minutes
	<b>Total</b>	<b>100</b>	<b>100</b>	<b>60 minutes</b>

### INSTRUCTIONS

- (1) All the sections are available in English only, and the time suggested above for each test is not for guidance, you have to follow the above mentioned time.
- (2) Do not use calculators, or any electronic medium for calculations. You may take a clean sheet of paper for rough work and all calculations must be performed manually by the candidate.
- (3) There will be penalty for wrong answer marked by you in the objective tests. There are five alternatives in every question of a test.
- (4) For each question for which a wrong answer has been given by you,  $1/4$  or 0.25 of the marks assigned to that question will be deducted as penalty. If a question is left blank, i.e. no answer is given by you, there will be no penalty for that question.
- (5) There will be a cut off for each section and an overall cut off as well. Hence, your aim should be to answer maximum number of attempts in all three sections.

TEST-I  
ENGLISH LANGUAGE

**Directions (Qs.1 to 4):** In each of the following questions, five options are given and you have to choose the one which has some or any grammatical error in it. In the questions where the fifth option is "all are correct" and all the given four options are correct choose option (5) as your choice. In the questions where all the sentences are incorrect and the fifth option is "None is correct" choose option (5) as your correct choice.

1. (1) AI is the use of computers to make decisions that are normally made by humans.  
(2) The biggest agricultural data today resides with the government.  
(3) The book was advanced that even graduates in the discipline found it difficult  
(4) India has 30 million farmers with smartphones, but poor extension services.  
(5) All are correct
2. (1) The children playing with a ball and run around when the accident occurred.  
(2) All renew licenses may be collected from the cashier's counter after paying the fees.  
(3) He ran so fastly that he reached the destination in just two minutes.  
(4) Prayag and Parag used to work for almost twelve hours in the factory they are working earlier.  
(5) None is correct
3. (1) He was probably a Greek, but he did not accord with anything of his time.  
(2) Their husbands are not likely ever to be rich men, and will probably be poor for some years to come.  
(3) Had there been, he probably would have invited the visitor to walk to the fire and partake.  
(4) Between you and I, he probably won't come at all.  
(5) All are correct
4. (1) They are at the same time modest and impudent, attack and careful retreat.  
(2) The child was then careful to avoid what had been pronounced "wrong" in others.  
(3) There are many a slips between the cup and the lip and so one has to be careful.  
(4) Now lower the fire and be careful not to allow the compound to be overdone.  
(5) Be careful not to overcook it, and it will not be pasty, but firm and tender.

**Directions (Qs.5 to 8):** The following questions have two blanks, each blank indicating that something has been omitted. Choose the set of words for each blank that best fits the meaning of the sentence as a whole.

5. Indigenous prints made and \_\_\_\_\_ by non-Indigenous master printers have always been considered as \_\_\_\_\_ ground in the Australian art market.  
(1) printed, straying (2) splayed, sovereign (3) editioned, contested  
(4) selected, effective (5) chosen, dominant
6. \_\_\_\_\_ market currencies, in general, have seen a weak trend on account of a recent \_\_\_\_\_ in the trade friction between US and China, and a firm trend in the price of crude oil.  
(1) developed, outflow (2) emanating, abetting (3) fading, diminution  
(4) emerging, escalation (5) developing, sublimation
7. One important development which took place during the phase of a \_\_\_\_\_ external environment was the introduction of a flexible inflation targeting monetary policy \_\_\_\_\_.  
(1) atrocious, anarchy (2) benign, regime (3) differential, project  
(4) effective, proposal (5) impartial, agreement

8. \_\_\_\_\_ anthropocentrism is a world view that says humans have ethical \_\_\_\_\_ towards the environment.
- (1) enlightened, obligations                      (2) traditional, options                      (3) drivel, love  
(4) surreal, compulsion                      (5) prosaic, incline

**Directions (Qs.9 to 13):** 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. AI is the use of computers to make decisions that are normally made by humans Many forms of AI surround Indians already, including chatbots on retail websites and programs that flag fraudulent bank activity.
- B. In agriculture, for example, machines will provide information to farmers on the quality of soil, when to sow, where to spray herbicide, and when to expect pest infestations.
- C. But NITI Aayog envisions AI solutions for India on a scale not seen anywhere in the world today, especially in five key sectors - agriculture, healthcare, education, smart cities and infrastructure, and transport.
- D. If computers help agricultural universities advise farmers on best practices, India could see a farming revolution.
- E. It's an idea with great potential: India has 30 million farmers with smartphones, but poor extension services.
- F. NITI Aayog has chalked out an ambitious strategy for India to become an artificial intelligence (AI) powerhouse.
9. Which of the following would be the **THIRD** sentence after rearrangement?  
(1) F                      (2) A                      (3) C                      (4) B                      (5) E
10. Which of the following would be the **SECOND** sentence after rearrangement?  
(1) F                      (2) C                      (3) A                      (4) B                      (5) E
11. Which of the following would be the **FOURTH** sentence after rearrangement?  
(1) C                      (2) D                      (3) F                      (4) E                      (5) B
12. Which of the following would be the **SIXTH (LAST)** sentence after rearrangement?  
(1) E                      (2) D                      (3) A                      (4) C                      (5) B
13. Which of the following would be the **FIRST** sentence after rearrangement?  
(1) E                      (2) A                      (3) B                      (4) F                      (5) C

**Directions (Qs.14 to 20):** Read the following passage carefully and answer the questions given below it. Certain words are given in bold to help you locate them while answering some of the questions.

The Indian government's relatively slow progress in securing lithium reserves could be a big problem for the energy storage industry in the country, according to a senior official at Panasonic India, who said that this would mean the country would have to rely on imports from China.

"China securing its lithium ion reserves and India not doing as much in this area could be a big problem," said Atul Arya, head, Energy Systems at Panasonic India. "There are two ways to do it. We can either do it in the way we are doing solar, where we are importing everything from China. There is no need to worry about anything, somebody else is making it, and we are only consuming."



17. Which of the following can help in developing the Lithium ion energy sector?  
 (I) Tax concession from the government  
 (II) Banning imports of the components required in production of Lithium ion  
 (III) Better finances for augmenting the manufacturing capabilities  
 (1) both (I) and (III) (2) only (III) (3) only (I)  
 (4) only (II) (5) both (II) and (I)
18. What does the author want to convey by comparing a cycle and a truck tyre?  
 (I) Truck tyre can revolve faster while cycle tyre lacks this feature.  
 (II) If you want to make something large, only increasing the size is not enough, there are many other factors involved.  
 (III) A wheel was invented thousands of years ago while the truck tyre is comparatively new.  
 (IV) A cycle is easy to make whereas a truck requires a lot of time and money.  
 (1) Only (I) (2) only (II) (3) only (III)  
 (4) only (II) and (III) (5) only (IV)
19. According to the passage who among the following can help most the Lithium Ion energy sector?  
 (1) Mindset of the people of the country towards Lithium Ion battery.  
 (2) The companies involved in Lithium Ion sector themselves.  
 (3) China and its trade policy.  
 (4) The Indian Government.  
 (5) All of the above
20. Choose the word which is **most OPPOSITE** to the word given in bold in context of the passage.  
**Substantially**  
 (1) slightly (2) incredibly (3) extensively (4) assuredly (5) unequivocally

**Directions (Qs.21 to 25):** In each of the questions given below a sentence is divided into four parts. Choose the part which is grammatically incorrect. If all the parts are correct then choose option (5) as your choice.

21. (A) She was so/ (B) emotional stable that/ (C) she was not moved/ (D) by their decision to suspend her.  
 (1) A (2) B (3) C (4) D (5) No error
22. (A) You should behave with/ (B) others the same way as/ (C) you would expect them/ (D) to behave with you.  
 (1) A (2) B (3) C (4) D (5) No error
23. (A) No sooner/ (B) did I enter the/ (C) house I saw my uncle/ (D) going out for a walk.  
 (1) A (2) B (3) C (4) D (5) No error
24. (A) Ramesh is/ (B) unfortunately accused/ (C) with stealing a handful/ (D) of oranges from Mohan's garden.  
 (1) A (2) B (3) C (4) D (5) No error
25. (A) Jagan showed/ (B) remarkable achievement/ (C) not only in archery/ (D) but also in swimming.  
 (1) A (2) B (3) C (4) D (5) No error

**Directions (Qs.26 to 30):** In the questions given below, there is a sentence in which one part is given in bold. The part given in bold may or may not be grammatically correct. Choose the best alternative among the four given which can replace the part in bold to make the sentence grammatically correct. If the part given in bold is already correct and does not require any replacement, choose option (5), i.e. "No replacement required" as your answer.

26. It was unclear how or why Mr. Kongantiyev left the hospital or how long he **had been gone before** he was captured.  
(1) have been going before  
(2) had been gone since  
(3) has been gone before  
(4) was gone before  
(5) No correction required
27. The programme **emphasizes with mentoring people** to take risks and to act in a more entrepreneurial way.  
(1) emphasizes mentoring people  
(2) emphasizes on mentoring people  
(3) emphasized on mentoring people  
(4) emphasized mentoring people  
(5) emphasizes in mentoring people
28. He deserted the path of honour in order to satisfy his ambition and then **went down for** his doom very quickly.  
(1) go down to  
(2) went down into  
(3) went down to  
(4) went for  
(5) No correction required
29. If he had informed me of his difficulties **I would have** sent the money.  
(1) I should have  
(2) I would had  
(3) I could have  
(4) I might had  
(5) No correction required
30. **Despite of the government's** protection, he was the victim of an assassination attempt which killed him.  
(1) In spite of the government's  
(2) Despite being provided of the government's  
(3) Despite the government's  
(4) Although of the government's  
(5) None of these

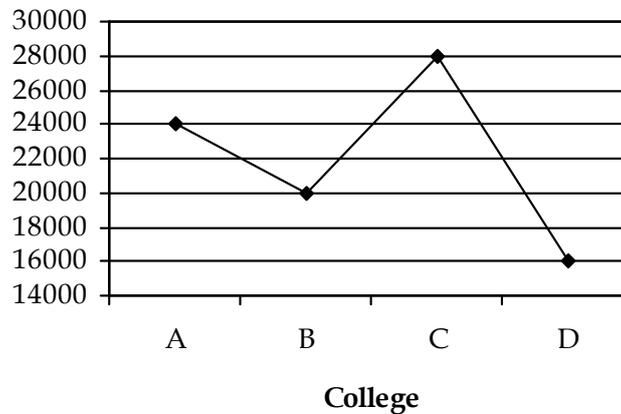
TEST-II  
QUANTITATIVE APTITUDE

**Directions (Qs.31 to 35):** What will come at the place of question mark (?) in the given series.

31. 7, ?, 7, 17, 63, 309  
(1) 10                      (2) 5                      (3) 4                      (4) 3                      (5) 6
32. 17, 22, 39, 76, 141, ?  
(1) 201                      (2) 230                      (3) 214                      (4) 242                      (5) 221
33. 14, 526, 183, 399, 274, ?  
(1) 348                      (2) 342                      (3) 334                      (4) 330                      (5) 338
34. 43, 59, 91, 155, ?, 539  
(1) 283                      (2) 220                      (3) 243                      (4) 232                      (5) 247
35. 16, 21, 76, 171, 296, ?  
(1) 448                      (2) 341                      (3) 441                      (4) 398                      (5) 448
36. Ratio between magnitude of volume of a cylinder to the magnitude of curved surface area of the cylinder is 7 : 2. find the total surface area of the cylinder if height of cylinder is double than that of the radius of the cylinder  
(1) 968 unit<sup>2</sup>                      (2) 814 unit<sup>2</sup>                      (3) 950 unit<sup>2</sup>                      (4) 616 unit<sup>2</sup>                      (5) 924 unit<sup>2</sup>
37. The second lowest number of five consecutive odd number series is four more than the  $\frac{5}{12}$ th of the third highest number of a five consecutive even number series. If the average of five consecutive even number series is 60, then find the difference between the highest number of both the series?  
(1) 27                      (2) 29                      (3) 31                      (4) 33                      (5) 37
38. Rahul, Roly and Ritu enter into a business. Rahul invest for 5 months & claims  $\frac{1}{5}$ th of the profit, Roly invest for 3 months & claims  $\frac{1}{4}$ th of profit. While Ritu invest Rs.1210 for 9 months. How much total money invested by Rahul and Roly together?  
(1) Rs.2648                      (2) Rs.2484                      (3) Rs.2624                      (4) Rs.2442                      (5) Rs.2862
39. There are 3 baskets, each contains three apples and three oranges. Find the probability of selecting two oranges from the same basket?  
(1)  $\frac{1}{6}$                       (2)  $\frac{1}{3}$                       (3)  $\frac{1}{4}$                       (4)  $\frac{1}{9}$                       (5)  $\frac{1}{15}$
40. A certain sum was invested by a person on SI at 5% per annum. After 6 months, he again made an investment of the same amount on SI at 6% p.a. After a certain period of time, the amount received from both the investments are equal which is Rs.4600. Find the sum he has invested in each investment.  
(1) Rs.4200                      (2) Rs.4000                      (3) Rs.3800                      (4) Rs.4100                      (5) Rs.3500

**Directions (Qs.41 to 45):** The given line graph shows the number of total application applied for the post of professor in four colleges.

The table shows the percentage of rejected application by colleges.



College	Percentage of rejected application
A	25%
B	16%
C	15%
D	$6\frac{1}{4}\%$

41. In accepted application by college A  $33\frac{1}{3}\%$  are applied by females. Then accepted application applied by male in college A is what percent of total accepted application by college D.  
 (1) 75%      (2) 70%      (3) 120%      (4) 60%      (5) 80%
42. Find the average number of accepted application by all these 4 colleges.  
 (1) 19,350      (2) 18,400      (3) 18,840      (4) 20,050      (5) 17,900
43. Among accepted application by college B and C the ratio of male to female applicant are 10 : 11 and 8 : 9 respectively. Then find the ratio of accepted application applied by female in college B to accepted application applied by male in college C.  
 (1) 12 : 13      (2) 27 : 29      (3) 15 : 11      (4) 9 : 17      (5) 11 : 14
44. Rejected application by college C is what percent of rejected application by college B and D together.  
 (1) 100%      (2) 80%      (3) 124%      (4) 72%      (5) 125%
45. Find difference of rejected application by college B and college D.  
 (1) 1560      (2) 2200      (3) 2016      (4) 2370      (5) 2400
46. What is the probability of choosing a letter from word IMPORTANCE such that it never belongs to word PORTABILITY?  
 (1)  $\frac{17}{110}$       (2)  $\frac{18}{110}$       (3)  $\frac{2}{5}$       (4)  $\frac{2}{110}$       (5)  $\frac{21}{110}$

47. A shopkeeper has two articles of equal cost price. One article is sold at 12% profit and another article is sold at Rs.1110 more than the selling price of first article. If total profit on both articles together is 15% then find the cost price of each article.  
 (1) 22500 (2) 17500 (3) 16500 (4) 18500 (5) 16600
48. If an article is sold on  $4x\%$  discount then it sold at 20% loss and if only  $x\%$  discount is given then it sold at 25% profit find the value of 'x'. (approximately)  
 (1) 21% (2) 25% (3) 11% (4) 19% (5) 22%
49. A train of 245 meter length crosses a platform of its double length in 45 seconds. Another train coming from opposite direction of length 364 meter with speed 63 km/hr cross first train in what seconds?  
 (1) 25 (2) 14 (3) 23 (4) 10 (5) 18
50. A boat covers 15km distance in upstream in 2 hour more than the same distance in downstream. If speed of boat is 300% more than the speed of current then what is the distance covered by boat in downstream in 5 hours?  
 (1) 25 km (2) 20 km (3) 27 km (4) 30 km (5) 15 km

**Directions (Qs.51 to 53):** In the given questions, two quantities are given, one as Quantity I and another as Quantity II. You have determined relationship between two quantities and choose the appropriate option.

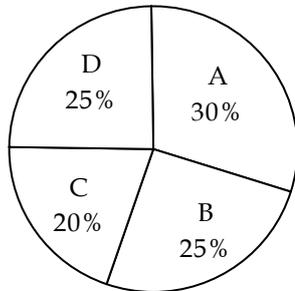
51. **Quantity I:** Three boys of a class of weight 75, 68 and 57 are replaced by 23, 41 and 56. Due to which average weight of class is decreased by 2.5. What is the strength of class?  
**Quantity II:** 50  
 (1) Quantity I > Quantity II  
 (2) Quantity I < Quantity II  
 (3) Quantity I  $\geq$  Quantity II  
 (4) Quantity I  $\leq$  Quantity II  
 (5) Quantity I = Quantity II or no relation
52. **Quantity I:** In 5 consecutive odd numbers difference between square of average of least 2 odd numbers to square of average of highest 2 numbers is 252. Find the least odd number.  
**Quantity II:** 25  
 (1) Quantity I > Quantity II  
 (2) Quantity I < Quantity II  
 (3) Quantity I  $\geq$  Quantity II  
 (4) Quantity I  $\leq$  Quantity II  
 (5) Quantity I = Quantity II or no relation
53. What is the principal?  
**Quantity I:** A sum is invested for 2 years with CI. It earns Rs.10123.2 with 12% rate of interest  
**Quantity II:** A sum invested for 4 years with SI. It earns Rs.14400 with 15% rate of interest  
 (1) Quantity I > Quantity II  
 (2) Quantity I < Quantity II  
 (3) Quantity I  $\geq$  Quantity II  
 (4) Quantity I  $\leq$  Quantity II  
 (5) Quantity I = Quantity II or no relation
54. A, B and C alone can complete a work in 15, 20 and 30 days respectively. They all started working together. A left the work after 2 days and B left the work 6 days before the completing of work. Remaining work is completed by C alone. Find the time for which C worked.  
 (1) 16 days (2) 8 days (3) 10 days (4) 12 days (5) 14 days

55. 14 men can do a work in 5 days and 16 women can complete the same work in 7 days. In how many days 5 men and 4 women can complete the same work together?

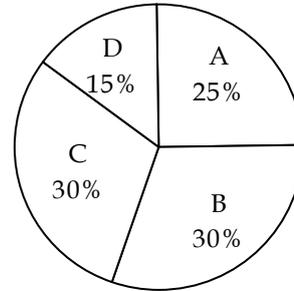
- (1)  $10\frac{1}{3}$  days    (2)  $11\frac{2}{3}$  days    (3)  $9\frac{2}{3}$  days    (4)  $9\frac{1}{3}$  days    (5)  $8\frac{1}{3}$  days

**Directions (Qs.56 to 60):** Given pie chart shows the population (MALE + FEMALE) distribution of 4 states and male population distribution in these 4 states.

**Total Population = 14000**



**Total male population = 6000**



56. Female population of state D is what % of the male population of state B?  
 (1)  $134\frac{4}{9}\%$     (2)  $143\frac{4}{9}\%$     (3)  $144\frac{4}{9}\%$     (4)  $124\frac{4}{9}\%$     (5)  $145\frac{4}{9}\%$
57. What is the ratio of the female population of state A to female population of state C?  
 (1) 27 : 10    (2) 27 : 11    (3) 37 : 10    (4) 10 : 27    (5) 11 : 27
58. What is the difference between the female population of state A to male population of state B?  
 (1) 700    (2) 600    (3) 900    (4) 800    (5) 200
59. What is the average of the female population of state B and total population of state C?  
 (1) 2350    (2) 1950    (3) 1750    (4) 1200    (5) 2250
60. What is the sum of the female population of states A, C and D?  
 (1) 6400    (2) 6300    (3) 5600    (4) 7300    (5) 4300

**Directions (Qs.61 to 65):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and \_\_\_

- Give answer (1):** If  $x > y$   
**Give answer (2):** If  $x \geq y$   
**Give answer (3):** If  $x < y$   
**Give answer (4):** If  $x \leq y$   
**Give answer (5):** If  $x = y$  or no relation can be established between  $x$  and  $y$ .

61. I.  $3x^2 - 13x + 12 = 0$     II.  $2y^2 - 13y + 21 = 0$
62. I.  $x^2 + 4x - 45 = 0$     II.  $y^2 + 8y + 15 = 0$
63. I.  $x^2 = 64$     II.  $y^2 = 144$
64. I.  $5x^2 - 4x - 1 = 0$     II.  $3y^2 - 2y - 1 = 0$
65. I.  $4x^2 + 12x + 8 = 0$     II.  $3y^2 - 20y + 17 = 0$

TEST-III  
REASONING ABILITY

**Directions (Qs.66 to 70):** Study the following information carefully and answer the given questions:

Seven boxes A, B, C, D, E, F and G are kept one above the other containing different number of chocolates ranging from 10 - 90. Not more than four boxes are kept above A. Two boxes are kept between A and the box containing 41 chocolates, which is kept below Box A. D contains thrice number of chocolates than box B. Box C contains 50 numbers of chocolates and is not kept at the top. The number of chocolates in box G is a cube of a number. Only one box is kept between box containing 41 chocolates and 39 chocolates. Box D has less number of chocolates than box A. One of the boxes contain 78 chocolates. Five boxes are kept between box containing 64 chocolates and Box C. Box G is immediately above box E. Box D is not kept immediately above or below box B. Three boxes are kept between box D and box F. Box D is above box F.

66. Which among the following box/boxes is kept exactly between Box D and Box B?  
(1) G, E      (2) B, C      (3) B, A      (4) F, C      (5) None of these
67. How many chocolates are kept in box E?  
(1) 50      (2) 13      (3) 78      (4) 41      (5) None of these
68. Which among the following boxes contains the maximum and minimum number of chocolates respectively?  
(1) G, E      (2) B, D      (3) C, A      (4) F, B      (5) None of these
69. Which of the following combinations is not true?  
(1) 50-D      (2) 13-B      (3) 41-E      (4) 64-A      (5) None of these
70. Which among the following boxes is kept immediately below box B?  
(1) G      (2) C      (3) A      (4) F      (5) None of these

**Directions (Qs.71 to 75):** Study the following information carefully to answer the given questions.

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

**Input** : 91 53 72 14 39 24 85 76 61 67

**Step I** : 15 91 53 72 39 85 76 61 67 25

**Step II** : 40 15 91 72 85 76 61 67 25 54

**Step III** : 62 40 15 91 72 85 76 25 54 68

**Step IV** : 73 62 40 15 91 85 25 54 68 77

**Step V** : 86 73 62 40 15 25 54 68 77 92

Step V, is the last step

**Input** : 58 40 99 28 63 84 16 34 71 87

71. How many numbers are there between 59 and the one which 3<sup>rd</sup> to left of 85 in step V?  
(1) One      (2) Three      (3) None      (4) Two      (5) More than three
72. How many numbers are there between the one which is 2<sup>nd</sup> from the left end and 99 in step II?  
(1) One      (2) Three      (3) None      (4) Two      (5) More than three
73. What is the position of 35 from the left end in second last step?  
(1) First      (2) Fifth      (3) Second      (4) Third      (5) Sixth

74. Which of the following number is 6<sup>th</sup> to the left of 29 in step III?  
 (1) 35 (2) 59 (3) 17 (4) 99 (5) None of these
75. Which of the following number is 5<sup>th</sup> from the right end in step V?  
 (1) 35 (2) 59 (3) 17 (4) 29 (5) None of these

**Directions (Qs.76 & 77):** Study the following information carefully and answer the given questions.

Point Q is 15 m south of point P. Point R is 10 m east of point Q. Point S is 5 m north of point R. Point T is 5 m west of point S.

76. If Point U is 10 m east of Point P, then Point S is how far and in which direction from point U?  
 (1) 10 m, north (2) 5 m, south (3) 15 m, north (4) 10 m, south (5) 5 m, north
77. Point P is in which direction from Point T?  
 (1) North-west (2) South-east (3) North (4) South-west (5) North-east
78. V is married to W. R is the only sister of W. A is the mother of R. A has three children. G is the niece of R and P.V has no sibling. R is unmarried. Then how is P related to V?  
 (1) Mother-in-law (2) Sister (3) Brother-in-law (4) Brother (5) None of these

**Directions (Qs.79 to 81):** 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.

**Give answer (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.

**Give answer (3):** If the data either in statement I alone or in statement II alone are sufficient to answer the question.

**Give answer (4):** If the data in both statements I and II together are not sufficient to answer the question.

**Give answer (5):** If the data in both statements I and II together are necessary to answer the question.

79. Six boys J, K, L, M, N, O are there in a classroom each of them is of different heights. Who among the following is the tallest?  
 I. M is taller than N and K. J is taller than M but not as tall as O. L is taller than K.  
 II. M is taller than only three boys. J is taller than K.
80. Six persons R, S, T, U, V, W live on a six storey building such as ground floor is numbered as 1 and above it 2 and so on... upto top floor numbered as 7. How many persons live between R and T?  
 I. T lives on an even numbered floor but not on top floor. Only two persons live between W and T. R lives below W.  
 II. Four persons live between S & U. No one lives between S and T.  
 V lives immediately above R.
81. Six persons A, B, C, D, E, F are sitting in a row. All of them are facing north direction. Who among the following sits second from the right end?  
 I. B sits at extreme of the row. A sits second to the right of B. Only one person sits between A and C. E sits immediate right of C.  
 II. E sits third to the right of D. Only one person sits between E and A. F sits to the right to E. C is an immediate neighbour of E.

82. In the given coding system 'now they live for' is coded as 'gn mu sy fd' and 'go now run for' is coded as 'gn sy mo it'. Which of the following statement among the given is required to code 'go there now'?
- I. 'Give it for' is coded as 'la sa sy'.  
 II. 'Go there get ready' is coded as 'ht mo ga sx'  
 III. 'Now there fall' is coded as 'za ga gn'
- (1) Only I      (2) Both II and III      (3) Only II      (4) Both I and II      (5) Either I or II

**Directions (Qs.83 to 87):** In these questions, relationship between different elements is shown in the statements. The statements are followed by conclusions.

- Give answer (1):** If **only** Conclusion I is true  
**Give answer (2):** If **only** Conclusion II is true  
**Give answer (3):** If **either** Conclusion I or II is true  
**Give answer (4):** If **neither** Conclusion I nor II is true  
**Give answer (5):** If **both** Conclusions I and II are true

83. **Statements:**  $X \geq G = H; G > J \geq L; J \geq K < Y$   
**Conclusions:** I.  $X > L$       II.  $K < G$

84. **Statements:**  $A > B = R \geq S \geq T; X < J \leq K < T$   
**Conclusions:** I.  $A > X$       II.  $R \geq T$

85. **Statements:**  $M > L \geq K \leq J; N \geq R \geq S = M$   
**Conclusions:** I.  $R > J$       II.  $J \geq R$

86. **Statements:**  $C \geq D = E; A = B \leq S \geq C$   
**Conclusions:** I.  $C < A$       II.  $D \leq B$

87. **Statements:**  $X \geq G > H \geq I; M > H \geq L$   
**Conclusions:** I.  $X > M$       II.  $X > L$

**Directions (Qs.88 to 92):** Study the following information carefully and answer the given questions:

Eight persons B, C, D, E, M, N, O and J were born in different months i.e. January, April, June, and October on two different dates 16<sup>th</sup> or 24<sup>th</sup>. Only One person was born on one date. They all like different flowers i.e. lily, jasmine, hibiscus, marigold, rose, sunflower, lotus, daffodil but not necessarily in the same order.

B was born in April. Only one person was born between B and the one who like lotus, who was not born in January. One person was born between the ones who like lotus and sunflower. Five persons were born between C and N, who was born after C. N was not the youngest. E was born before O and both of them were born in the same month. No one was born before the one who likes hibiscus. The number of persons born before M is same as the number of persons born after the one who likes lotus. No one is born between B and the one who likes jasmine. D does not like jasmine. D was born before J but not immediately before. Four persons were born between J, who likes rose and the one who likes marigold. J was born after the one who likes marigold. One of the persons born in June likes Lilly.

88. Who among the following likes marigold?  
 (1) D      (2) J      (3) N      (4) B      (5) None of these
89. Who was born exactly between the one who likes Rose and M?  
 (1) D      (2) J      (3) B      (4) O      (5) None of these

90. Which of the following flowers is liked by D?  
 (1) lily (2) rose (3) daffodil (4) marigold (5) None of these
91. Which among the following combination is not true?  
 (1) D-April (2) J-Rose (3) N-Sunflower (4) O-June (5) None of these
92. How many persons were born before O?  
 (1) two (2) six (3) five (4) seven (5) None of these

**Directions (Qs.93 to 96):** Study the information and answer the following questions:

In a certain code language,

'Entire Money Board Perfect' is written as 'Q7 N5 F6 C5'

'Sleeve Washing World Stories' is written as 'X7 T6 T7 X5'

'Moving Partly Falls Objects' is written as 'N6 P7 G5 Q6'

93. What is the code for 'Radio' in the given code language?  
 (1) S5 (2) R5 (3) S4 (4) R6 (5) None of these
94. What is the code for the word 'Rising Normal' in the given code language?  
 (1) S5 O6 (2) O5 S6 (3) O6 S6 (4) O5 S5 (5) None of these
95. If the code for the words 'they forward \_\_\_\_\_' is coded as 'U4 G7 T5' in the coded language then what will be the missing word?  
 (1) South (2) Mount (3) Stone (4) Climb (5) Both 1 and 3
96. What is the code for 'Elegant' in the given code language?  
 (1) G7 (2) D7 (3) F6 (4) F7 (5) None of these

**Directions (Qs.97 to 100):** Read the following information carefully to answer the given questions:

Fourteen persons i.e. A, B, C, D, E, F, G, M, N, O, P, Q, R and S are sitting in two parallel rows such that A, B, C, D, E, G and F sits in row 1 faces towards south direction and M, N, O, P, Q, R and S sits in the row 2 such that all are facing north direction. Person sitting in the row 1 faces the person sitting in row 2. A sits third to the right of B. Either B or A sits at the end of the row. N sits third to the right of O. Neither N nor O faces A and B. The one who faces C sits third to the right of M. None of the immediate neighbours of B faces O. C sits third to the left of F. O does not face F. One of the immediate neighbours of F faces Q, who does not sit at the end of the row. D is not the immediate neighbour of C. G sits on the left of E but not on the immediate left. P does not face G and C. S does not face C. R and S are immediate neighbours. E does not sit at the end of the row. D does not face P.

97. Who among the following faces P?  
 (1) D (2) A (3) F (4) G (5) None of these
98. Who among the following sit at the end of the rows?  
 (1) P, C (2) P, D (3) O, G (4) A, S (5) None of these
99. How many persons sit to the right of B?  
 (1) Two (2) More than 3 (3) Three (4) One (5) None of these
100. Who among the following faces N?  
 (1) D (2) B (3) F (4) G (5) None of these

-- x --

## ANSWERS

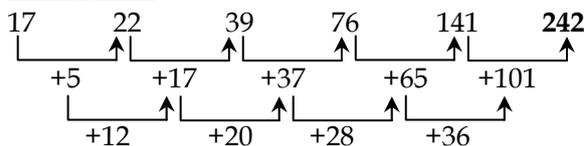
1. **Ans (3): The book was advanced that even graduates in the discipline found it difficult**  
'found it difficult to understand' should be used because when difficult is used as a predicative then we use to + V<sub>1</sub>
  2. **Ans (5): None is correct**  
Option (4) 'were' should be used in place of 'are'  
Option (3) 'fast' should be used in place of 'fastly'  
Option (2) 'renewed licenses' in place of 'renew licenses' because renew is a verb and its past participle is 'renewed'  
Option (1) 'running' should be used in place of 'run'
  3. **Ans (4): Between you and I, he probably won't come at all**  
Replace 'I' by 'me' as 'between' is always followed by Objective Case.
  4. **Ans (3): There are many a slips between the cup and the lip and so one has to be careful**  
Use 'many a slip' or 'many slips' in place of 'many a slips' as the correct syntax is 'Many + a/an + Singular Noun + Singular Verb' or 'Many + Plural Noun + Plural Verb'.
  5. **Ans (3):** editioned, contested
  6. **Ans (4):** emerging, escalation
  7. **Ans (2):** benign, regime
  8. **Ans (1):** enlightened, obligations
- For (Qs.9 to 13): F A C B E D*
9. **Ans (3):** C
  10. **Ans (3):** A
  11. **Ans (5):** B
  12. **Ans (2):** D
  13. **Ans (4):** F
  14. **Ans (4):** both (I) and (III)
  15. **Ans (5):** power pool
  16. **Ans (3):** If India wants to be self-sufficient in terms of Lithium Ion then it has to develop the commodities that are required in it
  17. **Ans (1):** both (I) and (III)
  18. **Ans (2):** only (II)
  19. **Ans (4):** The Indian Government
  20. **Ans (1): slightly**  
Substantially: in a way that leaves no doubt  
Slightly: to a small degree; not considerably.
  21. **Ans (2): B**  
'Emotionally' should be used in place of 'emotional'.

22. **Ans (2): B**  
'In the same way' should be used in place of 'the same way'.
23. **Ans (3): C**  
'Than' will be used before 'I'
24. **Ans (3): C**  
Use 'of' in place of 'with'
25. **Ans (2): B**  
'a' will be used before "remarkable achievement" because achievement is a countable noun.
26. **Ans (5):** No correction required
27. **Ans (1): emphasizes mentoring people**  
'With' or 'On' will not be used after emphasize instead direct object will be used.
28. **Ans (3): went down to**  
After down 'to' will be used and not 'for' because 'go down to' is idiomatic which means spreading in wide over range.
29. **Ans (5):** No correction required
30. **Ans (3): Despite the government's**  
'despite' does not take any preposition with it. It is always followed with a noun, pronoun or a gerund.

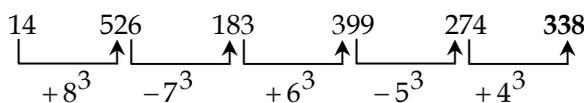
31. **Ans (2): 5**



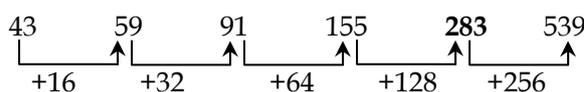
32. **Ans (4): 242**



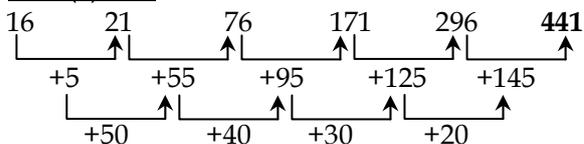
33. **Ans (5): 338**



34. **Ans (1): 283**



35. **Ans (3): 441**



36. **Ans (5): 924 unit<sup>2</sup>**

Let radius and height of the cylinder is 'r' and 'h' respectively.

C.S.A. of cylinder =  $2\pi rh$

Volume of cylinder =  $\pi r^2 h$

$$\text{Ratio} = \frac{\pi r^2 h}{2\pi rh} = \frac{7}{2} \Rightarrow r = 7 \text{ units}$$

$$\therefore h = 2r = 14 \text{ units}$$

$$\text{Total surface area of cylinder} = 2\pi(r+h) = 2 \times \frac{22}{7} \times 7 \times (7+14) = 924 \text{ unit}^2$$

37. **Ans (2): 29**

Let five consecutive even number series = a, (a + 2), (a + 4), (a + 6), (a + 8)

Five consecutive odd number series = b, (b + 2), (b + 4), (b + 6), (b + 8)

$$\frac{a + (a + 2) + (a + 4) + (a + 6) + (a + 8)}{5} = 60 \Rightarrow 5a + 20 = 300 \Rightarrow a = 56$$

Third highest number of even series =  $56 + 4 = 60$

$$\text{Second lowest number of odd number series} = 60 \times \frac{5}{12} + 4 = 29$$

Highest number of even number series =  $56 + 8 = 64$

Highest number of odd number series =  $29 - 2 + 8 = 35$

Required difference =  $64 - 35 = 29$

38. **Ans (4): Rs.2442**

$$\text{Profit ratio of Rahul, Roly and Ritu} = \frac{1}{5} : \frac{1}{4} : 1 - \left( \frac{1}{5} + \frac{1}{4} \right) = 4 : 5 : 11$$

$$\therefore \text{Investment ratio} = \frac{\text{Profit}}{\text{Time}} = \frac{4}{5} : \frac{5}{3} : \frac{11}{9} = 36 : 75 : 55$$

Ritu = 55 → Rs.1210

Rahul + Roly = 81 → Rs.2442

39. **Ans (5):  $\frac{1}{15}$**

Probability of choosing basket →  $\frac{1}{3}$

Probability of choosing two orange →  $\frac{{}^3C_2}{{}^6C_2}$

$$\text{Required Probability} = \frac{1}{3} \times \frac{{}^3C_2}{{}^6C_2} = \frac{1}{15}$$

40. **Ans (2): Rs.4000**

Let the time of investment be x year and the sum be Rs.y

$$\frac{y \times 5 \times x}{100} = \frac{y \times 6 \times \left( x - \frac{1}{2} \right)}{100} \Rightarrow 5x = 6x - 3 \Rightarrow x = 3 \text{ year}$$

$$\text{Amount in first case, S.I} = \frac{y \times 5 \times 3}{100} = \frac{3y}{20} \Rightarrow y + \frac{3y}{20} = 4600 \Rightarrow y = \text{Rs.4000}$$

For (Qs.41 to 45):

College	Rejected	Accepted
A	6000	18000
B	3200	16800
C	4200	23800
D	1000	15000

41. **Ans (5): 80%**

Accepted application applied by male in college A =  $18000 - 33\frac{1}{3}\%$  of 18000 = 12000

$$\text{Required percentage} = \frac{12000}{15000} \times 100 = 80\%$$

42. **Ans (2): 18,400**

$$\text{Required average} = \frac{18000 + 16800 + 23800 + 15000}{4} = 18,400$$

43. **Ans (5): 11 : 14**

$$\text{Female applicant in accepted application in college B} = 16800 \times \frac{11}{21} = 8800$$

$$\text{Male applicant in accepted application in college C} = 23800 \times \frac{8}{17} = 11200$$

$$\text{Required ratio} = \frac{8800}{11200} = 11 : 14$$

44. **Ans (1): 100%**

$$\text{Required percentage} = \frac{4200}{(3200 + 1000)} \times 100 = 100\%$$

45. **Ans (2): 2200**

$$\text{Required difference} = 3200 - 1000 = 2200$$

46. **Ans (3):  $\frac{2}{5}$**

Total letter in IMPORTANCE → 10

Total letter in PORTABILITY → 11

Letters which is common in both words ⇒ IPORTA

$$\text{So, we choose a letter rather than these six letters} \Rightarrow \frac{4}{10} = \frac{2}{5}$$

47. **Ans (4): 18500**

Let cost price of each article = Rs.100x

$$\text{So selling price of 2<sup>nd</sup> article} = \frac{100x \times 112}{100} = 112x$$

Selling price of 2<sup>nd</sup> article = 112x + 1110

$$= \frac{100x \times 100x}{100} \times 115 = 112x + 112x + 1110 \Rightarrow x = 185$$

∴ Cost price = Rs.18500

48. **Ans (3): 11%**

Let M.P be 1

$$\text{S.P when discount is } 4x\% \Rightarrow 1 - \frac{4x}{100} = 80(20\% \text{ loss}) \rightarrow (i)$$

$$\text{S.P when discount is } x\% \Rightarrow 1 - \frac{x}{100} = 125(25\% \text{ profit}) \rightarrow (ii)$$

From Equation (i) and (ii)

$$\frac{1 - \frac{4x}{100}}{1 - \frac{x}{100}} = \frac{80}{125} \Rightarrow \frac{100 - 4x}{100 - x} = \frac{80}{125} \Rightarrow 2500 - 100x = 1600 - 16x \Rightarrow 84x = 900 \Rightarrow x = 10.71 \approx 11\%$$

49. **Ans (5): 18**

Length of first train = 245 m

Length of Platform = 490 m

$$\text{Speed of first train} = \frac{245 + 490}{45} = \frac{735}{45} = \frac{49}{3} \text{ m/s}$$

$$\text{Speed of 2nd train} = \frac{63 \times 5}{18} = \frac{35}{2} \text{ m/s}$$

$$\therefore \text{Time required crossing each other when they cross in opposite direction} = \frac{245 + 364}{\frac{49}{3} + \frac{35}{2}} = 18 \text{ sec}$$

50. **Ans (1): 25 km**

Distance = 15 km

Let speed of boat =  $x$  km/hr

Speed of current =  $y$  km/hr

$$\frac{15}{x - y} - \frac{15}{x + y} = 2 \quad \dots(i)$$

$$\text{Now, } x = 4y \quad \dots(ii)$$

$$x = 4 \text{ km/hr}$$

$$y = 1 \text{ km/hr}$$

$$\text{Distance covered in downstream} = (4 + 1) \times 5 \Rightarrow 25 \text{ km}$$

51. **Ans (2): Quantity I < Quantity II**

**Quantity I:**

$$\text{Weight of three student initially} = 75 + 68 + 57 = 200$$

$$\text{Weight of three students which are replaced} = 23 + 41 + 56 = 120$$

$$\text{Total student} = \frac{200 - 120}{2.5} = 32$$

**Quantity II:** 50

Quantity I < Quantity II

52. **Ans (2): Quantity I < Quantity II**

**Quantity I:**

Let 5 odd numbers are  $x - 4, x - 2, x, x + 2, x + 4$

$$(x + 3)^2 - (x - 3)^2 = 252 \Rightarrow x = 21$$

Least odd number = 17

Quantity II  $\rightarrow$  25

Quantity II > Quantity I

53. **Ans (1): Quantity I > Quantity II**

**Quantity I:** Let principal be 100

$$\text{Principal} \quad 100$$

$$12\% \text{ (1st year)} \rightarrow \frac{12}{112}$$

$$12\% \text{ (2nd year)} \rightarrow \frac{13.44}{125.44}$$

$$12\% \text{ (3rd year)} \rightarrow \frac{15.0528}{140.4928}$$

$$C.I = 140.4928 - 100 = 40.4928$$

$$C.I = 40.4928 \rightarrow \text{Rs.}10123.2$$

$$\text{Principal} = 100 \rightarrow \text{Rs.}25000$$

**Quantity II:** Interest =  $\frac{P \times r \times t}{100}$

$$P = \frac{14400 \times 100}{15 \times 4} = 24000$$

Quantity I > Quantity II

54. **Ans (5): 14 days**

Let C alone complete the work in  $x$  days,

$$\frac{2}{15} + \frac{x-6}{20} + \frac{x}{30} = 1 \Rightarrow \frac{x-6}{20} + \frac{x}{30} = 1 - \frac{2}{15} = \frac{11}{15} = 5x = 70 \Rightarrow x = 14 \text{ days}$$

55. **Ans (4):  $9\frac{1}{3}$  days**

Let efficiency of one man =  $m$

Efficiency of one woman =  $w$

$$14m \times 5 = 16w \times 7 \Rightarrow 5m = 8w$$

Now, 5 men + 4 women = 8 women + 4 women = 12 women

$$\therefore \text{Time} = \frac{16 \times 7}{12} = \frac{28}{3} = 9\frac{1}{3} \text{ days}$$

For (Qs.56 to 60):

State	Total	Male	Female
A	4200	1500	2700
B	3500	1800	1700
C	2800	1800	1000
D	3500	900	2600

56. **Ans (3):  $144\frac{4}{9}\%$**

$$\text{Required percentage} = \frac{2600 \times 100}{1800} = 144\frac{4}{9}\%$$

57. **Ans (1): 27 : 10**

$$\text{Required ratio} = \frac{2700}{1000} = 27 : 10$$

58. **Ans (3): 900**

$$\text{Required difference} = 2700 - 1800 = 900$$

59. **Ans (5): 2250**

$$\text{Average} = \frac{1700 + 2800}{2} = 2250$$

60. **Ans (2): 6300**

$$\text{Required sum} = 2700 + 1000 + 2600 = 6300$$

61. **Ans (4):  $x \leq y$**

$$\text{I. S.R} = 13; \text{P.R} = 36; x = \frac{9}{3}, \frac{4}{3} \Rightarrow x = 3, 1.33$$

$$\text{II. S.R} = 13; \text{P.R} = 42; y = \frac{6}{2}, \frac{7}{2} \Rightarrow y = 3, 3.5$$

62. **Ans (5): No relation can be established between  $x$  and  $y$**

$$\text{I. S.R} = -4; \text{P.R} = -45; x = -9, 5$$

$$\text{II. S.R} = -8; \text{P.R} = 15; y = -3, -5$$

63. **Ans (5): No relation can be established between  $x$  and  $y$**

$$\text{I. } x = +8, -8$$

$$\text{II. } y = +12, -12$$

64. **Ans (5): No relation can be established between  $x$  and  $y$**

$$\text{I. S.R} = 4; \text{P.R} = -5; x = \frac{-1}{5}, \frac{5}{5} \Rightarrow x = -0.2, 1$$

$$\text{II. S.R} = 2; \text{P.R} = -3; y = \frac{-1}{3}, \frac{3}{3} \Rightarrow y = -0.33, 1$$

65. **Ans (3):  $x < y$**

$$\text{I. S.R} = -12; \text{P.R} = 32; x = \frac{-8}{4}, \frac{-4}{4} \Rightarrow x = -2, -1$$

$$\text{II. S.R} = 20; \text{P.R} = 51; y = \frac{17}{3}, \frac{3}{3} \Rightarrow y = 5.66, 1$$

For (Qs.66 to 70):

Boxes	Number of chocolate
A	64
D	39
G	27
E	41
B	13
F	78
C	50

66. **Ans (1): G, E**

Box G and E are kept exactly between Box D and B.

67. **Ans (4): 41**

Box E kept 41 chocolates.

68. **Ans (4): F, B**

F contains maximum number of chocolates, i.e., 78.

B contains minimum number of chocolates, i.e., 13.

69. **Ans (1): 50-D**

The combination of 50-D is wrong.

70. **Ans (4): F**

Box F is kept immediately below Box B.

For (Qs.71 to 75):

Input : 58 40 99 28 63 84 16 34 71 87  
Step I : 17 58 40 99 63 84 34 71 87 29  
Step II : 35 17 58 99 63 84 71 87 29 41  
Step III : 59 35 17 99 84 71 87 29 41 64  
Step IV : 72 59 35 17 99 87 29 41 64 85  
Step V : 88 72 59 35 17 29 41 64 85 100

71. **Ans (4): Two**

In Step V, 3<sup>rd</sup> to the left of 85 = 29. Two numbers 35 and 17

72. **Ans (1): One**

In step II, second from the left end = 17. Only one number between 17 and 99

73. **Ans (4): Third**

In step IV, 35 is third from the left end

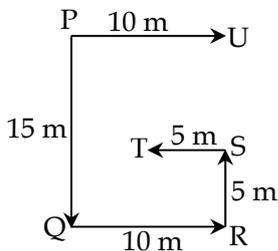
74. **Ans (1): 35**

In step III, 35 is sixth from the left of 29

75. **Ans (4): 29**

In step V, 29 is fifth from the right end

For (Qs.76 & 77):



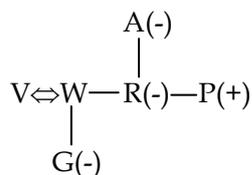
76. **Ans (4): 10 m, south**

Point S is 10m to the south of point U.

77. **Ans (1): North-west**

Point P is north-west of point T.

78. **Ans (3): Brother-in-law**



P is the Brother-in-law of V.

79. **Ans (5): The data in both statements I and II together are necessary to answer the question**

From both the statements,  $O > J > M > N, L, K$

O is the tallest boy.

80. **Ans (5): The data in both statements I and II together are necessary to answer the question**

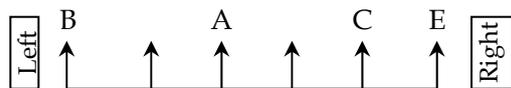
From both the statements,

Floors	Persons
6	U
5	W
4	V
3	R
2	T
1	S

No one lives between R and T.

81. **Ans (1): 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**

From Statement I,



∴ C sits second from the right end.

82. **Ans (2): Both II and III**

From statement II and III,

Word	there	now	go	for	run	they/live
Code	ga	gn	mo	ry	it	mu/fd

The code of 'go there now' is 'gn ga mo'

83. **Ans (5): Both Conclusions I and II are true**

$X \geq G = H > J \geq L$ ;  $G > J \geq K < Y$

Conclusions: I.  $X > L$  (✓) II.  $K < G$  (✓)

84. **Ans (5): Both Conclusions I and II are true**

$A > B = R \geq S \geq T > K \geq J > X$

Conclusions: I.  $A > X$  (✓) II.  $R \geq T$  (✓)

85. **Ans (3): Either Conclusion I or II is true**

$N \geq R \geq S = M > L \geq K \leq J$

Conclusions: I.  $R > J$  (×, ✓) II.  $J \geq R$  (×, ✓)

86. **Ans (4): Neither Conclusion I nor II is true**

$A = B \leq S \geq C \geq D = E$

Conclusions: I.  $C < A$  (×) II.  $D \leq B$  (×)

87. **Ans (2): Only Conclusion II is true**

$X \geq G > H < M$ ;  $X \geq G > H \geq L$

Conclusions: I.  $X > M$  (×) II.  $X > L$  (✓)

For (Qs.88 to 92):

Dates → Months ↓	16th	24th
January	C - Hibiscus	D - Daffodil
April	B - Marigold	M - Jasmine
June	E - Lotus	O - Lilly
October	N - Sunflower	J - Rose

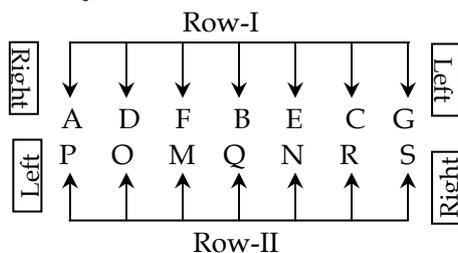
88. **Ans (4): B**  
B likes marigold
89. **Ans (4): O**  
J likes rose. O is exactly between M and J.
90. **Ans (3): daffodil**  
D likes daffodil
91. **Ans (1): D - April**  
The combination of D - January is correct.
92. **Ans (3): five**  
Five persons were born before O.

For (Qs.93 to 96):

The code in the form of, (i) Letter  $\Rightarrow$  First letter + 1  
(ii) Number  $\Rightarrow$  Number of letters in the word.

93. **Ans (1): S5**  
The code for 'Ratio' is 'S5'.
94. **Ans (3): O6 S6**  
The code for 'Rising' is 'S6'. The code for 'Normal' is 'O6'
95. **Ans (5): Both (1) and (3)**  
'T5' is the code for either 'South' or 'Stone'.
96. **Ans (4): F7**  
The code for 'Elegant' is 'F7'.

For (Qs.97 to 100):



97. **Ans (2): A**  
P faces A.
98. **Ans (4): A, S**  
A and S sit at the end of the rows.
99. **Ans (3): Three**  
Three persons A, D and F sit to the right of B.
100. **Ans (5): None of these**  
N faces E.

-- x --