

ENGLISH LANGUAGE

Directions (1 - 10) : Read the following passage carefully and answer the questions given below it. Certain words have been printed in bold to help you locate them while answering some of the questions.

Thinking of what education might look like in the next decade, one quickly realizes that the trends in technology are leaving a large number of our students behind. Today is an age of exponential change. New and ever-improving technologies are popping up every day and in every corner of society.

Educating the best and the brightest in this brave new world will take a new and improved educational **paradigm**. Allowing our educational tools to age in the corner of the classroom will be the mistake that may cost us our future. Throwing away masses of children to **inequitable** access will ensure that we **languish** at the bottom of the global pool of employable workers for decades to come.

Technology will shape the way we educate students in the next decade. A user is not simply a person who uses. For the student, being a user should involve using the latest technology in a free and **autonomous** manner. This new-found freedom will allow the student to become an active participant in his / her education instead of a passive passenger. In our current technological society, being a user also means being tracked. Tracking a student means having the ability to target education towards weaknesses and strengths. The ability to accurately customize curricula to the individual has been the holy grail of educational philosophy for many years. This golden age of technological development may soon enable this dream to become a reality.

Current educational curricula and individual assessment is **arbitrary** at best. Accurately assessing a student can only be achieved by using modern track-

ing and database technologies. Imagine a world where every child has a tablet computer with ready access to the internet. Further, imagine that every student can access all the knowledge of humankind freely at any moment in time. Continue to imagine a world where a misspelled word brings up a spelling challenge application instead of an auto correction. Try to contemplate what it would mean for a teacher to have a database of every misspelled word, every misunderstood concept or every missed, equation for each of their students. Try to envision a teacher with the ability to customize the experience of the individual “user” with minimal effort. Imagine the curriculum being automatically targeted to user through an intuitive educational platform that knows all strengths and each unique weakness. In the last few hundred years, most individuals would consider an education as something you receive. You often hear the question asked, “Where did you receive your education?” As we proceed through the next decade, education will slowly move away from reception and toward being custom designed for the individual user. New technology will not only allow us to receive an education, but also develop an education. The question we might ask in ten years, How did you develop your education? The question of where will still be important, but the how of the matter will be the focus that defines the individual.

To make this a reality we will need a standardized platform from which to develop a student’s unique education. This standardized platform will allow us to tailor a custom curriculum that will be matched to talents, interests and life goals. For the educator, a standardized platform will create a way to assist the student in discovering a true purpose in life through a unique educational experience. The basics of reading, writing and arithmetic will not be taught as much as they will be discovered and used. Learning will become a reciprocal experience between the teacher, the student and the machine.

Under a standardized platform, each of these three participants will have a role to play. The teacher will be the facilitator, assisting the development of the curriculum and inspiring the direction the student takes. The student will be the user, gathering resources, skills and knowledge in an efficient and measured sequence. The machine will do the work of data gathering and analysis, which will assist the teacher and student in refining the curriculum. This data gathering work of the machine will also free the teacher from the burden of record-keeping and tedious tasks that currently distract from the real job of teaching and learning. Under a standardized system, grade level will be far less important. Achievement and progression will be measured by accomplishment and intelligence as a benchmark for success. The question of failure or success will be irrelevant and replaced with a standard and consistent measurement of potential and overall intelligence. Information will no longer be missed but continually rehearsed and monitored for retention by the machine. Tasks such as data tracking, reporting and record keeping are currently accomplished manually. These tasks could easily be delegated to an intuitive database. Developing a standard to follow would eliminate these tasks and free the teacher to do their main job of teaching students.

The next decade may mark the moment in history when all are granted equal access to technology. Access to quality education will only be gained through investment and universal standardization of this technology. If we continue to divert wealth towards fruitless goals and corporate greed, this opportunity will be lost or hopelessly delayed.

1. According to the author, which of the following will be the benefit(s) of introducing a standardized technological platform?
 - (A) Potential of a child will take precedence over the grades he/ she scores.
 - (B) Improving the educational syllabus would become easier.
 - (C) Teachers would be able to devote more time to teaching.
 - (1) Only (C)
 - (2) All (A), (B) and (C)
 - (3) Only (B) and (C)
 - (4) Only (A) and (B)
 - (5) Only (A)

2. Which of the following is / are **true** in the context of the passage ?

- (A) In the presence of technology each student would require constant monitoring by other individuals to maximize learning.
 - (B) Educational philosophy is based on the belief of tailoring educational syllabus to individual student capability.
 - (C) The author visualizes that each student will have access to technology in the future.
- (1) Only (A) and (B)
 - (2) Only (B)
 - (3) Only (C)
 - (4) Only (B) and (C)
 - (5) All (A), (B) and (C)

3. Which of the following is possibly the most appropriate title for the passage ?

- (1) Technology - A Welcome Relief to Teachers
- (2) Revamping the Educational Sector - An Impossible Future
- (3) Education - Arbitrary But a Reality
- (4) Technology and the Economy
- (5) Technology - Reshaping the Future of Education

4. What does the author mean by the term "tracking a student" ?

- (1) Analyzing the strengths and weaknesses of a student and designing an educational syllabus accordingly
- (2) Assessing whether a student is paying due attention to the existing curriculum offered by an institute of learning
- (3) Analyzing the positives and negatives of an educational institute and modifying it suitably to cater to industrial requirements
- (4) Following a student to the educational institute that he visits frequently in order to estimate the time he spends there
- (5) None of these

5. According to the author, why is the current education provided not satisfactory ?

- (1) The teachers providing education are not qualified enough to emphasize on quality

- (2) Quality of education provided is not uniform across the globe and individual assessment is subjective
- (3) The educational sector is fraught with corrupt practices and thus does not produce the desired result
- (4) The education system is not guided by technology and hence the pace of learning is slow
- (5) There are too many schools in the country which cannot be monitored effectively
6. What is the author's vision regarding the integration of technology with education ?
- (A) A substantial database consisting of each student's learning curve would be readily available.
- (B) An error would activate a software which would encourage learning rather than auto-correcting.
- (C) Experimentation in academics would be encouraged.
- (1) Only (C)
- (2) Only (A) and (B)
- (3) All (A), (B) and (C)
- (4) Only (A) and (C)
- (5) None of these

Directions(7-8) : Choose the word which is most similar in meaning to the word printed in bold as used in the passage.

7. AUTONOMOUS

- (1) single (2) independent
- (3) governed (4) forceful
- (5) insufficient

8. DELEGATED

- (1) taxed (2) demoted
- (3) input (4) authorized
- (5) assigned

Directions (9-10) : Choose the word which is most opposite in meaning to the word printed in bold as used in the passage.

9. LANGUISH

- (1) ripen (2) hasten
- (3) flourish (4) weaken
- (5) climb

10. ARBITRARY

- (1) objective (2) deliberate
- (3) random (4) transparent
- (5) lawful

Directions (11-15) : Which of the phrases (1), (2), (3) and (4) given below each sentence should replace the phrase given in bold in the following sentence to make the sentence grammatically meaningful and correct. If the sentence is correct as it is and 'No correction is required, mark (5) as the answer.

11. After enjoying one of the biggest successes of Indian cinema, the actor **is pulled the brakes** on his career.

- (1) has putting brake
- (2) has pulled the brakes
- (3) is put braking
- (4) is put brakes
- (5) No correction required

12. Many of our tinsel town beauties **will hit the panic button** if they didn't have at least one movie in hand.

- (1) would hit panicky buttons
- (2) would hit the panic button
- (3) will be hitting panic buttons
- (4) have hit panicky button
- (5) No correction required

13. **Alarm** to declining marriage figure and increasing divorce rates, the government has come up with a novel way to tackle issue.

- (1) Alarmingly on (2) Alarming as
- (3) Alarms with (4) Alarmed by
- (5) No correction required

14. The two sisters **dropped in to** watch the film with none other than their father.

- (1) dropping in for (2) dropped by as
- (3) drop on to
- (4) dropped in for
- (5) No correction required

15. The researchers found that children with lung disease **are at increase risk** for developing a second type of pneumonia.

- (1) were at increased risk
- (2) is increasingly risking
- (3) is increased risky
- (4) are increasingly risky
- (5) No correction required

Directions (16-20) : Each question below has two blanks, each blank indicating that something has been omitted. Choose the set of words for each blank which best fits the meaning of the sentence as a whole.

16. What goes into making a marriage can only be ___ by trial and error and couples are best left to ___ out what works.
(1) discovered, translate
(2) regulated, find
(3) learnt, figure
(4) seen, thrash
(5) experienced, judge
17. The producer is known to ___ with new stars and fresh talent, and though there have a few hits and misses, this filmmaker totally ___ for the new breed.
(1) try, demands
(2) experiment. vouches
(3) Sign. goes
(4) produce, promises
(5) work, supports
18. The Government stated that it had the ___ right to use as much force as was necessary to regain control of areas ___ by terrorists.
(1) free, marked (2) practical, left
(3) fundamental, infest
(4) basic, undertaken
(5) legitimate, dominated
19. Obesity and alcohol ___ together to ___ the risk of liver disease in both men and women.
(1) act, increase (2) result, aggravate
(3) taken, arrest (4) put, heighten
(5) mix, lower
20. There were screams, chills and thrills ___ at the discotheque the other night as the director along with the producers hosted a party to ___ the success of their latest horror flick.
(1) combined, downplay
(2) alike, mourn
(3) experiences, mark
(4) galore, celebrate
(5) risen, generate

Directions (21-25) : 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) However, many people may not be aware of the numerous other areas where it has been applied.
(B) Today, even, those who have little knowledge about the production of virtual reality are now most likely aware of its use in video games.
(C) Similarly, medical students have substituted a cadaver for a fiberglass mould of a body and a headset when training to perform surgery.
(D) Virtual reality was an unfamiliar concept to many people till the early 90's.
(E) Introducing virtual reality to the real world, thus, has already proven to be beneficial for every industry it encounters.
(F) For example, astronaut trainees have recently used virtual reality to simulate a trip to space.

21. Which of the following should be the **FOURTH** sentence after re- 'arrangement'
(1) E (2) F
(3) A (4) D
(5) B,
22. Which of the following should be the **FIRST** sentence after rearrangement ?
(1) A (2) B
(3) C (4) D
(5) E
23. Which of the following should be the **LAST (SIXTH)** sentence after rearrangement ?
(1) A (2) B
(3) C (4) D
(5) E
24. Which of the following should be the **SECOND** sentence after rearrangement ?
(1) B (2) C
(3) D (4) E
(5) F
25. Which of the following should be the **FIFTH** sentence after rearrangement ?
(1) A (2) B
(3) T (4) D
(5) E

Directions (26-30) : Read each sentence to find out whether there is any grammatical error in it. The

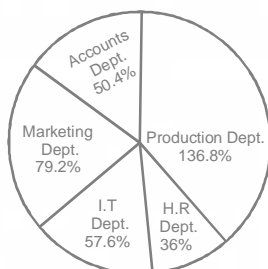
error if any will be in one part of the sentence, the number of that part will be the answer. If there is no error, the answer is (5). i.e. 'No error'. (Ignore the errors of punctuation, if any.)

26. Human babies whose mothers (1)/ have had the flu while pregnant may (2)/ have a greater risk of developing (3)/ schizophrenia lately in life. (4)/ No error (5)
27. Six women achievers, who continue (1)/ to inspire the younger lot, were honoured (2)/ with their contributions in their chosen fields (3)/ on the occasion of women's day. (4)/ No error (5)
28. All Indians know that they are (1)/ superior in all respects not only to (2)/ those unfortunately beings called foreigners, but (3)/ also that they are superior to all other Indians. (4)/ No error (5)
29. He is one of the first film producers (1)/ to actually take the much needed step (2)/ against stars putting up information about (3)/ under-production films on social networking websites. (4)/ No error (5)
30. Results founding that boys not only (1)/ play more than girls, but (2)/ they start earlier, an outcome that (3)/ could be clearly related to a cultural influence. (4)/ No error (5)

QUANTITATIVE APTITUDE

Directions (31-35) : Study the following pie charts carefully to answer the questions

Degree-wise breakup of employees working in various departments of an organization and the ratio of Men to Women
Total Number of Employees = 3250



Dept. = Department
Respective Ratio of Men to Women in Each Department

Department	Men	Women
Production	4	1
HR	12	13
IT	7	3
Marketing	3	2
Accounts	6	7

31. What is the number of men working in the Marketing department?
(1) 462 (2) 454
(3) 418 (4) 424
(5) None of these
32. What is the respective ratio of the number of women working in the HR department and the number of men working in the IT department?
(1) 11 : 12 (2) 17 : 29
(3) 13 : 28 (4) 12 : 35
(5) None of these
33. The number of men working in the Production department of the organization forms what percent of the total number of employees working in that department?
(1) 88 (2) 90
(3) 75 (4) 65
(5) None of these
34. The number of women working in the IT department of the organization forms what percent of the total number of employees in the organization from all departments together?
(1) 3.2 (2) 4.8
(3) 6.3 (4) 5.6
(5) None of these
35. What is the total number of men working in the organization ?
(1) 2198 (2) 2147
(3) 2073 (4) 2236
(5) None of these
36. Anna left for city A from city B at 5 : 20 am. She travelled at the speed of 80 kmph for 2 hours 15 minutes. After that speed was reduced to 60 kmph. If the distance between

two cities be 350 km, at what time did Anna reach city A?

- (1) 9 : 20 am (2) 9 : 25 am
 (3) 9 : 35 am (4) 10 : 05 am
 (5) None of these

Directions (37-40) : What will come in place of the question mark (?) in the following number series ?

37. 39 52 78 117 169 (?)

- (1) 246 (2) 182
 (3) 234 (4) 256
 (5) None of these

38. 62 87 187 412 812 (?)

- (1) 1012 (2) 1437
 (3) 1337 (4) 1457
 (5) None of these

39. 7 8 24 105 361 (?)

- (1) 986 (2) 617
 (3) 486 (4) 1657
 (5) None of these

40. 656 432 320 264 236 (?)

- (1) 222 (2) 229
 (3) 232 (4) 223
 (5) None of these

Directions (41-45) : In the following questions two equations numbered I and II are given. You have to solve both the equations and

Give answer (1) if $x > y$

Give answer (2) if $x \geq y$

Give answer (3) if $x < y$

Give answer (4) if $x \leq y$

Give answer (5) if $x = y$ or the relationship cannot be established

41. I. $3x^2 + 8x + 4 = 0$

II. $4y^2 - 19 + 12 = 0$

42. I. $x^2 + x - 20 = 0$

II. $y^2 - y - 30 = 0$

43. I. $x^2 - 365 = 364$

II. $y - \sqrt{324} = \sqrt{81}$

44. I. $\frac{4}{\sqrt{x}} + \frac{7}{\sqrt{x}} = \sqrt{x}$

II. $y^2 - \frac{(11)^2}{\sqrt{y}} = 0$

45. I. $225x^2 - 4 = 0$

II. $\sqrt{225y} + 2 = 0$

46. Twenty per cent of Anuj's annual salary is equal to seventy five per cent of Raj's annual salary. Raj's monthly salary is 60% of Ravi's monthly salary. If Ravi's annual salary is Rs. 1.44 lacs, what is Anuj's monthly salary ?

- (1) Rs. 2,70,000 (2) Rs. 27,000
 (3) Rs. 3,24,000 (4) Rs. 5,400
 (5) None of these

47. Ram's present age is three times his son's present age and two-fifth of his father's present age. The average of the present ages of all of them is 46 years. What is the difference between the Ram's son's present age and Ram's father's present age ?

- (1) 68 years (2) 88 years
 (3) 58 years
 (4) Cannot be determined
 (5) None of these

48. The ratio between the speed of a train and a car is 16 : 15 respectively. Also, a bus covered a distance of 480 kms. in 8 hours. The speed of the bus is three-fourth the speed of the train. How much distance will the car cover in 6 hours ?

- (1) 450km (2) 480km
 (3) 360 km
 (4) Cannot be determined
 (5) None of these

49. The total area of a circle and a square is equal to 5450 sq.cm. The diameter of the circle is 70 cms. What is the sum of the circumference of the circle and the perimeter of the square ?

- (1) 360 cm (2) 380 cm
 (3) 270 cm
 (4) Cannot be determined
 (5) None of these

50. The largest and the second largest angles of a triangle are in the ratio of 3 : 2 respectively. The smallest angle is 20% of the sum of the largest and the second largest angles. What is the sum of the smallest and the second largest angles ?
- (1) 80° (2) 60°
 (3) 100° (4) 90°
 (5) None of these

Directions (51-55) : Study the information carefully to answer the questions that follow.

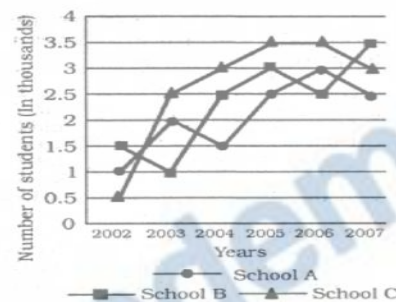
In a school there are 1200 students who have visited five different cities viz. Delhi, Kolkata, Varanasi, Mumbai and Jodhpur. Forty five per cent of the total students are boys. Thirty per cent of the total girls visited Mumbai. Two-fifth of the total girls visited Delhi. Number of girls who visited Jodhpur is half of the girls visited Delhi. Two-third of the remaining girls visited Kolkata. Total number of students who visited Mumbai is 300. Twenty per cent of the total boys visited Delhi. Forty per cent of the total boys visited Jodhpur. Equal number of boys visited Kolkata and Varanasi.

51. What is the total number of girls who visited Delhi, Mumbai and Varanasi together ?
- (1) 464 (2) 484
 (3) 536 (4) 556
 (5) None of these
52. Total number of students who visited Jodhpur is **approximately** what per cent of number of girls who visited Delhi ?
- (1) 111 (2) 91
 (3) 132 (4) 32
 (5) 72
53. What is the average number of boys who visited Kolkata, Varanasi and Jodhpur together ?
- (1) 110 (2) 122
 (3) 101 (4) 104
 (5) None of these
54. What is the total number of students who visited Varanasi ?
- (1) 78 (2) 69
 (3) 102 (4) 103
 (5) None of these

55. What is the respective ratio between the number of girls who visited Kolkata and number of boys who visited Mumbai ?
- (1) 22:51 (2) 23:51
 (3) 21:55 (4) 51:22
 (5) None of these

Directions (56-60) : Study the following graph carefully to answer the questions that follow.

Number of Students (in thousands) in three Schools over the years



56. What was the average number of students in all the Schools together in the year 2006 ?
- (1) 30,000 (2) 9,000
 (3) 3,000 (4) 6,000
 (5) None of these
57. Total number of students in School B and School C together in the year 2004 was **approximately** what percentage of the total number of students in School B and School C together in the year 2007 ?
- (1) 85 (2) 80
 (3) 75 (4) 184
 (5) 131
58. How many times the total number of students in all the three Schools A, B and C together was exactly equal among the given years ?
- (1) 2 (2) 5
 (3) 4 (4) 3
 (5) None of these
59. What was the **approximately** average number of students in School A over all the years together ?
- (1) 1990 (2) 2090
 (3) 2300 (4) 1800
 (5) 2700
60. What was the difference between the total number of students in all the schools together

in the year 2003 and number of students in School B in the year 2005?

- (1) 2000 (2) 3000
(3) 3500 (4) 2500
(5) None of these

Directions (61- 65) : Study the given information carefully and answer the questions that follow: An urn contains 3 red, 6 blue, 2 green and 4 yellow marbles.

61. If two marbles are picked at random, what is the probability that both are green ‘?’

(1) $\frac{2}{15}$ (2) $\frac{1}{15}$

(3) $\frac{2}{7}$ (4) 1

(5) None of these

62. If three marbles are picked at random, what is the probability that two are blue and one is yellow ?

(1) $\frac{2}{15}$ (2) $\frac{6}{91}$

(3) $\frac{12}{91}$ (4) $\frac{3}{15}$

(5) None of these

63. If four marbles are picked at random, what is the probability that at least one is yellow ?

(1) $\frac{91}{123}$ (2) $\frac{69}{91}$

(3) $\frac{125}{143}$ (4) $\frac{1}{4}$

(5) None of these

64. If two marbles are picked at random, what is the probability that either both are red or both are green?

(1) $\frac{3}{5}$ (2) $\frac{4}{105}$

(3) $\frac{2}{7}$ (4) $\frac{5}{91}$

(5) None of these

65. If four marbles are picked at random, what is the probability that one is green, two are blue and one is red ?

(1) $\frac{4}{15}$ (2) $\frac{17}{280}$

(3) $\frac{6}{91}$ (4) $\frac{11}{15}$

(5) None of these

Reasoning

66. In a certain code language, ‘no more food’ is written as ‘ta ka da` and ‘more than that` is written as ‘sa pa ka`. How is ‘that’ written in that code language ?

- (1) sa (2) ka
(3) sa or pa (4) Data inadequate
(5) None of these

67. In a certain code SHOULDER is written as VPITQDCK. How is MORNINGS written in that code?

- (1) OSPNRFMH (2) NPSORFMH
(3) OSPNHMFR (4) OSPNSFEM
(5) None of these

68. In a certain code GUEST is written as 53@\$2 and MEAN is written as 6@4#. How is SAME written in that code ?

- (1) 4\$6@ (2) \$46@
(3) \$36@ (4) 5\$6@
(5) None of these

69. D is brother of K, M is sister of K. R is father of D and S is mother of M. How is K related to R ?

- (1) Son (2) Daughter
(3) Son or daughter (4) Data inadequate
(5) None of these

70. If it is possible to make only one meaningful English word with the first, the fifth, the ninth and the tenth letters of the word SEQUENTIAL. which of the following will be the second letter of that word ? If no such word can be formed, give ‘X’ as the answer and if more than one such word can be formed, give ‘Y’ as the answer.

- (1) S (2) A
(3) E (4) X
(5) Y

Directions (71 - 75) : In each of the questions below are given four 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.

71. Statements:

Some tools are radios.
Some radios are ponds.
Some ponds are mirrors.
All mirrors are chalks.

Conclusions:

- I. Some mirrors are tools.
II. Some chalks are ponds.
III. Some ponds are tools.
IV. Some chalks are radios.
(1) None follows (2) Only I follows
(3) Only II follows (4) Only III follows
(5) Only IV follows

72. Statements:

All chairs are sofas.
All sofas are books.
All books are nets.
All nets are gardens.

Conclusions:

- I. Some nets are sofas.
II. Some gardens are books.
III. Some nets are chairs.
IV. All books are gardens.
(1) Only I, II and III follow
(2) Only I, III and IV follow
(3) Only II, III and IV follow
(4) All I, II, III and IV follow
(5) None of these

73. Statements:

All monkeys are parrots.
No parrot is crow.
Some crows are horses.
All horses are tigers.

Conclusions :

- I. Some tigers are parrots.
II. Some crows are monkeys.
III. No tiger is parrot.
IV. Some horses are parrots.
(1) None follows
(2) Only II follows
(3) Only III follows
(4) Only I follows
(5) Only either I or III follows

74. Statements:

All houses are rooms.
All rooms are baskets.
All baskets are tyres.
Some tyres are lanterns.

Conclusions :

- I. Some lanterns are rooms.
II. Some tyres are houses.
III. Some tires are rooms.
IV. All houses are baskets.
(1) Only I, II and III follow
(2) Only II, III and IV follow
(3) Only I, III and IV follow
(4) All I., II, III and IV follow
(5) None of these

75. Statements:

Some tractors are buses.
All buses are trains.
Some trains are boats.
All boats are ships.

Conclusions :

- I. Some boats are buses.
II. Some ships are buses.
III. Some trains are tractors.
IV. Some ships are trains.
(1) Only I and II follow
(2) Only I and III follow
(3) Only I and IV follow
(4) Only II and IV follow
(5) None of these

Directions (76- 80) : Study the following arrangement carefully and answer the questions given below :

Q R 4 S 3 K H I M D 5 © N E J 8 I # T V U %
W 6 δ B A 7 2 F P

76. How many such numbers are there in the above arrangement each of which is immediately followed by a letter but not immediately preceded by a letter ?

- (1) None (2) One
(3) Two (4) Three
(5) More than three

77. How many such consonants are there in the above arrangement each of which is immediately preceded by a number and immediately followed by a symbol?

- (1) None (2) One

- (3) Two (4) Three
 (5) More than three

78. Which of the following is the sixth to the left of the fourteenth from the left end of the above arrangement?

- (1) V (2) 1
 (3) 6 (4) ©
 (5) None of these

79. What should come in place of the question mark (?) in the following series based on the above arrangement?

- 43H D©E ITU ?
 (1) 6A2 (2) 6B2 F
 (3) W δ A (4) W δ 7
 (5) None of these

80. 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 that group ?

- (1) HD3 (2) J©I
 (3) VI% (4) N8D
 (5) B26

Directions (81- 85) : In each question below is given a group of digits/ symbols followed by four combinations of letters numbered (1), (2), (3) and (4). You have to find out which of the combinations correctly represents the group of digits / symbols based on the following coding system and the conditions that follow and mark the number of that combination as your answer. If none of the combinations correctly represents the group of digits/ symbols mark (5) i.e. 'None of these' as your answer.

Digit/ Symbol	9	@	2	4	\$	3	7	%	d	l	5	6	*	8	©
Letter Code	R	W	F	P	A	H	B	M	E	J	Q	I	U	N	T

Conditions:

- (i) If the first unit is an even digit and the last unit is a symbol, both are to be coded as the code for the even digit.
 (ii) If the first unit is a symbol and the last unit is an odd digit, their codes are to be interchanged.
 (iii) If the first unit is an odd digit and the last unit is an even digit, both are to be coded as the code for the odd digit.

81. 853©2 δ

- (1) NQHTFE (2) NQHTFN
 (3) EQHTFN (4) EQHTFE
 (5) None of these

82. 4\$%3*6

- (1) PAMHUI (2) PAMHUP
 (3) IAMHUP (4) IAMHUI
 (5) None of these

83. 9©\$3%6

- (1) IWAHMI (2) RWAHMI
 (3) IWAHMR (4) RWAHMR
 (5) None of these

84. 728%9\$

- (1) AFNM RB (2) BFNMRB
 (3) AFNMRA (4) BFNMRA
 (5) None of these

85. @ δ 5541

- (1) TBEQPT (2) TBEQPJ
 (3) JBEQPT (4) JBEQPJ
 (5) None of these

Directions (86 - 90) : Study the following information carefully and answer the questions given below :

Seven Persons A, B, C, D, K, L and M live on seven different floors of a building but not necessarily in the same order. The lowermost floor of the building is numbered one, the one above that is numbered two and so on till the topmost floor is numbered seven. Each one of them also likes different games namely Snooker, Badminton, Chess, Ludo, Cricket, Hockey and Polo (but not necessarily in the same order.)

Only three persons live between B and K. B lives on one of the floors above K. K does not live on the lowermost floor.

Only one person lives between B and the one who likes Chess. The one who likes Polo lives on one of the even numbered floors above the one who likes Chess.

Only two persons live between M and the one who likes Chess. The one who likes Snooker lives immediately above M.

A lives immediately above L. A does not like Chess.

The one who likes Ludo lives on one of the odd numbered floors below L. M does not like Ludo.

D lives on one of the floors above C. Only one person lives between the one who likes Cricket and the one who likes Hockey.

D does not like Cricket. M does not like Badminton.

86. Which of the following games does B like ?
 (1) Snooker (2) Ludo
 (3) Polo (4) Badminton
 (5) Chess
87. Who amongst the following lives on the floor numbered 4 ?
 (1) The one who likes Hockey
 (2) The one who likes Chess
 (3) A
 (4) L
 (5) B
88. Which of the following statements is true with respect to the given arrangement ?
 (1) Only two Persons live between K and M.
 (2) The one who likes Hockey lives immediately above K.
 (3) C likes Chess
 (4) C lives on an even numbered floor.
 (5) None of the given options is true
89. If all the Persons are made to sit in alphabetical order from top to bottom, the positions of how many People will remain unchanged ?
 (1) None (2) Three
 (3) Two (4) one
 (5) Four
90. Which of the following combinations is true with respect to the given arrangement ?
 (1) Polo-C (2) Ludo-B
 (3) Cricket-K (4) Snooker-A
 (5) Chess-L

Directions (91- 95) : In the following questions, the symbols δ , *, %, # and @ are used with the following meaning as illustrated below :

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

'P δ 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 not smaller than Q'.

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

Now in each of the following questions assuming the given statements to be true, find which of the four conclusions I, II, III and IV given below them is/ are definitely true and give your answer accordingly.

91. Statements:

H δ J, J # N, N @ R, R δ W

Conclusions:

I. W % N II. W % H

III. R # J IV. R δ J

- (1) Only I is true
 (2) Only II is true
 (3) Only III is true
 (4) Only IV is true
 (5) Only either III or IV is true

92. Statements:

B @ D, D δ F, F % M, M * N

Conclusions:

I. B % F II. M δ D

III. N % F IV. D δ N

- (1) None is true (2) Only I is true
 (3) Only II is true (4) Only III is true
 (5) Only IV is true

93. Statements:

R * T, T δ M, M % K, K @ V

Conclusions:

I. V δ M

II. V δ T

III. M % R

IV. K δ R

- (1) Only I and II are true
 (2) Only I and III are true
 (3) Only II and IV are true
 (4) Only I, III and IV are true
 (5) None of these

94. Statements:

M % K, K * W, W δ V, V @ N

Conclusions:

I. N * K

II. M % W

III. K δ V

IV. V % M

- (1) None is true (2) Only I is true
 (3) Only II is true (4) Only III is true
 (5) Only IV is true

95. Statements:

F#Z, Z@H, H%N, NδB

Conclusions:

- I. F @ H II. NδZ
III. B % H IV. B % Z
- (1) Only I and III are true
(2) Only II, III and IV are true
(3) Only I and II are true
(4) Only I, II and III are true
(5) None of these

Directions (96 - 100) : Study the following in-

formation carefully and answer the questions given below :

A, B, C, D, E, F, G and H are sitting around a circle facing the centre. D is fourth to the right of H and second to the left of B. F is fourth to the right of B. C is fourth to the right of E who is not an immediate neighbour of B or D. A is not an immediate neighbour of D.

96. What is B's position with respect to G ?

- (1) Third to the right
(2) Third to the left
(3) Fifth to the right
(4) Fourth to the left
(5) Fourth to the right

97. In which of the following combinations is the third person sitting in between the first and the second persons ?

- (1) ABC (2) GCD
(3) AHB (4) CBA
(5) EFG

98. Who is third to the right of A ' ?

- (1) H (2) E
(3) F (4) Data inadequate
(5) None of these

99. Who is to the immediate left of D ?

- (1) G (2) C
(3) F (4) Data inadequate
(5) None of these

100. Who is fourth to the left of G ?

- (1) E (2) F
(3) A (4) H
(5) Data inadequate

SOLUTIONS

- | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1. (2) | 2. (4) | 3. (5) | 4. (1) | 5. (4) | 6. (3) | 7. (2) | 8. (5) | 9. (3) | 10. (5) |
| 11. (2) | 12. (2) | 13. (4) | 14. (5) | 15. (1) | 16. (3) | 17. (2) | 18. (5) | 19. (1) | 20. (4) |
| 21. (2) | 22. (4) | 23. (5) | 24. (1) | 25. (3) | 26. (4) | 27. (3) | 28. (3) | 29. (1) | 30. (1) |

31. (5) Number of employees in marketing department

$$= \frac{3250}{360} \times 79.2 = 715$$

$$\therefore \text{Number of men} = 715 \times \frac{3}{5} = 429$$

32. (3) Number of women working in HR

$$\text{department} = \frac{3250 \times 36}{360} \times \frac{13}{25} = 169$$

Number of men in IT department

$$\frac{3250 \times 36}{360} \times 57.6 \times \frac{7}{10} = 364$$

$$\therefore \text{Required ratio} = 169 : 364 = 13 : 28$$

33. (5) Number of employees in production

$$\text{department} = \frac{3250}{360} \times 136.8 = 1235$$

$$\text{Number of men} = 1235 \times \frac{4}{5} = 988$$

\therefore Required percentage

$$= \frac{988}{1235} \times 100 = 80$$

Quicker Approach

From the given ratio,

$$\text{Required percentage} = \frac{4}{5} \times 100 = 80$$

34. (2) Number of women in IT department

$$= \frac{3250}{360} \times 57.6 \times \frac{3}{10} = 156$$

$$\text{Required percentage} = \frac{156}{3250} \times 100 = 4.8$$

35. (2) Number of men in. accounts department

$$= \frac{50.4 \times 3250}{360} \times \frac{6}{13} = 210$$

Number of men in HR department

$$= \frac{3250 \times 36}{360} \times \frac{12}{25} = 156$$

\therefore Required number of men

$$= 429 + 364 + 988 + 210 + 156 = 2147$$

36. (5) Distance covered in 2 hr 15mts = $2\frac{1}{4}$

$$= 80 \times \frac{9}{4} = 180 \text{ km}$$

Time taken to cover remaining distance

$$= \frac{170}{60} = \frac{17}{6} \text{ hours}$$

2 hour 50 mts

$$\begin{aligned} \text{Total time taken} &= 2 \text{ hr. } 15 \text{ mts} \\ &+ \underline{2 \text{ hr } 50 \text{ mts}} \\ &\quad \underline{5 \text{ hr } 5 \text{ mts}} \end{aligned}$$

\therefore Anna reached city B at

$$= 5 \text{ hr } 20 \text{ mts}$$

$$\underline{\underline{5 \text{ hr } 5 \text{ mts}}}$$

$$\underline{10 : 25}$$

37. (3) The pattern of the number series is :

$$39 + 1 \times 13 = 52$$

$$52 + 2 \times 13 = 78$$

$$78 + 3 \times 13 = 117$$

$$117 + 4 \times 13 = 169$$

$$169 + 5 \times 13 = \boxed{234}$$

38. (2) The pattern of the number series is :

$$62 + 5^2 = 62 + 25 = 87$$

$$87 + 10^2 = 87 + 100 = 187$$

$$187 + 15^2 = 187 + 225 = 412$$

$$412 + 20^2 = 412 + 400 = 812$$

$$812 + (25)^2 = 812 + 625 = \boxed{1437}$$

39. (1) The pattern of the number series is :

$$7 + 1^2 = 8$$

$$8 + 4^2 = 24$$

$$24 + 9^2 = 105$$

$$105 + 16^2 = 361$$

$$361 + 25^2 = \boxed{986}$$

40. (1) The pattern of the number series is :

$$656 - 224 = 432$$

$$432 - 112 = 320$$

$$320 - 56 = 264$$

$$264 - 28 = 236$$

$$236 - 14 = \boxed{222}$$

41. (3) I. $3x^2 + 8x + 4 = 0$

$$\Rightarrow 3x^2 + 6x + 2x + 4 = 0$$

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

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

$$\therefore x = -2 \text{ or } -\frac{2}{3}$$

- II. $4y^2 + 19y + 12 = 0$

$$\Rightarrow 4y^2 - 16y - 3y + 12 = 0$$

$$\Rightarrow 4y(y-4) - 3(y-4) = 0$$

$$\Rightarrow (y-4)(4y-3) = 0$$

$$\therefore y = 4 \text{ or } \frac{3}{4}$$

Clearly, $x < y$

42. (4) I. $x^2 + x - 20 = 0$

$$\Rightarrow x^2 + 5x - 4x + 20 = 0$$

$$\Rightarrow x(x+5) - 4(x+5) = 0$$

$$\Rightarrow (x+5)(x-4) = 0$$

$$\therefore x = -5 \text{ or } 4$$

- II. $y^2 - y - 30 = 0$

$$\Rightarrow y^2 - 6y + 5y - 30 = 0$$

$$\Rightarrow y(y-6) + 5(y-6) = 0$$

$$\Rightarrow (y-6)(y+5) = 0$$

$$\therefore y = 6 \text{ or } -5$$

$x \leq y$

43. (4) I. $x^2 = 365 + 364 = 729$

$$\therefore x = \sqrt{729} = \pm 27$$

- II. $y - \sqrt{324} = \sqrt{81}$

$$\Rightarrow y - 18 = 9$$

$$= y = 27$$

Clearly, $x \leq y$

44. (5) I. $4 + 7 = \sqrt{x} \times \sqrt{x}$

$$\Rightarrow x = 11$$

II. $y^2 - \frac{11^{5/2}}{\sqrt{y}} = 0$

$$\Rightarrow y^{2+\frac{1}{2}} = 11^{5/2}$$

$$\Rightarrow y^{5/2} = 11^{5/2}$$

$$\Rightarrow y = 11$$

Clearly, $x = y$

45. (5) I. $225x^2 = 4$

$$\Rightarrow x^2 = \frac{4}{225} \Rightarrow x = \pm \frac{2}{15}$$

II. $\sqrt{225y} + 2 = 0$

$$\Rightarrow \sqrt{225y} = -2$$

Squaring on both sides,
 $225y = 4$

$$\Rightarrow y = \frac{4}{225}$$

46. (2) Monthly salary of Raj

$$= \frac{1.44 \times 60}{12 \times 100} = \text{Rs. } 0.072 \text{ lakh}$$

$$\therefore \text{Anuj's monthly salary} \times \frac{1}{5}$$

$$= \text{Raj's monthly salary} \times \frac{3}{4}$$

$$\Rightarrow \text{Anuj's monthly salary}$$

$$= \text{Rs.} \left(0.072 \times \frac{3}{4} \times 5 \right) \text{ lakh} = \text{Rs. } 27000$$

47. (5) Present age of Ram's son = x years

$$\therefore \text{Ram's present age} = 3x \text{ years}$$

$$\text{father's present age} = \frac{15x}{2} \text{ years}$$

$$\therefore x + 3x + \frac{15x}{2} = 46 \times 3$$

$$\Rightarrow 23x = 46 \times 3$$

$$\Rightarrow x = 6$$

\therefore Required difference

$$= \frac{15x}{2} - x = \frac{13x}{2}$$

$$= \frac{13 \times 6}{2} = 39 \text{ years}$$

48. (1) Speed of the bus = $\frac{480}{8} = 60$ kmph

\therefore Speed of the train = $60 \times \frac{4}{3} = 80$ kmph

\therefore Speed of the car = $\frac{15}{16} \times 80 = 75$ kmph

\therefore Required distance = Speed \times time
 $= 75 \times 6 = 450$ km.

49. (2) If the side of the square be x cm then,

$$\pi \times 35 \times 35 + x^2 = 5450$$

$$\Rightarrow \frac{22}{7} \times 35 \times 35 + x^2 = 5454$$

$$\Rightarrow x^2 = 5450 - 3850 = 1600$$

$$\therefore x = 40$$

$$\therefore \text{Required sum} = \pi \times d + 4x$$

$$= \left(\frac{22}{7} \times 70 + 4 \times 40 \right) \text{cm} = 380 \text{ cm.}$$

50. (4) If the largest and the second largest angles be $3x^\circ$ and $2x^\circ$, respectively then, third angle = x

$$\therefore x + 2x + 3x = 180^\circ$$

$$\Rightarrow x = 30^\circ$$

$$\therefore \text{Required sum} = x + 2x = 3x = 90^\circ$$

Calculation (51-55) :

$$\text{Number of boys} = \frac{1200 \times 45}{100} = 540$$

$$\text{Number of girls} = 1200 - 540 = 660$$

$$\text{Number of girls visiting Mumbai}$$

$$= \frac{660 \times 30}{100} = 198$$

$$\text{Number of girls visiting Delhi}$$

$$= 660 \times \frac{2}{5} = 264$$

$$\text{Number of girls visiting Jodhpur} = \frac{264}{2} = 132$$

$$\text{Number of girls visiting Kolkata}$$

$$= \frac{2}{3} (660 - 198 - 264 - 132) = 44$$

$$\text{Number of girls visiting Varanasi} = 22$$

$$\text{Number of boys visiting Mumbai} = 300 - 198 = 102$$

$$\text{Number of boys Delhi} = 540 \times \frac{1}{5} = 108$$

$$\text{Number of boys visiting Jodhpur}$$

$$= 540 \times \frac{40}{100} = 216$$

$$\text{Number of boys visiting Kolkata}$$

$$= \frac{114}{2} = 57$$

$$\text{Number of boys visiting Varanasi} = 57$$

51. (2) Required number of girls
 $= 198 + 264 + 22 = 484$

52. (3) Required percentage
 $= \frac{216 + 132}{264} \times 100 = 132$

53. (1) Required average
 $= \frac{57 + 57 + 216}{3} = \frac{330}{3} = 110$

54. (5) Required number of students
 $= 22 + 57 = 79$

55. (1) Required ratio = $44 : 102 = 22 : 51$

56. (3) Average number of students in 2006
 $= \left(\frac{2.5 + 3 + 35}{3} \right) \times 1000 = 3000$

57. (1) Required percentage = $\frac{3 + 25}{3 + 3.5} \times 100$

$$= \frac{5.5}{6.5} \times 100 \approx 85$$

58. (4) The total number of students was equal in 2005, 2006 and 2007.

59. (2) Required average number of students in school A

$$= \left(\frac{1 + 2 + 1.5 + 2.5 + 3 + 2.5}{6} \right) \times 1000$$

$$= \frac{12.5 \times 1000}{6} \approx 2090$$

60. (3) Required difference
 $= (2.5 + 3 + 3.5 - 1 - 2 - 2.5)$ thousand
 $= 3500$

61. (5) Total number of marbles in the urn = 15
 $P(S) = \text{Total possible outcomes}$
 $= \text{Selection of 2 marbles at random out of 15 marbles}$

$${}^{15}C_2 = \frac{15 \times 14}{1 \times 2} = 105$$

$$P(E) = \text{Favourable outcomes}$$

$$= \text{Selection of 2 marbles out of 2 green}$$

marbles ${}^2C_2 = 1$

$$\therefore \text{Required probability} = \frac{P(E)}{P(S)} = \frac{1}{105}$$

62. (3) $P(S) = {}^{15}C_3$
 $= \frac{15 \times 14 \times 13}{1 \times 2 \times 3} = 455$

$P(E)$ = Selection of 2 marbles out of 6 blue marbles and that one marbles out of 4 yellow marbles

$${}^6C_2 \times {}^4C_1 = \frac{6 \times 5}{1 \times 2} \times 4 = 60$$

$$\text{Required probability} = \frac{P(E)}{P(S)} = \frac{60}{455} = \frac{12}{91}$$

63. (2) $P(S) = {}^{15}C_4$
 $= \frac{15 \times 14 \times 13 \times 12}{1 \times 2 \times 3 \times 4} = 1365$

Let no yellow marble is selected.

$\therefore P(E)$ = Selection of 4 marbles out of 11 marbles

$$= {}^{11}C_4 = \frac{11 \times 10 \times 9 \times 8}{1 \times 2 \times 3 \times 4} = 330$$

\therefore Required probability

$$= 1 - \frac{330}{1365} = 1 - \frac{22}{91} = \frac{91 - 22}{91} = \frac{69}{91}$$

64. (2) $P(S) = {}^{15}C_2 = 105$

$$P(E) = {}^3C_2 + {}^2C_2 = \frac{3 \times 2}{1 \times 2} + 1 = 4$$

$$\therefore \text{Required probability} = \frac{4}{105}$$

65. (3) $P(S) = {}^{15}C_4 = 1365$
 $P(E) = {}^2C_4 \times {}^6C_2 \times {}^3C_1$

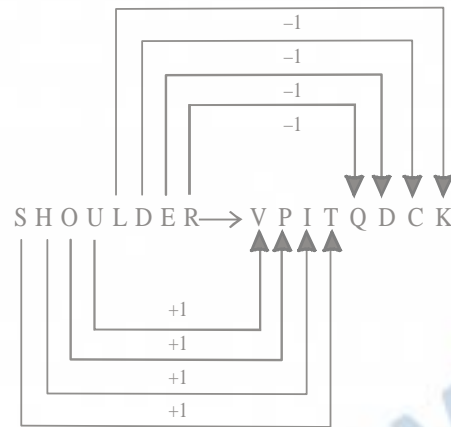
$$\therefore \text{Required probability} = \frac{P(E)}{P(S)}$$

$$= \frac{90}{1365} = \frac{6}{91}$$

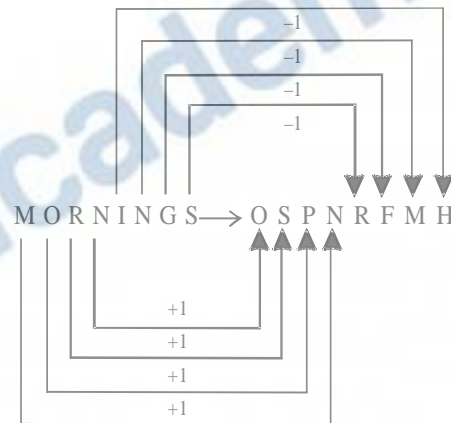
66. (3) no more food \rightarrow ta ka da
more than that \rightarrow sa pa ka

The code for 'that' is either 'sa' or 'pa'.

67. (1)



Similarly,



68. (2) G U E S T M E A N
 $\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow$

5 3 @ \$ 2 6 @ 4 #

Therefore,

S A M E

$\downarrow \downarrow \downarrow \downarrow$

\$ 4 6 @

69. (3) R is father of D, K and M.

The sex of K is not known.

Therefore, K is either son or daughter or R.

70. (5)

1	2	3	4	5	6	7	8	9	10
S	E	Q	U	E	N	T	I	A	L

Meaningful words = SALE, SEAL.

(71-75) :

- (i) All mirrors are chalks \rightarrow Universal Affirmative (A-type).
- (ii) Some tools are radios \rightarrow Particular Affirmative (I-type)
- (iii) No parrot is crow \rightarrow Universal Negative (E-type).
- (iv) Some parrots are not crows \rightarrow Particular Negative (O-type).

71. (3) Some ponds are mirrors.

$\swarrow \quad \searrow$
All mirrors are chalks.

$I + A \Rightarrow$ I-type of Conclusion
"Some ponds are chalks."
Conclusion II is Converse of it.

72. (4) All chairs are sofas.

$\swarrow \quad \searrow$
All sofas are books.

$\swarrow \quad \searrow$
All books are nets.

$A + A + A \Rightarrow$ A-type of Conclusion
"All chairs are nets."
Conclusion III is Converse of it.
The sofas are books.

$\swarrow \quad \searrow$
All books are nets.

$A + A \Rightarrow$ A-type of Conclusion
"All sofas are nets."
Conclusion I is Converse of it.

All books are nets.

$\swarrow \quad \searrow$
All nets are garden.

$A + A \Rightarrow$ A-type of Conclusion
"All books are gardens."
This is Conclusion IV.
Conclusion II is Converse of it.

73. (5) All monkeys are parrots.

$\swarrow \quad \searrow$
No parrot is crow.

$A + E \Rightarrow$ E-type of Conclusion
"No monkey is crow".

No Parrot is crow.

$\swarrow \quad \searrow$
Some crows are houses.

$E + I \Rightarrow$ O₁-type of Conclusion
"Some houses are not parrots".

Some crows are horses.

$\swarrow \quad \searrow$
All horses are tigers.

$I + A \Rightarrow$ I-type of Conclusion

"Some crows are tigers."

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

74. (2) All houses are rooms.

$\swarrow \quad \searrow$
All rooms are baskets.

$A + A \Rightarrow$ A-type of Conclusion
"All houses are baskets."
This is Conclusion IV.

All rooms are baskets.

$\swarrow \quad \searrow$
All baskets are tyres.

$A + A \Rightarrow$ A-type of Conclusion
"All rooms are tyres."
Conclusion III is Converse of it.

All houses are baskets.

$\swarrow \quad \searrow$
All baskets are tyres.

$A + A \Rightarrow$ A-type of Conclusion
"All houses are tyres."
Conclusion II is Converse of it.

75. (5) Some tractors are buses.

$\swarrow \quad \searrow$
All buses are trains.

$I + A \Rightarrow$ I-type of Conclusion

"Some tractors are trains."

Conclusion III is Converse of it.

Some trains are boats.

$\swarrow \quad \searrow$
All boats are ships.

I + A \Rightarrow I-type of Conclusion
 "Some trains are ships."
 Conclusion IV is Converse of it.

76. (2)

Letter	Number	Letter
--------	--------	--------

This is only one such combination :

72F

77. (1)

Number	Consonant	Symbol
--------	-----------	--------

There is no such combination.

78. (2) 6th to the left of the 14th from the left end means 8th from the left end i.e. 1.

79. (5) $4 \xrightarrow{+7} D \xrightarrow{+7} I \xrightarrow{+7} 6$
 $3 \xrightarrow{+7} \textcircled{C} \xrightarrow{+7} T \xrightarrow{+7} B$
 $H \xrightarrow{+7} E \xrightarrow{+7} U \xrightarrow{+7} 7$

80. (4) $H \xrightarrow{+3} D \xrightarrow{-5} 3$
 $J \xrightarrow{-3} \textcircled{C} \xrightarrow{+5} I$
 $V \xrightarrow{-3} I \xrightarrow{+5} \%$
 $N \xrightarrow{+3} 8 \xrightarrow{-6} D$
 $B \xrightarrow{+3} 2 \xrightarrow{-5} 6$

81. (2) $8 \ 5 \ 3 \ \textcircled{C} \ 2 \ \delta$
 $\downarrow \ \downarrow \ \downarrow \ \downarrow \ \downarrow \ \downarrow$
 N Q H T F N

Condition (i) is applicable.

82. (1) $4 \ \$ \ \% \ 3 \ * \ 6$
 $\downarrow \ \downarrow \ \downarrow \ \downarrow \ \downarrow \ \downarrow$
 P A M H U I

83. (5) $9 \ \textcircled{C} \ \$ \ 3 \ \% \ 6$
 $\downarrow \ \downarrow \ \downarrow \ \downarrow \ \downarrow \ \downarrow$
 R T A H M R

Condition (iii) is applicable.

84. (4) $7 \ 2 \ 8 \ \% \ 9 \ \$$
 $\downarrow \ \downarrow \ \downarrow \ \downarrow \ \downarrow \ \downarrow$
 B F N M R A

85. (3) $\textcircled{C} \ 7 \ \delta \ 5 \ 4 \ 1$
 $\downarrow \ \downarrow \ \downarrow \ \downarrow \ \downarrow \ \downarrow$
 J B E Q P T

Condition (ii) is applicable.

(86 - 90)

Floor	Person	Game
7	B	Badminton \rightarrow A
6	A	Polo \rightarrow B
5	L	Chess \rightarrow C
4	D	Hockey \rightarrow D
3	K	Snooker \rightarrow K
2	M	Cricket \rightarrow L
1	C	Ludo \rightarrow M

86. (4) B - Lives Badminton

87. (1) C lives on floor number '4' and likes hockey.

88. (2) 'D' likes hockey and lives immediately above 'K'.

89. (3) Two persons 'D' and 'K'

90. (5) Chess - 'L'

(91-95) :

$\% \Rightarrow <$	$\$ \Rightarrow >$	$\textcircled{C} \Rightarrow \leq$
$* \Rightarrow \geq$	$\# \Rightarrow =$	

91. (5) $H\delta J \Rightarrow H > J$

$J\#N \Rightarrow J = N$

$N\textcircled{C}R \Rightarrow N \leq R$

$R\delta W \Rightarrow R > W$

Therefore, $H > J = N \leq R > W$

Conclusions

I. $W \% N \Rightarrow W < N$: Not True

II. $W \% H \Rightarrow W < H$: Not True

III. $R \# J \Rightarrow R = J$: Not True

IV. $R \delta W \Rightarrow R < J$: Not True

R is either greater than or equal to J.
Therefore, either III or IV is true.

92. (1) $B @ D \Rightarrow B \leq D$

$D \delta F \Rightarrow D > F$

$F \% M \Rightarrow F < M$

$M * N \Rightarrow M \geq N$

Therefore, $B \leq D > F < M \geq N$

Conclusions

I. $B \% F \Rightarrow B < F$: Not True

II. $M \delta D \Rightarrow M > D$: Not True

III. $N \% F \Rightarrow N < F$: Not True

IV. $D \delta N \Rightarrow D > J$: Not True

93. (2) $R * T \Rightarrow R \geq T$

$T \delta M \Rightarrow T > M$

$M \% K \Rightarrow M < K$

$K @ V \Rightarrow K \leq V$

Therefore, $R \geq T > M < K \leq V$

Conclusions

I. $V \delta M \Rightarrow V < N$: True

II. $V \delta T \Rightarrow V > T$: Not True

III. $M \% R \Rightarrow M < R$: True

IV. $K \delta R \Rightarrow K < R$: Not True

94. (4) $M \% K \Rightarrow M < T$

$K * W \Rightarrow K \geq W$

$W \delta V \Rightarrow W > V$

$V @ N \Rightarrow V \leq N$

Therefore, $M < K \geq W > V \leq N$

Conclusions

I. $N * K \Rightarrow N \geq W$: Not True

II. $M \% W \Rightarrow M < W$: Not True

III. $K \delta V \Rightarrow K > V$: True

IV. $V \% M \Rightarrow V < M$: Not True

95. (3) $F \# Z \Rightarrow F = Z$

$Z @ H \Rightarrow Z \leq H$

$H \% N \Rightarrow H < N$

$N \delta B \Rightarrow N > B$

Therefore, $F = Z \leq H < N > B$

Conclusions

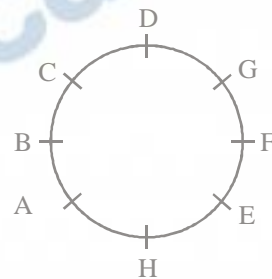
I. $F @ H \Rightarrow F \leq Z$: True

II. $N \delta Z \Rightarrow N > Z$: True

III. $B \% H \Rightarrow B < H$: Not True

IV. $B \% Z \Rightarrow B < Z$: Not True

(96-100) : Sitting Arrangement



96. (1) B is third to the right of G.

97. (2) D sitting between G and C.

98. (3) F is third to right of A.

99. (1) G is to the immediate left of D.

100. (3) A is fourth to the left of G.