PRACTICE SET 11

INSTRUCTIONS

- **This practice set consists of two sections. Quantitative Aptitude (Qs. 1-40) & Reasoning Ability (Qs. 41-80).**
- **All the questions are compulsory.**
- **Each question has five options, of which only one is correct. The candidates are advised to read all the options thoroughly.**
- **There is negative marking equivalent to $1/4^{th}$ of the mark allotted to the specific question for wrong answer.**

Time : 45 min. **Max. Marks : 80**

QUANTITATIVE APTITUDE

DIRECTIONS (Qs. 1-10): What will come in place of the question mark (?) in the following questions ?

1. $\frac{5}{8}$ of $\frac{4}{9}$ of $\frac{3}{5}$ of $222 = ?$

(a) 42 (b) 43 (c) 39 (d) 37
(e) None of these

2. 56% of $450 + ? = 300$

(a) 52 (b) 48 (c) 42 (d) 56
(e) None of these

3. $27^{1.5} \times 27^{3.5} = 27^{?}$

(a) 5 (b) 7 (c) 3 (d) 2
(e) None of these

4. $27.06 \times 25 - ? = 600$

(a) 76.3 (b) 76.7 (c) 76.5 (d) 76.2
(e) None of these

5. $4\frac{7}{8} \times 2\frac{4}{13} = ?$

(a) $11\frac{1}{3}$ (b) $11\frac{1}{13}$
(c) $11\frac{4}{13}$ (d) $11\frac{3}{8}$
(e) None of these

6. $8^4 \times \frac{1}{8^3} \times 8^5 \div 8^2 = 8^{?}$

(a) 7 (b) 2 (c) 3 (d) 4
(e) None of these

7. $-(a-b) \times ? = b - a$

(a) -1 (b) 1 (c) $-a$ (d) a
(e) None of these

8. $(a+b) = ? \times (-a-b)$

(a) 1 (b) $-a$
(c) -1 (d) $-b$
(e) None of these

9. $|? + 14| = 11$

(a) –3 (b) –25
(c) 25 (d) 3
(e) Either – 3 or –25

10. $16 + 26 \times 2 = ?$

(a) 84 (b) 44
(c) 40 (d) 832
(e) None of these

11. Which of the following fractions is the least ?

(a) $\frac{12}{119}$ (b) $\frac{1}{10}$
(c) $\frac{4}{39}$ (d) $\frac{7}{69}$
(e) None of these

12. A number of points are marked on a plane and are connected pairwise by a line segment. If the total number of line segments is 10, how many points are marked on the plane ?

(a) 4 (b) 10 (c) 5 (d) 9
(e) None of these

13. A sum of money becomes eight times in 3 years if the rate is compounded annually. In how much time, the same amount at the same compound interest rate will become sixteen times?

(a) 6 years (b) 4 years
(c) 8 years (d) 5 years
(e) None of these

14. A machine is sold at a profit of 10%. Had it been sold for ₹ 40 less, there would have been a loss of 10%. What was the cost price ?
(a) ₹320 (b) ₹200
(c) ₹225 (d) ₹250
(e) None of these

15. Ram spends ₹ 3620 for buying pants at the rate of ₹ 480 each and shirts at the rate of ₹ 130 each. What will be the ratio of pants to shirts when maximum number of pants are to be bought ?
(a) 7 : 2 (b) 7 : 3 (c) 2 : 7 (d) 4 : 5
(e) None of these

16. Two trains each of 120 m in length, run in opposite directions with a velocity of 40 m/s and 20 m/s respectively. How long will it take for the tail ends of the two trains to meet each other during the course of their journey ?
(a) 20 s (b) 3 s
(c) 4 s (d) 5 s
(e) None of these

17. Ramesh is twice as good a workman as Sunil and finishes a piece of work in 3 hours less than Sunil. In how many hours they together could finish the same piece of work ?
(a) $2\frac{1}{3}$ (b) 2 (c) $1\frac{2}{3}$ (d) 8
(e) None of these

18. Fifteen years hence, a man will be four times as old as he was fifteen years ago. His present age is:
(a) 25 years (b) 20 years
(c) 30 years (d) 45 years
(e) None of these

19. The floor of a rectangular room is 15 m long and 12 m wide. The room is surrounded by a vrandah of width 2 m on all its sides. The area of the vrandah is :
(a) $124\,m^2$ (b) $120\,m^2$
(c) $108\,m^2$ (d) $58\,m^2$
(e) None of these

20. Pratul's monthly income is onefourth of Manoj's monthly income. Manoj's annual income is ₹ 2.16 lacs. What is Pratul's annual income? (In some cases monthly income and in some cases annual income are used.)
(a) ₹54.000 (b) ₹ 5.4 thousand
(c) ₹4.500 (d) ₹45.000
(e) None of these

21. The present ages of Trisha and Shalini are in the ratio of 7 : 6 respectively . After 8 years the ratio of their ages will be 9 : 8. What is the difference in their ages ?
(a) 4 years (b) 8 years
(c) 10 years (d) 12 years
(e) None of these

22. Profit earned by an organisation is distributed among officers and clerks in the ratio of 5 : 3. If the number of officers is 45 and the number of clerks is 80 and the amount received by each officer is ₹25,000, what was the total amount of profit earned?
(a) ₹22 lakh (b) ₹18.25 lakh
(c) ₹18 lakh (d) ₹23.25 lakh
(e) None of these

23. A shopkeeper labelled the price of his articles so as to earn a profit of 30% on the cost price. He,then sold the articles by offering a discount of 10% on the labelled price. What is the actual per cent profit earned in the deal?
(a) 18% (b) 15%
(c) 20% (d) Cannot be determined
(e) None of these

24. Prema decided to donate 15% of her salary to an orphanage. On the day of donation she changed her mind and donated ₹ 1,896 which was 80% of what she had decided earlier. How much is Prerna's salary?
(a) ₹18,500 (b) ₹10,250
(c) ₹15,800 (d) Cannot be determined
(e) None of these

25. Naresh purchased a TV set for ₹11,250 after getting discount of 10% on the labelled price. He spent ₹150 on transport and ₹800 on installation. At what price should it be sold so that the profit earned would be 15% if no discount was offered?
(a) ₹12,937.50 (b) ₹14,030
(c) ₹13,450 (d) ₹15,467.50
(e) None of these

DIRECTIONS (Qs. 26-30) : Find the next term in the given series in each of the questions below.

26. 2, 4, ?, 16, 32
(a) 6 (b) 10 (c) 8 (d) 12
(e) None of these

27. 0, 7, 26, ?, 124, 215
(a) 37 (b) 51
(c) 63 (d) 88
(e) None of these

28. 4, 15, 16, ?, 36, 63, 64
(a) 25 (b) 30
(c) 32 (d) 35
(e) None of these

29. 1, 8, 9, ?, 25, 216, 49
(a) 60 (b) 64
(c) 70 (d) 75
(e) None of these

30. 336, 210, 120, ?, 24, 6, 0
(a) 40 (b) 50
(c) 60 (d) 70
(e) None of these

DIRECTIONS (Qs. 31-35): Find out the approximate value which is closest to the value that should replace the questions mark (?) in the following questions. (You are not expected to find out the exact value.)

31. $\sqrt{1223.9975} = ?$
(a) 110 (b) 144
(c) 34 (d) 12.55
(e) 125

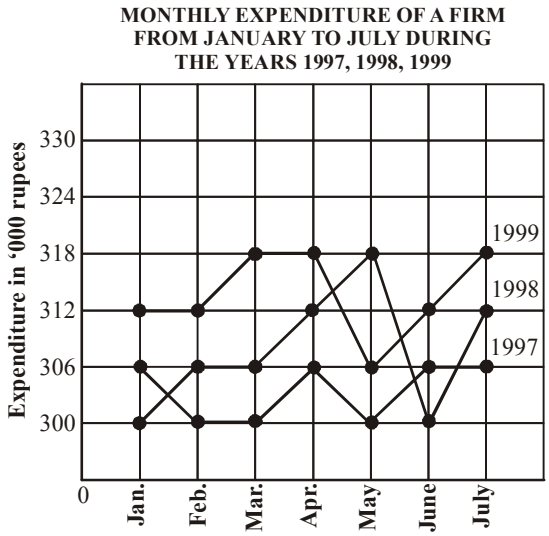
32. $503 \times 201 = ?$
(a) 101100 (b) 1000000
(c) 110000 (d) 100003
(e) 1000103

33. $1205 \div 2.5 = ?$
(a) 3000 (b) 4800
(c) 300 (d) 480
(e) 500

34. $22020 \div 0.011 = ?$
(a) 20020 (b) 2002000
(c) 200200 (d) 20002
(e) 2000020

35. $\sqrt{\sqrt{20800}} = ?$
(a) 12 (b) 120
(c) 140 (d) 102
(e) 1020

DIRECTIONS (Qs. 36-40) : Study the data presented in the following graph to answer the questions :



36. What is the total expenditure during the period under review (7 months) in 1997 ?
(a) ₹21, 07, 000 (b) ₹96, 07, 000
(c) ₹21, 54, 000 (d) ₹21, 24, 000
(e) None of these

37. What total expenditure has been made during the year 1997 and 1998 in the period covered in the graph ?
(a) ₹24, 87, 000 (b) ₹2, 70, 000
(c) ₹48, 27, 000 (d) ₹42, 78, 000
(e) None of these

38. What is the average monthly expenditure during the year 1999 covering the period shown in the graph ?
(a) ₹2, 75, 000 (b) ₹2, 70, 000
(c) ₹3, 14, 000 (d) ₹2, 47, 000
(e) None of these

39. Which month has been the least expensive during 1999 ?
(a) June (b) April
(c) May (d) July
(e) None of these

40. The expenditure in April 1999 was.....higher than that of corresponding period in 1998.
(a) 1.5% (b) 2%
(c) 2.5% (d) 0.94%
(e) None of these

REASONING ABILITY

DIRECTIONS (Qs. 41-45): In the following questions, the symbols δ, %, $, # and @ are used with the following meaning as illustrated below:

'P $ Q' means 'P is not smaller than Q'.
'P @ Q' means 'P is not greater than Q'.
'P δ Q' means 'P is neither smaller than nor equal to Q'.
'P # Q' means 'P is neither greater than nor equal to Q'.
'P % Q' means 'P is neither smaller than nor greater than 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
(a) if only Conclusion I is true.
(b) if only Conclusion II is true.
(c) if either Conclusion I or II is true.
(d) if neither Conclusion I nor II is true.
(e) if both Conclusions I and II are true.

41. **Statements:** F @ N, N δ R, H @ R
Conclusions: **I.** H δ N
II. F # R

42. **Statements:** M # T, T @ K, K $ N
Conclusions: **I.** M # N
II. K δ M

43. **Statements:** T % H, H $ W
Conclusions: **I.** W # T
II. W % T

44. **Statements:** N δ K, K # D, D % M
Conclusions: **I.** M δ K
II. D δ N

45. **Statements:** J $ B, B % R, R δ F
Conclusions: **I.** F # B
II. R @ J

DIRECTIONS (Qs.46-50) : Study the following information carefully and answer the questions given below :

A, B, C, D, E, F and G are sitting around a circle facing the centre, not necessarily in the same order. D is not second to the left of F but D is second to the right of A. C is third to the right of A and C is second to the left of G. B is not an immediate neighbour of G.

46. Who is to the immediate right of C?
(a) D (b) G (c) E (d) B
(e) Data inadequate

47. Who is the only one person sitting between A and G?
(a) B (b) D (c) C (d) E
(e) F

48. Who is to the immediate left of D ?
(a) B (b) C (c) A
(d) Data inadequate
(e) None of these

49. Who is second to the left of C?
(a) B (b) G (c) F
(d) Data inadequate
(e) None of these

50. What is E's position with respect to D?
(a) To the immediate right (b) To the immediate left
(c) Third to the right (d) Second to the right
(e) Third to the left

DIRECTIONS (Qs. 51-55) : Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and Give answer

(a) if the data in statement **I alone** are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
(b) if the data in statement **II alone** are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
(c) If the data either in statement I alone or in statement II alone are sufficient to answer the question.
(d) if the data given in both the statements I and II together are not sufficient to answer the question.
(e) if the data given in both the statements I and II together are necessary to answer the question.

51. In a row of girls facing North, what is D's position from the left end?
I. D is twentieth from the right end.
II. There are ten girls between Band D.

52. Town M is towards which direction of Town K?
I. Town K is towards North-West of Town D
II. Town M is towards South-East of Town D

53. How many daughters does P have?
I. K and M are sisters of T.
II. T's father is husband of P's mother.

54. On which day of the week from Monday to Sunday did Arun leave for London?
I. Arun did not leave for London during the weekend.
II. Arun's brother left for London on Friday two days after Arun left for London.

55. How is 'new' written in a code language?
I. 'new good clothes' is written as '5 3 9' in that code language.
II. 'good clothes are costly' is written as '9673' in that code language.

DIRECTIONS (Qs. 56-60): In each question below are two statements followed by two conclusions numbered I and II. You have to take the two given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts. Give answer

(a) if only conclusion I follows.
(b) if only conclusion II follows.
(c) if either conclusion I or II follows.
(d) if neither conclusion I nor II follows.
(e) if both conclusions I and II follow.

56. **Statements:** No holiday is a vacation.
Some vacations are trips.
Conclusions: **I.** No trip is a holiday.
II. Some holidays are definitely not trips.

57. **Statements:** Some kites are birds.
No kite is an aeroplane.
Conclusions: **I.** All aeroplanes are birds.
II. Some birds are definitely not kites

58. **Statements:** All metals are plastics.
All plastics are fibres.
Conclusions: **I.** Atleast some fibres are metals.
II. Some metals are not fibres.

59. **Statements:** All roads are streets.
No street is a highway.
Conclusions: **I.** No highway is a road.
II. All streets are roads.

60. **Statements:** Some animals are plants.
All plants are rocks.
Conclusions: **I.** All plants are animals.
II. Atleast some rocks are animals.

61. In a certain code language. 'LISP' is coded as 'MJTQ', similarly 'PLAN' is coded as 'QMBO'. How will 'FORT' be coded in the same code language?
(a) ENSQ (b) GPUS
(c) ENQS (d) GPSU
(e) None of these

62. 'Artificial' is related to 'Natural' in the same way as 'private' is related to '_____'
(a) Future (b) Personal
(c) Public (d) Closed
(e) Confidential

63. Four of the following five are alike on the basis of being divisible by a particular number and hence form a group. Which of the following **does not** belong to that group ?
(a) 21 (b) 91 (c) 65
(d) 77 (e) 35

64. In a class of 25 students. Lata's rank is 13th from the top and Parul's rank is 19th from the bottom. If Vishal's rank is exactly between Lata's and Parul's rank what is Vishal's rank from the top ?
(a) 10th (b) 8th
(c) 9th (d) 7th
(e) Cannot be determined

65. What should come next in the number series given below ?
1 1 2 1 2 3 1 2 3 4 1 2 3 4 5 1 2 3 4 5 6 1 2 3 4 5 6
(a) 5 (b) 2 (c) 8 (d) 1
(e) None of these

DIRECTIONS (Qs. 66-70) : Study the following information to answer the given questions

(a) Six plays are to be organized from Monday to Sunday-One play each day with one day when there is no play. 'No play' day is not Monday or Sunday.
(b) The plays are held in sets of 3 plays each in such a way that 3 plays are held without any break *ie*, 3 plays are held in such a way, that there is no 'No play' day between them but immediately before this set or immediately after this set it is 'No play' day.
(c) Play Z is held on 26th and play X was held on 31st of the same month.
(d) Play B was not held immediately after play A (but was held after A, not necessarily immediately) and play M was held immediately before Q.
(e) All the six plays were held in the same month.

66. Which play was organized on Monday?
(a) Z (b) M
(c) Q (d) Cannot be determined
(e) None of these

67. Which day was play Z organized?
(a) Tuesday (b) Monday
(c) Wednesday (d) Cannot be determined
(e) None of these

68. Which date was a 'No play' day?
(a) 26th (b) 28th
(c) 29th (d) Cannot be determined
(e) None of these

69. Which of the following is true?
(a) Play B is held immediately before play M
(b) Play Z is held after play B
(c) There was a gap after 2 plays and then 4 plays were organized
(d) First play was organized on the 25th
(e) Play B was held on Friday

70. Which day was play Q organized?
(a) Friday (b) Wednesday
(c) Saturday (d) Cannot be determined
(e) None of these

DIRECTIONS (71 - 75) : Study the following arrangement of consonants, vowels, numbers and symbols carefully and answer the questions given below:

H @ F ! 3 U 6 % G I T * P L 8 $ ∧ 9 S 2 7 & A M K + J © D 4 # 5 & E

71. Which of the following is ninth to the right of the twentieth from the right end of the above arrangement ?
(a) K (b) M (c) U (d) A
(e) None of these

72. How many such consonants are there in the above arrangement, each of which is immediately preceded by a symbol and also immediately followed by a symbol ?
(a) None (b) One
(c) Two (d) Three
(e) More than three

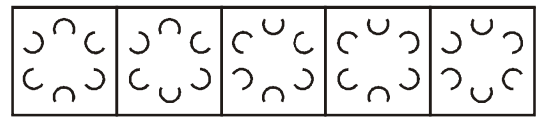
73. If all the symbols are dropped from the arrangement, which of the following will be the twelfth from the left end ?
(a) 9 (b) 2 (c) S (d) 7
(e) None of these

74. Four of the following five are alike in a certain way based on their positions in the above arrangement and so form a group. Which is the one that **does not** belong to the group?
(a) L$8 (b) AKM
(c) @!F (d) 6%G
(e) JD©

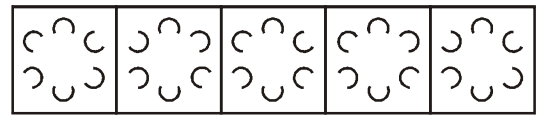
75. What should come in place of the question mark (?) in the following series based on the above arrangement >
F3U %IT L$ ∧ ?
(a) 927 (b) 7&A
(c) 7AM (d) 2&A
(e) 27&

DIRECTIONS (Q. 76-80) : In each of the questions given below which one of the five answer figures on the right should come after the problem figures on the left, if the sequence were continued?

76. **Problem figures**

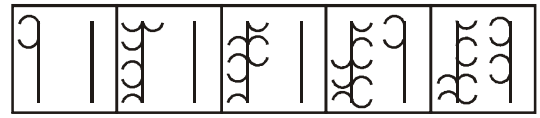


Answer figures

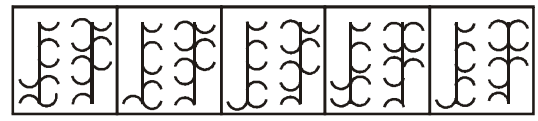


(a) (b) (c) (d) (e)

77. **Problem figures**

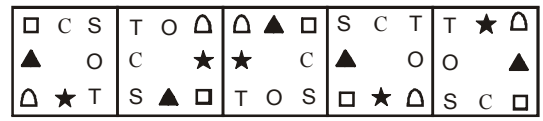


Answer figures

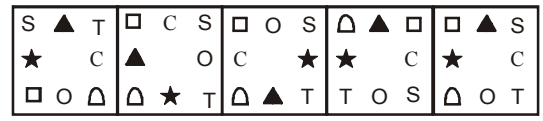


(a) (b) (c) (d) (e)

78. **Problem figures**

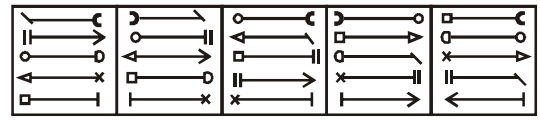


Answer figures

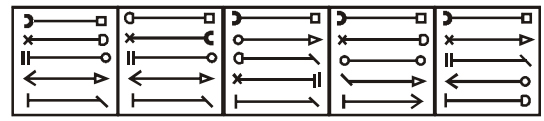


(a) (b) (c) (d) (e)

79. **Problem figures**

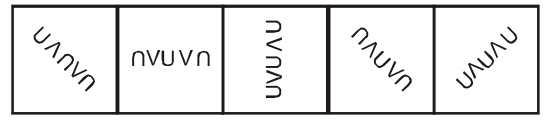


Answer figures

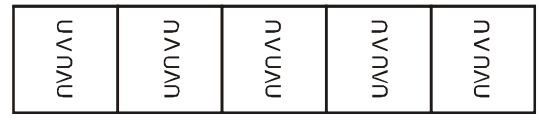


(a) (b) (c) (d) (e)

80. **Problem figures**



Answer figures



(a) (b) (c) (d) (e)

HINTS & EXPLANATIONS

1. (d) $? = \frac{5}{8} \times \frac{4}{9} \times \frac{3}{5} \times 222 = 37$

2. (b) Let the number be x

$\therefore \frac{56}{100} \times 450 + x = 300$

or $x = 300 - 252 = 48$

3. (a) $(27)^{1.5} \times (21)^{3.5} = (27)^{?}$

$\therefore ? = 5 \left[\because a^x + a^y = a^{(x+y)}\right]$

4. (c) Let the number be x.

$\therefore 27.06 \times 25 - x = 600$

or, $x = 676.5 - 600 = 76.5$

5. (e) $? = \frac{39}{8} \times \frac{30}{13} = \frac{45}{4} = 11\frac{1}{4}$

6. (d) $8^4 \times \frac{1}{8^3} \times 8^5 \times \frac{1}{8^2} = 8^{4-3+5-2} = 8^4 \ \therefore ? = 4$

7. (b) $-(a-b) \,.\, x = b - a$

Put x replacing '?' (question mark)

or $-[-(a-b)x] = -[b-a]$ or $(a-b)x = a - b$

or $x = \frac{a-b}{a-b} = 1$

8. (c) $a + b = ? \times (-a - b)$

or $a + b = x.(-a - b)$

[Put x replacing '?' (question mark)]

or $a + = x.\,(a + b)$

or $x = -1$

9. (e) $|? + 14| = 11$ or $? + 14 = 11$ or -11

$\therefore ? = -25$ or -3

10. (e) $16 + 26 \times 2 = 16 + 52 = 68$

11. (b) $\frac{12}{119} = 0.1008, \frac{1}{10} = 0.1$

$\frac{4}{39} = 0.102$ and $\frac{7}{69} = 0.101$

Thus, $\frac{1}{10}$ is the least.

12. (c) Let there be n points marked on the plane.

Total number of line segments = ${}^{n}C_2 = 10$

$\Rightarrow \frac{n(n-1)}{2} = 10$

or $n^2 - n - 20 = 0$

or $(n-5)(n+4) = 0$

or $n = 5$ [$n = -4$ is rejected]

13. (b) Let the sum of money be ₹ x.

Now, $8x = x\left(1 + \frac{r}{100}\right)^3$

or, $\left(1 + \frac{r}{100}\right)^3 = (2)^3$ or $1 + \frac{r}{100} = 2$

Again, let the sum becomes 16 times in n years. Then,

$16x = x\left(1 + \frac{r}{100}\right)^n$

$\Rightarrow 16 = 2^n$ or $2^4 = 2^n$ or $n = 4$

14. (b) Let the cost price of machine be ₹ 100

SP of machine at a profit of 10% = ₹ 110

SP of machine at a loss of 10% = ₹ 90

If SP is (110 – 90) = ₹ 20 less then CP = ₹ 100

Therefore, if SP is ₹ 40 less, then

$CP = \frac{100}{20} \times 40 =$ ₹ 200

15. (a) Let us work with the options.

For (a), total cost = $7 \times 480 + 2 \times 130 = 3620$

For (b), total cost = $7 \times 480 + 3 \times 130 = 3750$

For (c), total cost = $2 \times 480 + 7 \times 130 = 1870$

Hence, option (a) is correct.

16. (c) Relative speed of the trains = (40 + 20) = 60 m/s

Distance = (120 + 120) = 240 m

Time taken by trains to cross each other completely

$= \frac{240}{60} = 4s$

$\therefore$ Larger the no. of cogs (tooth of wheel) of wheel, lesser will be that no. of revolution made by it.

17. (b) Let Sunil finishes the job in x hours.

Then, Ramesh will finish the job in $\frac{x}{2}$ hours.

We have, $x - \frac{x}{2} = 3 \Rightarrow x = 6$

Therefore, Sunil finishes the job in 6 hours and Ramesh in 3 hours.

Work done by both of them in 1 hour = $\frac{1}{6} + \frac{1}{3} = \frac{1}{2}$

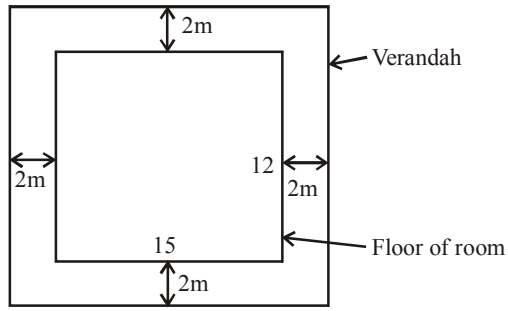
They together finish the piece of work in 2 hours.

18. (a) Let the present age of the man = x years

Now, (x + 15) = 4 (x – 15)

or 3x = 75 or x = 25 years

19. (a) Area of the outer rectangle = $19 \times 16 = 304\ m^2$



Area of the inner rectangle = $15 \times 12 = 180\ m^2$
$\therefore$ Required area = $(304 - 180) = 124\ m^2$

20. (a) Manoj's monthly income

$$= \frac{2.16 \times 100000}{12} = ₹\ 18000$$

$\therefore$ Pratul's monthly income

$$= 18000 \times \frac{1}{4} = ₹\ 4500$$

$\therefore$ Pratul's annual income
$= 12 \times 4500 = ₹\ 54000$

21. (a) Let Trisha's and Shalini's present ages be $7x$ and $6x$ years respectively.

After 8 years, $\frac{7x+8}{6x+8} = \frac{9}{8}$

$\Rightarrow \quad 56x + 64 = 54x + 72$
$\Rightarrow \quad 2x = 72 - 64 = 8$
$\Rightarrow \quad x = 4$
$\therefore$ Required difference = $7x - 6x \Rightarrow x = 4$ years

22. (d) Amount received by all the officers
$= 45 \times 25000 = 11,25,000$

Amount received by each clerk = $\frac{3}{5} \times 25000 = 15000$

Amount received by all the clerks
$= 80 \times 15000 = 12,00,000$
Total amount of profit earned = 11,25,000 + 12,00,000
= ₹23.25 lakh.

23. (e) Let the cost price of the articles be ₹100
Marked Price = ₹130
After giving a discount of 10% the selling price of the articles = $0.9 \times 130 = 117$

So, actual profit per cent = $\frac{(117-100)}{100} \times 100 = 17\%$

24. (c) Let Prerna's salary be ₹ x
According to the question,
80% of 15% of x = 1896

$$\Rightarrow \quad x \times \frac{15}{100} \times \frac{4}{5} = 1896$$

$$\therefore \quad x = \frac{1896 \times 5 \times 100}{15 \times 4} = ₹15800$$

25. (d) Cost price of TV when discount is not offered

$$= 11250 \times \frac{100}{90} = ₹12500$$

Total cost of TV after transport and installation
$= 12500 + 800 + 150 = 13450$

To earn 15% profit, he must sell at

$$13450 \times \frac{115}{100} = ₹\ 15467.50$$

26. (c) The terms exhibit the pattern $2^1, 2^2, 2^3$ and so on.
27. (c) Try the pattern $n^3 - 1, n = 1, 2, ...$
28. (d) Pattern is $2^2, 4^2 - 1, 4^2, 6^2 - 1, 6^2$ and so on.
29. (b) Can you see that the pattern is
$1^2, 2^3, 3^2, 4^3, 5^2, 6^3, 7^2$
30. (c) Note that
$0 = 1^3 - 1$ $6 = 2^3 - 2$
$24 = 3^3 - 3$
31. (c) $? = \sqrt{1223.9975} \approx 34$
32. (a) $? = 503 \times 201 = 101103 \approx 101100$
33. (d) $? = 1205 \div 2.5 = 482 \approx 480$
34. (b) $? = 22020 \div 0.011 = 2001818 \approx 2002000$
35. (a) $? = \sqrt{\sqrt{20800}} \approx \sqrt{144} = 12$
36. (d) Total expenditure
$= 306 + 300 + 300 + 306 + 300 + 306 + 306$
= ₹ 2124 thousands
37. (d) Total expenditure in the year 1998
$= 300 + 306 + 306 + 312 + 318 + 300 + 312$
= ₹ 2154 thousands
Total expenditure in 1997 and 1998
$= 2124 + 2154 = 4278$ thousands
38. (c) Average monthly expenditure in year 1999

$$= \frac{312 + 312 + 318 + 318 + 306 + 312 + 318}{7}$$

$$= \frac{2196}{7} = 313.714 \text{ thousands} \approx ₹\ 3,14,000$$

39. (c) In the year 1999, the least expenses of ₹ 306 thousands is in the month of May.
40. (b) Expenditure in April 1998 = 312 thousands
Expenditure in April 1999 = 318 thousands

Required % = $\frac{6}{312} \times 100 = 1.92 \approx 2\%$

41- (d) Accordingly,

$F @ N \Rightarrow F \le N$
$N \delta R \Rightarrow N > R$
$H @ R \Rightarrow H \le R$
$\therefore \quad F \le N > R \ge H$

Conclusion : I. $H \delta N \Rightarrow H > N$ [not true]
II. $F \# R \Rightarrow F < R$ [not true]
If neither conclusion I not II is true.

42. (b) Accordingly,

$M \# T \Rightarrow M < T$
$T @ K \Rightarrow T \le K$
$K \$ N \Rightarrow K \ge N$
$\therefore \quad M < T \le K \ge N$

Conclusion : I. $M \# N \Rightarrow M < N$ [not true]
II. $K \delta M \Rightarrow K > M$ [not true]
Only conclusion II is true.

43. (c) Accordingly,

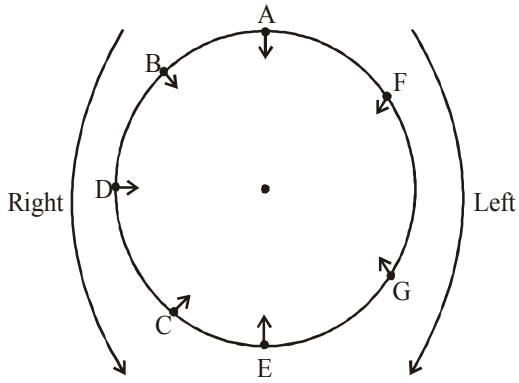
$T \% H \Rightarrow T = H$
$H \$ W \Rightarrow H \ge W$
$\therefore \quad T = H \ge W$

Conclusion : I. $W \# T \Rightarrow W < T$ [true]
II. $W \% T \Rightarrow W = T$ or
If either conclusion I or II is true. [true]

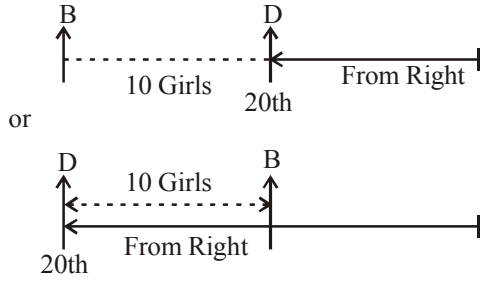
44. (a) Accordingly,
$N \delta K \Rightarrow N > K$
$K \# D \Rightarrow K < D$
$D \% M \Rightarrow D = M$
$\therefore N > K < D = M$
Conclusion : I. $M \delta K \Rightarrow M > K$ [true]
II. $D \delta N \Rightarrow D > N$ [not true]
Only conclusion I is true.

45. (e) Accordingly,
$J \$ B \Rightarrow J \geq B$
$B \% R \Rightarrow B = R$
$R \delta F \Rightarrow R > F$
$\therefore J \geq B = R > F$
Conclusion : I. $F \# B \Rightarrow F < B$ [true]
II. $R @ J \Rightarrow R \leq J$ [true]
Both conclusion I and II are true.

Solutions (46 - 50):
Sitting arrangement is given below.

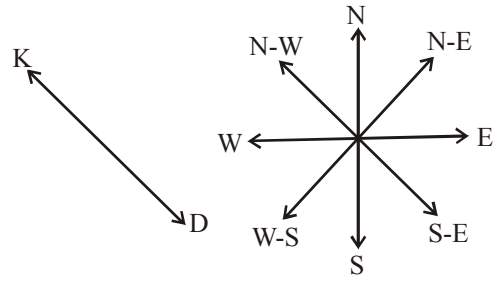


46. (c) E is to the immediate right of C
47. (e) F is sitting between A and G
48. (a) B is the immediate left of D
49. (a) Second to the left of C is B
50. (d) E is second to the right of D.
51. (d) According to statements I
D is the 20th from right end.
According to statement (ii)
10 girls are in between B and D.
Combining statement (i) and (ii).

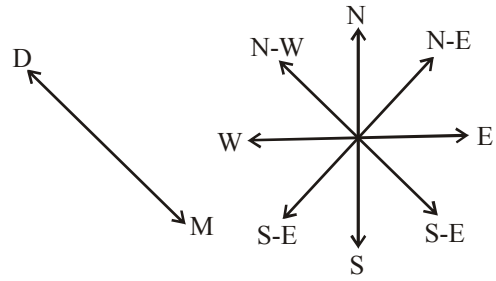


Both statements are not sufficient to answer the question.

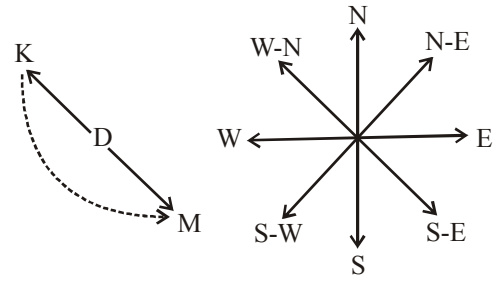
52. (e) According to statement I
Town K is in north-west with respect to town D.



According to statement II.
Town M is in S-E w.r.t to D

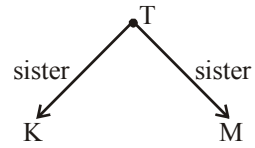


Combining statement I and II

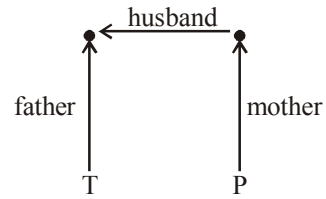


Town M is in S-E w.r.t town, K.
Both statements required to answer the question

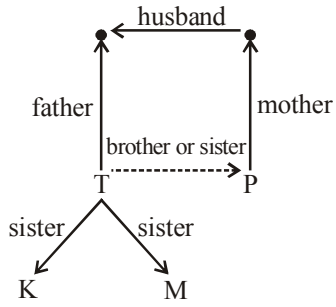
53. (d) From statement I
K and M are sister of T



From statement II.
T's father is husband of P's mother.



From statements - I and II



Both statements are not sufficient to answer the question.

54. (b) According to Statement I
Arun did not went London on sunday.
According to statement II:-
Arun's brother went London on Friday
Hence only statement II are sufficient to answer the question.

55. (e) **From statement I**

new (good) (clothes) ⇒ 5 ③ ⑨

From statement II

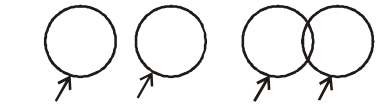
(good) (clothes) are costly ⇒ ⑨ 6 7 ③

Combining statement - I and II

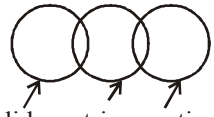
new ⇒ 5

Both statements are required to answer the question.

56. (d) According to statement

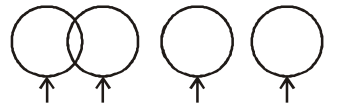


or,

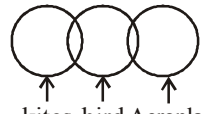


If neither conclusion I and nor II follow.

57. (d) According to statement

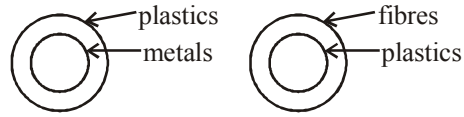


or

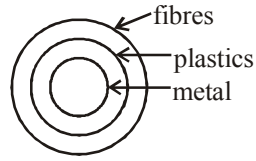


If neither conclusion I and II follows.

58. (a) According to statement

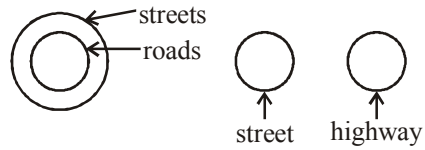


or,

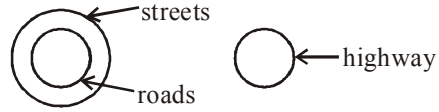


Only conclusion I follows.

59. (a) According to statement

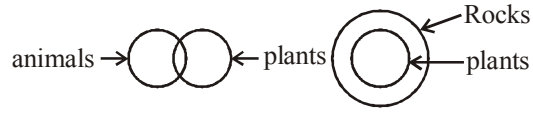


or,

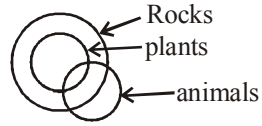


Hence only conclusion I follow.

60. (b) According to statement I

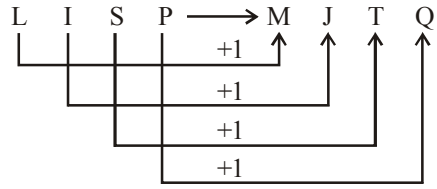


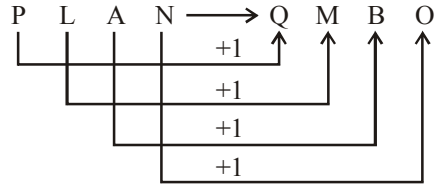
or,



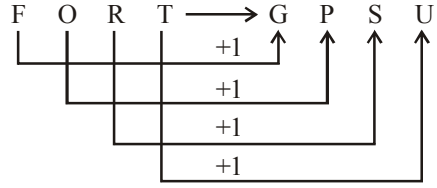
Hence, only conclusion II follows.

61. (d)





Therefore,



62. (c) 'Artificial' is antonym of 'Natural'. Similarly, 'Private' antonyms of 'Public'.

63. (c) $21 = 7 \times 3$; $91 = 7 \times 13$;
$77 = 7 \times 11$; $35 = 7 \times 5$;
But, $65 = 7 \times 9.28$

64. (a) $\xrightarrow{6}$ P || V || V $\xleftarrow{12}$
Vishal's rank from the top is 10th.

65. (e) 1, 12, 123, 1234, 12345, 123456, 123456 [7]

66. (b) Ninth to the right of the 20th from the right means 11th from the right, i.e., M.

67. (c)

Symbol	Consonant	Symbol

Such combinations are :

[@ F !] : [+ J ©]

68. (a) New arrangement

H F 3 U 6 G I T P L 8 [9] S 2 7 A M K .....

12th from left

69. (d) L $\xrightarrow{+2}$ S $\xrightarrow{-1}$ 8

A $\xrightarrow{+2}$ K $\xrightarrow{-1}$ M

@ $\xrightarrow{+2}$ I $\xrightarrow{-1}$ F

6 $\xrightarrow{+1}$ % $\xrightarrow{+1}$ G

J $\xrightarrow{+2}$ D $\xrightarrow{-1}$ ©

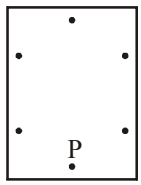
70. (c) F $\xrightarrow{+5}$ % $\xrightarrow{+6}$ L $\xrightarrow{+7}$

3 $\xrightarrow{+5}$ I $\xrightarrow{+6}$ S $\xrightarrow{+7}$

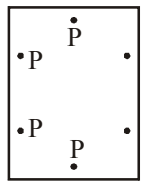
U $\xrightarrow{+5}$ T $\xrightarrow{+6}$ ^ $\xrightarrow{+7}$

[7 A M]

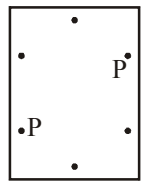
71. (c) ∪ design of question figure inverted in following manner in his next step.



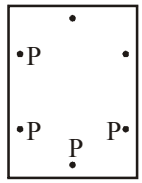
(1) to (2)



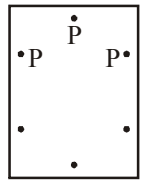
(2) to (3)



(3) to (4)



(4) to (5)

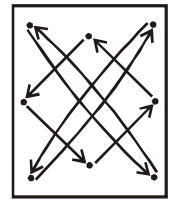


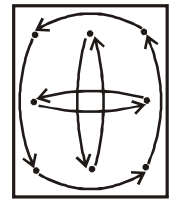
(5) to (6)

Next figure is similar to option (c)

72. (c) In next figure of each question upper left part is inverse and one part is eliminated and hence in such a way option no (c) will be next figure

73. (e) Designs of question figure changes their place in following way in his next step.

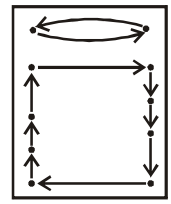


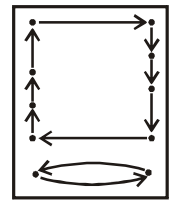


(1) to (2) (2) to (3)
(3) to (4) (4) to (5)
(5) to (6)

According to above arrangement next figure is (e)

74. (a) Designs of question figure changes their place in following way in his next step.

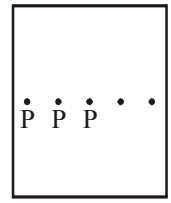


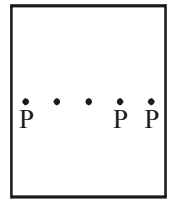


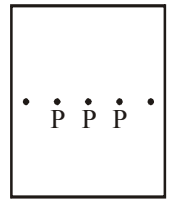
(1) to (2) (2) to (3)
(3) to (4) (4) to (5)
(5) to (6)

According to above arrangement next figure is (a)

75. (b) Next figure of each question figure is rotated anticlock-wise by 45° and 90°, so according to this next figure is option (b)







(1) to (2) (2) to (3) (3) to (4)
(4) to (5) (5) to (6)

According to above arrangement next figure is (b)

(76-80) :

Day	Date	Play
Monday	25th	A
Tuesday	26th	Z
Wednesday	27th	B
Thursday	28th	No play
Friday	29th	M
Saturday	30th	Q
Sunday	31st	X

76. (e) 77. (a) 78. (b) 79. (d) 80. (c)