## Quantitative Aptitude

Direction (1-5) : Study the bar-chart and pie-chart carefully to answer the given questions.
Working male and female population (in lakh) in various cities


I
Percentage income of the people among six cities

## Total income $=$ Rs. 200 Crore



- Bangalore

■ Jaipur
Delhi
$\square$ Chennai
Mumbai
Kolkata

1) What is the difference between the number of working females in Bangalore and the number of working males in Chennai?
2) 12.5 lakh
3) 11 lakh
4) 9 lakh
5) 12 lakh
6) 10 lakh
7) In which city is the income per working person the minimum?
8) Delhi
9) Jaipur
10) Bangalore
11) Chennai
12) Mumbai
13) What is the sum of the average working male and average working female population of the given six cities (calculate approximate value)?
14) 63.35 lakh
15) 49.96 lakh
16) 51.48 lakh
17) 53.75 lakh
18) 65.51 lakh
19) In Delhi, what is the difference between the income of males and that of females? (Assume each person (male/female) has equal income.)
20) Rs.6.545 Crore
21) Rs.5.055 Crore
22) Rs.2.935 Crore
23) Rs.3.455 Crore
24) Rs.4.565 Crore
25) The number of working females in Mumbai is what percent of the number of working males in Bangalore?
26) $95 \%$
27) $110 \%$
28) $120 \%$
29) $132 \%$
30) $144 \%$

## Direction (6-10) This question is based on the data given below. Study it carefully and answer the question.

In a school out of 250 students studying in class IX, boys \& girls are in the ratio of $2: 3$ respectively. Each student likes to play one or more of the games Badminton, Table Tennis \& Foot Ball. $19 \%$ of the boys \& $16 \%$ of the girls play only Badminton. $11 \%$ of the boys \& $18 \%$ of the girls play only Table Tennis and $16 \%$ of the boys $\& 12 \%$ of the girls play only Foot Ball. $15 \%$ of the boys \& $18 \%$ of the girls play Badminton as well as Table Tennis. $17 \%$ of the boys \& $14 \%$ of the girls play Badminton as well as Foot Ball. $15 \%$ of the boys \& $16 \%$ of the girls play table tennis as well as Foot Ball. Remaining boys \& girls play all three games.
6. How many girls play at least two games ?

1) 93
2) 81
3) 96
4) 84
5) 87
7. How many girls play Badminton as well as Table Tennis ?
1) 23
2) 30
3) 36
4) 32
5) 45
8. How many boys do not play Football ?
1) 35
2) 45
3) 42
4) 39
5) 36
9. Total how many students play Badminton ?
1) 128
2) 139
3) 146
4) 145
5) 136
10. How many students play at least one of the two games Badminton \& Table Tennis ?
1) 216
2) 199
3) 202
4) 196
5) 208
11. A shopkeeper allows $10 \%$ discount on goods when he sells without credit. Cost price of his goods is $80 \%$ of his selling price. If he sells his goods by cash then his profit percent is
1) $25 \%$
2) $35 \%$
3) $68 \%$
4) $85 \%$
5) $15 \%$
12. A speaks the truth 3 times out of 4, B 7 times out of 10 . They both assert that a white ball is drawn from a bag containing 6 balls, all of different colors. Find the probability of the truth of the assertion.
1) $8 / 90$
2) $7 / 80$
3) $5 / 40$
4) $1 / 50$
5) $9 / 20$
13. A can do a certain work in the same time in which B and C together can do it. If A and B together could do it in 10 days and C alone in 50 days, then B alone could do it in?
1) $2 / 25$
2) $4 / 25$
3) $1 / 25$
4) $2 / 35$
5) $5 / 45$
14. The ratio between length and breadth of a rectangular plot is $5: 3$ respectively and its perimeter is 48 metres. What will be its area in sqmetres?
1) $136 \mathrm{~m}^{2}$
2) $148 \mathrm{~m}^{2}$
3) $156 \mathrm{~m}^{2}$
4) $150 \mathrm{~m}^{2}$
5) $135 \mathrm{~m}^{2}$
15. The interest earned on Rs 15,000 in three years at simple interest is Rs 5,400 . Find the rate per cent per annum.
1) $15 \%$
2) $25 \%$
3) $12 \%$
4) $8 \%$
5) $18 \%$
16. X and Y started a business investing Rs 85,000 and Rs 15,000 respectively. In what ratio the profit earned after 2 years be divided between X and Y respectively ?
1) $17: 3$
2) $12: 4$
3) $15: 3$
4) $16: 5$
5) $12: 4$
17. Rani bought a piece of cloth for Rs 950 and spent Rs 300 on designing it. At what price should she sell it to make $30 \%$ profit?
1) $17252(14523) 1625$
2) 1225 5) 1025
18. 6 typists can do a piece of work in 8 hours. If 3 more typists whose speed is double work together, then the work will be finished in how many hours?
1) 14 days
2) 8 days
3) 6 days
4) 4 days
5) 12 days
19. 207 students appeared in an examination out of 276 registered students. Find out the approx ratio between registered to the appeared students.
1) $2: 3$
2) $4: 3$
3) $5: 4$
4) $8: 2$
5) None of these
20. Price of a TV set is rs10,000. It can be received 3000 cash down payment and in 6 equal monthly installments of 1300 . What is rate
1) $17.5 \%$
2) $8.5 \%$
3) $15.5 \%$
4) $13.4 \%$
5) None of these

Direction (21-25) Study the following table carefully and answer the questions given below:Number of boys of standard xi participating in different games

| Games <br> classes | XI A | XI B | XI C | XID | XIE | TOTAL |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Chess | 8 | 8 | 8 | 4 | 4 | 32 |
| Badminton | 8 | 12 | 8 | 12 | 12 | 52 |
| Table tennis | 12 | 16 | 12 | 8 | 12 | 6 |
| hockey | 8 | 4 | 8 | 4 | 8 | 32 |
| Football | 8 | 8 | 12 | 12 | 12 | 52 |
| Total No. of <br> boys | 44 | 48 | 48 | 40 | 48 | 228 |

21. All the boys of class XI D passed the annual examination but a few girls failed. If all the boys to girls as $5: 1$, what would be the number of girls who failed in class XI D?
1) 2
2) 5
3) 4
4) 12
5) None of these
22. What should be the total number of students in the school if all the boys of class XI A together with all the girls of Class XI B and Class XI C were equal to $25 \%$ of the total number of students?
1) 121
2) 272
3) 220
4) 130
5) None of these
23. Boys of which of the following classes need to be combined to equal four times the number of girls in class XI B and class XI C were to be equal to $25 \%$ of the total number of students?
1) 88
2) 50
3) 48
4) 96
5) None of these
24. If boys of class XI E participating in chess together with girls of class XI B and class XI C participating in Table Tennis \& Hockey respectively are selected for a course at the college of sports, what percent of the students will get this advantage approximately?
1) 3.51
2) 2.1
3) 4.5
4) 1.1
5) None of these
25. If for social work every boy of class XI D and class XI C is paired with a girl of the same class, what percentage of the boys of these two classes cannot participate in social work?
1) $50 \% 2) 75 \%$
2) $200 \%$
3) $25 \%$
4) None of these
26. Cost price of 20 articles is the same as the selling price of $x$ articles. If the profit is $25 \%$, then the value of $x$ is:
1) 15
2) 16
3) 20
4) 25
5) None of these
27. If selling price is doubled, the profit triples. Find the profit percent.
1) $66.66 \%$
2) $75 \%$
3) $100 \%$
4) $120 \%$
5) None of these
28. A vendor bought toffees at 6 for a rupee. How many for a rupee must he sell to gain $20 \%$ ?
1) 3
2) 4
3) 5
4) $6 \quad$ 5) None of these
29. Tickets numbered 1 to 20 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn bears a number which is a multiple of 3 ?
1) $3 / 10$
2) $3 / 20$
3) $2 / 5$
4) $1 / 2$
5) None of these
30. In a class, $30 \%$ of the students offered English, $20 \%$ offered Hindi and $10 \%$ offered both. If a student is selected at random, what is the probability that he has offered English or Hindi?
1) $2 / 5$
2) $3 / 4$
3) $3 / 5$
4) $3 / 10$
5) None of these
31. A bag contains 6 white and 4 red balls. Three balls are drawn at random. What is the probability that one ball is red and the other two are white?
1) $1 / 2$
2) $1 / 12$
3) $3 / 10$
4) $7 / 12$
5) None of these
32. Two cards are drawn from a pack of 52 cards. The probability that either both are red or both are kings, is:
1) $7 / 13$
2) $3 / 26$
3) $63 / 221$
4) $55 / 221$
5) None of these
33. The probability that a card drawn from a pack of 52 cards will be a diamond or a kingis :
1) $2 / 13$
2) $4 / 13$
3) $1 / 13$
4) $1 / 52$
5) None of these
34. Pavan earned a profit of 50 percent on selling an article for Rs. 9000 . What was the cost price of the article?
1) $20002(25003) 6000$
2) 3500 5) None of these
35. A, B and C start running around a circular stadium and complete one round in 10 seconds, 12 seconds and 16 seconds respectively. In how much time will they meet again at the starting point?
1) 2 Minutes
2) 4 Minutes
3) 1 Minutes
4) 5 Minutes
5) None of these

## English Language

## Direction(36-40) : Read the following passage carefully and answer the questions given below it.

A long time ago, on a big tree in the lap of the mountain, lived a bird named Sindhuka. It was a rather special bird because its droppings turned into gold as soon as they hit the ground. One day, a hunter came to the tree in search of prey and he saw Sindhuka's droppings hit the ground and turn into gold. The hunter was struck with wonder. He though, "I have been hunting birds and small animals since I was a boy, but in all my 80 years, I have never seen such a miraculous creature. He decided that he had to catch the bird somehow. He climbed the tree and skillfully set a trap for the bird. The bird, quite unaware of the danger it was in, stayed on the tree and sang merrily. But it was soon caught in the hunter's trap. The hunter immediately seized it and shoved it into a cage. The hunter took the bird home joyfully. But as he had time to think over his good fortune later, he suddenly realised, "If the king comes to know of this wonder, he will certainly take away the bird from me and he might even punish me for keeping such a rare treasure all to myself. So it would be safer and
more honourable if I were to go to the king and present the unique bird to him," The next day, the hunter took the bird to the king and presented it to him in court with great reverence. The king was delighted to receive such an unusual and rare gift. He told his courtiers to keep the bird safe and feed it with the best bird food available. The king's prime minister though, was reluctant to accept the bird. He said "O Rajah, how can you believe the word of a foolish hunter accept this bird? Has anyone in our kingdom ever seen a bird dropping gold? The hunter must be either crazy or telling lies. I think it is best that you release the bird from the cage." After a little thought, the king felt that his prime minister's words were correct. So he ordered the bird to be released. But as soon as the door of the cage was thrown open, the bird flew out, perched itself on a nearby doorway and defecated. To everyone's surprise, the dropping immediately turned into gold. The king mourned his loss.
36. Which of the following is possible the most appropriate title for the story?
a) The Skilled Hunter
b) The King's Prime Minister
c) The King's Defeat
d) The Bird with the Gold Dropping
e) The Trials and Tribulations of the Foolish Bird Sindhuka
37. Which of the following emotions made the hunter gift the bird to the king?
a) Respect
b) Joy
c) Pride
d) Fear e) Awe
38. Which of the following is true according to the story?
a) Birds like Sindhuka were very common in the area near the mountain
b) Sindhuka remained caged for the rest of its life
c) Sindhuka was unaware of the trap laid by the hunter
d) The King, when told to not accept the bird, did not listen to his Prime Minister
e) All are true
39. Why was the king's Prime Minister reluctant to accept the bird?
a) He believed that the bird would die if caged
b) He know about the hunter's habit of lying
c) He believed that the bird would bring bad luck to the king
d) His sources had informed him that the hunter was crazy
e) None of these
40. How did the hunter find Sindhuka?
a) He had read stories about the bird and had set traps at various locations in the city
b) He followed the bird's droppings
c) He was on the lookout for a prey when he chanced upon it
d) People from the city had informed him about the bird's whereabouts
e) He was attracted by the birds calls

Directions (Q. 41-44) Choose the word which is most nearly the same in meaning as the word given in bold as used in the passage.
41. Accomplice
a) Co-traveller
b) Collaborator
c) Controller
d) Coordinator
e) Commuter
42. Ascribed
a) Attributed
b) Donated
c) Attached
d) Withdrew
e) Connected
43. Denuded
a) Uncovered
b) stripped
c) Destroyed
d) Discarded
e) Abandoned
44. Itinerant
a) relating to the city
b) untrustworthy
c) traveling
d) on and off
e) used to

Directions ( $\mathbf{Q} .45-46$ ) Choose the word/group of words which is most opposite in meaning to the word/group of words printed in bold as used in the passage.
45. Reveal
a) Stop
b) Conceal
c) Present
d) Pending
e) Tell
46. Elated
a) Afraid
b) Poor
c) Happy
d) Depressed
e) Grounded

Direction (47-51) Read each of the following sentences to find out if there is any error in it. Error if any will be in one part of the sentence, $i . e . \operatorname{in} \underline{(A)}, \underline{(B)},(\underline{C})$ or $\underline{(D)}$, which you have to tick mark. If there is no error, mark $(\mathbf{E})$.
47. Involving of terrorists (A)/ in the blast (B)/ has been ruled out (C)/ by the police. (D)/ No error. (E)
48. The doctor has (A)/ prescribed two (B)/ spoonsful of medicine (C)/ thrice daily. (D) No error. (E)
49. The police could not (A)/ ascertain the (B)/ reason of the (C) girl's death. (D)/ No error. (E)
50. The government (A)/ has been incurring (B)/ loss at the rate of (C)/ fifty thousand annually. (D)/ No error. (E)
51. The mother rushed (A)/ to catch the child (B)/ who was leaning (C)/ over the wall. (D)/ No error. (E)

Direction (52-56) There are quite a few people in the world who are fat and are (52).These people are(53) to several kinds of illness. Medical advice to these people is to (54) their weight. But it is found difficult to follow this (55) in its totality.(56) who want to reduce weight must drink about a glass full of water, of maximum bearable warmth
52.
(a) underweight (b) overweight
(c) physically fit
(d) thin
(e) emaciated
53.
(a) susceptible
(b) unsusceptible
(c) safe
(d) unsafe
(e) cured
54.
(a) increase
(b) reduce
(c) keep constant
(d) ignore
(e) none of these
55.
(a) command
(b) order
(c) advice
(d) vice
(e) command and order
56.
(a) $\operatorname{dog} \mathrm{s}$
(b) cats (c) pigs
(d) people
(e) women
57. The sentences given in each question, when properly sequenced, form a coherent paragraph.Each sentence is labelled with a letter. Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.
A. The two neighbours never fought each other.
B. Fights involving three male fiddler crabs have been recorded, but the status of the participants was unknown.
C. They pushed or grappled only with the intruder.
D. We recorded 17 cases in which a resident that was fighting an intruder was joined by an immediate neighbour, an ally. E. We therefore tracked 268 intruder males until we saw them fighting a resident male.

1. BEDAC
2. DEBAC 3. BDCAE
3. BCEDA
4. None of these
5. The sentences given in each question, when properly sequenced, form a coherent paragraph.Each sentence is labelled with a letter. Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.
A. He felt justified in bypassing Congress altogether on a variety of moves.
B. At times he was fighting the entire Congress.
C. Bush felt he had a mission to restore power to the presidency.
D. Bush was not fighting just the democrats.
E. Representative democracy is a messy business, and a CEO of the White House does not like a legislature of second guessers and time wasters.
6. CAEDB
7. DBAEC
8. CEADB

## 4. ECDBA5. None of these

59. The sentences given in each question, when properly sequenced, form a coherent paragraph.Each sentence is labelled with a letter. Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.
A. In the west, Allied Forces had fought their way through southern Italy as far as Rome.
B. In June 1944 Germany's military position in World War Two appeared hopeless.
C. In Britain, the task of amassing the men and materials for the liberation of northern Europe had been completed.
D. The Red Army was poised to drive the Nazis back through Poland.
E. The situation on the eastern front was catastrophic.
60. EDACB
61. BEDAC
62. BDECA
63. CEDAB

## 5. None of these

60. The sentences given in each question, when properly sequenced, form a coherent paragraph.Each sentence is labelled with a letter. Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.
A. Experts such as Larry Burns, head of research at GM, reckon that only such a full hearted leap will allow the world to cope with the mass motorisation that will one day come to China or India.
B. But once hydrogen is being produced from biomass or extracted from underground coal or made from water, using nuclear or renewable electricity, the way will be open for a huge reduction in carbon emissions from the whole system. C. In theory, once all the bugs have been sorted out, fuel cells should deliver better total fuel economy than any existing engines.
D. That is twice as good as the internal combustion engine, but only five percentage points better than a diesel hybrid.
E. Allowing for the resources needed to extract hydrogen from hydrocarbon, oil, coal or gas, the fuel cell has an efficiency of $30 \%$.
61. CEDBA
62. CEBDA
63. AEDBC
64. ACEBD
65. None of these
66. The sentences given in each question, when properly sequenced, form a coherent paragraph.Each sentence is labelled with a letter. Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.
A. But this does not mean that death was the Egyptians' only preoccupation.
B. Even papyri come mainly from pyramid temples.
C. Most of our traditional sources of information about the Old Kingdom are monuments of the rich like pyramids and tombs.
D. Houses in which ordinary Egyptians lived have not been preserved, and when most people died they were buried in simple graves.
E. We know infinitely more about the wealthy people of Egypt than we do about the ordinary people, as most monuments were made for the rich.
67. CDBEA
68. ECDAB 3. EDCBA
69. DECAB 5. None of these

## Direction (62-65) Read the following passage carefully and answer the questions given below it.

Giving loans to impoverished women to make ceramics or to farmers to buy milk cows were not seen as great business. Microfinance was an industry championed by antipoverty activists. Today it is on the verge of a revolution, with billions of dollars from big banks, private equity shops and pension funds pouring in, driving growth of $30 \%$ to $40 \%$ this year alone. In 1998, a nonprofit microfinance organization in Peru, converted into a bank (called Mibanco). This demonstrated that the poor are good risks who repay loans on time and getting them together, not only chips away at poverty but also turns a profit. The success of Mibanco has piqued the interest of commercial banks, which had previously shunned the country's poor. Now big banks are going after Mibanco's clients with low-rate loans and realising it takes special know how to work with the unbanked are hiring away Mibanco's staff. But with the emergence of players who are only out for profit, microfinance schemes could end up milking the poor. This could happen in countries where lenders don't have to disclose interest rates. When a Mexican microfinancier went public, revealing its loans had rates of about $86 \%$ annually, the Consultative Group to Assist the Poor criticised it for putting shareholders ahead of clients. The pressure to turn a profit also forces microfinanciers to change their business models in ways that depart from the industry's core mission, to help poor people lead better lives. Such shifts have caused the average loan size to triple. Moreover smaller loans being costlier to service, a lower percentage of loans go to women because they tend to take out smaller sums, According to CGAP, with the flood of new large en tities there is the risk that a large percentage of cross border funds go to Latin America and Eastern Europe, the World's most developed microfinance markets. "The poorest of the World's poor, who are predominantly in Asia and Africa get left out,' says the CEO of the nonprofit Grameen Foundation, which helps develop microfinance institutions. Segementing the industry, might be worthwhile if it allows more of the poor to get access to credit. Multinational corporations could take the top microfinance institutions to the next level, and the remainder could be the responsibility of development groups and regional banks. Yet making loans to poor people is hardly a poverty cure. Property rights and the rule of law matter too. One cannot overidealize what microfinance alone can do. Most nonprofits started with lending simply because local laws prohibited nonbanks from offering deposit accounts. With an increase in competition and marketing efforts, poverty alleviation experts are concerned that people will be talked into loans they wouldn't otherwise want. For example, organisations like Mibanco are providing consumer loans. There is nothing wrong with buying. TVs and microwaves on credit, but certain markets, like Mexico, have been flooded with loans that have nothing to do with providing capital to aspiring entrepreneurs just increasing household debt.
62. Why did most microfinance institutions initially provide only credit services?
a) They were unable to compete with the interest rates o ffered on deposits by commercial banks
b) They have to operate purely on a nonprofit basis
c) Government restrictions prevented them from offering additional services
d) To ensure the poor have access to modern necessities like microwaves
e) None of these
63. What was the impact of the non-disclosure of their interest rates by lending institutions?
a) The Government issued sanctions against such firms
b) Shareholders interests were not protected
c) More microfinance institutions were motivated to go public
d) The poor were exploited
e) None of these
64. What is CGAP's fear with respect to new entities providing microfinance?
a) NGO s will be unable to survive in an environment of cut throat competition
b) The poor will hesitate to take advantage of credit facilities because of the formalities involved
c) The poor in the developed world will be overlooked
d) The interests of the most deserving among the poor will be neglected
e) None of these
65. What is the author's opinion about the competition for customers among microfinanciers?
a) It benefits the poor by providing them with loans they would have otherwise not had access to
b) It is futile since the poor have to pay high rates of interest on property loans
c) It is not beneficial since firms waste their profits on marketing rather than helping the poor
d) None of these
e) None of these

## Reasoning

Directions (Q.66-70) Study the following information carefully and answer the questions given below
8 persons - Ekam, Ford, Gabbar, Himmat, Inpreet, Johny, Karma and Loveleen - are sitting around a circle at equidistance but not necessarily in the same order. Some of them are facing towards the centre while some others are facing outside the centre. Loveleen is sitting $3^{\text {rd }}$ to the left of Karma. Both Karma and Loveleen are facing towards the outside. Himmat is not an immediate neighbour of Karma or Loveleen. Johny faces the just opposite direction of Himmat. (It implies that if Himmat is facing towards the centre, Johny would face outside the centre). Johny is sitting $2^{\text {nd }}$ to the left of Himmat. Both the immediate neighbours of Gabbar face just opposite direction of Gabbar. Ekam is an immediate neighbour of Karma. Both the immediate neighbour of Himmat face
just opposite direction of Himmat. Ekam faces towards the centre and he is an immediate neighbour of both Karma and Inpreet. Inpreet faces towards the centre.
66. Who amongst the following are not facing towards the centre?

1) Ekam, Ford and Inpreet
2) Ford, Gabbar and Johny
3) Himmat, Karma and Loveleen
4) Gabbar, Inpreet and Johny
5) None of these
67. What is the position of Gabbar with respect to Ekam?
a) $2^{\text {nd }}$ to the left
b) $3^{\text {rd }}$ to the right
c) $4^{\text {th }}$ to the left
d) $2^{\text {nd }}$ to the right
e) $5^{\text {th }}$ to the right
68. Who among the following is sitting exactly between Ford and Karma?
1) Johny
2) Inpreet
3) Ekam
4) Gabbar
5) None of these
69. How many persons are sitting between Himmat and Karma if we move clockwise starting from Himmat?
1) Three
2) Four
3) Five
4) Two
5) One
70. Which of the following statements is not true regarding the given sitting arrangement?
1) Loveleen is sitting exactly between Gabbar and Inpreet
2) Himmat is sitting $3^{\text {rd }}$ to the right of Karma
3) Ford and Inpreet are sitting just opposite to each other
4) Ekam is sitting $3^{\text {rd }}$ to the left of Gabbar
5) All are true

Direction (71-75) In these questions, relationship between different elements is shown in the statements. These statements are followed by two conclusions.

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 is true
71. Statements $H \geq I=J>K \leq L$

Conclusions
I. $\mathrm{K}<\mathrm{H}$
II. $\mathrm{L} \geq \mathrm{I}$
72. Statements $\mathrm{S}>\mathrm{C} \geq \mathrm{O}, \mathrm{P}<\mathrm{C}$

Conclusions
I. $\mathrm{O}<\mathrm{P}$
II. $\mathrm{S}>\mathrm{P}$
73. Statements $A=B \leq C, A>R$

Conclusions
I. $\mathrm{B}>\mathrm{R}$
II. $\mathrm{R}<\mathrm{C}$
74. Statements $\mathrm{D}>\mathrm{E} \leq \mathrm{F}, \mathrm{J}<\mathrm{F}$

Conclusions
I. $\mathrm{D}>\mathrm{J}$
II. $\mathrm{E}<\mathrm{J}$
75. Statements $\mathrm{P}<\mathrm{Q}>\mathrm{T}, \mathrm{R} \geq \mathrm{Q}$

Conclusions
I. $\mathrm{R}>\mathrm{P}$
II. $\mathrm{T}<\mathrm{R}$

Direction (76-79) A word and number arrangement machine when given an input line of words and numbers rearrange them following a particular rule. The following is an illustration of input and rearrangement. (Single digit numbers are preceded by a zero. All other numbers are two digit numbers )

Input : whether 15 wish you 08 being 48 come 68 hour 12486
Step I. : being whether 15 wish you 0848 come 68 hour 12486
Step II. being 08 whether 15 wish you 48 come 68 hour 12486
Step III. being 08 come whether 15 wish you 4868 hour 12486
Step IV. being 08 come 15 whether wish you 4868 hour 12486
Step V. being 08 come 15 hour whether wish you 486812486
Step VI. being 08 come 15 hour 48 whether wish you 6812486
Step VII. being 08 come 15 hour 48 whether 68 wish you 12486
Step VIII. being 08 come 15 hour 48 whether 68 wish 86 you 124
Step VIII is the last step of the arrangement of the above input as the intended arrangement is obtained.As per the rules followed in the above steps, find out in each of the following questions the appropriate steps for the given input. Input : new 59 personnel 6828 teacher 10 price grievance 32
76) How many steps would be needed to complete the arrangement?

1) V
2) VI
3) VIII
4) VII
5) Cannot be Determined
6) Which of the following would be the final arrangement?
7) grievance 10 new 28 personnel 32 price 5968 teacher
8) grievance new personnel price teacher 1028325968
9) grievance 10 new 28 personnel 32 price 59 teacher 68
10) grievance 68 new 59 price 32 personnel 28 new 10
11) None of these
12) Which of the following would be step I?
13) grievance new 5968 personnel 28 teacher 10 price 32
14) 10 grievance new 59 personnel 6828 teacher price 32
15) grievance 10 new 59 personnel 6828 teacher price 32
16) 10 grievance new 59 personnel 6828 teacher price 32
17) grievance new 59 personnel 6828 teacher 10 price 32
18) Which word/number would be the sixth position from the left end in step III?
19) personnel
20) price 3) 68
21) 32
22) teacher

## Directions (Q. 80-84) Study the following information carefully and answer the questions given below :-

Five friends Pawan, Qureshi, Rajan, Sultan and Tango are Musician, Architect, Doctor, Engineer and Artist by profession and like White, Blue, Red, Yellow and Green colour but not necessarily in that order. Their hobbies are Net Surfing, Gardening, Reading, Painting and Dancing but not necessarily in the same order.
The person whose hobby is dancing preferred lemonade to cola while others preferred cola to lemonade in beverages.
The four friends who took cola were Pawan, the one who is an Engineer, the person whose favourite colour is Green and the one whose hobby is net surfing.

Sultan did not take lemonade and his favourite colour is White.
Qureshi's favourite colour is Blue. He did not like lemonade.
Tango's hobby is not painting, reading or gardening.
Sultan clicks a picture of his friend who is an Engineer.
The person whose favourite colour is Red likes painting and the person who is artist likes gardening.
Sultan is not a doctor. The person who is a doctor takes cola. The person who is an Engineer likes Blue colour.
The musician's favourite colour is not Yellow. Rajan's favourite colour is Green.
80. Who among the following is a Doctor?
a) Rajan
b) Pawan
c) Sultan
d) Can't say
e) None of these
81. Qureshi's hobby is

1) Reading
2) Painting
3) Gardening
4) Can't say
5) None of these
82. The person who likes Blue colour is a/an
a) Architect
b) Musician
c) Engineer
d) Can't say
e) None of these
83. Whose favourite colour is Yellow?
1) Tango
2) Rajan
3) The one who is an artist
4) Can’t say
5) None of these
84. Which of the following combinations is not correctly matched?
a) Tango-Architect-Yellow-Dancing-Cola
b) Rajan-Artist-Green-Gardening-Cola
c) Qureshi-Engineer-Blue-Reading-Cola
d) Pawan-Doctor-Red-Painting-Cola
e) None of these

Direction (85-89) This question consists of a question and two statements numbered I and II given below it you have to decide whether the data given in the statements are sufficient to answer the questions. Read both the statements and choose the most appropriate option
Select answers for the questions from below mentioned options
a. The data in both statements I and II together are necessary to answer the question
b. The data in statement II alone are P sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question
c. The data even in both statements I and II together are not sufficient to answer the question
d. The data either in statement I alone or statement II alone are sufficient to answer the question
e. The data in statement I alone are sufficient to answer the question, while the data in statement II alone are not
85. How is "life' written in the code language?
(I) 'life on other planets' is written as 9648 'planets on other side' is written as ' 4596
(II) "Documentary on actor's life' is written as" ' 2981 ' and 'living life on edge' is written as 9837
86. Among $\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}$ and T , seated in a straight line facing north, who sits second from the right end of the line?
(I) T sits second to left of R . Only one person sits between T and Q . S is an immediate neighbor of T
(II) Q sits at one of the extreme ends of the line. Only one person sits between S and $\mathrm{P} . \mathrm{P}$ is an immediate neighbor of T
87. Out of A, B, C, D and E. each driving a different distance, did A drive more than 23 kms ?
(I) A drove more than only C and D . B did not drive the maximum number of kms. C drove 15 kms
(II) C drove more than only D . B drove more than A and D but not the highest number of kms the one who drove the maximum number of kms drove 11 kms more than C
88. A five storey building (consisting of a ground floor and four floors on top of it such that the ground floor is numbered 1 the floor above it, number 2 and so on till the topmost floor is numbered 5) houses different people viz C, D, E, F and G . Who lives on floor no 3 ?
(I) G lives on an even numbered floor. Only one person lives between G and C . F lives on the topmost floor.
(II) E lives on the lowermost floor. Only two people live between E and G. Only one person lives between F and D.
89. Among the six friends $\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}$ and U , sitting around a circular table facing the centre, who sits to immediate right of T?
(I) Q sits third to left of T. P sits second to right of T. S is an immediate neighbor of R.
(II) T sits second to right of R . Only one person sits between T and $\mathrm{P} . \mathrm{U}$ is not an immediate neighbor of R .
90. Deepika tells Shraddha "Your mother's father's own son is the husband of my sister." How is Deepika related to Shraddha?

1) Sister-in-law
2) Cousin
c) Aunt
d) Data inadequate
e) None of these
91. D is A's son. C is the mother of P and wife of D . How is A related to C?
a) Father
b) Uncle
c) Father-in-law
d) Data inadequate
e) None of these
92. Pointing to the lady in the photograph, Mrinalini said, "Her son's father is the only son-in-law of my mother". How is Mrinalini related to the lady?
a) Sister
b) Mother
c) Cousin
d) Aunt
e) None of these
93. A is brother of $R$. $C$ is mother of $B$. $M$ is sister of $C$. How is $M$ related to $B$ ?
a) Nephew
b) Niece
c) Aunt
d) Cannot be determined
e) None of these
94. $R$ is the daughter of $Q$. $M$ is the sister of $B$ who is the son of $Q$. How $M$ is related to $R$ ?
a) Cousin
b) Niece
c) Sister
d) Aunt
e) None of these

## Direction ( 95-100) Study the following information carefully and answer the questions given below :-

Arvind, Nayan, Mayank, Rohit, Jai, Varun, Sumit and David are eight friends sitting around a circular table. Two of them are not facing the centre. All of them like different types of Automobile brands viz.
Mahindra, Porsche, Hyundai, TVS, Fiat, Rolls Royce, Maruti and Opel, but not necessarily in the same order. Rohit and Mayank are sitting third and second to the left of Arvind respectively. Rohit and Sumit are neighbours of Nayan,who likes Fiat and facing outside.
Sumit is sitting third to the right of Arvind who is facing outside and likes Mahindra. David is third to the right of Jai and likes Maruti. Arvind and Davind are not the neighbour of that person who likes Rolls Royce. Varun does not like Hyundai and TVS. The person who likes Opel is sitting opposite of Jai, who is not an immediate neighbour of TVS. An immediate neighbour of Summit likes Rolls Royce.
95. The person who is sitting second to the right of Arvind likes which of the following automobile brand?
a) Mahindara
b) Rolls Royce c) Porsche
d) Opel
e) Other than given options
96. Who among the following likes TVS?
a) Nayan
b) Mayank
c) Rohit
d) David
e) Other than given options
97. What is the position of Varun with respect to Arvind?

1) Immediate left
2) Second to the right
3) Immediate right
4) Cannot be determined
5) Other than given options
98. If Sumit is immediate right of Nayan then in the same way who among the following sits third to the right of Nayan?
a) Mayank
b) Jai
c) David
d) Varun
e) Other than given options
99. How many person sit between the person who likes Mahindra and the one who likes Hyundai (count in clockwise direction starting from Hyundai)?
1) Two 2) One 3) None
2) Three 5) Four
100. Which of the following statements is true?
1) Mayank is the neighbour of Rohit and Nayan
2) Arvind likes Hyundai and faces outside the centre
3) Sumit likes Mahindra and does not face inside the centre.
4) All are true
5) None is true

## Answers

1) Option 5

The difference between the working females in Bangalore and the working males in Chennai $=32.5-22.5=10$ lakh
2) Option 2

Income per working person $=$ Total income of city $/$ Number of working people in city
Income per working person in Delhi $=200$ Crore x 36/100 / (30+25) Lakh $=72 / 55 \quad=$ Rs. 130.9
In Chennai $=200 \times 16 / 100 /(22.5+17.5)$ Lakh $=$ Rs. 80
In Mumbai $=200 \times 20 / 100 /(35+30)$ Lakh $=$ Rs. 61.53
In Kolkata $=200 \times 14 / 100 /(30+32.5)$ Lakh $=$ Rs. 44.8
In Bangalore $=200 \times 10 / 100 /(25+32.5)$ Lakh $=$ Rs. 34.78
In Jaipur $=200 \times 4 / 100 /(17.5+25)$ Lakh = Rs. 18.82
The income per working person in Jaipur is the minimum.
3) Option 4

Average number of working males $=1 / 6 \times(30+22.5+35+30+25+17.5)=26.66$ lakh
Average number of working females $=1 / 6 \times(25+17.5+30+32.5+32.5+25)=27.08$ lakh
So, required sum $=26.66+27.08=53.75$ lakh
4) Option 1

Total income of Delhi $=[200 \times 36 / 100]=$ Rs. 72 Crore
Income per person $=72$ Crore $/ 55$ Lakh $=$ Rs.130.9
So, required difference of income $=5$ lakh $\times 130.9=$ Rs. 654.5 lakh
= Rs.6.545 Crore
5) Option 3

Required $\%=30 / 25 \times 100=120 \%$
6) Option 2

Girls playing at least 2 games $=27+21+24+9=81$
7) Option 3

Girls playing Badminton as well as Table Tennis $=27+9=36$
8) Option 2

Boys not playing football $=19+11+15=45$
9) Option 2

Total number of students playing Badminton
Boys $=19+15+17+7=58$
Girls $=24+27+21+9=81$
Total $=58+81=139$
10) Option 1
students play at least one of the two games Badminton \& Table Tennis = (Total boys - only football playing boys)+(Total girls - only football playing girls)
$=(100-16)+(150-18)$
$=84+132=216$
11) Option 1
S.p $=100$
C. $P=80$

Profit $=100-80=20$
profit percent $=20 / 80 \times 100=25 \%$
12) Option 2
$=(1 / 6) *(3 / 4) *(7 / 10)$
$=7 / 80$

## 13) Option 3

$A=B+C$
$==>\mathrm{A}-\mathrm{B}=\mathrm{C}$
$\mathrm{A}+\mathrm{B}=1 / 10$
$\mathrm{A}-\mathrm{B}=1 / 50$
Subtracting
$2 \mathrm{~B}=1 / 10-1 / 50=2 / 25$
B $=1 / 25$
14) Option 5

Perimeter $=2($ Length + Breadth $)$
$48=2(5 \mathrm{x}+3 \mathrm{x})$
$==>x=48 / 16=3$
Area $=(5 \times 3) \times(3 \times 3)=15 \times 9=135 \mathrm{~m} 2$
15) Option 3

Rate $=(5400 * 100) /(15000 * 3)=12 \%$
16) Option 1

Ratio $=12 \times 2 \times 85000: 12 \times 2 \times 15000=17: 3$
17) Option 3

Actual cost price of cloth $=$ Rs $(950+300)=$ Rs 1250
To gain 30\%,
$\mathrm{SP}=(130 * 1250)$
$/ 100=$ Rs 1625
18) Option 4
$==>(6 * 8)=((6 * 1)+(3 * 2))^{*} x$
$==>48=12 x$
$\Rightarrow=>=4 d a y s$
19) Option 2

Required ratio $=276: 207=4: 3$

## 20) Option 1

After down-payment.. 7000 rupees to be pay..
So.. $1300 * 6=7800$
$\mathrm{Si}=800$
Use $\mathrm{p}^{*} \mathrm{r}^{*} \mathrm{t} / 100=\mathrm{si}$
$==>(7000 * 6 * \mathrm{r})=800$
$==>r=17.5 \%$
21) Option 1

Total number of boys in XI D $=40$
Number of girls in XI D $=25 \%$ of $40=10$
Since all the boys of XI D passed, so the number of boys in XII D $=40$
Ratio of boys \& girls in XII D is 5: 1
Number of girls in XII D $=1 / 5 \times 40=8$
$\therefore$ number of girls who failed $=(10-8)=2$

## 22) Option 2

Number of boys in XI A $=44$
Number of girls in XI B $=25 \%$ of $48=12$
Number of girls in XI C $=25 \%$ of $48=12$
$(44+12+12)=68$
Let x be the total number of students.
Then $25 \%$ of $\mathrm{x}=68$
Or, $x=(68 \times 100) / 25=272$
Total number of students in the school $=272$.
23) Option 4

4 times the number of girls in XI B \& XI C $=4(12+12)=96$.
24) Option 1

Number of boys in XI E = 4
Number of girls in XI B playing Table tennis $=25 \%$ of $16=4$
Number of girls in XI C playing Hockey $=25 \%$ of $8=2$
$(4+4+2)=10$
Total number of students
$(228+25 \%$ of 228$)=285$
Let $\mathrm{x} \%$ of $285=10$
Or, $x=(10 \times 100) / 285=3.51$
Total number of students getting advantage approximately is 3.51 .
25) Option 4

Since the number of girls $=25 \%$ of the number of boys, so only $25 \%$ of the boys can participate in social work
26) Option 2

This type of questions should be done by using options.
$\Rightarrow$ Cost Price of 20 articles $=$ Selling price of x article
$($ Let cost price of one article $=$ Rs 20)
$\Rightarrow \mathrm{CP}$ of 20 articles $(20 * 20)=$ SP of x articles
$\Rightarrow$ If CP of 1 article $=$ Rs 20, Selling price of one article $=20 * 1.25=25$
$\Rightarrow 25 \mathrm{x}=400$
$\Rightarrow \mathrm{x}=16$
27) Option 3

Let $\mathrm{SP}=\mathrm{x}, \mathrm{CP}=\mathrm{y}$
$\Rightarrow 2 \mathrm{x}-\mathrm{y}=3(\mathrm{x}-\mathrm{y})$
$\Rightarrow 2 \mathrm{x}-\mathrm{y}=3 \mathrm{x}-3 \mathrm{y}$
$\Rightarrow 2 \mathrm{y}=\mathrm{x}$
It proves that SP is double of CP , which means profit percentage is $100 \%$.

## 28) Option 3

CP per toffee $=1 / 6$ and SP per toffee $=1 / 6 * 1.2=1 / 5$
So answer is 5

## 29) Option 1

Here, $S=[1,2,3,4, \ldots ., 19,20]$
Let $\mathrm{E}=$ event of getting a multiple of $3=[3,6,9,12,15,18]$
$\mathrm{P}(\mathrm{E})=\mathrm{n}(\mathrm{E}) / \mathrm{n}(\mathrm{S})=6 / 20=3 / 10$
30) Option 1
$\mathrm{P}(\mathrm{E})=30 / 100=3 / 10, \mathrm{P}(\mathrm{H})=20 / 100=1 / 5$ and $\mathrm{P} \quad(\mathrm{E} \cap \mathrm{H})=10 / 100=1 / 10$
$P(E$ or $H)=P(E U H)$
$=P(E)+P(H)-P(E \cap H)$
$=(3 / 10)+(1 / 5)-(1 / 10)=4 / 10=2 / 5$

## 31) Option 1

Let $S$ be the sample space. Then,
$n(S)=$ Number of ways of drawing 3 balls out of $10=10 C 3=(10 \times 9 \times 8) /(3 \times 2 \times 1)$
$=120$
Let $\mathrm{E}=$ event of drawing 1 red and 2 white balls
$n(E)=$ Number of ways of drawing 1 red ball out of 4 and 2 white balls out of 6
$=(4 \mathrm{C} 1 \times 6 \mathrm{C} 2)$
$=4 \times(6 \times 5) /(2 \times 1)=60$
$\mathrm{P}(\mathrm{E})=\mathrm{n}(\mathrm{E}) / \mathrm{n}(\mathrm{S})=60 / 20=1 / 2$

## 32) Option 4

Clearly, $\mathrm{n}(\mathrm{S})=52 \mathrm{C} 2=(52 \times 51) / 2=1326$
Let $\mathrm{E} 1=$ event of getting both red cards,
$\mathrm{E} 2=$ event of getting both kings
Then, $\mathrm{E} 1 \cap \mathrm{E} 2=$ event of getting 2 kings of red cards.
$\mathrm{n}(\mathrm{E} 1)=26 \mathrm{C} 2=(26 \times 25) /(2 \times 1)=325 ; \mathrm{n}(\mathrm{E} 2)=4 \mathrm{C} 2=(4 \times 3) /(2 \times 1)=6$
$n(E 1 \cap E 2)=2 C 2=1$
$\mathrm{P}(\mathrm{E} 1=\mathrm{nE} 1 / \mathrm{n}(\mathrm{S})=325 / 1326 \quad \mathrm{P}(\mathrm{E} 2)=\mathrm{nE} 2 / \mathrm{n}(\mathrm{S})=6 / 1326$
$P(E 1 \cap E 2)=1 / 1326$
P (both red or both kings) $=\mathrm{P}(\mathrm{E} 1 \mathrm{U}$ E2 $)$
$=P(E 1)+P(E 2)=P(E 1 \cap E 2)$
$=325 / 1326+6 / 1326-1 / 1326$
= $330 / 1326$
= $55 / 221$

## 33. (Option 2)

Here, $\mathrm{n}(\mathrm{S})=52$
There are 13 cards of diamond (including one king) and there are 3 more kings.
Let $\mathrm{E}=$ event of getting a diamond or a king.
Then, $n(E)=(13+3)=16$
$P(E)=16 / 52=4 / 13$
34) Option 3

9000 ----- 150\%
?
------ 100\%
Cost Price $=(9000 * 100) / 150=6000$

## 35) Option 2

Take L.C.M of 10,12 and $16=240$ seconds $=4$ minutes

English Language:-
36. D 37. D
38. C
39. E
40. C
41. B
42. A
43. B 44. C
45.B
46. B
47. (A) Write Involvement instead of Involving in part (A). Here, the noun form of the word involving is required which is involvement and not involving.
48. (C) Write spoonfuls instead of spoonsful in part (C). Spoonful is a compound word, the plural of which is formed by adding $s$ to full and not to spoon.
49. Replace reason with cause in part (C). Reason refers to the explanation or justification of sone happening whereas cause refers to something that brings about a certain happening.
50. (D) Write rupee instead of rupees in part (D).
51. (D) Change over to against in part (D). To lean means to stand with the support of something. So, in this situation the prepositions against will be used.
52. B
53. A
54. B
55. C 56. D
57. 1
58. 2
59.2
60. 1
61.3
62. C
63. D
64. D
65. D

Reasoning :

71. (Option A)

Conclusions
I. $\mathrm{K}<\mathrm{H}$ is True
II. $\mathrm{L} \geq \mathrm{I}$ is False

Only Conclusion I is True hence answer is Option A.
72. (Option B)

Conclusions
I. $\mathrm{O}<\mathrm{P}$ is False
II. $S>P$ is True

Only Conclusion II is True hence answer is Option B.
73. (Option E)

Given that, $\mathrm{A}=\mathrm{B} \leq \mathrm{C}$
and $\quad \mathrm{A}>\mathrm{R}$
On combining the statement we will get : $\mathrm{R}<\mathrm{A}=\mathrm{B} \leq \mathrm{C}$
Conclusions
I. $\mathrm{B}>\mathrm{R}$ is True
II. $\mathrm{R}<\mathrm{C}$ is True

Both the conclusions are True hence answer is Option E
74. (Option D)

Given that, $\mathrm{D}>\mathrm{E} \leq \mathrm{F}$
and $\quad \mathrm{J}<\mathrm{F}$
On combining the statement we will get : $\mathrm{D}>\mathrm{E} \leq \mathrm{F}>\mathrm{J}$
Conclusions
I. $\mathrm{D}>\mathrm{J}$ is False
II. $\mathrm{E}<\mathrm{J}$ is False

Both Conclusions are False hence answer is Option D
75. (Option E)

Given that, $\mathrm{P}<\mathrm{Q}>\mathrm{T}$
and $\quad \mathrm{R} \geq \mathrm{Q}$

On combining the statement we will get :
$\mathrm{P}<\mathrm{Q} \leq \mathrm{R}$ and $\mathrm{R} \geq \mathrm{Q}>\mathrm{T}$
Conclusions
I. $\mathrm{R}>\mathrm{P}$ is True
II. $\mathrm{T}<\mathrm{R}$ is True

Both Conclusions are True hence answer is Option E
76. D
77. C
78. E
79. A
80. B 81. A
82. C
83. A
84. A
85.

From statement (I)
Life on other planets' $=9648$
Planets on other side' $=$ ' 4596
=è Planets on other $=964$, life $=8$
Statement (I) sufficient to answer to the question
From statement (II)
Documentary on actor's life' $=2981$
Living life on edge' $=9837$
$=$ life on $=98$
life $=$ either 9 or 8
Statement (II) is not sufficient to answer to the question
86.

From statement (I)
--Q--- ----- ---T-- ----- --R---
S position either immediately left or right(not conform)
So statement (I) not true
From statement (II)
Several possibilities let Q take right side of the line
----- ---T--- ------ ---S--- ---Q---
P position not conform .statement (II) not true
Form (I) \& (II)
--Q---- ------ ---T--- ---------R-

S \& P positions either T immediately left or right (not conform).
Form (I)\&(II) are used not answer the question.
87.

From statement (I)
C and D positions not conform from (I)
From statement (II)
C drove kms not given .so not answer the question
From statement (I)\&(II)
Arrangement is
$\mathrm{E}>\mathrm{B}>\mathrm{A}>\mathrm{C}>\mathrm{D}$
E drove 26 km
A possible drove 24 or not
88.

From statement (I)
G position either 2 nd or 4 th
Not answer the question
From statement (II)
5 ----F
4 ----G
3----D
2----C
1----E
Statement (II) are necessary to answer the question
89.

The data either in statement I alone or statement II alone are sufficient to answer the question
90. C
91. D
92. E
93. C
94. C

Direction (95-100)

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95. B 96. C 97. C 98. D 99. E 100. E

