

State Bank of India Probationary Officers Exam

Previous Paper Held on 9th January 2005 (Completely Solved)

REASONING

Directions (Qns. 1-5) : In each of the questions below are given three statements followed by four conclusions numbered I, II, III and IV. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

1. Statements:

All trains are rivers. Some rivers are houses. All houses are lakes.

Conclusions :

- I. Some lakes are trains.
 - II. Some houses are trains.
 - III. No train is lake.
 - IV. Some houses are rivers.
- (1) None follows
 (2) Only IV follows
 (3) Only either I or III follows
 (4) Only either I or III and IV follow
 (5) All follow

2. Statements :

Some tigers are goats. No goat is rat. All dogs are rats.

Conclusions :

- I. No tiger is rat.
 - II. No dog is goat.
 - III. Some dogs are tigers.
 - IV. Some rats are tigers.
- (1) Only either I or IV and II follow
 (2) Only either I or IV and III follow
 (3) Only II follows
 (4) Only either I or IV follows
 (5) None follows

3. Statements :

Some trees are flowers. Some roads are flowers.
 All roads are vehicles.

Conclusions :

- I. Some vehicles are trees.
- II. Some vehicles are flowers.

III. Some roads are trees.

IV. All vehicles are roads.

- (1) None follows
 (2) Only I and II follow
 (3) Only II follows
 (4) Only I, III and IV follow
 (5) All follow

4. Statements :

All jungles are buses. All books are buses. All fruits are books.

Conclusions :

- I. Some fruits are jungles.
 - II. Some buses are books.
 - III. Some buses are jungles.
 - IV. All fruits are buses.
- (1) All follow
 (2) Only II, III and IV follow
 (3) Only I, II and III follow
 (4) Only I, II and IV follow
 (5) None of these

5. Statements:

Some pens are rooms. Some rooms are cats. Some cats are windows.

Conclusions:

- I. Some windows are rooms.
 - II. Some cats are pens.
 - III. Some pens are windows.
 - IV. Some pens are cats.
- (1) All follow
 (2) Only I follows
 (3) Only III follows
 (4) Only II follows
 (5) None follows

Directions (Qns. 6-10): In each question below are given two statements (A) and (B). These statements may be either independent causes or may be effects of independent causes. One of these statements may be the effect of the other statement. Read both the statements and decide which of the following answer choices correctly depicts the relationship between these two statements.

**Mark answer (I) if statement (A) is the cause
and statement (B) is its effect.**

**Mark answer (2) if statement (B) is the cause
and statement (A) is its effect.**

Mark answer (3) if both the statements (A) and (B) are independent causes.

Mark answer (4) if both the statements (A) and (B) are effects of independent causes.

Mark answer (5) if both statements are effects of some common cause.

6. A. The committee appointed by the Government on the fee structure of the professional courses has drastically reduced the fees of various courses in comparison to those charged in the last year.

B. The parents of aspiring students seeking admission to professional courses had launched a severe agitation protesting against the high fees charged by the professional institutes and the admission process was delayed considerably.

7. A. The farmers have decided against selling their Kharif crops to the Government agencies.

B. The Government has reduced the procurement price of Kharif crops starting from last month to the next six months.

8. A. The Reserve Bank of India has recently put restrictions on few small banks in the country.

B. The small banks in the private and cooperative sector in India are not in a position to withstand the competitions of the bigger in the public sector.

9. A. The performance of Indian sports persons in the recently held Olympics could not reach the level of expectation the country had on them.

B. The performance of Indian sports persons in the last Asian games was far better than any previous games.

10. A. Large number of people living in the low lying areas have been evacuated during the last few days to safer places.

B. The Government has rushed in relief supplies to the people living in the affected areas.

Directions (Qns. 11-15): Study the following alphabet-symbol-digit sequence and answer the questions given below it:

GN=8L@CR β ↑25H#7EJ\$4+VY36?
F9*M

11. How many such symbols are there in the above arrangement each of which is either immediately followed by a letter or immediately preceded by a number ?

 - Nil
 - Three
 - Four
 - Five
 - None of these

12. C@RL is to 36Y? In the same way as H2↑C is to

—

 - J4 + 3
 - E4 + 3
 - J\$ + 3
 - J4 + 6
 - None of these

13. Four of the following five are alike in a certain way based on their position in the above arrangement and hence form a group. Which is the one that *does not* belong to the group ?

 - @8@R
 - 7HSJ
 - 2B#H
 - 4J3Y
 - ?3*9

14. How many such letters are there in the above arrangement each of which is either immediately preceded by a number or immediately followed by a symbol ?

 - Three
 - Two
 - Five
 - Four
 - None of these

15. How many such numbers are there in the above arrangement each of which is either immediately preceded by a letter immediately followed by a symbol ?

 - Five
 - Three
 - Two
 - Four
 - None of these

Directions (Qns. 16-20): Study the following information carefully and answer the questions given below:

Following are the alternative eligibility criteria for short-listing candidates for interview for entry level job in a bank :

- (i) The candidate should have passed SSC with atleast 80% marks.
- (ii) The candidate should have passed HSC with atleast 75% marks.
- (iii) The candidate should be an/a Arts/Science/ Commerce graduate with atleast 60% marks.
- (iv) The candidate should be an engineer with atleast 55% marks.
- (v) The candidate should be a post-graduate in any discipline with atleast 50% marks.

Any candidate can be eligible under any one or more of the above criteria depending upon their academic pursuits.

In each of the following questions, details of one candidate is given. You have to find out under which of the above condition(s) the candidate is eligible and mark your answer accordingly based on the alternatives provided after each question. You are not to assume anything other than the information provided in each of the above questions.

- 16. Sunil Arora has secured 75% marks in SSC. He has completed his B.Com. with 65% marks after completing his Higher Secondary in Commerce. He has now enrolled in the Master's Degree of Commerce.**
- (1) Eligible under (i) only
 - (2) Eligible under (ii) only
 - (3) Eligible under (iii) only
 - (4) Eligible under (i) and (iii) only
 - (5) None of these

- 17. Usha Natarajan has completed M.A. with 50% marks after passing B.A. exam with 60% marks. She had secured 75% marks in SSC and 80% marks in HSC.**
- (1) Eligible under (i), (ii), (iii) and (iv) only
 - (2) Eligible under (i), (ii) and (iv) only
 - (3) Eligible under (ii), (iii) and (iv) only
 - (4) Eligible under (iii) and (iv) Only
 - (5) None of these

- 18. Mohan Srivastava is a Mechanical Engineer. He has secured 60% marks in his final degree exam. He has secured 65% marks in HSC. He has secured 55% marks in his post-graduation in Mechanical Engineering.**
- (1) Eligible under (ii), (iv) and (v) only
 - (2) Eligible under (iv) and (v) only
 - (3) Eligible under (iii), (iv) and (v) only
 - (4) Eligible under (i) (iv) and (v) only
 - (5) None of these

- 19. Subhash Saxena has secured 85% marks in graduation in Science. He has also secured 65% and 75% marks in HSC and Post-graduation respectively. He is presently pursuing his second post-graduation degree.**
- (1) Eligible under (ii), (iii) and (iv) only
 - (2) Eligible under (iv) and (v) only
 - (3) Eligible under (ii), (iv) and (v) only
 - (4) Eligible under (iii) and (v) only .
 - (5) None of these
- 20. Aruna Basak is a post-graduate in Physics. She has secured 80% marks in SSC. She has also secured 70% marks both in HSC and graduation.**
- (1) Eligible under (i), (ii) and (iii) only
 - (2) Eligible under (ii) and (iii) only
 - (3) Eligible under (i) and (iii) only
 - (4) Eligible under (iii) only
 - (5) None of these
- 21. Four of the following five pairs are alike in a certain way and hence form a group. Which one does not belong to that group ?**
- (1) PARENT : RPBTEO
 - (2) MOSTLY : SMPYTM
 - (3) SIMPLE : MSJEPM
 - (4) MOTHER : TMPRHD
 - (5) SUNDAY : NSVYDB
- 22. Four of the following five pairs of alphas and numerals have same relationship between their elements as in the case of the pair MATURELY : 72415863 and hence form a group. Which one does not belong to the group ?**
- (1) RAMTE : 52748
 - (2) LETRA : 68452
 - (3) TYUALE : 431268
 - (4) MERUTA : 785142
 - (5) EMUTRA : 671452
- Directions (Qns. 23-25) :** Given an input, a machine generates pass codes for the six batches each day as follows :
- Input:** These icons were taken out from the sea.
Pass Codes :
- Batch I :** from sea the out taken were icons these
Batch II : from icons these were taken out the sea
Batch III : from icons out sea the taken were these
Batch IV : from icons out sea these were taken the, and so on.

First batch starts at 10.00 a.m. and each batch is for one hour. There is a rest period of one hour after the end of the fourth batch.

- 23. The pass code for the first batch on a day was 'he so used to sell the surplus items'. What was the input on that day ?**
- he items surplus the sell to used so he
 - so used to sell the surplus items he
 - items surplus the sell to used so he
 - cannot be determined
 - None of these
- 24. If the pass code for the batch at 1.00 p.m. on a day was 'back go here people who settle want to', what was the pass code for batch at 3.00 p.m. on that day ?**
- back go here people to want settle who
 - back go here people settle who want to
 - back go here people settle to want who
 - cannot be determined
 - None of these
- 25. What will be the pass code for the batch at 3.00 p.m. if input is 'four of the following five form a group' ?**
- a five following form group the of four
 - a five following form four group the of
 - a five following form four of the group
 - a five following form four group of the
 - None of these
- 26. In a row of 40 boys Sameer was shifted 10 places to the right of Raman and Kailash was shifted 10 places to the left of Vikas. If Vikas was 26th from the left end and there were three boys between Kailash and Sameer after shifting, what was the position of Raman in the row ?**
- Data inadequate
 - 10th from the left end
 - 10th from the right end
 - 39th from the right end
 - None of these
- 27. Arrange the vowels and consonants of the word 'ACCOMPLISHMENT' in an alpha order separately, the vowels first and then the consonants. If the first, the second and the third vowels so arranged, correspond to the first three, the next and the next three consonants so arranged respectively, E corresponds to which consonant ?**

- LMM
- HLM
- MMN
- MNP
- None of these

Directions (Qns. 28-30): P, Q, R, S, T, U, V, & W are sitting round the circle and are facing the centre.

- P is second to the right of T who is the neighbour of R & V.
 - S is not the neighbour of P.
 - V is the neighbour of U.
 - Q is not between S & W and W is not between U & S.
- 28. What is the position of S ?**
- Between U & V
 - Second to the right of P
 - To the immediate right of W
 - Data inadequate
 - None of these
- 29. Which two of the following are not neighbours ?**
- RV
 - UV
 - RP
 - QW
 - None of these
- 30. Which of the following is correct ?**
- P is to the immediate right of Q
 - R is between T & U
 - Q is to the immediate left of W
 - U is between W & S
 - None of these
- 31. In a certain code 'RAIL' is written as 'KCTN' and 'SPEAK' is written as 'CGRUM'. How will 'AVOID' be written in that code ?**
- FKQXC
 - KRXCF
 - KQVCB
 - KQXCF
 - None of these
- 32. How many such pairs of letters are there in the word 'APPREHENSION' each of which has as many letters between them in the word as there are between them in the English alphabet ?**
- 4
 - 5
 - 6
 - 7
 - None of these

Directions (Qns. 33-35): 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 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 the Statements I and II together are not sufficient to answer the question.

Give answer (5) if the data in both the Statements I and II together are necessary to answer the question.

CAUTION : Do Not mark your answer unless you consider both the statements carefully.

33. How is M related to N ?

- I P, who has only two kids, M & N, is the mother-in-law of Q, who is sister-in-law of N.
- II R, the sister-in-law of M, is the daughter-in-law of S, who has only two kids, M & N.

34. How many students from the class secured First Class ?

- I The number of students securing First Class was equal to the number of students failed and was one-third of the number of students passed in the class of 120 Students.

- II $\frac{1}{4}$ th of the girls, i.e. 10 and $\frac{1}{4}$ th of the boys secured 1st class in the class of 120 students.

35. What is the code for 'mangoes' in a code language?

- I In that code language 'Te Le Pa Na' means 'You eat many mangoes' and 'Le Na Da' means 'You sell mangoes' .
- II In the code language 'Ge Na Se La Le' means 'They eat bananas and mangoes' and 'Ne De Le La' means 'Who others eat bananas' .

Directions (Qns. 36-40) : In making decisions about important questions, it is desirable to be able to distinguish between 'strong' arguments and 'weak' arguments. 'Strong' arguments are those which are both important and directly related to the question. 'Weak' arguments are those which are of minor importance and also may not be directly related to the question or may be related to a trivial aspect of the question.

Each question below is followed by three arguments numbered I, II and III. You have to decide which of the arguments is a 'strong' argument' and which of them is 'weak argument'.

36. Should the income generated out of agricultural activities be taxed?

Arguments :

- I No, farmers are otherwise suffering from natural calamities and low yield coupled with low procurement price and their income should not be taxed.
 - II Yes, majority of the population is dependent on agriculture and hence their income should be taxed to augment the Government resources.
 - III Yes, many big farmers earn much more than majority of the service earners and they should be taxed to remove the disparity.
- (1) All are strong
 (2) Only II and III are strong
 (3) Only I is strong
 (4) Only I and II are strong.
 (5) None of these

37. Should all the indirect taxes in India be combined into a single tax on all commodities ?

Arguments :

- I Yes, this will considerably simplify the tax collection mechanism and the cost of collecting tax will also reduce.
 - II Yes, the manufacturers and traders will be benefited by this which in turn will boost tax collection.
 - III No, no other country has adopted such system.
- (1) None is strong
 (2) Only I and III are strong
 (3) Only II is strong
 (4) Only II and III are strong
 (5) None of these

38. Should all the students graduating in any discipline desirous of pursuing post-graduation of the subjects of their choice be allowed to enroll in the post-graduate courses?

Arguments:

- I. Yes, the students are the best judge of their capabilities and there should not be restrictions for joining post-graduation courses.
- II. No, the students need to study relevant subjects in graduate courses to enroll in post-graduate courses and the students must fulfill such conditions.
- III. No, there are not enough institutes offering post-graduate courses which can accommodate all the graduates desirous of seeking post-graduate education of their own choice.
- (1) None is strong
(2) Only I and II are strong
(3) All are strong.
(4) Only I and III are strong
(5) None of these

39. Should there be complete ban on Indian professionals seeking jobs elsewhere after getting their education in India ?

Arguments:

- I. Yes, this is the only way to sustain present rate of technological development in India.
- II. No, the Indians settled abroad send huge amount of foreign exchange and this constitute a significant part of foreign exchange reserve.
- III. No, the practical knowledge gained by Indians by working in other countries help India develop its economy.
- (1) None is strong
(2) Only I and II are strong
(3) Only III is strong
(4) Only II and III are strong
(5) All are strong

40. Should there be only few banks in place of numerous smaller banks in India ?

Arguments:

- I. Yes, this will help secure the investor's money as these big banks will be able to withstand intermittent market related shocks.
- II. No, large number of people will lose their job as after the merger many employees will be redundant.

- III. Yes, this will help consolidate the entire banking industry and will lead to healthy competition.

- (1) None is strong argument
(2) Only I and III are strong arguments
(3) Only II and III are strong arguments
(4) Only I and II are strong arguments
(5) All are strong arguments.

Directions (Qns. 41-45): Below is given a passage followed by several possible inferences which can be drawn from the facts stated in the passage. You have to examine each inference separately in the context of the passage and decide upon its degree of truth or falsity.

Mark answer (1) if the inference is 'definitely true', i.e. it properly follows from the statement of facts given.

Mark answer (2) if the inference is 'probably true' though not 'definitely true' in the light of the facts given.

Mark answer (3) if the 'data are inadequate', i.e. from the facts given cannot say whether the inference is likely to be true or false.

Mark answer (4) if the inference is 'probably false', though not 'definitely false' in the light of the facts given.

Mark answer (5) if the inference is 'definitely false', i.e. it cannot possibly be drawn from the facts given or it contradicts the given facts.

The performance of Indian agriculture is largely dependent on amount of rainfall across the country. A substantive part of the cultivable land is dependent on irrigation which is directly related to monsoon. However, agriculture and allied activities account for less than even one-fourth of the total GDP. The component of the manufacturing sector that depends on agriculture for the supply of intermediates is not very high, which suggests that the structure of industrialisation has changed over the years. Several components of the tertiary sector that are crucial for the growth of the rest of the economy have grown sizeably, thanks to IT and BPO. So, it is less likely that aggregate economic growth will be adversely affected if rainfall is scanty. Yet, a somewhat different picture emerges if we look deeper into the matter. Still, a very significant chunk of the population and work force depends on agriculture for its livelihood. A decline in agriculture reduces per capita food availability, which in turn, pulls down the standard of living.

41. Agro based activities constitute more than 25 per cent of GDP in India.
 42. The industrialisation process had undergone significant changes over the past few " decades.
 43. Non-industrial and non-agricultural sector activities have considerably grown over the past few years.
 44. Weak monsoon have adverse effect on GDP even though non-agricultural sector activities may continue to be the same.
 45. Manufacturing sector no longer depends on agricultural sector.

Directions (Qns. 46-50) : In the following questions, the symbols @, %, \$, # and * are used with the following meaning as illustrated below:

‘P \leq Q’ means ‘P is not smaller than Q’.

'P * Q' means 'P is neither smaller than nor equal to Q'.

'P @ Q' means 'P is not greater than Q'.

'P # Q' means 'P is neither greater than nor smaller than Q'

'P % Q' means 'P is neither greater than nor equal to Q'

Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/ are definitely true ?

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 (A) if neither Conclusion I nor II is true.

Give answer (S) if both Conclusions I and II are

46. Statements

40. Statements :
M * T, T \\$ K, K # D
Conclusions :

CONTENTS:

Fig. 1. (Continued)

47. Statements:

Conclusion

Conclusions:

L D # **R R # M**

- 48. Statements :**

F\$M, N@ M, N, % W
S-1

Conclusions:

L F# Z L Z% F

49. Statements :
B # J, J @ D, F \$ D
Conclusions :
L B # F IL F * B

50. Statements :
Z % T, T * N, H \$ N
Conclusions :
L H * Z IL T * H

Directions (Qns. 51-55): Read the following information carefully and answer the questions given below:

P, Q, R, S, T, V and Z are seven employees of call centre. They work in three shifts - I, II and III. There is at least one and not more than three among them in any of these shifts. Each of them get one day off in every week from Monday to Sunday. Q Works with only T in shift II and his weekly off is immediate to the next of the off day of P. S has weekly off on Sunday and he is not in the same shift with either R or Q. P is in shift I with R whose off day is immediately after Q and immediately before T. V's off day is immediately after T but not on Saturday. The employee having off day on Friday works in shift III and that on a Saturday does not work with TZ does not work either in shift II or in shift III.

55. In which shift does V work ?

- (1) II
- (2) III
- (3) II or III
- (4) Data inadequate
- (5) None of these

Directions (Qns. 56-60) : In a certain instruction system the different computation processes are written as follows :

- (a) $x \$ y \% z$ means z is multiplied by the sum of x and y .
- (b) $x \# y * z$ means that when y is subtracted from x and the resultant is divided by z .
- (c) $x @ y @ z$ means x is added to the resultant when y is divided by z .
- (d) $x \bullet y \lambda z$ means x is subtracted from the product of y and z .

In each of the questions below, a set of instruction sequence is given. You are required to find out the outcome which should come in place of the question mark (?) in each of the given sets of sequence.

56. (i) $20 \# 10 * 2 = m$ (ii) $m \bullet 6 \lambda 4 = ?$

- (1) 19
- (2) 29
- (3) 4
- (4) Cannot be determined
- (5) None of these

57. (i) $60 \$ 20 \% 4 = n$ (ii) $8 @ n @ 10 = ?$

- (1) 20
- (2) 40
- (3) 10
- (4) 60
- (5) None of these

58. (i) $15 \bullet 12 \lambda 5 = p$ (ii) $4 \$ 12 \% p = ?$

- (1) 720
- (2) 228
- (3) 108
- (4) 93
- (5) None of these

59. (i) $16 @ 12 @ 8 = z$ (ii) $z \# 20 \bullet 8 = ?$

- (1) 240
- (2) 80
- (3) 120
- (4) Cannot be determined
- (5) None of these

60. (i) $80 \bullet 15 \lambda 8 = t$ (ii) $t \$ 5 \% 8 = ?$

- (1) $40 \# 40 * 10$
- (2) $40 \$ 40 \% 10$
- (3) $40 @ 40 @ 10$
- (4) $40 \# 40 \lambda 10$
- (5) None of these

Directions (Qns. 61-65): In each of the following questions two rows of numbers are given. The resultant number in each row is to be worked out separately based on the following rules and the question below the rows of numbers are to be answered. The operations of numbers progress from left to right.

Rules : (i) If an odd number is followed by a two digit even number then they are to be added.

(ii) If an odd number is followed by a two digit odd number then the second number is to be subtracted from the first number.

(iii) If an even number is followed by a number which is a perfect square of a number then the second number is to be divided by the first number.

(iv) If an even number is followed by a two-digit even number then the first number is to be multiplied by the second number.

61. 15 11 20 400
 8 12 10

If the resultant of the second set of numbers is divided by the resultant of the first set of numbers what will be the outcome?

- (1) 196
- (2) 200
- (3) 19
- (4) 92
- (5) None of these

62. 40 30 3600
 15 24 17

What is the sum of the two resultant numbers of the set of numbers given above?

- (1) 22
- (2) 25
- (3) 28
- (4) 42
- (5) None of these

63. 8 16 16 14
 13 11 12 144

What is the difference between the resultant of the first set of numbers and the second set of numbers?

- (1) 222
- (2) 210
- (3) 118
- (4) 106
- (5) None of these

64. 13 11 4
 17 13 12

If the resultant of the first set of numbers is multiplied by the resultant of the second set of numbers, what will be the outcome?

- (1) 48
- (2) 96
- (3) 69
- (4) 75
- (5) None of these

65.	19	15	12	
	15	12	23	16

If the resultant of the second set of numbers is subtracted from the resultant of the first set of numbers what will be the outcome ?

Directions (Qns. 66-70) : In each of the following questions in four out of the five figures, element I is related to element II in the same particular way. Find out the figure in which the element I is not so related to element II.

66.	
	1 2 3 4 5

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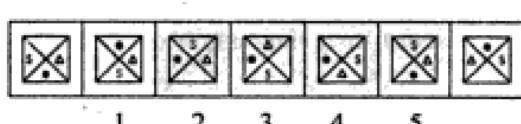
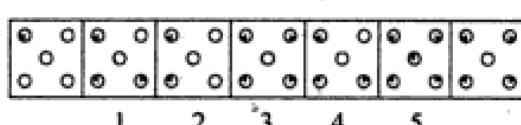
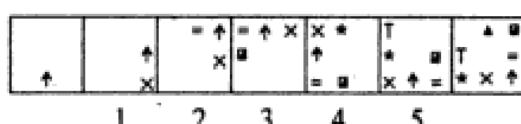
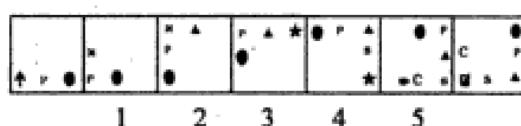
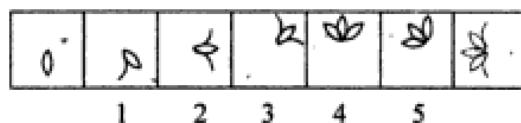
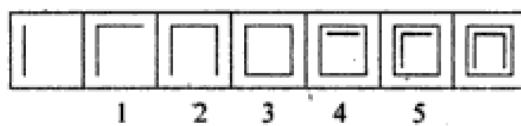
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70.		1	2	3	4	5
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Directions (Qns. 71-75) : In each of the following questions series begins with unnumbered figure on the extreme left. One and only one of the five-numbered figures in the series does not fit into the series. The two-unnumbered figures one each on the extreme left and the extreme right fit into the series. You have to take as many aspects into account as possible of the figures in the series and find out the one and only of the five-numbered figures which does not fit into the series. The number of that figure is answer.



QUANTITATIVE APTITUDE

Directions (Qns. 76-78): What approximate value will come in place of the question mark (?) in the following equations?

76. $125\% \text{ of } 4875 + 88.005 \times 14.995 = ?$

- (1) 7395 (2) 7490
(3) 7510 (4) 7375
(5) 7415

77. $127.001 \times 7.998 + 6.05 \times 4.001 = ?$

78. $1010 + 36 + 187 \times 20.05 = ?$

79. What will come in place of question mark (?) in the following equation?

$$16^{7.5} + 8^{3.5} + 2^{7.5} = ?$$

- (1) 8^4 (2) 16^4
 (3) 2^{15} (4) 2^{27}
 (5) None of these

- 80.** Present ages of Seema and Naresh are in the respective ratio of 5:7. Five years hence the ratio of their ages becomes 3:4 respectively. What is Naresh's present age in years?
- 25
 - 40
 - 30
 - Cannot be determined
 - None of these
- 81.** In a two digit number the digit in the unit's place is twice the digit in the ten's place and the number obtained by interchanging the digits is more than the original number by 27. What is 50% of the original number?
- 36
 - 63
 - 48
 - 18
 - None of these
- 82.** A committee of 3 members is to be formed out of 3 men and 4 women. In how many different ways can it be done so that atleast one member is a woman?
- 34
 - 12
 - 30
 - 36
 - None of these
- 83.** 4 boys and three girls are to be seated in a row in such a way that no two boys sit adjacent to each other. In how many different ways can it be done?
- 5040
 - 30
 - 144
 - 72
 - None of these
- 84.** Mr. 'X' invested certain amounts in two different schemes 'A' & 'B'. Scheme 'A' offers simple interest at 12 p.c.p.a. and Scheme 'B' offers compound interest at 10 p.c.p.a. Interest accrued on the amount invested in Scheme A in 2 years was Rs. 3,600 and the total amount invested was Rs. 35,000. What was the interest accrued on the amount invested in Scheme 'B'?
- Rs. 4,800
 - Rs. 4,200
 - Rs. 4,000
 - Cannot be determined
 - None of these
- 85.** The salary of an employee increases consistently by 50% every year. If his salary today is Rs. 10,000, what will be the salary after another 4 years?
- Rs. 62,500
 - Rs. 26,500
 - Rs. 50,625
 - Rs. 33,750
 - None of these
- Directions (Qns. 86-90):** In each of the following questions a number series is given. After the series a number is given followed by (a), (b), (c), (d) and (e). You have to complete the series starting with the given number, following the sequence of original series and answer the questions that follow the series.
- 86.** 3 19 103 439 1381 2887
5 (a) (b) (c) (d) (e)
What will come in place of (b)?
- 139
 - 163
 - 161
 - 157
 - None of these
- 87.** 4 13 40 135 552 2765
2 (a) (b) (c) (d) (e)
What will come in place of (c)?
- 123
 - 133
 - 127
 - 131
 - None of these
- 88.** 5 12 4 10 3 8
6 (a) (b) (c) (d) (e)
What will come in place of (d)?
- 3
 - 5
 - 4
 - 7
 - None of these
- 89.** 3 13 37 87 191 401
1 (a) (b) (c) (d) (e)
What will come in place of (d)?
- 169
 - 161
 - 171
 - 159
 - None of these
- 90.** 8 4 6 15 52.5 236.25
12 (a) (b) (c) (d) (e)
What will come in place of (c)?
- 18.25
 - 19
 - 22.5
 - 20.75
 - None of these

Directions (Qns. 91-95) : In each of the following questions, a question is followed by information given in three statements. You have to study the question along with the statements and decide the information given in which of the statement(s) is necessary and sufficient to answer the question.

- 91. What is the average weight of girls in the class?**
- I. Average weight of all the 60 students is 42 kg.
 - II. Average weight of boys is 43 kg.
 - III. Total weight of all girls together is 1144 kg.
- (1) Any two of three
 (2) All I, II & III
 (3) I & II only
 (4) II & III only
 (5) Question cannot be answered even with information in all three statements.
- 92. What is the selling price of the T.V. set if no discount is offered?**
- I. Profit earned was 20%.
 - II. Had 10% discount been offered on selling price, the profit would have been Rs. 1,200.
 - III. Cost price is Rs. 15,000.
- (1) Any two of the three
 (2) Only I & II (3) Only I & III
 (4) Only II & III (5) None of these
- 93. What is the speed of the train?**
- I. Length of the platform is 150% of the length of the train.
 - II. The train crosses the platform in 25 seconds.
 - III. The train crosses the signal pole in 19 seconds.
- (1) All I, II & III
 (2) I and either II or III
 (3) Only II & III
 (4) Any two of the three
 (5) Question cannot be answered even with the information in all the three statements.
- 94. How many children are there in the class?**
- I. 20% children are there in the class?
 - II. 44 children can speak languages other than Hindi.
 - III. There are 30 boys in the class.
- (1) All I, II & III
 (2) Any two of the three
 (3) II and either I or III
 (4) I and II only
 (5) None of these

95. What is the volume of the cylindrical tank?

- I. Area of the base is X square metres.
 - II. Height of the tank is Y metres.
 - III. Diameter of the base is equal to height of the tank.
- (1) Only I & II
 (2) Only II & III
 (3) Only I & III
 (4) All I, II & III
 (5) Any two of the three

Directions (Qns. 96-100) : In each of these questions two equations numbered I & II are given. You have to solve both the equations and give answer.

- (1) if $a < b$
 (2) if $a > b$
 (3) if relationship between a & b cannot be established
 (4) if $a \geq b$
 (5) if $a \leq b$

96. I. $a^2 + 5a + 6 = 0$

II. $b^2 + 3b + 2 = 0$

97. I. $2a^2 + 3a + 1 = 0$

II. $12b^2 + 7b + 1 = 0$

98. I. $a^2 = 4$

II. $a^2 = 9$

99. I. $6a^2 - 25a + 25 = 0$

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

100. I. $4a^2 - 20a + 21 = 0$

II. $2b^2 - 5b + 3 = 0$

Directions (Qns. 101-105): Study the following table carefully to answer these questions:

**Percentage of marks obtained
by six students in six different subjects**

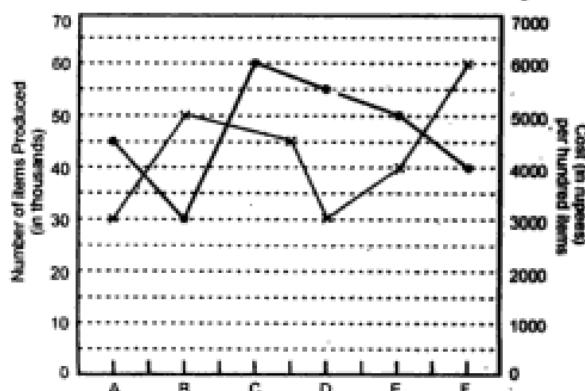
Student	Subject					
	P (70)	Q (80)	R (120)	S (125)	T (75)	U (150)
A	68	84	77	72	64	82
B	49	79	62	85	56	76
C	56	81	68	60	58	68
D	75	85	82	88	72	78
E	70	66	65	76	77	83
F	72	70	79	68	68	71

Note: Figure in bracket below each subject indicates the maximum marks allotted.

- 101. What is the average percentage of marks obtained by all students in subject T ?**
- 65.6
 - 66.5
 - 66.8
 - 65.4
 - None of these
- 102. Marks obtained by 'A' in subjects P, Q & R together are approximately what per cent of the marks obtained by F in subjects S, T & U together?**
- 80
 - 75
 - 85
 - 105
 - 115
- 103. What is the overall percentage of marks obtained by 'B' in all the subjects together (rounded off to two digits after decimal) ?**
- | | |
|-------------------|-----------|
| (1) 70.02 | (2) 72.51 |
| (3) 67.83 | (4) 71.50 |
| (5) None of these | |
- 104. What are the marks obtained by D in all the subjects together?**
- | | |
|-------------------|-----------|
| (1) 449.8 | (2) 499.9 |
| (3) 480 | (4) 490 |
| (5) None of these | |
- 105. What are the average marks obtained out of 80 by all the six students together in subject 'Q'?**
- | | |
|-------------------|----------|
| (1) 68 | (2) 77.5 |
| (3) 88.57 | (4) 62 |
| (5) None of these | |

Directions (Qns. 106-110) : Study the following graph carefully to answer these questions:

Number of items produced (in thousands) and cost (in rupees) per hundred items in six companies



- 106. What will be the total cost of items produced by Company C ?**

- Rs. 32 lakhs
- Rs. 24 lakhs
- Rs. 27 lakhs
- Rs. 36 lakhs
- None of these

- 107. What is the average cost per hundred items for all the given companies?**

- | | |
|---------------------------|---------------------------|
| (1) Rs. $4183\frac{2}{3}$ | (2) Rs. $4283\frac{1}{3}$ |
| (3) Rs. $4333\frac{2}{3}$ | (4) Rs. $4333\frac{1}{3}$ |
| (5) None of these | |

- 108. What is the total cost of the items produced by companies A & B together?**

- Rs. 17.50 lakhs
- Rs. 33.25 lakhs
- Rs. 15.75 lakhs
- Rs. 32.75 lakhs
- None of these

- 109. What was the total number of items produced by all the companies together ?**

- 28500
- 258000
- 25800
- 2850000
- None of these

- 110. If the number of items produced by Company 'D' increases by 30%, what will be the total cost of items produced ?**

- Rs. 21.45 lakhs
- Rs. 22.45 lakhs
- Rs. 24.25 lakhs
- Rs. 22.25 lakhs
- None of these

Directions (Qns. 111-115): These questions are based on the following information:

Children in a class play only one or two or all the three games - badminton, football and cricket. 5 children play only cricket, 8 children play only football and 7 children play only badminton. 3 children play only two games badminton and football, 4 children play only two games cricket and football and another 4 children play only two games badminton and cricket. 2 children play all the three games.

- 111. In all how many children play football ?**

 - 8
 - 17
 - 15
 - 14
 - None of these

112. How many children play badminton as well as cricket ?

 - 9
 - 10
 - 4
 - 6
 - None of these

113. Totally how many children are there in the class ?

 - 33
 - 31
 - 36
 - 35
 - None of these

114. In all how many children play badminton ?

 - 14
 - 17
 - 12
 - 13
 - None of these

115. How many children play football as well as cricket?

 - 7
 - 4
 - 6
 - 15
 - None of these

Directions (Qns. 116-120) : Study the following graph carefully to answer these questions.

Details about the distribution of employees and expenditure of an organization (distributed proportionately across the departments)

Annual expenditure on different items	
Total Expenditure = Rs. 12 crores	

116. What was the total expenditure on Accounts Department ?

 - Rs. 16.8 lakhs
 - Rs. 1,680 lakhs
 - Rs. 18.6 millions
 - Rs. 16.8 millions
 - None of these

117. What was per employee's expenditure on Medical?

 - Rs. 12,000
 - Rs. 13,000
 - Rs. 12,500
 - Rs. 13,500
 - None of these

118. What was the total expenditure on salary of employees in Marketing Department ?

 - Rs. 6.12 lakhs
 - Rs. 61.2 lakhs
 - Rs. 6.12 millions
 - Rs. 176 lakhs
 - None of these

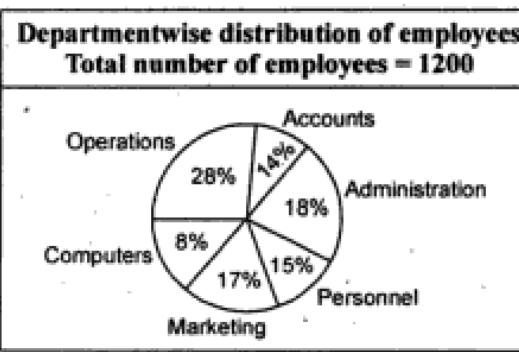
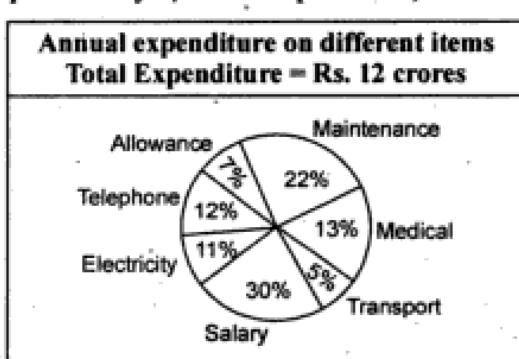
119. What was the amount spent on Electricity?

 - Rs. 132 millions
 - Rs. 13.2 lakhs
 - Rs. 126 millions
 - Rs. 12.6 lakhs
 - None of these

120. What was the expenditure on telephone for employees in Computer Department ?

 - Rs. 11.52 lakhs
 - Rs. 11.22 lakhs
 - Rs. 11.2 lakhs
 - Rs. 11.5 lakhs
 - None of these

Directions (Qns. 116-120) : Study the following graph carefully to answer these questions.



Year	State					
	A	B	C	D	E	F
1998	25	45	38	52	47	55
1999	32	39	40	55	46	67
2000	41	50	43	57	39	64
2001	37	48	43	58	32	72
2002	28	53	46	62	37	58
2003	43	55	49	63	42	62

- 121.** If the cost of product per thousand tons in 1998 was Rs. 1.8 lakhs, what was the cost of average sales for the given States in that year?

 - (1) Rs. 786000 lakhs
 - (2) Rs. 786 lakhs
 - (3) Rs. 7860 lakhs
 - (4) Rs. 78600 lakhs
 - (5) None of these

122. Total sales in the year 2000 were what per cent of the total sales in the year 2003? (rounded off to two digits after decimal)

 - (1) 93.63%
 - (2) 92.65%
 - (3) 106.80%
 - (4) 93.23%
 - (5) None of these

123. What was the percentage increase in total sales in 2003 from 1998? (rounded off to nearest integer)

 - (1) 19
 - (2) 20
 - (3) 16
 - (4) 17
 - (5) None of these

124. Approximately what was the ratio between average sales of States B & C respectively?

 - (1) 31:25
 - (2) 26:31
 - (3) 29:24
 - (4) 26:29
 - (5) 29:26

125. For which of the following years the percentage increase/decrease in sales from the previous years was highest for State 'E'?

 - (1) 1999
 - (2) 2000
 - (3) 2001
 - (4) 2002
 - (5) 2003

GENERAL AWARENESS

- 126.** The Planning Commission has set up a National Mission on Bamboo Technology and Trade Development as it is considered important in poverty alleviation and employment generation. Which of the following parts of India cannot take much benefit from the programme as it is not rich in bamboo plantation?

 - North-Eastern States
 - Western Ghats
 - Chattisgarh
 - Gujarat
 - Andaman & Nicobar Islands

127. The Economic Survey 2003-04 presented in the Parliament has identified five major problem areas the Indian Economy has to tackle. Which of the following is not one of them?

 - Sustain growth rate at 7-8 per cent in next 5 years.
 - Contain inflation to the level of 11.5 per cent
 - Control the revenue deficit and fiscal deficit effectively
 - Achieve 10 per cent industrial growth
 - Boost agricultural growth by diversification of crops.

128. Which of the following is *not* a part of the debt relief package for the farmers announced by the Finance Minister in June 2004?

 - The farm credit will be raised by 30 per cent in fiscal year 2004-05.
 - Banks are allowed to lend farmers to repay their loans taken from non-institutional sources.
 - Farmers are allowed to use their Kisan Credit Cards even for personal and non-agricultural purposes upto a certain limit.
 - Only A
 - Only B
 - Only C
 - Only A & B
 - Only A & C

129. What is web casting?

 - Casting a movie/TV star in a role on the www.
 - Transmitting the video and audio on the internet.
 - Playing of music on the internet.
 - Searching on the web.
 - None of these.

130. Labour reforms are one important aspect needed to restructure and boost up economy of a country. France and Germany are two major European countries who are trying to change the present practice of having 35 hour's working week. Which of the following reasons has/have forced them to change the same?

 - It is holding back economic growth and the competitiveness of business firms.
 - It is coming in the way of creating more jobs.
 - Foreign investment has become slow.
 - 35 hours per week is proving unsustainable to some big/giant size companies.

- (1) Only A
(2) Only B
(3) Only C & D
(4) Only A, C & D
(5) A, B, C & D all
131. Which of the following is NOT one of the recommendations of the N.K. Singh Committee on venture capital funds for the entertainment industry?
(A) Set up a Rs. 200 crore corpus as 'seed-money' to finance the sector in India.
(B) The venture capital should be managed professionally through an asset management company.
(C) A separate film finance corporation should be set up as banks should not be allowed to enter into the area of financing films/serials etc.
(1) Only A
(2) Only C
(3) Only B & C
(4) Only A & B
(5) Only A, B & C
132. The date command at the DOS prompt enables you to—
(1) View the date and time
(2) Change the date
(3) Change the date and time
(4) Change the day only
(5) None of these
133. The RBI is planning to carry out a quick fund infusion exercise in the Deposit Insurance and Credit Guarantee Corporation of India (DICGC). Which of the following is the reason owing to which RBI is considering for such a quick move?
A. DICGC had to make payments to the customers of several cooperative banks failed in recent past.
B. It is one of the conditions the World Bank and IMF have put before release of any fresh credit to India.
C. Since Finance Ministry is of the opinion that only big banks having sound health should survive, DICGC is also required to be strengthened accordingly.
(1) Only A (2) Only B
(3) Only C (4) Only A & C
(5) None of these
134. Many a times we come across the term "Money Laundering" in financial and corporate transactions. What does it really mean? (Pick up the correct statement).
(1) This in fact is an exercise which help companies in making their financial statements more attractive so that they can raise funds through loans and advances from banks.
(2) The term is used to depict the activity by which banks and financial institutes find out the amount actually needed by a company to complete a project or a particular activity, irrespective of their demand for a loan/advance.
(3) When three-four banks or financial institutes come together to finance a company, it is called **money laundering**. The money raised jointly in such cases is kept with some altogether new bank and can be withdrawn only by the joint permission of the creditors.
(4) When some money is passed on to some unknown person for some secretive purposes without the knowledge of the tax and governmental authorities, the activity is called **money laundering**.
(5) None of these
135. The ruling UPA government released its Common Minimum Programme (CMP) in May 2004. Which of the following are the commitments made by the government in the programme ?
A. Eliminate the Centre's revenue deficit by 2009.
B. Rural Credit will be doubled in three years time.
C. Adequate protection to farmers from imports particularly when international prices fall sharply.
(1) Only A (2) Only B
(3) Only C (4) Only A & B
(5) A, B & C all
136. What are batch files in relation to computers ?
(1) They begin with the letter BAT
(2) They help you to keep files in batches
(3) They help you to keep directories in batches
(4) They help you to club a group of statements and run them one after another
(5) They help you to keep both directories and file in batches.

- 137. Which of the following statements correctly describe the term 'convertible debentures' as used in corporate and financial world ?**
- (1) It is the debenture which is issued as a 'bonus issue' to the holders
(2) It is the debenture which after a specified time is converted to equity
(3) It is the debenture issued by a company with the intention to buy it back after a specified time gap
(4) These are debentures issued to the main promoters of a company, they are not available for trading in the market as they are payable only at time of the closure of the business by the company
(5) None of these
- 138. Which of the following statement(s) is/are true about the 'Edusat', the satellite which was recently in news?**
- (A) This will be used to conduct interactive teaching sessions and will improve the quality of education particularly in those areas in India where there is a paucity of good teachers.
(B) The satellite is developed by NASA as a part of "Education to All Programme" of the UNESCO.
(C) The satellite will cover around $\frac{2}{3}$ of African and $\frac{3}{4}$ of Asian continents and will benefit millions of school and college going students in these regions.
- (1) Only A
(2) Only B
(3) Only C
(4) Only A & C
(5) None of these
- 139. Which of the following statement(s) is/are true about the situation of Sudan which was in news these days ?**
- (A) Sudan is passing through a stage of political and social turmoil as incidences of ethnic violence are going on there.
(B) A group of people with the government backing is said to commit atrocities against black Africans in the province of Darfur.
(C) The UNO has imposed sanctions on Sudan.
- (1) Only A
(2) Only B
(3) Only A & B
(4) Only C
(5) All of these
- 140. Recently, there was a demand that the Armed Forces Special Power Act should be withdrawn. The demand was made by the people of which of the following States ?**
- (1) Assam
(2) Uttar Pradesh
(3) Manipur
(4) Gujarat
(5) None of these
- 141. When you delete files in windows operating system, they are—**
- (1) deleted permanently
(2) put in recycle bin
(3) wiped thoroughly so that nobody is able to recover the file back
(4) deleted permanently and also wiped clean
(5) the contents are garbled
- 142. Who amongst the following is the author of the book 'Through the Corridors of Power' released recently?**
- (1) Kiran Bedi
(2) P.C. Alexander
(3) J.N. Dixit
(4) T.N. Seshan
(5) None of these
- 143. In case of cooperative banks working in India, the role of the RBI is of a joint supervisor and regulator. Who amongst the following is another regulator of such banks?**
- (1) Securities and Exchange Board of India
(2) Registrar of Companies
(3) Registrar of Cooperative Societies
(4) None of these
- 144. In which of the following countries a severe flood killed around 450 people and covered almost two-thirds of the country (in July 2004). The UNO, had to issue a warning of a humanitarian crisis there.**
- (1) Bangladesh
(2) India
(3) Nepal
(4) Pakistan
(5) Bhutan

- 145.** The Union Budget 2004-05 has proposed a 2 per cent education cess on all central taxes. How would the collected amount be used ?

 - On improving quality of technical education being imparted by ITIs.
 - Paying salary and perks to the teachers who have not received their salaries since so many years.
 - On the primary education of poor children and their midday meals.
 - Only C
 - Only B
 - Only A
 - Only A & B
 - A, B & C all

146. Format command—

 - Format the CPU
 - Formats floppy drives only
 - Format should be left to the engineers to use
 - Formats a disk to receive files
 - Formats the selected file

147. The Government on December 20, 2004, introduced the Hindu Succession (Amendment) Bill, 2004, are based on the recommendations of the Law Commission in its _____ on proposed Reform under the Hindu law.

 - 16th Report
 - 17th Report
 - 18th Report
 - 19th Report
 - 20th Report

148. The Securities and Exchange Board of India (SEBI) Committee on Corporate Governance was headed by—

 - N. R. Narayana Murthy
 - Adi Godrej
 - B.K. Birla
 - Ratan Tata
 - None of these

149. Rajendra Shah, the recipient of the prestigious Jnanpith Award recently writes in—

 - English
 - Hindi
 - Marathi
 - Gujarathi
 - Bengali

150. In the past several months it is observed that some Indian companies are planning to enter into the business which were not their core areas up till now. Which is the new area in which oil marketing companies BPCL and IOC have shown their interest? (As per newspaper reports)

 - Airport privatisation
 - Banking & Insurance Services
 - Information Technology
 - Hospitality Services
 - None of these

151. Malnutrition makes the people less intelligent and less productive. Several programmes, schemes are launched to beat the hunger and/or malnutrition worldwide. Which of the following programmes cannot be considered as one such programme ?

 - To encourage exclusive breast feeding
 - Midday meals in schools
 - Food for work programme
 - Providing extra dose of polio drops
 - Only A & C
 - Only D & B
 - Only A & C
 - Only A, C & D
 - Only D

152. Arithmetic Logic Unit and control sections have special purpose locations called—

 - Registers
 - RAM
 - BIOS
 - I/O
 - ROM

153. What is the function of a modem?

 - Encryption and Decryption
 - Converts data to voice and vice-versa
 - Converts analog signals to digital and vice-versa
 - Serves as a hardware anti-virus
 - None of these

154. Which of the following statement(s) is/are true about the ASEAN Free Trade Area (AFTA), which was in news recently ?

 - Some long standing members reduced their tariffs on one another's goods.
 - AFTA has integrated four new members Cambodia, Laos, Myanmar and Vietnam.
 - Scope is now widened as new investment opportunities are also being explored.
 - AFTA is signing a collective free trade agreements with India, China and Japan
 - Only A, B and C
 - Only A, C & D
 - Only A & D
 - Only B & C
 - A, B, C & D all

- 155.** "The green revolution of the 1950s and 70s filled millions of Asian bellies, but has been much less successful in Africa." Which of the following may be called the probable reason(s) for the failure of such a wonderful programme in Africa?
- A. High-yielding varieties of rice and wheat were not planted there widely.
 - B. Africa is a water stressed area, whereas green revolution was for the countries full of water.
 - C. People who were engaged in agricultural activities were not owners of the land they were tilling.
 - D. African economy is not based on agriculture.
- (1) Only A
 - (2) Only B
 - (3) Only C
 - (4) Only A & C
 - (5) None of these
- 156.** Networking using fibre optic cable is done as—
- (1) it has high bandwidth
 - (2) it is thin and light
 - (3) it is not affected by electromagnetic interference/power surges etc.
 - (4) All of these
 - (5) None of these
- 157.** The UPA-led Union Government is very keen to provide a boost to the Agriculture sector. What at present is the contribution of this sector in the total GDP?
- (1) 10 per cent
 - (2) 15 per cent
 - (3) 18 per cent
 - (4) 22 per cent
 - (5) 33 per cent
- 158.** Indian corporates and partnership firms are now allowed to invest overseas upto 100 per cent of their network. How this decision of the policy makers will help Indian corporates and partnership firms? [Pick up the correct statement(s)]
- A. It will help them in making their presence felt in global market.
 - B. It will attract foreign companies to invest more in India as Indians are allowed to invest only in those companies who are already functioning in India and not in new ones.
 - C. It is an act of balancing the foreign exchange reserves of India which are swelling very fast.
- (1) Only A
 - (2) Only B & C
 - (3) Only C
 - (4) Only B
 - (5) All of the above
- 159.** Which of the following statement(s) is/are true about the Union Budget 2004-05 passed recently?
- A. Tax rebate for those earning upto Rs. 1,11,200/- so that their take-home income comes to Rs. 1 lakh after the tax.
 - B. Tax on airlines leasing aircraft from abroad valid on deals signed after April 1, 2005.
 - C. Chartered Accountants and tax professionals are held responsible for any falsification of account books irrespective, of its impact on tax evasion.
- (1) Only A & B
 - (2) Only B
 - (3) Only A & C
 - (4) Only A
 - (5) All of the above
- 160.** Conference (netscape) Net-meeting (internet explorer) enables (choose the option that best describes)—
- (1) Sharing voice on the net.
 - (2) Live textual Conferencing
 - (3) Live audio conferencing
 - (4) Live real time conference
 - (5) None of these
- 161.** Some specific measures are taken by the Reserve Bank of India to encourage mass use of information technology in the banking industry. Some such measures were proposed in the Credit and Monetary Policy 2004-2005 announced in May 2004. Which of the following statement(s) represent(s) the same?
- A. Bank rate is kept stable at 6 per cent
 - B. Single window services for all transactions in cash department of RBI was introduced.
 - C. Service charges on banks for electronic fund transfer and electronic clearing services are waived.
- (1) Only A
 - (2) Only B & C
 - (3) Only C
 - (4) Only B
 - (5) All of the above

ENGLISH LANGUAGE

Directions (Qns. 176-180): In each of the following sentences there are two blank spaces. Below each sentence there are five pairs of words denoted by numbers (1), (2), (3), (4) and (5). Find out which pair of words can be filled up in the blanks in the sentence in the same sequence to make the sentence grammatically correct and meaningfully complete.

176. Public announcements of by the Government is considered as of code of conduct during the pre-election period.

- (1) freebies appeasement
(2) favours violation
(3) policies honour
(4) provisions imposition
(5) manifests breaches

177. Germany had been a nation in one country of numerous states which had a common language and

(1) assembled dialect
(2) assimilated script

- (3) embedded civilisation
 (4) united traditions
 (5) formed code
- 178. Though the country has free medical service for the poor, it is.....**
- (1) stopped unaffordable
 (2) rendered essential
 (3) maintained admirable
 (4) favoured appreciable
 (5) instituted inadequate
- 179. If criminals are to join electoral fray, is likely to increase.**
- (1) compelled brotherhood
 (2) encouraged harmony
 (3) allowed extortion
 (4) deterred corruption
 (5) invited voting
- 180. The recently Olympic Games experienced some unhealthy practices to by few athletes.**
- (1) concluded.... resorted
 (2) finished preferred
 (3) held exhibited
 (4) over adhered
 (5) closed devoured
- Directions (Qns. 181-195) :** Which of the phrases (1), (2), (3) and (4) given below should replace the phrase given in ***bold*** in the following sentence to make the sentence grammatically correct. If the sentence is correct as it is and no correction is required, mark (5) as the answer.
- 181. The military has highly sophisticated simulators *on which soldiers train.***
- (1) which soldiers training on
 (2) on which soldiers have trains
 (3) which the soldiers do train
 (4) on which the soldiers have been trained
 (5) no correction required
- 182. Any policy of social welfare *will be likely to face resistance from vested interests.***
- (1) would be like facing
 (2) will be likely facing
 (3) is likely to face
 (4) is likely to be facing with
 (5) no correction required
- 183. The key to a competitive economy is *its investment regime.***
- (1) in its invested regime
 (2) in its investment regime
 (3) investment of its regime
 (4) investment in its regime
 (5) no correction required
- 184. The honourable court had taken a lenient view because the accused *have not previous conviction.***
- (1) had no previous conviction
 (2) had not previously convicted
 (3) had not been previous convictions
 (4) had no previously convicted
 (5) no correction required
- 185. Our foreign exchange reserves *have increased substantial.***
- (1) have been increased substantially
 (2) have increased substantially
 (3) have substantially increasing
 (4) have been substantial in increase
 (5) no correction required
- 186. In the early centuries of that second millennium B.C., people speaking strange dialects *akin to that of India*, moved in northern Iraq ant Syria.**
- (1) akin to those (2) akin to that in
 (3) akin to those into (4) keen, to those of
 (5) no correction required
- 187. It is becoming equally clear that reforestation will have little chance until people realise its importance.**
- (1) has become equal and clear
 (2) has become equally clear
 (3) has become clearly equal
 (4) is becoming clearly equal
 (5) no correction required
- 188. Once the event is over, many people claim credit *for success and disowning* the responsibility for failure.**
- (1) of success and disowning
 (2) for success but disowning
 (3) for success but disown
 (4) for success while disowned
 (5) no correction required
- 189. When sharks approach divers, they usually did so warily.**
- (1) as usual did so warily
 (2) usually did so wary
 (3) usually are doing so wary
 (4) usually do so warily
 (5) no correction required

190. We observed that the rug dealers were primary dedicated to the art of selling rugs.

(1) were primarily dedicated
(2) had primary been dedicated
(3) had been dedicated primary
(4) were being primary dedication
(5) no correction required

191. The real wonder is that the Egyptians while constructing pyramids possessed only the simplest hand tools.

(1) were possessed only by simple
(2) had possession of only simpler
(3) possess only the simplest
(4) were possessing the only simplest
(5) no correction required

192. The government should have launch such projects which would reverse the destructive cycle of flood and drought.

(1) must be launching
(2) should launch
(3) should have been launched
(4) must have been launched
(5) no correction required

193. To practise any art properly require extraordinarily patience — especially at the beginning.

(1) required extraordinarily patient
(2) requires extraordinary patience
(3) requiring extraordinary patience
(4) requiring extraordinarily patient
(5) no correction required

194. A committee comprising imminent experts from various fields was set up.

(1) comprising of imminent
(2) comprising into eminent
(3) consisting of imminent
(4) comprising eminent
(5) no correction required

195. The dinner party hoisted by the President of the club was cancelled due to some unforeseen problem.

(1) hosted with (2) hoisted with
(3) hoisted for (4) hosted by
(5) no correction required

Passage

Over the last three centuries, the world economy has evolved from a predominantly agriculture-based system to a digital economic system. The earlier economies were mainly agrarian. In this era, capital did play a role, as did technological innovations such as the plough, the steamboat or the train. But land and labour were more critical.

With the industrial revolution, the global economy was primarily driven by the ability to produce goods for the mass market. This led to the industrial economy where capital and labour were the most important drivers.

In the service economy, the wealth created by services exceeded the wealth created through manufacturing. Here, the ability of the service provider to establish a sound business gave him access to additional capital. This evolved into a global economy where goods and services were traded across international borders, with little restriction. In this period, capital started flowing across borders on all large scale for the first time.

The last five years have seen the advent of the digital economy where technology is becoming the driving force. With information being the driver of value and wealth creation, information technology is becoming the key to success in a growing number of industries. In the digital economy, the power of innovation and ideas gained the upper hand over direct access to capital.

The Indian economy is in a unique in terms of its economic evaluation. While manufacturing and service industries in India cannot freely access capital, the new breed of IT-based industries have access to venture capital and private equity. The country's potential in this emerging sector has opened the doors to capital inflows that are still not available to traditional industries.

There are two key trends which will boost the democratisation of capital, either directly as funding sources or indirectly.

More effective capital market routes—especially for information-based and software companies.

This is already happening rapidly. A market that was supposed to be stagnating with no public offering

Directions-(Qns. 196-205): Read the following passage carefully and answer the questions given below it. Certain words/phrases have been printed in bold to help you locate them while answering some of the questions.

from the manufacturing sector in the first quarter of the fiscal year, may see as many as 20-25 new software issues this year. Numerous internet and e-commerce companies are tapping funds through the capital market. For the financial intermediaries as well as for the investing public, dot com or 'info' initial offerings are fast becoming attractive investment alternatives to traditional manufacturing or financial sector offers.

With more effective capital markets, for high potential IT stocks, '**critical mass**', which in the industrial economy was primary in ensuring a company's ability to raise capital, will cease to matter. This underlines the manner in which a burgeoning digital economy has led to a redeployment of capital from a concentrated segment to the smaller knowledge entrepreneur.

A greater number of venture capitalists actively seeking to fund budding knowledge entrepreneurs. Along with the rise in Net entrepreneurs one has seen the emergence of a new breed of venture capitalists who recognise the potential that resides in these ideas. The emergence and strengthening of the virtual economy necessitates sources of funds at the 'ideation' stage where business plans may still be at the infancy stage and potential not clearly identified.

This need is being fulfilled by the incubator funds or the angel investors who handhold internet start-ups and other infotech ventures till the stage at which they can attract bigger investors. Instead of looking at high risk but big ventures, this genre of venture capitalists are looking at investments in companies which have the potential of excellent valuations in the future on the strength of their ideas.

196. Which of the following has been rated as most crucial in agro-based economy ?

- (A) Capital, steamboat and trains.
- (B) Technological innovations like plough, etc.
- (C) Labour and land.
- (1) Only A and B
- (2) Only C
- (3) Only B
- (4) Only A
- (5) None of these

197. How did service economy evolve into a global economy ?

- (1) The wealth gained through services exceeded the gain through manufacture
- (2) The services started flowing across borders
- (3) The labour started producing goods for mass market
- (4) The trade for services and goods crossed the International borders
- (5) None of these

198. Which of the following best describes the phrase 'critical mass**' as used in the passage ?**

- (1) Paradigm shift fund base to knowledge base.
- (2) The net worth of small knowledge entrepreneur.
- (3) The ability of an organisation to raise funds.
- (4) The sum total capital of industrial economy.
- (5) None of these

199. The public of which type of companies are preferred by the investors at present ?

- (1) Service sector companies.
- (2) Agro-based companies.
- (3) Information-based companies.
- (4) Companies dealing with financial sector.
- (5) None of these

200. What impact on economy has been envisaged owing to rise in net enterprise ?

- (1) The venture capitalists have started financing the projects even at the planning stage.
- (2) The economic planning will no more be realistic now.
- (3) The funding of unplanned projects have increased.
- (4) Virtual economy has necessitated the source of funds from abroad.
- (5) None of these

201. Which trend boost capital growth in the modern era ?

- (1) Conversion of land and labour to private equity.
- (2) Converting manufacturing industries into service sector.
- (3) Generating resources through international trade.
- (4) Promoting information based and software companies.
- (5) None of these

202. Which of the following statements is *NOT TRUE* in the context of the passage ?

- (1) The real estate and labour force was the strength of agrarian economy.
- (2) Service economy surpassed the industrial economy.
- (3) The information technology is the key to success in the present context.
- (4) The venture capitalists are only financing those sectors which lay emphasis on production of goods on mass scale.
- (5) Information-based and software companies are effective in boosting capital market.

203. What is meant by 'angel investors' ?

- (1) The investors who fund the project till such time it starts attracting large investment.
- (2) Those people who are committed to develop virtual economy.
- (3) The investors who invest on behalf of someone else.
- (4) Those who invest in only companies who have an excellent evaluation.
- (5) None of these

204. Which of the following is a power behind digital economy?

- (1) The capital generated through innovation and ideas.
- (2) The venture capital generated through sale of land.
- (3) The force of labour and capital in manufacturing industries.
- (4) The ability of service provider to set up a sound business.
- (5) None of these

205. Where was the shift in emphasis in industrial economy ?

- (1) The labour force became redundant.
- (2) The technological innovations were overrated.
- (3) The capital got an edge over land.
- (4) Class markets turned to mass markets.
- (5) None of these

Directions (Qns. 206-208): Choose the word which is most nearly the **SAME** in meaning as the word printed in bold as used in the passage.

206. Access

- | | |
|-------------|---------------|
| (1) reach | (2) loan |
| (3) help | (4) advantage |
| (5) utility | |

207. Advent

- | | |
|-------------|---------------|
| (1) shining | (2) departure |
| (3) power | (4) force |
| (5) arrival | |

208. Traditional

- | | |
|---------------|---------------|
| (1) religious | (2) excessive |
| (3) old | (4) customary |
| (5) sick | |

Directions (Qns. 209-210): Choose the word which is most opposite in meaning to the word printed in bold as used in the passage.

209. Burgeoning

- | | |
|-------------|----------------|
| (1) growing | (2) retarding* |
| (3) dipping | (4) unique |
| (5) common | |

210. Stagnating

- | | |
|------------------|---------------|
| (1) developing | (2) redundant |
| (3) over working | (4) fixed |
| (5) stationery | |

Directions (Qns. 211-215): Rearrange the following six sentences (A), (B), (C), (D), (E), and (F) in the proper sequence to form a meaningful paragraph; then answer the questions given below them.

- (A) The group of Egyptians provided answers to all his questions as they were impressed by the visitor's keen observation and intellectual curiosity.
- (B) From time to time he glanced at the map in his guide book to make sure that he was following them accurately.
- (C) All these efforts were directed towards his goal to write a book on the various places he saw and the people he met.
- (D) On one bright day, a famous traveller and writer from the West was listening to a group of Egyptians who described to him the wonders of their country.
- (E) Back in his room he industriously set down his facts and his impressions in an elaborate file of notes.
- (F) Repeatedly he interrupted with pertinent questions about Egyptian antiquities or local customs or the latest crisis in the Middle East.

211. Which of the following would be the *FIRST* sentence after rearrangement ?

- | | |
|-------|-------|
| (1) A | (2) F |
| (3) C | (4) D |
| (5) E | |

212. Which of the following would be *FOURTH* sentence after rearrangement ?

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

213. Which of the following would be the *LAST (SIXTH)* sentence after rearrangement ?

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

214. Which of the following would be the *SECOND* sentence after rearrangement ?

- | | |
|-------|-------|
| (1) A | (2) B |
| (3) F | (4) D |
| (5) E | |

215. Which of the following would be the *FIFTH* sentence after rearrangement ?

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

Directions (Qns. 216-225): In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blank appropriately. Find out the appropriate words without changing the meaning of the passage.

Passage

Lately, the media seems to have gone berserk in (216) everything that pertains to the New Economy. Behind the great bulk of the articles on the subject are two (217) assumption. First, that the New Economy businesses are likely to push Old Economy industries all the way into oblivion. Second, that (218) about the New Economy is far superior to that of the Old Economy.

Both those emphatic assumptions could be (219) flawed. Physical products—the cornerstone of the Old Economy—are hardly likely to (220) out in importance even in the age of the Internet. After all, the consumption of physical goods is hardly going down.

In everything—from steel automobiles (221) is only going up. But above and beyond all this, the New

Economy also needs Old Economy products to survive. You can sell goods on the Internet, after all, only if (222) is producing those goods. Besides which, people still want all those Old Economy goods.

As far as the second point is concerned, the one big weakness about the New Economy is that it is (223) more volatile than the Old Economy. The rate of evolution of products—the crux of the Old Economy—will (224) always be slower than the rate of the growth and proliferation on new ideas on any given subject.

And hence, the Old Economy (based on products) will always be relatively more (225) than the New Economy (based largely on ideas).

- | | |
|-----------------------|-------------------|
| 216. (1) listening | (2) advocate |
| (3) ignoring | (4) adopting |
| (5) viewing | |
| 217. (1) bold | (2) emphasizing |
| (3) underlying | (4) overriding |
| (5) overlapping | |
| 218. (1) glitter | (2) everything |
| (3) each thing | (4) proceed |
| (5) highlight | |
| 219. (1) thinking | (2) deliberately |
| (3) casually | (4) carelessly |
| (5) seriously | |
| 220. (1) lose | (2) charm |
| (3) iron | (4) stand |
| (5) bear | |
| 221. (1) trend | (2) movement |
| (3) consumption | (4) cost |
| (5) production | |
| 222. (1) mass | (2) someone |
| (3) none | (4) person |
| (5) marketing | |
| 223. (1) obviously | (2) reportedly |
| (3) naturally | (4) intrinsically |
| (5) abysmally | |
| 224. (1) subjectively | (2) deliberately |
| (3) have | (4) accordingly |
| (5) necessarily | |
| 225. (1) stable | (2) dogmatic |
| (3) fragile | (4) volatile |
| (5) specific | |

ANSWERS

1. (4)	2. (1)	3. (3)	4. (2)	5. (5)	116. (4)	117. (2)	118. (3)	119. (5)	120. (1)
6. (2)	7. (2)	8. (2)	9. (4)	10. (5)	121. (4)	122. (1)	123. (2)	124. (5)	125. (3)
11. (3)	12. (1)	13. (4)	14. (4)	15. (4)	126. (4)	127. (2)	128. (2)	129. (2)	130. (3)
16. (3)	17. (5)	18. (2)	19. (4)	20. (3)	131. (4)	132. (1)	133. (3)	134. (4)	135. (5)
21. (4)	22. (5)	23. (5)	24. (5)	25. (5)	136. (4)	137. (4)	138. (1)	139. (3)	140. (2)
26. (1)	27. (1)	28. (3)	29. (1)	30. (3)	141. (2)	142. (2)	143. (1)	144. (1)	145. (5)
31. (4)	32. (2)	33. (1)	34. (3)	35. (5)	146. (3)	147. (2)	148. (4)	149. (4)	150. (3)
36. (2)	37. (5)	38. (5)	39. (1)	40. (1)	151. (5)	152. (1)	153. (3)	154. (2)	155. (4)
41. (5)	42. (5)	43. (1)	44. (5)	45. (5)	156. (4)	157. (4)	158. (4)	159. (1)	160. (4)
46. (5)	47. (1)	48. (3)	49. (3)	50. (4)	161. (5)	162. (4)	163. (3)	164. (2)	165. (1)
51. (1)	52. (3)	53. (3)	54. (2)	55. (2)	166. (4)	167. (1)	168. (4)	169. (4)	170. (5)
56. (1)	57. (2)	58. (1)	59. (4)	60. (4)	171. (3)	172. (2)	173. (3)	174. (4)	175. (2)
61. (5)	62. (2)	63. (4)	64. (2)	65. (1)	176. (2)	177. (4)	178. (5)	179. (3)	180. (1)
66. (4)	67. (5)	68. (2)	69. (3)	70. (1)	181. (3)	182. (3)	183. (2)	184. (1)	185. (2)
71. (1)	72. (2)	73. (3)	74. (5)	75. (5)	186. (2)	187. (2)	188. (3)	189. (4)	190. (1)
76. (5)	77. (4)	78. (2)	79. (1)	80. (5)	191. (5)	192. (2)	193. (2)	194. (4)	195. (4)
81. (1)	82. (1)	83. (3)	84. (2)	85. (3)	196. (2)	197. (4)	198. (3)	199. (3)	200. (1)
86. (2)	87. (1)	88. (3)	89. (4)	90. (3)	201. (4)	202. (4)	203. (1)	204. (1)	205. (3)
91. (2)	92. (1)	93. (5)	94. (4)	95. (5)	206. (1)	207. (5)	208. (4)	209. (2)	210. (1)
96. (5)	97. (1)	98. (3)	99. (2)	100. (4)	211. (4)	212. (5)	213. (3)	214. (3)	215. (2)
101. (5)	102. (3)	103. (3)	104. (2)	105. (4)	216. (5)	217. (2)	218. (4)	219. (2)	220. (4)
106. (3)	107. (5)	108. (2)	109. (5)	110. (1)	221. (5)	222. (1)	223. (5)	224. (4)	225. (1)
111. (2)	112. (4)	113. (1)	114. (5)	115. (3)					

EXPLANATORY ANSWERS

1. (4) First and third Premises are Universal Affirmative (A-type). Second Premises is Particular Affirmative (I-type).

Some rivers are houses.

 All houses are lakes

We know that, I + A \Rightarrow I - type Conclusion

Thus, our derived conclusion would be :

"Some rivers are lakes."

Conclusion I and III form complementary pair. Therefore, either I or III follows.

Conclusion IV is converse of the second Premise.

2. (1) First Premise is Particular Affirmative (I-type). Second Premise is Universal Negative (E-type).

Third Premise is Universal Affirmative (A-type).

Some tigers are goats.

 No goat is rat.

We know that, I + E \Rightarrow O-type Conclusion.

Thus, our derived Conclusion would be :

"Some tigers are not rats."

All dogs are rats.

 No rat is goat.

We know that, A + E \Rightarrow E-type Conclusion

Thus, our derived Conclusion would be :

"No dog is goat".

This is the Conclusion II.

Conclusion I and IV form complementary pair. Therefore, either I or IV follows.

3. (3) First and second Premises are Particular Affirmative (I-type).

Third Premise is Universal Affirmative (A-type).

Some flowers are roads

 All roads are vehicles

We know that, I + A \Rightarrow I-type Conclusion

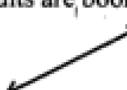
Thus, our derived Conclusion would be :

"Some flowers are Vehicles".

Conclusion II is the Converse of this Conclusion.

4. (2) All the three Premises are Universal Affirmative (A-type).

All fruits are books.

 All books are buses.

We know that, A + A \Rightarrow A-type Conclusion

Thus, our derived Conclusion would be :

"All fruits are buses".

This is the Conclusion IV.

Conclusion II is the Converse of the second Premise.

Conclusion III is the Converse of the first Premise.

5. (5) All the three Premises are particular Affirmative (I-type).

We know that no Conclusion follows from Particular Premises.

6. (2) Statement B is the cause and Statement A is its effect.

Owing to agitation against high fees, the Government appointed a committee to look into the matter.

7. (2) Statement B is the cause and Statement A is its effect. Owing to reduction in the procurement price of Kharif crops, the farmers are reluctant to sell their Kharif crops to Government agencies.

8. (2) Statement B is the cause and Statement A is its effect. Owing to inability of the small banks to withstand the competitions of the bigger banks, the Reserve Bank of India put restrictions on few small banks.

9. (4) Both the statements A and B are effects of independent causes.
10. (5) Both the statements are effects of some common cause.
- (11-15): (i) There are altogether 29 elements in the sequence.
(ii) There are 12 letters in the sequence.
(iii) There are 9 symbols in the sequence.
(iv) There are 8 digits in the sequence.
(v) The middle element, i.e., 15th from either end is '7'

11. (3) **SYMBOL LETTER** or **DIGIT SYMBOL**

Such combinations are :

@ C, **4 +**, **+ V**, **6 ?**

? F, **9 ***, *** M**

Symbols +, ?, * satisfy both the conditions.

12. (1) $C \rightarrow$ 7th from left

$@ \rightarrow$ 6th from left

$R \rightarrow$ 8th from left

$L \rightarrow$ 5th from left

$3 \rightarrow$ 7th from right

$6 \rightarrow$ 6th from right

$Y \rightarrow$ 8th from right

$? \rightarrow$ 5th from right

Similarly,

$H \rightarrow$ 13th from left

$2 \rightarrow$ 11th from left

$\uparrow \rightarrow$ 10th from left

$C \rightarrow$ 7th from left

$J \rightarrow$ 7th from right

$4 \rightarrow$ 11th from right

$+$ \rightarrow 10th from right

$3 \rightarrow$ 7th from right

13. (4) $@ \xrightarrow{-2} 8 \xrightarrow{+5} \beta \xrightarrow{-1} R$

$7 \xrightarrow{-2} H \xrightarrow{+5} \$ \xrightarrow{-1} J$

$2 \xrightarrow{-2} \beta \xrightarrow{+5} \# \xrightarrow{-1} H$

$? \xrightarrow{-2} 3 \xrightarrow{+5} * \xrightarrow{-1} 9$

But,

$4 \xrightarrow{-2} J \xrightarrow{+6} 3 \xrightarrow{-1} Y$

14. (4) **NUMBER LETTER** or **LETTER SYMBOL**

Such combinations are:

6 L @, **5 H #**, **7 E**, **J S**

15. (4) **LETTER NUMBER** or **NUMBER SYMBOL**

Such combinations are:

4 +, **Y 3**, **6 ?**, **F 9 ***

(16-20):

Candidate	CRITERIA				
	(i)	(ii)	(iii)	(iv)	(v)
Sunil	x	x	✓	x	x
Usha	x	✓	✓	x	✓
Mohan	x	x	x	✓	✓
Subhash	x	x	✓	x	✓
Aruna	✓	x	✓	x	✓

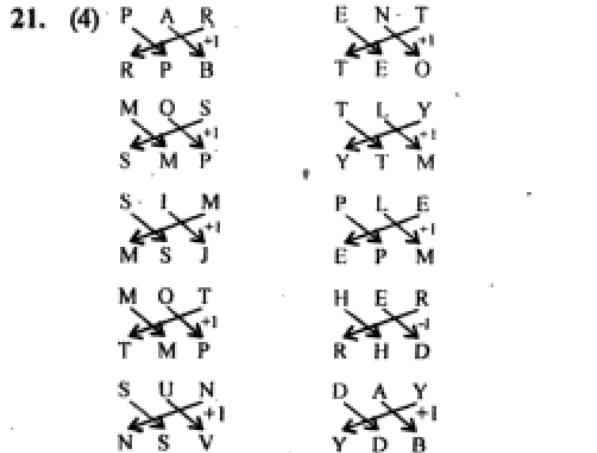
16. (3) Sunil Arora is eligible under (iii) only.

17. (5) Usha Natarajan is eligible under (ii), (iii) and (v) only.

18. (2) Mohan Srivastava is eligible under (iv) and (v) only.

19. (4) Subhash Saxena is eligible under (iii) and (v) only.

20. (3) Aruna Basak is eligible under (i) and (iii) only.



22. (5) $M \ A \ T \ U \ R \ E \ L \ Y$
 $\downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow$
 $7 \ 2 \ 4 \ 1 \ 5 \ 8 \ 6 \ 3$
 $R \ A \ M \ T \ E$
 $\downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow$
 $5 \ 2 \ 7 \ 4 \ 8$

L	E	T	R	A	M	E	R	U	T	A
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
6	8	4	5	2	7	8	5	1	4	2
T	Y	U	A	L	E	M	U	T	R	A
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
4	3	1	2	6	8	⑥	7	1	4	5
										8

(23-25):

INPUT:

1	2	3	4	5	6	7	8
these	icons	were	taken	out	from	the	sea

Pass Codes**Batch I: 10.00 a.m. to 11.00 a.m.**

6	8	7	5	4	3	2	1
from	sea	the	out	taken	were	icons	these

Batch II: 11.00 a.m. to 12.00 noon

6	2	1	3	4	5	7	8
from	icons	these	were	taken	out	the	sea

Batch III: 12.00 noon to 1.00 p.m.

6	2	5	8	7	4	3	1
from	icons	out	sea	the	taken	were	these

Batch IV: 1.00 p.m. to 2.00 p.m.

6	2	5	8	1	3	4	7
from	icons	out	sea	these	were	taken	the

Rest Hour: 2.00 p.m. to 3.00 p.m.**Batch V: 3.00 p.m. to 4.00 p.m.**

6	2	5	8	1	7	4	3
from	icons	out	sea	these	the	taken	were

Batch VI: 4.00 p.m. to 5.00 p.m.

6	2	5	8	1	7	3	4
from	icons	out	sea	these	the	were	taken

23. (5) Batch I: 10.00 a.m. to 11.00 a.m.

6	8	7	5	4	3	2	1
he	so	used	to	sell	the	surplus	items

Therefore, Input

1	2	3	4	5	6	7	8
items	surplus	the	sell	to	he	used	so

24. (5) Batch IV: 1.00 p.m. to 2.00 p.m.

6	2	5	8	1	3	4	7
back	go	here	people	who	settle	want	to

Batch V: 3.00 p.m. to 4.00 p.m.

6	2	5	8	1	7	4	3
back	go	here	people	who	to	want	settle

25. (5) Input

1 2 3 4 -5 6 7 8
four of the following five form a group

Batch V: 3.00 p.m. to 4.00 p.m.

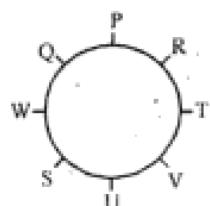
6 2 5 8 1 7 4 3
form of five group four a following the

26. (1) There may be many assumptions and hence many sets of answers.

27. (1) A E I O



- (28-30) Sitting arrangement of P, Q, R, S, T, U, V, and W

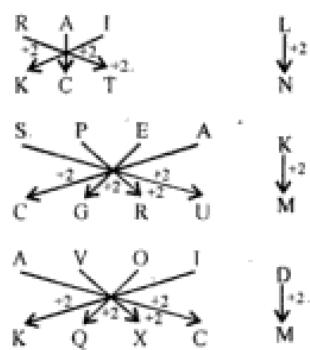


28. (3) S is to the immediate right of W.

29. (1) R and V are not neighbours.

30. (3) Q is to the immediate left of W.

31. (4)



32. (2)
- | | | | | | | | | | | | |
|---|----|----|----|---|---|---|----|----|---|----|----|
| 1 | 16 | 16 | 18 | 5 | 8 | 5 | 14 | 19 | 9 | 15 | 14 |
| A | P | P | R | E | H | E | N | S | I | O | N |

33. (1) **From Statement I**

P is mother of M and N.

Q is sister-in-law of N.

Therefore, Q is wife of M.

Thus, M is brother of N.

From Statement II

M and N are children of S.

R is the sister-in-law of M and daughter-in-law of S.

Therefore, R is the wife of N.

The sex of M is not clear.

M is either brother or sister of N.

34. (3) From Statement I

Let the number of students securing First Class = x

∴ Number of students who failed = x

Number of students who passed = 3x

According to question

$$3x + x = 120$$

$$\therefore x = \frac{120}{4} = 30$$

From Statement II

Number of girls in the class = $10 \times 4 = 40$

∴ Number of boys in the class = $120 - 40 = 80$

∴ Number of students who secured First Class

$$= 10 + \frac{80}{4} = 10 + 20 = 30$$

35. (5) From Statement I

Te Le Pa Na →

You eat many mangoes

Le Na Da →

You sell mangoes

Thus, code for 'mangoes' may be either 'Le' or 'Na'.

From Statement II

Ge Na Se La Le → they

eat bananas and mangoes

Ne De [Le La] → who others eat bananas

Thus, code for 'mangoes' is either 'Ge', 'Na' or 'Se'

From both the statements the code for 'mangoes' is 'Na'.

36. (2) Argument I makes no sense. If the income of farmers are not adequate they cannot be brought under the net of taxation as per rules governing the Income Tax Act. Therefore, argument I is not strong.
 Argument II seems to be strong. In order to increase revenue, the Government should bring more persons under the net of taxation. Argument III is also strong.

37. (5) Only Arguments I and II are strong. The Government is keen to introduce the VAT (Value Added Tax) which is the system envisaging simplified tax structure. A single tax will check the double taxation and manufacturers as well as traders will be encouraged to pay taxes.

Argument III is an example. We know that citing an example is bad argumentation.

38. (5) Only Argument II is strong.

39. (1) None of the Arguments is strong. The use of term 'only' in the Argument I makes it invalid.

40. (1) None of the Arguments is strong.

41. (5) Consider the following line of the passage : "However, agriculture and allied activities account for less than even one-fourth of the total GDP".

Therefore, the inference is definitely false.

42. (5) It is mentioned in the passage that the structure of industrialisation has changed over the years and not over the past few decades.

43. (1) The inference is definitely true.

44. (5) Consider the following line of the passage : "So, it is less likely that aggregate economic growth will be adversely affected if rainfall is scanty".

45. (5) It is mentioned in the passage that the component of the manufacturing sector that depends on agriculture for the supply of intermediates is not very high. This does not imply that manufacturing sector is independent of agricultural sector.

- (46-50): (i) $P \$ Q$ means $P \leq Q$.

Therefore, P is either greater than or equal to Q.

- (ii) $P * Q$ means $P \neq Q$ and $P \neq Q$,

Therefore, $P > Q$

- (iii) $P @ Q$ means $P \neq Q$.

Therefore, $P < Q$ and $P = Q$; $P \leq Q$

- (iv) $P \# Q$ means $P \neq Q$ and $P \neq Q$

Therefore, $P = Q$

- (v) $P \% Q$ means $P \neq Q$ and $P \neq Q$

Therefore, $P < Q$

$\$ \Rightarrow \geq$	$* \Rightarrow >$	$@ \Rightarrow \leq$
$\# \Rightarrow =$	$\% \Rightarrow <$	

46. (5) **Statements**

$$M * T \Rightarrow M > T$$

$$T \$ K \Rightarrow T \geq K$$

$$K \# D \Rightarrow K = D$$

Therefore, $M > T \geq K = D$

Conclusions

- I. $D \% M \Rightarrow D < M$: True

- II. $M * K \Rightarrow M > K$: True

47. (1) **Statements**

$$R @ J \Rightarrow R \leq J$$

$$M \# J \Rightarrow M = J$$

$$D * M \Rightarrow D > M$$

Therefore, $R \leq J = M < D$

Conclusions

- I. $D * J \Rightarrow D > J$: True

- II. $R \# M \Rightarrow R = M$: Not True

48. (3) **Statements**

$$F \$ M \Rightarrow F \geq M$$

$$N @ M \Rightarrow N \leq M$$

$$N \% W \Rightarrow N < W$$

Therefore, $F \geq M \geq N < W$

Conclusions

- I. $F \# N \Rightarrow F = N$: Not True

- II. $N \% F \Rightarrow N < F$: Not True

N is either smaller than or equal to F.

49. (3) **Statements**

$$B \# J \Rightarrow B = J$$

$$J @ D \Rightarrow J \leq D$$

$$F \$ D \Rightarrow F \geq D$$

Therefore, $B = J \leq D \leq F$

Conclusions

- I. $B \# F \Rightarrow B = F$: Not True
 II. $F * B \Rightarrow F > B$: Not True
 B is either smaller than or equal to F.

50. (4) Statements

$$\begin{aligned} Z \% T &\Rightarrow Z < T \\ T * N &\Rightarrow T > N \\ H \$ N &\Rightarrow H \geq N \\ \text{Therefore, } Z &< T > N \leq H \end{aligned}$$

Conclusions

- I. $H * Z \Rightarrow H > Z$: Not True
 II. $T * Z \Rightarrow T > Z$: Not True

(51-55): On the basis of given information and conclusions drawn from them, we can construct the following chart:

Employee	SHIFT			Holiday
	I	II	III	
P	✓	✗	✗	Monday
Q	✗	✓	✗	Tuesday
R	✓	✗	✗	Wednesday
S	✗	✗	✓	Sunday
T	✗	✓	✗	Thursday
V	✗	✗	✓	Friday
Z	✓	✗	✗	Saturday

51. (1) P, R, and Z work in Shift I.
 52. (3) Q has off day on Tuesday.
 53. (3) The combination P-Wednesday-I is not correct.
 54. (2) Z has off day immediately on the next day of V's off day.
 55. (2) V works in Shift III.
 56. (1) (i) $20 * 10 * 2 = m$.
 or, $m = (20 - 10) \div 2$
 or, $m = \frac{10}{2} = 5$
 (ii) $5 * 6 \lambda 4 = ?$
 or, $? = 24 - 5 = 19$
57. (2) (i) $60 \$ 20\% 4 = n$
 or, $n = (60 + 20) \times 4$
 or, $n = 80 \times 4 = 320$
 (ii) $8 @ n \odot 10 = ?$
 or, $? = \frac{320}{10} + 8$
 $= 32 + 8 = 40$

58. (1) (i) $15 * 12 \lambda 5 = p$

$$\text{or, } p = 60 - 15 = 45$$

$$\text{(ii) } 4 \$ 12 \% p = ?$$

$$\text{or, } ? = (4 + 12) \times 45$$

$$\text{or, } ? = 16 \times 45 = 720$$

59. (4) (i) $16 @ 12 \odot 8 = z$

$$\text{or, } z = 16 + \frac{12}{8}$$

$$\text{or, } z = 16 + \frac{3}{2} = \frac{35}{2}$$

$$\text{(ii) } z \# 20 * 8 = ?$$

60. (4) (i) $80 * 15 \lambda 8 = t$

$$\text{or, } t = (15 \times 8) - 80$$

$$\text{or, } t = 120 - 80 = 40$$

$$\text{(ii) } t \$ 5 \% 8 = ?$$

$$\text{or, } ? = (40 + 5) \times 8$$

$$\text{or, } ? = 45 \times 8 = 360$$

Option (1)

$$40 \# 40 * 10$$

$$\text{or, } (40 - 40) \div 10 = 0$$

Option (2)

$$40 \$ 40 \% 10$$

$$\text{or, } (40 + 40) \times 10 = 800$$

Option (3)

$$40 @ 40 \odot 10$$

$$\text{or, } \frac{40}{10} + 40 = 4 + 40 = 44$$

Option (4)

$$40 * 40 \lambda 10$$

$$\text{or, } (40 \times 10) - 40$$

$$\text{or, } 400 - 40 = 360$$

61. (5) First Set of Numbers

$$15 \quad 11$$

$$\Rightarrow 15 - 11 = 4 \text{ [Rule (ii)]}$$

$$4 \quad 20$$

$$\Rightarrow 4 \times 20 = 80 \text{ [Rule (iv)]}$$

$$8 \quad 400$$

$$\Rightarrow \frac{400}{80} = 5 \text{ [Rule (iii)]}$$

Second Set of Numbers

$$8 \quad 12$$

$$\Rightarrow 8 \times 12 = 96 \text{ [Rule (iv)]}$$

$$\begin{array}{r} 96 \quad 10 \\ \Rightarrow 96 \times 10 = 960 \text{ [Rule (iv)]} \end{array}$$

$$\text{Now, } \frac{960}{5} = 192$$

62. (2) First set of Numbers

$$\begin{array}{r} 40 \quad 30 \\ \Rightarrow 40 \times 30 = 1200 \text{ [Rule (iv)]} \end{array}$$

$$1200 \quad 3600$$

$$\Rightarrow \frac{3600}{1200} = 3 \text{ [Rule (iii)]}$$

Second Set of Numbers

$$\begin{array}{r} 15 \quad 24 \\ \Rightarrow 15 + 24 = 39 \text{ [Rule (i)]} \end{array}$$

$$\begin{array}{r} 39 \quad 17 \\ \Rightarrow 39 - 17 = 22 \text{ [Rule (ii)]} \end{array}$$

$$\text{Now, } 3 + 22 = 25$$

63. (4) First Set of Numbers

$$\begin{array}{r} 8 \quad 16 \\ \Rightarrow \frac{16}{8} = 2 \text{ [Rule (ii)]} \end{array}$$

$$\begin{array}{r} 2 \quad 16 \\ \Rightarrow \frac{16}{2} = 2 \text{ [Rule (iii)]} \end{array}$$

$$\begin{array}{r} 8 \quad 14 \\ \Rightarrow 8 \times 14 = 112 \text{ [Rule (iv)]} \end{array}$$

Second Set of Numbers

$$\begin{array}{r} 13 \quad 11 \\ \Rightarrow 13 - 11 = 2 \text{ [Rule (ii)]} \end{array}$$

$$\begin{array}{r} 2 \quad 12 \\ \Rightarrow 2 \times 12 = 24 \text{ [Rule (iv)]} \end{array}$$

$$\begin{array}{r} 24 \quad 144 \\ \Rightarrow \frac{144}{24} = 6 \text{ [Rule (iii)]} \end{array}$$

$$\text{Now, } 112 - 6 = 106$$

64. (2) First Set of Numbers

$$\begin{array}{r} 13 \quad 11 \\ \Rightarrow 13 - 11 = 2 \text{ [Rule (ii)]} \end{array}$$

$$\begin{array}{r} 2 \quad 4 \\ \Rightarrow \frac{4}{2} = 2 \text{ [Rule (iii)]} \end{array}$$

Second Set of Numbers

$$\begin{array}{r} 17 \quad 13 \\ \Rightarrow 17 - 13 = 4 \text{ [Rule (ii)]} \end{array}$$

$$\begin{array}{r} 4 \quad 12 \\ \Rightarrow 4 \times 12 = 48 \text{ [Rule (iv)]} \end{array}$$

$$\text{Now, } 48 \times 2 = 96$$

65. (1) First Set of Numbers

$$\begin{array}{r} 19 \quad 15 \\ \Rightarrow 19 - 15 = 4 \text{ [Rule (ii)]} \end{array}$$

$$\begin{array}{r} 4 \quad 12 \\ \Rightarrow 4 \times 12 = 48 \text{ [Rule (iv)]} \end{array}$$

Second set of Numbers

$$\begin{array}{r} 15 \quad 12 \\ \Rightarrow 15 + 12 = 27 \text{ [Rule (i)]} \end{array}$$

$$\begin{array}{r} 27 \quad 23 \\ \Rightarrow 27 - 23 = 4 \text{ [Rule (ii)]} \end{array}$$

$$\begin{array}{r} 4 \quad 16 \\ \Rightarrow \frac{16}{4} = 4 \text{ [Rule (iii)]} \end{array}$$

$$\text{Now, } 48 - 4 = 44.$$

- 66. (4)** From element first to second the top and the left designs rotate through 135° anti-clockwise, the lower design rotates through 45° anti-clockwise while the right design rotates through 45° clockwise.

- 67. (5)** From element first to second all the designs move two steps in anti-clockwise direction and the first and the last designs interchange positions and the first design is replaced with a new design. Similarly, the second and the fifth designs interchange positions and one of these two designs is replaced with a new design. Again the third and the fourth designs interchange positions and one of these two designs is replaced with a new design.

- 68. (2)** From element first to second all the designs move one step in anti-clockwise direction and one side is added to each design.

- 69. (3)** From element first to second the lowermost design shifts into middle after being inverted, the middle design moves downward and attached figure is replaced with a new design. The attached figure of the top most design is also replaced with a new design after being inverted.

70. (1) From element first to second all the designs move in anti-clockwise direction and one design each of the left and right designs is deleted while one design is added to the upper and lower designs.
71. (1) In the subsequent figures the pre-existing leaflet rotates through 45° anti-clockwise and also moves in anti-clockwise direction and after every two figures two half-leaflets are added.
72. (2) In the subsequent figures all the pre-existing designs move one step in clockwise direction and the first design is replaced with a new design in the first step and then a new design is added at the second position after every two figures.
73. (3) In the subsequent figures the arrow moves respectively two steps and one step in alternate manner in anti-clockwise direction and one new design is added in front of the pre-existing design and behind the pre-existing design alternately.
74. (5) In the first step one-fourth parts of two circles get shaded and in the next step one circle becomes white. The shading pattern inside the circle proceed in clockwise direction while the circles get shaded in anti-clockwise direction.
75. (5) In the subsequent figures one design moves to opposite sector and the other in anti-clockwise direction while the third design remains static.
76. (5) $? = 125\% \text{ of } 4875 + 88.005 \times 14.995$
 $= 125\% \text{ of } 4900 + 88 \times 15$
 $= \frac{125 \times 4900}{100} + 1320$
 $= 6125 + 1320$
 $= 7445 - 7415$
77. (4) $? = 127.001 \times 7.998 + 6.05 \times 4.001$
 $= 127 \times 8 + 6 \times 4$
 $= 1016 + 24 = 1040$
78. (2) $? = 1010 + 36 + 187 \times 20.05$
 $= 1008 + 36 + 187 \times 20$
 $[1010 = 1008 \text{ which is a multiple of } 36]$
 $= 28 + 3740$
 $= 3768 - 3770$
79. (1) $? = 16^{7.5} + 8^{3.5} + 2^{7.5}$
 $= \frac{16^{7.5}}{8^{3.5} \times 2^{7.5}} = \frac{(2^4)^{7.5}}{(2^3)^{3.5} \times 2^{7.5}}$
 $= \frac{(2)^{4 \times 7.5}}{(2)^{3 \times 3.5} \times 2^{7.5}} = \frac{2^{30}}{(2)^{10.5} \times 2^{7.5}}$
 $= \frac{2^{30}}{(2)^{10.5+7.5}} = \frac{2^{30}}{2^{18}}$
 $= 2^{10-18} = 2^{12} = 8^4$
80. (5) Let the present ages of Seema and Naresh be $5x$ and $7x$ years respectively.
According to the question,
- $$\frac{5x+5}{7x+5} = \frac{3}{4}$$
- $$\Rightarrow 21x + 15 = 20x + 20$$
- $$\Rightarrow x = 20 - 15 = 5$$
- $$\therefore \text{Naresh's present age} = 7x \text{ years}$$
- $$= 7 \times 5 = 35 \text{ years}$$
81. (1). Let the ten's digit be x
 $\therefore \text{Unit's digit} = 2x$
 $\therefore \text{Original number} = 10x + 2x = 12x$
On interchanging the digits, the new number
 $= 10 \times 2x + x = 21x$.
According to question,
 $21x - 12x = 27 \Rightarrow 9x = 27$
 $\Rightarrow x = \frac{27}{9} = 3$
 $\therefore \text{Original number} = 12x$
 $= 12 \times 3 = 36$.
82. (1) The committee can be formed in the following ways:
(1) By selecting 2 men and 1 woman
(2) By selecting 1 man and 2 women
(3) By selecting 3 women
 $\therefore \text{Total number of ways of forming the committee}$
 $= 3c_2 \times 4c_1 + 3c_1 \times 4c_2 + 4c_3$
 $= 3 \times 4 + 3 \times 6 + 4$
 $= 12 + 8 + 4$
 $= 34$

83. (3) 3 girls can be seated in a row in $3!$ ways.
Now, in the 4 gaps 4 boys can be seated in $4!$ ways. Hence, the number of ways in which no two boys sit adjacent to each other
 $= 3! \times 4! = 6 \times 24 = 144$

84. (2) Let the amount invested in scheme A be Rs. x.

$$\therefore \frac{x \times 12 \times 2}{100} = 3600$$

$$\Rightarrow x = \frac{3600 \times 100}{24} = \text{Rs. } 15000$$

Total investment = Rs. 35000
∴ Amount invested in scheme B
= Rs. $(35000 - 15000)$
= Rs. 20000

$$\therefore \text{C.I.} = P \left[\left(1 + \frac{R}{100} \right)^T - 1 \right]$$

$$= 20000 \left[\left(1 + \frac{R}{100} \right)^2 - 1 \right] \\ = 20000 (1.21 - 1) \\ = 20000 \times 0.21 = \text{Rs. } 4200$$

85. (3) Required salary

$$= 10000 \left(1 + \frac{50}{100} \right)^4 \\ = 10000 \times (1.5)^4 = \text{Rs. } 50625$$

86. (2) The given series is based on the following pattern:

$$\begin{array}{ccccccc} 3 & 19 & 103 & 439 & 1381 & 2887 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ x6+1^3 & x5+2^3 & x4+3^3 & x3+4^3 & x2+5^3 & \end{array}$$

$$\begin{array}{cc} (a) & (b) \\ 5 & 31 \\ \uparrow & \uparrow \\ x6+1^3 & x5+2^3 \end{array}$$

Hence, 163 will come in place of (b).

87. (1) The given series is based on the following pattern:

$$13 = 4 \times 1 + 1 \times 9$$

$$40 = 13 \times 2 + 2 \times 7$$

$$135 = 40 \times 3 + 3 \times 5$$

$$552 = 135 \times 4 + 4 \times 3$$

$$2765 = 552 \times 5 + 5 \times 1$$

Similarly,

$$(a) = 2 \times 1 + 1 \times 9 = 11$$

$$(b) = 11 \times 2 + 2 \times 7 = 36$$

$$(c) = 36 \times 3 + 3 \times 5 = 123$$

Hence, 123 will come in place of (c).

88. (3) The given series is based on the following pattern:

$$\begin{array}{ccccccc} 5 & 12 & 4 & 10 & 3 & 8 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ \times 2+2 & +2-2 & \times 2+2 & +2-2 & \times 2+2 & \end{array}$$

Similarly,

$$\begin{array}{ccccc} (a) & (b) & (c) & (d) \\ 6 & 14 & 5 & 12 & 4 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ \times 2+2 & +2-2 & \times 2+2 & +2-2 & \end{array}$$

Hence, 4 will come in place of (d).

89. (4) The given series is based on the following pattern:

$$\begin{array}{ccccccc} 3 & 13 & 37 & 87 & 191 & 401 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ \times 2+7 & \times 2+11 & \times 2+13 & \times 2+17 & \times 2+19 & \end{array}$$

[7, 11, 13, 17, 19 are consecutive prime numbers]

Similarly,

$$\begin{array}{ccccc} (a) & (b) & (c) & (d) \\ 1 & 9 & 29 & 71 & 159 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ \times 2+7 & \times 2+11 & \times 2+13 & \times 2+17 & \end{array}$$

Hence, 159 will come in place of (d).

90. (3) The given series is based on the following pattern:

$$\begin{array}{ccccccc} 8 & 4 & 6 & 15 & 52.5 & 236.25 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ \times 0.5 & \times 1.5 & \times 2.5 & \times 3.5 & \times 4.5 & \end{array}$$

Similarly,

$$\begin{array}{ccccc} (a) & (b) & (c) \\ 12 & 6 & 9 & 22.5 \\ \uparrow & \uparrow & \uparrow & \uparrow \\ \times 0.5 & \times 1.5 & \times 2.5 & \end{array}$$

Hence, 22.5 will come in place of (c).

91. (2) From Statement I.

$$\begin{aligned}\text{Total weight of 60 students} \\ = 60 \times 42 = 2520 \text{ kg}\end{aligned}$$

From Statement III,

$$\begin{aligned}\text{Total weight of all the girls} &= 1144 \text{ kg} \\ \therefore \text{Total weight of all the boys} \\ &= 2520 - 1144 = 1376 \text{ kg.}\end{aligned}$$

From Statement II,

$$\text{Number of boys} = \frac{1376}{42} = 32$$

$$\therefore \text{Number of girls} = 60 - 32 = 28$$

From Statement III,

$$\begin{aligned}\text{Average weight of girls} &= \frac{1144}{28} \\ &= 40.86 \text{ kg}\end{aligned}$$

92. (1) From Statements I and III, S.P. can be obtained.

From Statements II and III.

Let the S.P. be Rs. x .

After 10% discount,

$$\text{SP} = 90\% \text{ of } x = \frac{9}{10} x$$

$$\therefore \frac{9}{10} x - 15000 = 1200$$

$$\Rightarrow 9x = 150000 + 12000$$

$$\Rightarrow x = \frac{162000}{9} = \text{Rs. } 18000$$

From statements I and II,

Let the CP = Rs. x

$$\therefore \text{S.P.} = \frac{120}{100} x = \text{Rs. } \frac{6x}{5}$$

Now, after 10% discount on

$$\text{Rs. } \frac{6x}{5}, \text{ New S.P.} = \frac{90}{100} \times \frac{6x}{5} = \text{Rs. } \frac{54x}{50}$$

$$\therefore \frac{54x}{50} - x = 1200$$

$$\Rightarrow 54x - 50x = 50 \times 1200$$

$$\Rightarrow x = \frac{50 \times 1200}{4} = \text{Rs. } 15000$$

Hence S.P. can be calculated.

$$\therefore \text{S.P. is Rs. } \frac{6x}{5}$$

93. (5) From Statement I.

Let the length of the train be x metre.

$$\therefore \text{Length of platform} = \frac{3x}{2} \text{ metre}$$

From Statement II,

$$\text{Speed of train} = \frac{\frac{3x}{2} + x}{25}$$

$$= \frac{5x}{50} = \frac{x}{100} \dots (\text{i})$$

But x is not known. Hence, we proceed.

From Statement III,

$$\text{Speed of train} = \frac{x}{10} \dots (\text{ii})$$

Clearly, we reach at no unique conclusion.

94. (4) From Statement I.

80% children speak languages other than Hindi.

From Statement II,

$$\text{Total number of children} = \frac{44 \times 100}{80} = 55$$

95. (5) From Statements I and II.

Volume of tank = XY cubic metres

From statements II and III.

$$\text{Radius of base} = \frac{Y}{2}$$

$$\therefore \text{Volume} = \pi \times (\text{radius})^2 \times \text{height}$$

From Statements I and III.

Area of base = X sq. metres.

Hence, radius can be determined.

Height = 2 × radius.

Clearly, after knowing height and area of base, volume can be determined.

96. (5) I. $a^2 + 5a + 6 = 0$

$$\Rightarrow a^2 + 2a + 3a + 6 = 0$$

$$\Rightarrow a(a+2) + 3(a+2) = 0$$

$$\Rightarrow (a+2)(a+3) = 0$$

$$\Rightarrow a = -2 \text{ or } -3$$

II. $b^2 + 3b + 2 = 0$

$$\Rightarrow b^2 + 2b + b + 2 = 0$$

$$\Rightarrow b(b+2) + 1(b+2) = 0$$

$$\Rightarrow (b+1)(b+2) = 0$$

$$\Rightarrow b = -1 \text{ or } -2$$

Clearly, $a \leq b$

97. (I) I. $2a^2 + 3a + 1 = 0$
 $\Rightarrow 2a^2 + 2a + a + 1 = 0$
 $\Rightarrow 2a(a+1) + 1(a+1) = 0$
 $\Rightarrow (a+1)(2a+1) = 0$
 $\Rightarrow a = -1 \text{ or } -\frac{1}{2}$

II. $12b^2 + 7b + 1 = 0$
 $\Rightarrow 12b^2 + 3b + 4b + 1 = 0$
 $\Rightarrow 3b(4b+1) + 1(4b+1) = 0$
 $\Rightarrow (3b+1)(4b+1) = 0$
 $\Rightarrow b = -\frac{1}{3} \text{ or } -\frac{1}{4}$

Clearly, $a < b$

98. (3) I. $a^2 = 4 \Rightarrow a = \pm 2$
 II. $b^2 = 9 \Rightarrow b = \pm 3$

99. (2) I. $6a^2 - 25a + 25 = 0$
 $\Rightarrow 6a^2 - 15a - 10a + 25 = 0$
 $\Rightarrow 3a(2a-5) - 5(2a-5) = 0$
 $\Rightarrow (3a-5)(2a-5) = 0$
 $\Rightarrow a = \frac{5}{3} \text{ or } \frac{5}{2}$
 II. $15b^2 - 16b + 4 = 0$
 $\Rightarrow 15b^2 - 10b - 6b + 4 = 0$
 $\Rightarrow 15b(3b-2) - 2(3b-2) = 0$
 $\Rightarrow (5b-2)(3b-2) = 0$
 $\Rightarrow b = \frac{2}{5} \text{ or } \frac{2}{3}$

Clearly, $a > b$

100. (4) I. $4a^2 - 20a + 21 = 0$
 $\Rightarrow 4a^2 - 14a - 6a + 21 = 0$
 $\Rightarrow 2a(2a-7) - 3(2a-7) = 0$
 $\Rightarrow (2a-7)(2a-3) = 0$
 $\Rightarrow a = \frac{7}{2} \text{ or } \frac{3}{2}$
 II. $2b^2 - 5b + 3 = 0$
 $\Rightarrow 2b^2 - 3b - 2b + 3 = 0$
 $\Rightarrow b(2b-3) - 1(2b-3) = 0$
 $\Rightarrow (b-1)(2b-3) = 0$
 $\Rightarrow b = 1 \text{ or } \frac{2}{3}$

Clearly $a \geq b$

101. (5) Required average percentage

$$= \frac{64 + 56 + 58 + 72 + 77 + 68}{6}$$

$$= \frac{395}{6} = 65.8$$

102. (G) Marks obtained by A in:

Subject P $\rightarrow 68\% \text{ of } 70$

$$= \frac{70}{100} \times 70 = 49$$

Subject Q $\rightarrow \frac{84}{100} \times 80 = 67$

Subject R $\rightarrow \frac{77}{100} \times 120 = 92$

Total marks $= 49 + 67 + 92 = 208$

Marks obtained by F in:

Subject S $\rightarrow 68\% \text{ of } 125$

$$= \frac{68}{100} \times 125 = 85$$

Subject T $\rightarrow \frac{68 \times 75}{100} = 51$

Subject U $\rightarrow \frac{71 \times 150}{100} = 105$

\therefore Total marks $= 85 + 51 + 105 = 241$

Required percentage

$$= \frac{208}{241} \times 100 = 85$$

103. (3) Required overall percentage of marks

$$= \frac{49 + 79 + 62 + 85 + 56 + 76}{6}$$

$$= \frac{407}{6} = 67.83$$

104. (2) Marks obtained by D in:

Subject P $\rightarrow \frac{75 \times 70}{100} = 52.50$

Subject Q $\rightarrow \frac{85 \times 80}{100} = 68$

Subject R $\rightarrow \frac{82 \times 120}{100} = 98.40$

$$\text{Subject S} \rightarrow \frac{88 \times 125}{100} = 110$$

$$\text{Subject T} \rightarrow \frac{72 \times 75}{100} = 54$$

$$\text{Subject U} \rightarrow \frac{78 \times 150}{100} = 117$$

$$\therefore \text{Total marks} = 52.50 + 68 + 98.40 + 110 + 54 + 117 = 499.9$$

105. (4) Average percentage

$$= \frac{84 + 79 + 81 + 85 + 66 + 70}{6} = \frac{465}{6}$$

\therefore Required average marks

$$= \frac{465}{6} \% \text{ of } 80 = \frac{465 \times 80}{6 \times 100} = 62$$

106. (3) Items produced = 45000

Cost per hundred = Rs. 6000

$$\therefore \text{Total cost} = \text{Rs. } \frac{45000 \times 6000}{100}$$

= Rs. 27 lakhs

107. (5) Required average cost

$$4500 + 3500 + 6000 +$$

$$= \text{Rs. } \frac{5500 + 5000 + 4000}{6}$$

$$= \text{Rs. } \frac{28500}{6} = \text{Rs. } 4750$$

108. (2) Cost of items produced by Company:

$$A \rightarrow \text{Rs. } \left(\frac{35000 \times 4500}{100} \right)$$

= Rs. 15.75 lakhs

$$B \rightarrow \text{Rs. } \left(\frac{50000 \times 3500}{100} \right)$$

= Rs. 17.5 lakhs

$$\therefore \text{Total cost} = \text{Rs. } (15.75 + 17.5) \text{ lakhs}$$

$$= \text{Rs. } 33.25 \text{ lakhs}$$

109. (5) Total number of items produced by all companies

$$= (35 + 50 + 45 + 30 + 40 + 60) \text{ thousands} \\ = 260000$$

110. (1) = New number of items produced by company

$$D = \left(\frac{130}{100} \times 30 \right) \text{ thousands}$$

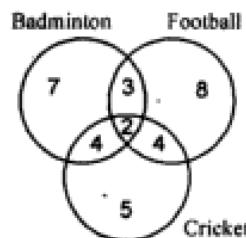
= 39 thousands

Cost per hundred = Rs. 5500

$$\therefore \text{Total cost} = \text{Rs. } \left(\frac{39000 \times 5500}{100} \right)$$

= Rs. 21.45 lakhs.

Venn-Diagram for questions 111–115:



111. (2) Number of football players = $3 + 2 + 4 + 8 = 17$

112. (4) Number of badminton as well as cricket players = $4 + 2 = 6$

113. (1) Number of children

$$= 7 + 3 + 2 + 4 + 8 + 4 + 5 = 33$$

114. (5) Number of badminton players = $7 + 3 + 2 + 4 = 16$

115. (3) Number of football as well as cricket players = $2 + 4 = 6$

116. (4) Total expenditure on Accounts department = 14% of Rs. 12 crores

$$= \text{Rs. } \frac{14 \times 12}{100} \text{ crores}$$

= Rs. 1.68 crores

= Rs. 16.8 millions

117. (2) Total expenditure on medical

= 13% of Rs. 12 crores

$$= \text{Rs. } \frac{13 \times 12}{100} \text{ crores}$$

= Rs. 1.56 crores

= Rs. 15600000

\therefore Expenditure per employee

$$= \frac{15600000}{1200} = \text{Rs. } 13000$$

118. (3) Total expenditure on salary of employees

$$= 30\% \text{ of Rs. 12 crores}$$

$$= \text{Rs. } \frac{30 \times 120000000}{100}$$

$$= \text{Rs. } 36000000$$

∴ Expenditure on Marketing employees

$$= 17\% \text{ of } 36000000$$

$$= \text{Rs. } (17 \times 360000)$$

$$= \text{Rs. } 6120000$$

$$= \text{Rs. } 6.12 \text{ millions}$$

119. (5) Amount spent on electricity

$$= 11\% \text{ of Rs. 12 crores}$$

$$= \text{Rs. } \frac{11 \times 120}{100} \text{ millions}$$

$$= \text{Rs. } 13.2 \text{ millions}$$

120. (1) Expenditure on telephone in computer department

$$= 12\% \text{ of } 8\% \text{ of Rs. 12 crores}$$

$$= \text{Rs. } \frac{12}{100} \times \frac{8}{100} \times 120 \text{ millions}$$

$$= \text{Rs. } 1.152 \text{ millions}$$

$$= \text{Rs. } 11.52 \text{ lakhs}$$

121. (4) Average sales

$$= \left(\frac{25 + 45 + 38 + 52 + 47 + 55}{6} \right) \text{ million tons}$$

$$= \frac{262}{6} = 43.7 \text{ million tons}$$

∴ Required cost = Rs. (1.8×43700) lakhs

$$= \text{Rs. } 78660 \text{ lakhs}$$

$$= \text{Rs. } 78600 \text{ lakhs}$$

122. (1) Total sales in the year 2000

$$= (41 + 50 + 43 + 57 + 39 + 64) \text{ million tons}$$

$$= 294 \text{ million tons}$$

Total sales in the year 2003

$$= (43 + 55 + 49 + 63 + 42 + 62) \text{ million tons}$$

$$= 314 \text{ million tons}$$

∴ Required percentage

$$= \frac{294}{314} \times 100 = 93.63\%$$

123. (2) Total sales in 1998

$$= (25 + 45 + 38 + 52 + 47 + 55) \text{ million tons}$$

$$= 262 \text{ million tons}$$

Total sales in 2003 = 314 million tons

$$\therefore \% \text{ Increase} = \frac{314 - 262}{262} \times 100$$

$$= 19.85 = 20$$

124. (5) Average sales of state:

$$B \rightarrow \frac{45 + 39 + 50 + 48 + 53 + 55}{6}$$

$$= \frac{290}{6} \text{ millions tons}$$

$$C \rightarrow \frac{38 + 40 + 43 + 43 + 46 + 49}{6}$$

$$= \frac{259}{6} \text{ million tons}$$

∴ Required ratio

$$= \frac{290}{6} : \frac{259}{6} = 290 : 260 = 29 : 26$$

125. (3) Percentage decrease in 1999

$$= \frac{47 - 46}{47} \times 100 = 2.12$$

Percentage decrease in 2000

$$= \frac{46 - 39}{46} \times 100 = 15.22$$

Percentage decrease in 2001

$$= \frac{37 - 32}{32} \times 100 = 17.95$$

Percentage increase in 2002

$$= \frac{37 - 32}{32} \times 100 = 15.625$$

Percentage increase in 2003

$$= \frac{42 - 37}{37} \times 100 = 13.51$$

Hence, the percentage decrease was maximum in the year 2001.

129. (2) Web-casting means to transmitting the audio and video on the net. It allows both audio & video and user can see it on wide N/w.
133. (1) Date command allows the user to see the current date and modify that.
137. (4) Batch files are a group of commands which can run one after another. When there is need to run more than one command, then this type of Batch files created.
142. (2) When file deleted in windows operating system go directly to recycle bin, which is a garbage collector to contain all the deleted items in it.
147. (3) Format can be done on hard drive also. So that all the matter should be clean and new. One can be done on that OR it is upon engineer's choice.
153. (1) All and control section have special purpose location called "Register"; they store every bit in these specified area.
154. (3) Modem converts analog signal to digital and vice-versa, so that a communication between the computer and user should be maintained in a good manner.
157. (4) Yes, of course; Networking using fibre optic cable because it is not an easy task to be done as its name implies "Network". It spreads over a wide area; so, it needs a medium that must be flexible and reliable over long distances along with good output. And fibre optic has these qualities. That's why using fibre optic cable.
161. (4) Yes, conference/Net meeting enables live real time conference. It includes audio, video and textual form of communication.
166. (1) E-commerce uses EDI [Electronic Data Interchange] because in business, organisation, the data sent over long distances should be safe and accurate and by EDI this can be done.
184. (1) The word 'conviction' is a Noun and it is preceded by 'no'. Hence, 'had no previous conviction' is the suitable replacement. Altogether, the statement is in Indirect Speech. Here the Principal clause is in Past Tense; hence, the Reported Speech must also be in Past Tense.
185. (2) Adverbial form of the word 'substantial' should be used. An Adverb is a word which modifies the meaning of a verb, an Adjective or another Adverb. Hence, 'have increased' substantially is the correct replacement.
186. (2) The use of preposition 'in' instead of 'of' is appropriate to make the sentence correct.
188. (3) The sentence is adversative which expresses contrast between two statements. Hence, for success but disown is the correct replacement.
189. (4) The sense of sentence shows a habitual action. Hence, Simple Present Tense will be used. Also the Subordinate clause is in Present Tense; the Principal clause should be in Present Tense too.
190. (1) Here, the word 'Primary' has been wrongly used. Its adverbial form will be appropriate.
193. (2) The word 'patience' is Noun. An Adjective is used with a Noun to add something for its meaning. Hence, 'requires extraordinary patience' is the correct usage.
194. (4) The word 'imminent' means likely to happen very soon. It does not make any sense in the sentence. Hence, 'comprising eminent' is the correct replacement.
195. (4) The word 'hoist' means raise something to a higher position. Clearly, a dinner party is never hoisted, but hosted.
207. (5) The word 'advent' has been used in the sense of word 'arrival'.
209. (2) The word 'burgeoning' means growing or developing rapidly. Its antonym is retarding.

All The Best