PRACTICE SET 5

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 question mark (?) in the following questions ?

1. 48% of $525 + ?\%$ of $350 = 399$

(a) 42 (b) 46
(c) 28 (d) 26
(e) None of these

2. $2\frac{5}{9} \times 3\frac{4}{5} + ? = 12\frac{1}{5}$

(a) $2\frac{13}{45}$ (b) $2\frac{4}{5}$
(c) $3\frac{22}{45}$ (d) $3\frac{5}{9}$
(e) None of these

3. $\sqrt{?} + 17^2 = 335$

(a) 46 (b) 42
(c) 1764 (d) 2116
(e) None of these

4. $\frac{28 \times 5 - 15 \times 6}{7^2 + \sqrt{256} + (13)^2} = ?$

(a) $\frac{27}{115}$ (b) $\frac{22}{117}$
(c) $\frac{25}{117}$ (d) $\frac{22}{115}$
(e) None of these

5. $13\frac{4}{7} + 5\frac{2}{7} \times 2\frac{1}{2} = ?$

(a) $25\frac{11}{14}$ (b) $25\frac{3}{7}$
(c) $26\frac{3}{7}$ (d) $26\frac{5}{14}$
(e) None of these

6. $784 \div 16 \div 7 = ?$

(a) 49 (b) 14
(c) 21 (d) 7
(e) None of these

7. $\frac{3}{2}$ of $455 + \frac{5}{8}$ of $456 = ?$

(a) 448 (b) 476
(c) 480 (d) 464
(e) None of these

8. $6425 \div 125 \times 8 = ?$

(a) 411.2 (b) 41.12
(c) 64.25 (d) 421.25
(e) None of these

9. 1.05% of $2500 + 2.5\%$ of $440 = ?$

(a) 37.50 (b) 37.25
(c) 370.25 (d) 372.50
(e) None of these

10. $4900 \div 28 \times 444 \div 12 = ?$

(a) 6575 (b) 6475
(c) 6455 (d) 6745
(e) None of these

DIRECTIONS (Qs. 11-15): What approximate value will come in place of the question mark (?) in the following questions ? (You are not required to find the exact value).

11. $2371 \div 6 + (43 \times 4.35) = ?$

(a) 582 (b) 590
(c) 600 (d) 570
(e) 595

12. $(4.989)^2 + (21.012)^3 + \sqrt{1090} = ?$

(a) 9219 (b) 9391
(c) 9319 (d) 9129
(e) None of these

13. 24.99% of 5001 – 65.01% of 2999 = ?

(a) 840 (b) 500
(c) 700 (d) –500
(e) –700

14. $(81)^{-\frac{1}{2}} - (64)^{-\frac{2}{3}} = ?$

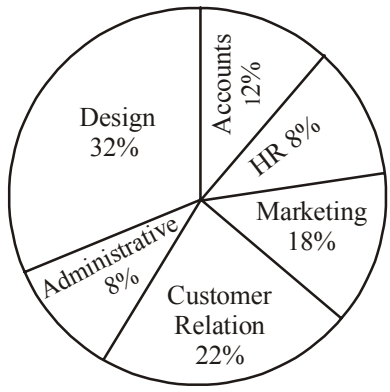
(a) $\frac{3}{19}$ (b) $\frac{1}{16}$
(c) $\frac{7}{144}$ (d) $\frac{1}{9}$
(e) None of these

15. $\frac{\sqrt{29241}}{\sqrt{361}} \times 5\frac{2}{9} = ?$

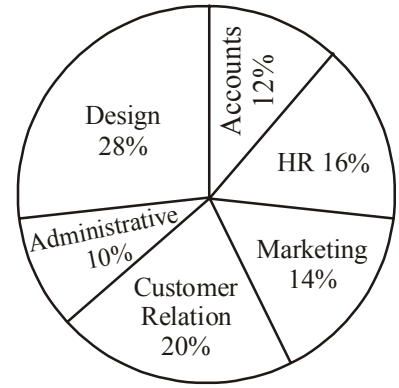
(a) 47 (b) 49
(c) 46 (d) 45
(e) 61

DIRECTIONS (16-20): Study the following graph carefully and answer the questions that follow:

Percentage of employees in different departments of a company Total No. of employees = 4500



Percentage of females in each department in the same company Total No. of females in the organisation = 2000



16. What is the total number of males from Design, Customer Relation and HR departments together ?

(a) 1550 (b) 1510
(c) 1540 (d) 1580
(e) None of these

17. What is the ratio of number of males in HR department to the number of males in Accounts department respectively ?

(a) 3 : 17 (b) 4 : 15
(c) 2 : 15 (d) 2 : 13
(e) None of these

18. The number of females in the Marketing department are approximately what per cent of the total employees in Marketing and Customer Relation Departments together?

(a) 26 (b) 36
(c) 6 (d) 46
(e) 16

19. What is the respective ratio of number of employees in Administrative department to the number of males in the same department ?

(a) 9 : 4 (b) 8 : 3
(c) 7 : 2 (d) 8 : 5
(e) None of these

20. The total number of females are what per cent of the total number of males in the organisation ?

(a) 90 (b) 70
(c) 80 (d) 60
(e) None of these

DIRECTIONS (Qs. 21-25) : What will come in place of the question mark (?) in the following number series?

21. 7 9 12 16 ?

(a) 22 (b) 19
(c) 20 (d) 21
(e) None of these

22. 384 192 96 48 ?
(a) 36 (b) 28
(c) 24 (d) 32
(e) None of these

23. 5 6 14 45 ?
(a) 183 (b) 185
(c) 138 (d) 139
(e) None of these

24. 8 9 13 22 ?
(a) 30 (b) 31
(c) 34 (d) 36
(e) None of these

25. 6 11 21 41 ?
(a) 81 (b) 61
(c) 71 (d) 91
(e) None of these

26. Number of students studying in colleges *A* and *B* are in the ratio of 3 : 4 respectively. If 50 more students join college *A* and there is no change in the number of students in college *B,* the respective ratio becomes 5 : 6. What is the number of students in college *B* ?
(a) 450 (b) 500
(c) 400 (d) 600
(e) None of these

27. Cost of 12 belts and 30 wallets is ₹ 8940. What is the cost of 4 belts and 10 wallets?
(a) ₹ 2890 (b) ₹ 2980
(c) ₹ 2780 (d) ₹ 2870
(e) None of these

28. 80% of a number is equal to three-fifth of another number. What is the ratio between the first and the second number respectively?
(a) 3 : 4 (b) 4 : 3
(c) 4 : 5 (d) 5 : 4
(e) None of these

29. Ghanshyam purchased an article for ₹1850. At what price should he sell it so that 30% profit is earned?
(a) ₹2450 (b) ₹2245
(c) ₹2405 (d) ₹2425
(e) None of the above

30. What is the compound interest accrued on an amount of ₹ 8500 in two years @ interest 10% per annum?
(a) ₹1875 (b) ₹1885
(c) ₹1775 (d) ₹1765
(e) None of these

31. A train running at the speed of 60 kmph crosses a 200 m long platform in 27 s. What is the length of the train ?
(a) 250m (b) 200m
(c) 240m (d) 450m
(e) None of these

32. Which of the following has the fractions in ascending order?
(a) $\frac{5}{11},\frac{3}{8},\frac{4}{9},\frac{2}{7}$ (b) $\frac{5}{11},\frac{4}{9},\frac{3}{8},\frac{2}{7}$
(c) $\frac{2}{7},\frac{3}{8},\frac{4}{9},\frac{5}{11}$ (d) $\frac{2}{7},\frac{4}{9},\frac{3}{8},\frac{5}{11}$
(e) None of these

33. Sum of the digits of a two digit number is 8 and the digit in the ten's place is three times the digit in the unit's place. What is the number?
(a) 26 (b) 36
(c) 71 (d) 62
(e) None of these

34. 10 men can complete a piece of work in 8 days. In how many days can 16 men complete that work?
(a) 4 days (b) 5 days
(c) 6 days (d) 3 days
(e) None of these

35. 71% of a number is more than its 46% by 120. What is 30% of that number?
(a) 160 (b) 150
(c) 140 (d) 148
(e) None of these

36. Average of five consecutive odd numbers is 95. What is the fourth number in descending order?
(a) 91 (b) 95
(c) 99 (d) 97
(e) None of these

37. Latika spends 45% of her monthly income on food and 30% of the monthly income on transport. Remaining amount of ₹4500 she saves. What is her monthly income?
(a) ₹16000 (b) ₹18000
(c) ₹16500 (d) ₹18500
(e) None of these

38. Amount of simple interest accrued on an amount of Rs 28500 in seven years is Rs 23940 what is the rate of interest % per annum?
(a) 10.5 (b) 12.5
(c) 11 (d) 12
(e) None of these

39. *A* and *B* started a business investing amounts of ₹150000 and ₹250000 respectively. What will be *B*'s share in the profit of ₹160000 ?
(a) ₹100000 (b) ₹60000
(c) ₹80000 (d) ₹110000
(e) None of these

40. The average age of 60 boys in a class was calculated as 12 years. It was later realised that the actual age of one of the boys in the class was 12.5 years but it was calculated as 14 years. What is the actual average age of the boys in the class?
(a) 11 years (b) 11.275 years
(c) 11.50 years (d) 11.975 years
(e) None of these

REASONING ABILITY

41. B is the father of Q. B has only two children. Q is the brother of R. R is the daughter of P. A is the granddaughter of P and S is the father of A. How is S related to Q?
(a) Son (b) Son-in-law
(c) Brother (d) Brother-in-law
(e) Noneof these

42. Unscramble the letters in the given words and find the odd one out.
(a) UMRSME (b) EIWNTR
(c) PIGRSN (d) LCUOD
(e) None of these

43. If the first and second letters in the word DEPRESSION were interchanged, also the third and the fourth letters, the fifth and the sixth letters and so on, which of the following would be the seventh letter from the right ?
(a) R (b) O
(c) S (d) P
(e) None of these

44. In P, Q, R, S, T and U, R is taller than only P and U. S is shorter than only T and Q. If each has different heights. then who will be at the third place when they are standing in descending order of their height and the counting is done in the same order (tallest to shortest)?
(a) R (b) P
(c) S (d) Q
(e) None of these

45. City D is to the West of city M. City R is to the South of City D. If city K is to the East of city R, then in which direction is city K located in respect of city D?
(a) North (b) East
(c) North-East (d) South-East
(e) None of these

DIRECTIONS (Qs. 46- 50) : In each of the questions below are given three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance from commonly known facts and decide which of the given conclusion(s) logically follow(s) from the three given statements.

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

46. **Statements:** All pens are papers.
Some papers are blades.
All blades are knives.
Conclusions: I. Some knives are papers.
II. Some blades are pens.

47. **Statements:** All fans are televisions.
Some televisions are channels.
Some channels are radios.
Conclusions: I. Some fans are channels.
II. Some radios are televisions.

48. **Statements:** Some roots are stems.
All stems are branches.
All branches are leaves.
Conclusions: I. Some leaves are roots.
II. Some branches are stems.

49. **Statements:** Some computers are machines.
Some machines are boards.
All boards are chalks.
Conclusions: I. Some chalks are computers.
II. No chalk is computer.

50. **Statements:** Some locks are keys.
All keys are metals.
Some metals are cards.
Conclusions: I. Some cards are keys.
II. Some metals are locks.

DIRECTIONS (Qs. 51-55) : Read the following information carefully to answer the given questions.

V, U and T are sitting around a circle. A, B and C are also sitting around the same circle but two of them are not facing centre (they are facing the direction opposite to centre). Y is second to the left of C. U is second to the right of A. B is third to the left of T. C is second to the right of T. A is seated next to V.

51. Which of the following are not facing centre?
(a) BA (b) CA
(c) BC (c) Cannot be determined
(e) None of these

52. Which of the following is the position of T in respect of B?
(a) Third to the right (b) Second to the right
(c) Third to the left (d) Third to the left or right
(e) None of these

53. What is the position of V in respect of C?
(a) Second to the right (b) Third to the left
(c) Fourth to the right (d) Fourth to the left
(e) Cannot be determined

54. Which of the following statement is correct?
(a) A, B and C are sitting together.
(b) V, U and T are sitting together
(c) Sitting arrangement of two persons cannot be determined
(d) Those who are not facing centre are sitting together
(e) Only two people are sitting between V and T

55. What is the position of A in respect of U?
(a) Second to the left (b) Second to the right
(c) Third to the right (b) Cannot be determined
(e) None of these

DIRECTIONS (Qs. 56-60) : Study the following information carefully to answer the given questions.

A, B, C, D, E, F, G, and H are seated in straight line facing North. C sits fourth to left of G. D sits second to right of G. Only two people sit between D and A. B and F are immediate neighbours of each other. B is not an immediate neighbour of A. H is not an immediate neighbour of D.

56. Who amongst the following sits exactly in the middle of the persons who sit fifth from the left and the person who sits sixth from the right?
(a) C (b) H
(c) E (d) F

57. Who amongst the following sits third to the right of C?
(a) B (b) F
(c) A (d) E

58. Which of the following represents persons seated at the two extreme ends of the line?
(a) C, D (b) A, B
(c) B, G (d) D, H

59. What is the position of H with respect to F?
(a) Third to the left (b) Immediate right
(c) Second to right (d) Fourth to left

60. How many persons are seated between A and E?
(a) One (b) Two
(c) Three (d) Four

DIRECTIONS (Qs. 61- 65) : In these questions symbols #, @, $, *, % are to be used with different meanings as follows:

'A # B' means 'A is neither smaller than nor equal to B'.
'A @ B' means 'A is neither greater than nor equal than to B'.
'A $ B' means 'A is not greater than B'
'A * B' means ' A is not smaller than B'.
'A % B' means 'A is neither smaller than nor greater than B'.
In each question, three statements showing relationships have been given, which are followed by two conclusions I & II. Assuming that the given statements are true, find out which conclusion(s) is/are definitely true. Mark 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 and
(e) if both conculsions I and II are true.

61. **Statements:** T @ J, J * M, M $ B
Conclusions: I. T # M
II. J $ B

62. **Statements:** R# F, F @ K, K $ V
Conclusions : I. R # V
II. V # F

63. **Statements:** E @ A, A % F, F $ Q
Conclusions : I. E @ Q
II. Q *A

64. **Statements:** L # M, M % D, D * Q
Conclusions: I. M # Q
II. Q @ L

65. **Statements:** W $ F, F @ H, H # R
Conclusions: I. W # R
II. W $ R

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

Seven friends A, B, C, D, E, F and G studied in colleges X, Y and Z and are currently in different professions, namely Medicines, Fashion Designing, Engineering, Business, Acting, Teaching and Architecture (not necessarily in the same order). At least two and not more than three friends had studied in the same college.

C is an architect and studied in college Y. E is not a businessman. Only G amongst the seven friends studied in college X along with E. F is an engineer and did not study in college Y. B is an actor and did not study in the same college as F. A did not study in college Z. Those who studied in college X are neither Fashion Designers nor teachers. None of those who studied in college Y is a teacher.

66. Who amongst the following have studied in college Z?
(a) B, A (b) C, F
(c) B, D, F (d) A, D
(e) D, F

67. Which of the following groups represents the students of college Y ?
(a) C, E, G (b) A, C, D
(c) A, B, C (d) D, B, C
(e) None of these

68. What is the profession of F ?
(a) Engineering (b) Business
(c) Medicines (d) Acting
(e) None of these

69. Who amongst the following is in the profession of Medicine?
(a) E (b) G
(c) A (d) D
(e) None of these

70. What is the profession of A?
(a) Teaching (b) Medicine
(c) Business (d) Fashion Designing
(e) None of these

71. Which of the following combinations of person, college and profession is definitely correct ?
(a) E-X-Fashion Designing (b) F-X-Engineering
(c) A-Y-Businessman (d) D-Z-Teaching
(e) None of these

72. Who amongst the following is a businessman?
(a) A (b) D
(c) E (d) G
(e) None of these

DIRECTIONS (Qs. 73-77): Answer these questions referring to the letter sequence given below:

N O P Q Y B Z A R S H I J K I L M T U V G E F W X D C

73. If letters of the above given series are written in reverse order then which letter will be third to the left of eighteenth letter from your right?
(a) Z (b) G
(c) I (d) L
(e) None of these

74. What will come in place of question mark (?) in the following series ?
NDP, QWB, ZER, ?
(a) SVJ (b) AFS
(c) IVS (d) SFA
(e) None of these

75. Which of the following is the fifth to the right of thirteenth letter from you left ?
(a) T (b) J
(c) S (d) Z
(e) None of these

76. If every alternate letter starting from O is replaced with odd numbers starting from 1, which letter or number will be third to the left of tenth letter from your right ?
(a) 15 (b) L
(c) K (d) I
(e) None of these

77. If it is possible to make a meaningful word from the eighth, sixteenth, seventeenth and twenty-second letters from your left in the given series, which will be th first letter of that word? If no such word can be formed, your answer would be *X*, and if more than one such word can be formed, answer is *P*.
(a) M (b) T
(c) X (d) E
(e) P

DIRECTIONS (Qs. 78-80) : In each of the questions below, a group of numerals is given followed by four groups of symbols/ letter combinations lettered (a), (b), (c) and (d). Numerals are to be coded as per the codes and conditions given below. You have to find out which of the combinations (a), (b), (c) and (d) is correct and indicate your answer accordingly. If none of the four combinations represents the correct code, mark (e) as your answer.

Numerals	3	5	7	4	2	6	8	1	0	9
Letter/Symbol Code	*	B	E	A	@	F	K	%	R	M

Following conditions apply
(i) if the first digit as well as the last digits is odd, both are to be coded as 'x'.
(ii) if the first digit as well as the last digit is even, both are to be coded as $.
(iii) if the last digit is 'zero', it is to be coded as #.

78. 487692
(a) $KEFM@ (b) AKEFM@
(c) AKEFM$ (d) $KEFM$
(e) None of these

79. 713540
(a) X%★BA (b) E%★BA#
(c) E%★BAR (d) X%★BAR
(e) None of these

80. 765082
(a) EFB#K@ (b) XFBRK@
(c) EFBRK@ (d) EFBR#K
(e) None of these

HINTS & EXPLANATIONS

1. (a) $48\%\text{ of }525+?\%\text{ of }350=399$

$\Rightarrow \frac{48}{100}\times 525+\frac{?}{100}\times 350=399$

$\Rightarrow 25200+?\times 350=399\times 100$

$\Rightarrow ?\times 350=39900-25200=14700$

$\Rightarrow ?=\frac{14700}{350}=42$

2. (e) $2\frac{5}{9}\times 3\frac{4}{5}+?=12\frac{1}{5}$

$\Rightarrow \frac{23}{9}\times\frac{19}{5}+?=\frac{61}{5}$

$\Rightarrow ?=\frac{61}{5}-\frac{437}{45}$

$\Rightarrow ?=\frac{549-437}{45}$

$\Rightarrow ?=\frac{112}{45}=2\frac{22}{45}$

3. (d) $\sqrt{?}+17^2=335$

$\Rightarrow \sqrt{?}+289=335$

$\Rightarrow \sqrt{?}=335-289=46$

$\Rightarrow ?=46\times 46=2116$

4. (c) $?=\frac{28\times 5-15\times 6}{7^2+\sqrt{256}+(13)^2}$

$\Rightarrow ?=\frac{140-90}{49+16+169}$

$\Rightarrow ?=\frac{50}{234}=\frac{25}{117}$

5. (e) $?=13\frac{4}{7}+5\frac{2}{7}\times 2\frac{1}{2}$

$\Rightarrow ?=\frac{95}{7}+\frac{37}{7}\times\frac{5}{2}$

$\Rightarrow ?=\frac{95}{7}+\frac{185}{14}$

$\Rightarrow ?=\frac{190+185}{14}$

$\Rightarrow ?=\frac{375}{14}=26\frac{11}{14}$

6. (d) $?=784\div 16\div 7$

$\Rightarrow ?=\frac{784}{16}\div 7 \Rightarrow ?=49\div 7=7$

7. (c) $?=\frac{3}{7}\text{of }455+\frac{5}{8}\text{of }456$

$\Rightarrow ?=\frac{3}{7}\times 455+\frac{5}{8}\times 456$

$\Rightarrow ?=195+285$

$\Rightarrow ?=480$

8. (a) $?=6425\div 125\times 8$

$\Rightarrow ?=51.4\times 8$

$\Rightarrow ?=411.2$

9. (b) $?=1.05\%\text{ of }2500+2.5\%\text{ of }440$

$\Rightarrow ?=\frac{1.05}{100}\times 2500+\frac{2.5}{100}\times 440$

$\Rightarrow ?=\frac{2625}{100}+\frac{1100}{100}$

$\Rightarrow ?=\frac{3725}{100}=37.25$

10. (b) $?=4900\div 28\times 444\div 12$

$\Rightarrow ?=175\times 37$

$\Rightarrow ?=6475$

11. (a) $?\approx 395+187=582$

12. (c) $?\approx(5)^2+(21)^3+\sqrt{1089}$

$\approx 25+9261+33\approx 9319$

13. (e) $?\approx\frac{5000\times 25}{100}-\frac{3000\times 65}{100}$

$\approx 1250-1950\approx -700$

14. (c) $?=(81)^{-1/2}-(64)^{-2/3}$

$=\left(\frac{1}{8}\right)^{\frac{1}{2}}-\left(\frac{1}{64}\right)^{\frac{2}{3}}=\frac{1}{9}-\frac{1}{16}$

$=\frac{16-9}{144}=\frac{7}{144}$

15. (a) $?=\frac{\sqrt{29241}}{\sqrt{361}}\times\frac{47}{9}=\frac{171}{19}\times\frac{47}{9}$

$=47$

16. (b) Number of employees in design, customer relation and HR departments together

$4500\times(32+22+8)\%$

$=\frac{4500\times 62}{100}=2790$

Number of women employees in these departments

$=2000\times(28+20+16)\%$

$=\frac{2000\times 64}{100}=1280$

$\therefore$ Required number of males

$=2790-1280=1510$

17. (c) Number of employees in HR department

$=\frac{4500\times 8}{100}=360$

$\therefore$ Number of males

$=360-\frac{2000\times 16}{100}$

$=360-320=40$

Number of employeess in Accounts department

$$= \frac{4500 \times 12}{100} = 540$$

$\therefore$ Number of males

$$= 540 - \frac{2000 \times 12}{100}$$

$$= 540 - 240 = 300$$

$\therefore$ Required ratio $= 40 : 300 = 2 : 15$

18. (e) Number of employees in marketing and customer relation departments

$$= \frac{4500 \times 40}{100} = 1800$$

Number of females in the marketing department

$$= \frac{2000 \times 14}{100} = 280$$

$$\therefore \text{Required percentage} = \frac{280}{1800} \times 100 \approx 16$$

19. (a) Total number of employees in administrative department

$$= \frac{4500 \times 8}{100} = 360$$

Number of males in the same department

$= 360 - 200 = 160$

$\therefore$ Required ratio

$= 360 : 160 = 9 : 4$

20. (c) Required percentage

$$= \frac{2000}{2500} \times 100 = 80$$

21. (d) Pattern of the series would be as follows

7 (+2) 9 (+3) 12 (+4) 16 (+5) 21

22. (c) Pattern of the series would be as follows

384 (÷2) 192 (÷2) 96 (÷2) 48 (÷2) 24

23. (e) Pattern of the series would be as follows

$5 \times 1 + 1 = 6$

$6 \times 2 + 2 = 14$

$14 \times 3 + 3 = 45$

$\therefore \quad 45 \times 4 + 4 = 184$

24. (e) Pattern of the series would be as follows

8 ($+(1)^2$) 9 ($+(2)^2$) 13 ($+(3)^2$) 22 ($+(4)^2$) 38

25. (a) Pattern of the series would be as follows

6 (+5) 11 (+10) 21 (+20) 41 (+40) 81

26. (d) Let total number of students in college $A = 3x$
and total number of students in college $B = 4x$
After 50 more students join college A

$$\text{New Ratio} = \frac{3x + 50}{4x} = \frac{5}{6}$$

$$\Rightarrow \quad 18x + 300 = 20x$$

$$\Rightarrow \quad 2x = 300$$

$$\Rightarrow \quad x = \frac{300}{2} = 150$$

Total number of students in college

$B = 4x = 4 \times 150 = 600$

27. (b) $\because$ Cost price of (12 belts + 30 wallers) = ₹ 8940

$\because$ Cost price of 3 × (4 belts + 10 wallets) = ₹ 8940

$$\because \text{Cost price of 4 belts + 10 wallets} = \frac{8940}{3} = ₹\,2980$$

28. (a) Let the first number be x
and the second number be y

Then, 80% of $x = \frac{3}{5}$ of y

$$\Rightarrow \quad \frac{80}{100} \times x = \frac{3}{5} \times y$$

$$\Rightarrow \quad \frac{4}{5} \times x = \frac{3}{5} \times y \qquad \Rightarrow \qquad 4x = 3y$$

$$\Rightarrow \quad \frac{x}{y} = \frac{3}{4} = 3 : 4$$

29. (c) $\because$ Cost price of an article = ₹ 1850

For 30% profit, selling price of this article

$$= 1850 \times \frac{130}{100} = ₹\,2405$$

30. (e) Compound Interest after two years

$$= 8500\left(1 + \frac{10}{100}\right)^2 - 8500$$

$$= 8500 \times \frac{11}{10} \times \frac{11}{10} - 8500$$

$= 10285 - 8500 = ₹\,1785$

31. (a) Let length of the train be x m

Speed of the train be 60 km/h $= 60 \times \frac{5}{18} = \frac{50}{3}$ m/s

Then, $\dfrac{x + 200}{\frac{50}{3}} = 27$

$$\Rightarrow \quad \frac{3(x + 200)}{50} = 27$$

$$\Rightarrow \quad 3x + 600 = 1350$$

$$\Rightarrow \quad 3x = 1350 - 600$$

$$\Rightarrow \quad 3x = 750$$

$$\Rightarrow \quad x = \frac{750}{3} = 250 \text{ m}$$

32. (c) Each fractions, decimal value are given below :

$$\frac{5}{11} = 0.454, \frac{3}{8} = 0.375, \frac{4}{9} = 0.444, \frac{2}{7} = 0.286$$

So, ascending order of the fractions is $\frac{2}{7}, \frac{3}{8}, \frac{4}{9}, \frac{5}{11}$.

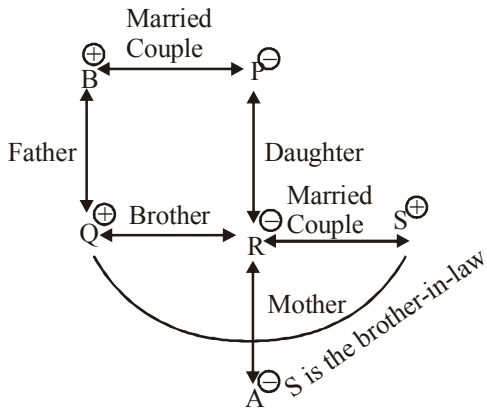
33. (d) Let ten's digit be x and unit's digit be $8 - x$
Then, $x = 3(8 - x)$
$\Rightarrow \quad x = 24 - 3x,$
$\Rightarrow \quad 4x = 24$
$\Rightarrow \quad x = \frac{24}{4} = 6$
$\therefore$ unit's digit $= 8 - x = 8 - 6 = 2$
So, required number = 62

34. (b) Suppose 16 men can complete the same work in x days
Then, Men days
10 ↑ 8 ↓
16 | x ↓
$16 : 10 :: 8 : x$
$\Rightarrow \quad 16 \times x = 10 \times 8$
$\Rightarrow \quad x = \frac{10 \times 8}{16} = 5$ days

35. (e) 36. (e) 37. (b) 38. (d) 39. (a)

40. (d)

41. (d) Let us draw the family diagram



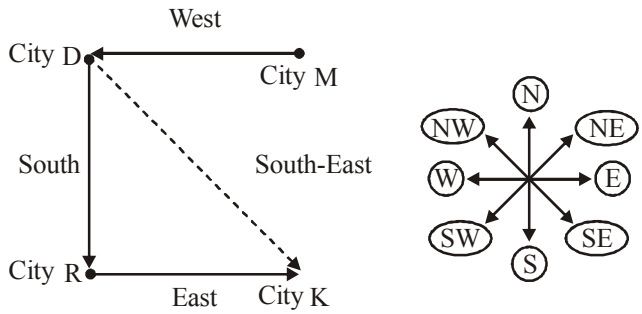
Hence, S isthe brother-in-law of Q.

42. (d) (a) Summer (b) Winter (c) Spring (d) Cloud
All others are name of seasons.

43. (d) The new letter sequence is EDRPSEISNO.
The seventh letter from the right is P.

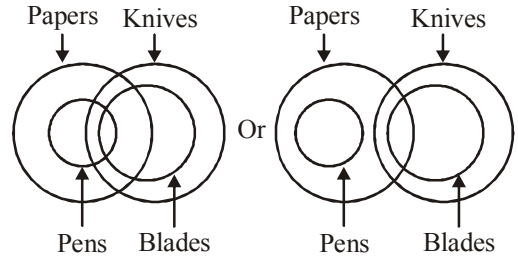
44. (c) According to the question, R > P/U: T/Q > S
$\therefore$ T/Q > (S) > R > P/U
$\therefore$ 3rd tallest = S

45. (d) According to the question, the direction diagram is as follows



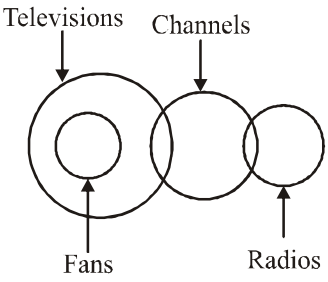
Hence, city K is located in the South-East direction.

46. (a)



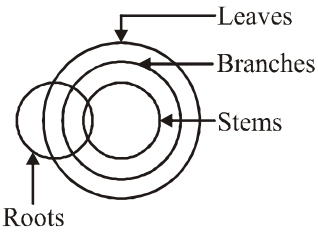
Conclusions I. Some knives are papers (√)
II. Some blades are pens (x)

47. (d)



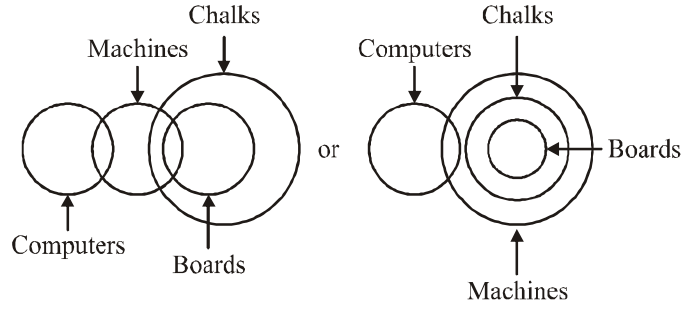
Conclusions I. Some fans are channels. (x)
II. Some radios are televisions (x)

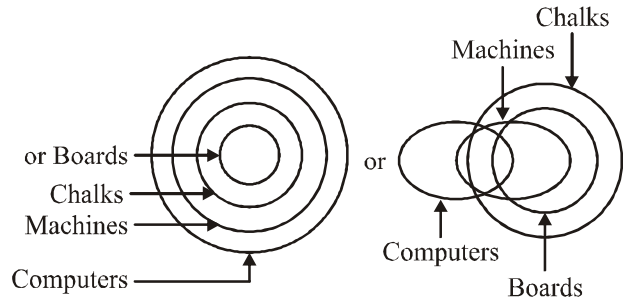
48. (e)



Conclusions I. Some leaves are roots (√)
II. Some branches are stems (√)

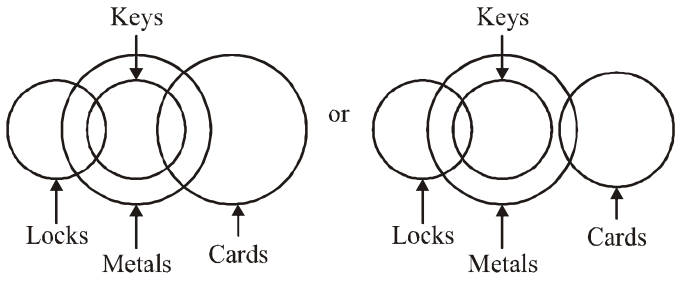
49. (c)

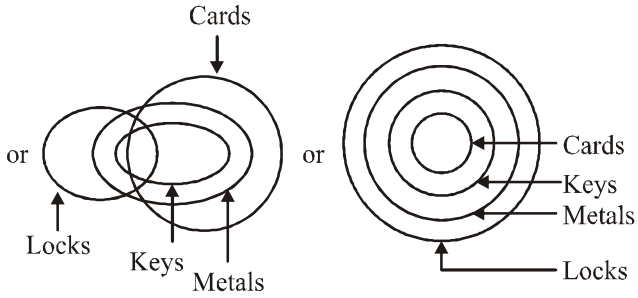


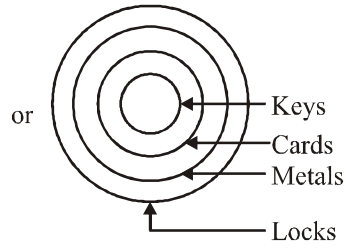


Conclusions I. Some chalks are computers. (x)
II. No chalk is a computer (x)

50. (b)

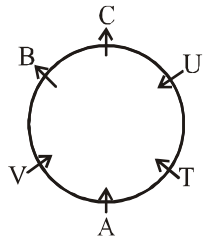






(Qs. 51-55):

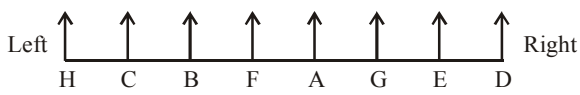
Sitting Arrangement:



51. (c) B and C are not facing centre.
52. (d) The position of T in respect of B is third to the left or right.
53. (c) The position of V in respect of C is fourth to the right.
54. (c) B and C are not facing centre are sitting together.
55. (a) The position of A in respect of U is second to the left.

(Qs. 56-60):

Sitting Arrangement:



56. (d) 57. (c) 58. (d) 59. (a) 60. (a)

(Qs. 61-65)

# ⇒>	@ ⇒<	$ ⇒≤
* ⇒≥	% ⇒=	

61. (d) $T < J,\ J \geq M,\ M \leq B$
No relation between T and M, and J and B.
So neither I nor II is true.
62. (b) $R > F, F < K,\ K \leq V$
No relation between R and V. So conclusion I is not true.
But $V \geq K > F$ or $V > F$
So, conclusion II is true.
63. (e) $E < A,\ A = F,\ F \leq Q$
Combining all, $Q \geq F = A > E$ or $E < Q$ and $Q \geq A$
So, both conclusions I and II are true.
64. (b) $L > M, M = D,\ D \geq Q$
Combining all, $L > M = D \geq Q$ or $M \geq Q$ and $Q < L$.
So, only conclusion II is true.
65. (c) $W \leq F,\ F < H, H > R$
Although no direct relation between W and R but I and II together show all three probable relations. Hence, either I or II is true.

(66-70):

Friend	College	Subject
A	Y	Fashion
B	Y	Acting
C	Y	Architecture
D	Z	Teaching
E	X	Medicine
F	Z	Engineering
G	X	Business

66. (e) 67. (c) 68. (a) 69. (a) 70. (d)
71. (d) 72. (d)
73. (b) 18 + 3 = 21st letter from the right in the reverse series or, 21st letter from the left in the original series.
74. (e) $N + 3 = Q,\ Q + 3 = Z,\ Z + 3 = S$
$D - 2 = W,\ W - 2 = E,\ E - 2 = V$
$P + 3 = B,\ B + 3 = R,\ R + 3 = I$ Hence, ? = SVI
75. (a) 13 + 5 = 18th from you left
76. (d) 10 + 3 = 13th from the right
77. (e) Given A, L, M, E
MALE, LAME, MEAL
78. (d) Condition II apply
79. (b) Condition III apply
80. (c) No Condition apply