Direction (1-10): Read the following passage carefully and answer the questions that follow. Certain words are printed in bold to help you locate them while answering some of these.

Without, the night was cold and wet, but in the small parlour of Laburnam Villa the blinds were drawn and the fire burned brightly. Father and son were at chess, the former, who possessed ideas about the game involving radical changes, putting his king into such sharp and unnecessary perils that it even provoked comment from the whitehaired old lady knitting placidly by the fire. "Hark at the wind," said Mr. White, who, having seen a fatal mistake after it was too late, was amiably desirous of preventing his son from seeing it. "I'm listening," said the latter, grimly surveying the board as he stretched out his hand. "Check." "I should hardly think that he'd come to-night," said his father, with his hand poised over the board. "Mate," replied the son. "That's the worst of living so far out," bawled Mr. White, with sudden and unlooked-for violence; "of all the beastly, slushy, out-of-the-way places to live in, this is the worst. Pathway's a bog, and the road's a torrent. I don't know what people are thinking about. I suppose because only two houses in the road are let, they think it doesn't matter." "Never mind, dear," said his wife, soothingly; "perhaps you'll win the next one". Mr. White looked up sharply, just in time to intercept a knowing glance between mother and son. The words died away on his lips, and he hid a guilty grin in his thin grey beard. "There he is," said Herbert White, as the gate banged to loud and heavy footsteps that came toward the door. "Sergeant-Major Morris," he said, introducing him. "I'd like to go to India myself," said the old man, "just to look round a bit, you know." "Better where you are," said the sergeant-major, shaking his head. He put down the empty glass, and sighing softly, shook it again. "I should like to see those old temples and fakirs and jugglers," said the old man. "What was that you started telling me the other day about a monkey's paw or something, Morris?" At Mr. and Mrs. Whites' urging, Sergeant-Major Morris takes a small, mummified paw out of his pocket. He explains that a fakir (a mystic miracle worker) placed a spell on the paw to
prove that people's lives are governed by fate and that it is dangerous to meddle with fate. According to the sergeant-major, three men can wish on the paw three times each. The sergeant-major himself has already had his three wishes, as has another man, who used his third wish to ask for death. The sergeantmajor has considered selling the paw, but he doesn't want it to cause any more trouble than it already has. Moreover, no one will buy the paw without first seeing proof of its effect. The sergeant-major throws the paw into the fire, and Mr. White quickly rescues it. The sergeant-major warns him three times to leave the paw alone, but he eventually explains how to make a wish on the paw. "Sounds like the Arabian Nights," said Mrs. White, as she rose and began to set the supper. "Don't you think you might wish for four pairs of hands for me? "Her husband drew the talisman from pocket, and then all three burst into laughter as the sergeantmajor, with a look of alarm on his face, caught him by the arm. "If you must wish," he said, gruffly, "wish for something sensible."

1. Which of the following can be inferred about the playing tendency of the man and the son? A. The father was not very good at playing chess and was losing continuously.
B. The father was intentionally losing to his son for cheering him up.
C. The father was not hesitant to take hasty steps and was playing restlessly.
D. The son was too engrossed in the game but the man was playing just to appease his son.
E. The game was being played between two experts and the game was getting more difficult with each round.
2. Which of the following can be inferred from the first half of the story?
A. The Whites were waiting for a visitor who was not intent on coming.
B. The Whites were waiting for someone but their residence was in an isolated locality.
C. The Whites were enjoying themselves and did not want any intruder.
D. The father was not welcoming and was nervous about the visitor's visit.
E . The father wanted the family to welcome the visitor with all their warmth.
3. Which of the following can be inferred from Mrs. White's words when his husband started complaining about the place they lived in?
A. Mrs. White did not leave a single chance to demean her husband.
B. Mrs. White liked it when her husband lost any game to his son.
C. Mrs. White liked to tease her husband and was pulling his leg.
D. Mr. White was complaining because he had lost the game.
E. Mrs. White wanted her husband to stop grumbling as they had no choice but stay there.
4. Which of the following can be understood from the Sergeant's words and gestures?
A. He did not hold very high opinions about the paw and considered it to be a danger.
B. He was mesmerized by the power of the paw and was repentant that he had not used its powers correctly.
C. He wanted to wish using the paw again and was upset that his three wishes had been wasted.
D. He did not believe in the paw's power and was embarrassed that he would be laughed at.
E. He was jealous that the Whites might get something good using the paw.
5. Which of the following can be inferred from the reaction that Morris gave when Mrs. White mentioned her wish?
A. Morris wanted to make the situation a bit light and made everyone laugh.
B. Morris was extremely superstitious and believed in magic and all supernatural things.
C. Morris wanted to scare his friend's family and get fun out of it.
D. Morris tried to make the situation more intense and reacted more.
E. Morris was scared as he knew the paw could make anything come true.
6. Which of the following happened when the Whites got to know about the paw?
A. The Whites were confused and pretty scared after the story of the paw was narrated to them.
B. The Whites did not believe the story and took the paw quite lightly.
C. The Whites were excited and wanted to make extravagant wishes.
D. The Whites felt their friend was trying to scare them and make up stories so they would not give in.
E . The Whites were mocking at Morris and wanted to have a good laugh at the story of the paw.
7. Which of the following describes the lesson that the fakir wanted to teach people?
A. Boldness can at times save a person from danger but not always.
B. Magic and all supernatural forces are existent in today's life and people must not ignore it.
C. It is not good to interfere in fate's decisions as it only brings trouble.
D. Human beings are so foolish that they cannot even bring their own good.
E. Magic always comes with a price so it is better to stay away from it.
8. Which of the following describes the central theme of the story?
A. Hazards of aspirations
B. Deception by one's own friends
C. Imagination by people
D. Supernatural forces harming people
E. Darkness of the night enlivens a number of supernatural forces
9. Which of the following is the MOST OPPOSITE in meaning to the word 'placidly'?
A. Wonderfully
B. Unskilled
C. Excitedly
D. Depressed
E. Bitterly
10. Which of the following is the MOST SIMILAR in meaning to the word 'bawled'?
A. Ridiculed
B. taunting
C. Shouted
D. Laughed
E. Criticized
11. Direction: A sentence with two blanks is given, each blank indicating that something has been omitted. Choose the words that best fit the meaning of the sentence as a whole. The of human beings leads to overutilization of resources. They cut the trees and kill the animals creating ecological
$\qquad$ _.
A. Lust, parity
B. Greed, imbalance
C. Bounty, disparity
D. Itch, balance
E. Gluttony, instability
12. Direction: Each sentence below has two blanks, each blank indicating that something has been omitted. Choose the words that best fit the meaning of the sentence as a whole.
Ransomware is often $\qquad$ enough to scan your home network and infect other computers and even network storage drives, so it's really important to make a backup on an external hard drive that you disconnect and $\qquad$ safely somewhere.
A. Cunning, kept
B. Smart, keep
C. Smart, keeping
D. Stupid, put
E. Clever, put
13. Direction: Each sentence below has two blanks, each blank indicating that something has been omitted. Choose the words that best fit the meaning of the sentence as a whole.
Food-tech company Zomato might be searing in the still-smoking embers of last week's security breach, but the company is $\qquad$ the tough corporate tightrope of transparency by expounding on how the unidentified ethical hacker $\qquad$ its infrastructure to access a part of the company's database.
A. Walking, breached
B. Clinging to, surpassed
C. Falling, disabled
D. Going, got to
E. Going, breached
14. Direction: Each sentence below has two blanks, each blank indicating that something has been omitted. Choose the words that best fit the meaning of the sentence as a whole.
That collapse had little to do with the globalisation of trade and $\qquad$ to do with reckless banks, the animal spirits of which were unleashed by Ronald Reagan's deregulation and free-market $\qquad$ -.
A. Very little, trade
B. Completely, booking
C. Everything, obsession
D. Nothing, integration
E. None of the above
15. Direction: Each sentence below has two blanks, each blank indicating that something has been omitted. Choose the words that best fit the meaning of the sentence as a whole.

The Bianconeri claimed a record sixth ___Scudetto when they saw off Crotone to land the second part of a potential treble,
ahead of next weekend's Champions League final $\qquad$ Real Madrid.
A. Consecutive, against
B. Simultaneous, for
C. Ongoing, at
D. Prior,in
E. None of the above

Directions (16-20): Rearrange the following sentences (A), (B), (C), (D), (E) and (F) to make a meaningful paragraph and then answer the questions which follow.
(A) This decision on which force is to be maximized lies with every individual.
(B) This belief comes from the fact that science reflects the social forces prevailing at a particular time.
(C) We must maximize the constructive forces of science and the destructive ones should be minimized.
(D) Contrary to popular belief, the greatest enemy of mankind is not science but war.
(E) She/he must understand that science can only help us in providing ways to reach at either war or peace and is actually not responsible for causing these.
(F) During peaceful times science is constructive and during war, science is perverted to destructive ends.
16. Which of the following sentence should be the SIXTH (LAST) after rearrangement?
A. A
B. B
C. C
D. D
E. E
17. Which of the following sentence should be the THIRD after rearrangement?
A. A
B. E
C. $F$
D. D
E. C
18. Which of the following sentence should be the FIFTH after rearrangement?
A. A
B. D
C. C
D. E
E. F
19. Which of the following sentence should be the FIRST after rearrangement?
A. A
B. B
C. C
D. D
E. E
20. Which of the following sentence should be the Second after rearrangement?
A. A
B. B
C. D
D. E
E. F
21. Direction: Read the sentence to find out whether there is any error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark E i.e. no error as the answer.
Huddersfield Town stunned Manchester United 2-1/ at the John Smith's Stadium on Saturday, a defeated/ that ended the visitors unbeaten start to the Premier League season/ and dropped them five points behind leaders Manchester City who beat Burnley 3-0.
A. Huddersfield Town stunned Manchester United 2-1,
B. at the John Smith's Stadium on Saturday, a defeated
C. that ended the visitors unbeaten start to the Premier League season
D. and dropped them five points behind leaders Manchester City who beat Burnley 30.

## E. No error

22. Direction: Read the sentence to find out whether there is any error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark E i.e. no error as the answer.
On an annual basis,/ the official unemployment rate was/ last below 4 percent in 2001, when it was 3.6 percent,/ according for data from the National Bureau of Statistics.
A. On an annual basis,
B. the official unemployment rate was
C. last below 4 percent in 2001, when it was
3.6 percent,
D. according for data from the National Bureau of Statistics.
E. No error
23. Direction: Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark 'No error' as the answer.
German police rule out a political or religious/ motive behind the knife attack in the city of Munich/ on Saturday and said the detained
man suspected of/ injuring eight people had mental health problems.
A. German police rule out a political or religious
B. motive behind a knife attack in the city of Munich
C. on Saturday and said a detained man suspected of
D. injuring eight people had mental health problems.
E. No error
24. Direction: Read the sentence to find out whether there is any error in it. The error, if any, will be in one part of the sentence. If the given sentence is correct as it is, mark 'No error' as the answer. Ignore the errors of punctuation, if any.
The fight against Islamic State has/ taken place amid a wider, multi-sided civil war between/ Assad's government, which is backed by Iran and Russia,/ but an array of rebel groups supported by other powers, including the United States.
A. The fight against Islamic State has
B. taken place amid a wider, multi-sided civil war between
C. Assad's government, which is backed by Iran and Russia,
D. but an array of rebel groups supported by other powers, including the United States.
E. No error
25. Direction: Which of the following phrases $A$, $B, C$, and $D$ can replace the part printed in bold in the sentence? If the given sentence is correct as it is, mark $E$ i.e. no correction required as the answer.
Previous Obama administration had designated India as a major defense partner and the Trump administration has accelerate the process of considering Indian requests.
A. Has accelerated
B. Had accelerated
C. With accelerate
D. And accelerate
E. No correction required
26. Direction: Which of these phrases $A, B, C$, and $D$ can replace the part printed in bold in the sentence? If the given sentence is correct as it is, mark $E$ i.e. no correction required as the answer.

French defense minister Florence Parley will be here next week to lay the groundwork to further boost the bilateral strategic partnership ahead for President Emmanuel Macron's visit to India in December.
A. Ahead in
B. Ahead with
C. Ahead of
D. Back off
E. No correction required
27. Direction: 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. If there is no error, the answer is (5), i.e. 'No error'. (Ignore the errors of punctuation, if any.)
As the poacher began (1)/ to move towards the (2)/ helpless stranded cub, the tigress
(3)/ pounced on him to protect her offspring (4)/.
A. (1)
B. (2)
C. (3)
D. (4)
E. The Sentence is correct.
28. Direction: Which of the phrases $A, B, C$, and $D$ can replace the part printed in bold in the sentence? If the given sentence is correct as it is, mark E i.e. no correction required as the answer.
SlicePay works on a data-driven risk model that used non-traditional data points, including students' marks cards and social media profiles.
A. That using
B. That uses
C. That is using
D. Uses
E. No correction required
29. Direction: Which of the phrases $A, B, C$, and $D$ can replace the part printed in bold in the sentence? If the given sentence is correct as it is, mark E i.e. no correction required as the answer.
With growth estimated to slow to a four-year low, the central bank on Wednesday cut growth forecasts to 6.7 percent from 7.3 percent followed a slew of downgrades by investment banks and private sector economists.
A. Follows a slew
B. Followed slew
C. Following a slew
D. By following a slew
E. No correction required
30. Direction: Which of the following phrases $A$, $B, C$, and $D$ can replace the part printed in bold in the given sentence to make it grammatically and structurally correct? If the given sentence is correct as it is, mark E i.e. no correction required as the answer.
Union home minister Rajnath Singh said on Tuesday, the MHA is considering the proposal to build 50 more border outpost at the India-China Border.
A. Border outposting
B. Border outposted
C. Border outposts
D. Bordered outpost
E. No correction required
31. Direction: Which of the phrases $A, B, C$, and $D$ can replace the part printed in bold in the sentence? If the given sentence is correct as it is, mark E i.e. no correction required as the answer.
Government bonds fell of a second day on Thursday, with the benchmark note settling at an all-time low, as investors booked profit amid little hopes of monetary easing in the near term.
A. Fell to
B. Fell for
C. Falling
D. Fell with
E. No correction required
32. Direction: Which of the phrases $A, B, C$, and $D$ can replace the part printed in bold in the sentence? If the given sentence is correct as it is, mark E i.e. no correction required as the answer.
Broaden asset base of domestic institutions should support the domestic market but the lack of catalysts in the near term in the wake of weakening domestic macro numbers would mean that any negative news flow can trigger a selloff, the bank said.
A. Broading asset base
B. Broaden asset bases
C. Broadening asset base
D. Broadening assets bases
E. No correction required
33. Direction: Which of the following phrases $A$, $B, C$, and $D$ can replace the part printed in bold in the given sentence to make it grammatically and structurally correct? If the given sentence is correct as it is, mark E i.e. no correction required as the answer.
Obama praised Americans for working to aid neighbours among heart-breaking natural disasters.
A. After heartbreak
B. Before heartbreak
C. In heart-breaking
D. After heart-breaking
E. No correction required
34. Direction: In the given question, a part of the sentence is printed in bold. Below the sentence alternatives to the bold part are given at (A), (B), (C) and (D) which may help improve the sentence. Choose the correct alternative. In case the given sentence is correct as it is, your answer is (E) i.e. No correction required.
Mugabe is in increasing fragile health and makes regular trips abroad for medical treatment.
A. On increasing
B. For increasingly
C. In increasingly
D. By increasingly
E. No correction required
35. Direction: In the given question, a part of the sentence is underlined. Which of the following given at $A, B, C, D$, and $E$ can replace the underlined part to make the sentence grammatically meaningful and correct? Choose the correct alternative.
Scientists have suggested that once in every 10 million years or so, a truly colossal object from space cuts on the atmosphere and slams into Earth.
A. Cuts against the atmosphere
B. Cuts atmosphere
C. Cuts through the atmosphere
D. Cutting on the atmosphere
E. Cuts the atmosphere
36. Direction: In the given question, a part of the sentence is printed in bold. Below the sentence alternatives to the bold part are given at (A), (B), (C) and (D) which may help improve the sentence. Choose the correct alternative. In case the given sentence is correct as it is, your answer is (E) i.e. No correction required.
Underlying inflation averaged around 1.85 percent miss estimates and touching the slow pace of the second quarter once again.
A. misses estimates
B. Missing estimating
C. Missing estimates
D. Missed estimated
E. No correction required
37. Direction: In the given question, a part of the sentence is underlined. Alternatives to the underlined part are given which may make the sentence grammatically meaningful and correct. Choose the correct alternative.

During the 1970 s and 1980 s, the United Nations attempts to define the term floundered mainly due to differences of opinion between various members about the use of violence in the context of conflicts over national liberation and self-determination.
A. the United Nations attempts to define the term floundered mainly due to differences of opinion.
B. the United Nations attempting to define the term floundered mainly due to differences of opinion.
C. the United Nations attempts to define the term floundering mainly due to differences of opinion.
D. the United Nations attempted to define the term floundered mainly due to differences of opinion.
E. the United Nations attempts to define the term flounders mainly due to differences of opinion.
38. Direction: In the given question, a part of the sentence is underlined. Alternatives to the underlined part are given which may make the sentence grammatically meaningful and correct. Choose the correct alternative.
It should look to aggressively export more products that don't cater with the manufacturing or industrial sectors alone like Ayurvedic and agro products and IT services.
A. that doesn't cater to the manufacturing or industrial sectors.
B. that don't cater to the manufacturing or industrial sectors.
C. that don't cater in the manufacturing or industrial sectors.
D. that were not catered to the manufacturing or industrial sectors.
E. that were not catering with the manufacturing or industrial sectors.

Direction (39-48): In the following passage, there are blanks, each of which has been numbered. Against each blank, five words are suggested, one of which fits the blank appropriately.

The Sensex is a free-float market-weighted stock market index of 30 well (\#\#\#Q1\#\#\#) and financially (\#\#\#Q2\#\#\#) companies listed on Bombay Stock Exchange. The 30 component companies which are some of the largest and most (\#\#\#Q3\#\#\#) traded stocks, are (\#\#\#Q4\#\#\#) of various industrial sectors of the Indian economy. Published since 1 January 1986, the S\&P BSE SENSEX is regarded as the (\#\#\#Q5\#\#\#) of the domestic stock markets in India. The BSE has some reviews and modifies its composition to be sure it (\#\#\#Q6\#\#\#) current market conditions. The index is calculated based on a free float (\#\#\#Q7\#\#\#) method, a (\#\#\#Q8\#\#\#) of the market capitalisation method. Instead of using a company's (\#\#\#Q9\#\#\#) shares it uses its float, or shares that are readily available for trading. The index has (\#\#\#Q10\#\#\#) by over twenty five times from June 1990 to the present.
39. Find the appropriate word in each case.
A. Known
B. Financed
C. Established
D. Transformed
E. Renowned
40. Find the appropriate word in each case.
A. Sound
B. Famous
C. Supportive
D. Disabled
E. Eager
41. Find the appropriate word in each case.
A. Active
B. Actively
C. Profit
D. Earning
E. Functional
42. Find the appropriate word in each case.
A. Members
B. Beneficiaries
C. Symbols
D. Representatives
E. Classes
43. Find the appropriate word in each case.
A. Burst
B. Pulse
C. Original
D. Consequence
E. Success
44. Find the appropriate word in each case.
A. Works
B. Focuses
C. Triples
D. Control
E. Reflects
45. Find the appropriate word in each case.
A. Capitalization
B. Arrangement
C. Trading
D. Transaction
E. Exchange
46. Find the appropriate word in each case.
A. Fixed
B. Quantity
C. Variation
D. Variable
E. Estimation
47. Find the appropriate word in each case.
A. Offensive
B. Direct
C. Future
D. Impending
E. Outstanding
48. Find the appropriate word in each case.
A. Shifted
B. Estimated
C. Increased
D. Driven
E. Swiped
49. Direction: In each question below, a paragraph is given and alternatives to its summary are stated in the options. Choose the alternative which best describes the passage.
Chimpanzees possess a brain structure resembling a similar area in the human brain that is thought to control language, according to a study published in the January 9, 1998, issue of Science. Experts said the study challenged long-held assumptions about the evolution of language in humans and raised new questions about the ability of chimpanzees to communicate. The human brain generally exhibits a slightly enlarged area in the left hemisphere called the planum temporale (PT), a structure apparently involved in the processing of visual symbols and speech. Since the 1960s scientists have argued that the PT was necessary for language and may even constitute a uniquely human evolutionary adaptation. The new study is the first to demonstrate that the structure exists in another species, the chimpanzee.
A. Scientists are ruminating over the question whether it is possible that other primates, such as chimpanzees, also have language and the ability to learn a language due to a certain area of their brain resembling that of a human brain
B. Chimpanzees, according to scientists, can easily learn a new language due to their brain structure being identical to that of humans
C. A new study has confirmed that the brain structure of chimpanzees closely matches that of humans and that they too can learn a new language
D. A certain portion of the brain which is involved in the processing of visual symbols and speech has evolved more in humans than in chimpanzees
E. None of the above
50. Direction: Read the given passage carefully. Choose the most appropriate option from the given alternatives which expresses the summary of the passage.
Naturalists have been staggered by the Amazon's diversity ever since the first European researcher set foot in the South American rain forest more than 200 years ago. Those naturalists, of course, hailed largely from temperate climes, where forests typically support no more than 50 to 60 species of tree. The Amazon, they quickly discovered, is far more lavish: twice as many species of tree can easily be found in an acre or two. And these plants support many times more species of bird, insect, and mammal than are found on an equivalent piece of temperate real estate. In one day at one site in the Amazon, entomologists gathered 440 species of butterfly-more species than can be found in the entire eastern United States. But despite the recognition that the Amazon is one of Earth's great centers of biodiversity, the underlying causes of its richness remain unknown.
A. The rich diversity of the amazon forests gained attention only after its exploration by the European researchers
B. For a budding naturalist Amazon forest is the best work site given the rich biodiversity it supports
C. The Amazon rain forest is home to such a rich variety of plants and animals but researchers do not seem to exactly know why D. The Amazonian forests has more species than can be found in the entire United States E. None of the above.
51. Direction: What approximate value will come in place of the question mark (?) in the following questions? (You are not expected to calculate the exact value.)
$18.9^{2} \times 20.024+299.9 \times 5.99=13 \times$ ?
A. 694
B. 964
C. 644
D. 786
E. 724
52. Direction: What approximate value should come in place of the question mark (?) in the following equation (Note: You are not expected to calculate the exact value)?
$12.13 \%$ of $935.81+1498 \%$ of $25.85=$ ?
A. 500
B. 550
C. 478
D. 341
E. 596
53. Direction: What approximate value should come in place of the question mark (?) in the following equation (Note: You are not expected to calculate the exact value)?
$9980 \div 49 \times(4.9)^{2}-1130=$ ?
A. 3870
B. 4500
C. 2600
D. 3000
E. 4080
54. What approximate value should come at the place of question mark (?) in the following question?

$$
(66789.62-43542.06-22246.46) \times \frac{(100)^{2}}{(10)^{2}}=(10)^{?}
$$

A. 5
B. -6
C. -5
D. -4
E. 6
55. Direction: What approximate value should come in place of the question mark (?) in the following equation (Note: You are not expected to calculate the exact value)?
$12.13 \%$ of $935.81+1498 \%$ of $25.85=$ ?
A. 500
B. 550
C. 478
D. 341
E. 596
56. Direction: What value should come in place of question mark (?) in the following question?
$(15 \times 11+24) \div(13 \times 3-19)=$ ?
A. $9 \frac{9}{20}$
B. $8 \frac{4}{17}$
C. $9^{\frac{11}{20}}$
D. $7 \frac{9}{10}$
E. $10^{20}$
57. Direction: What value should come in place of question mark (?) in the following question?
$-676.76+1237.87+897.34-$ ? $=1294.25$
A. 168.2
B. 164.2
C. 154.2
D. 164.8
E. None of these
58. Directions: What will come in place of the question-mark (?) in the following questions? $\sqrt[3]{?}=$
(35\% of $120+125-55)$
A. 1484736
B. 2154734
C. 1514736
D. 1404928
E. None of these
59. Direction: What should come at place of question mark in the following questions? $256 \times 256+173 \times 173=$ ?
A. 96432
B. 94465
C. 95465
D. 90510
E. None of these
60. Direction: What value should come in place of the question mark (?) in the following question?
$(5 * 7) \%$ of $(34 * 55)+456.60=699.1+$ ?
A. 412
B. 422
C. 418
D. 428
E. None of these

Directions (61-65): The following graph represents the number of students studying three different subjects individually in four colleges. Study the graph carefully and answer the questions given below.

61. What is the ratio of the number of students studying math in college $B$ to that studying English in college C?
A. 7:3
B. $8: 5$
C. $12: 5$
D. $5: 1$
E. None of these
62. $25 \%$ of total number of students studying math in all college together is approximately what percent more than that of $20 \%$ of total number of students studying Science in all college together?
A. $88 \%$
B. 98 \%
C. $90 \%$
D. 91.67 \%
E. None of these
63. Number of students studying English in college $D$ is what percent of number of students studying Science in college $A$ ?
A. 128.57
B. 129.57
C. 120
D. 130
E. None of these
64. Find the difference between number of students studying math in college $C$ and $D$ together and number of students studying Science in college $A$ and $B$ together
A. 115
B. 110
C. 140
D. 130
E. None of these
65. Find the ratio between $40 \%$ of total number of students studying math in all colleges together to $30 \%$ of total number of students studying English in all colleges together?
A. 172:101
B. 173 : 103
C. 184 : 101
D. $183: 103$
E. None of these
66. Direction: In the following question, there are two equations. Solve the equations and answer accordingly:
I. $8 x^{2}+26 x=-15$
II. $12 y^{2}-20 y+8=0$
A. $x<y$
B. $x>y$
C. $x \leq y$
D. $x \geq y$
E. $x=y$ or the relationship cannot be established
67. Directions: In the following question, two equations numbered $I$ and $I I$ are given. You have to solve both the equations and answer the question.
I. $8 x^{2}+18 x+4=0$
II. $2 y^{2}+29 y+14=0$
A. $x<y$
B. $x>y$
C. $x \leq y$
D. $x \geq y$
E. $x=y$ or the relationship cannot be established
68. Direction: In each of these question two equations are given. You have to solve these equations and give answer.
I. $20 a^{2}-108 a+144=0$
II. $25 b^{2}-90 b+72=0$
A. $a<b$
B. $a>b$
C. $a=b$
D. $a \geq b$
E. $a \leq b$
69. Direction: In the following question two equations numbered $I$ and $I I$ are given. You have to solve both the equations and Give answer
I. $25 x^{2}+35 x+12=0$
II. $10 y^{2}+9 y+2=0$
A. $x>y$
B. $x \geq y$
C. $x<y$
D. $x \leq y$
E. $x=y$ or the relationship between $x$ and $y$ cannot be established.
70. Direction: In each question two equations numbered I and II are given, you have to solve both the equation and choose the correct answer.
I. $3 x^{2}-13 x-10=0$
II. $3 y^{2}+10 y-8=0$
A. $x>y$
B. $x \geq y$
C. $x<y$
D. $x \leq y$
E. $x=y$ or the relationship between $x$ and $y$ cannot be established.

Direction (71-75): Refer to the table and answer the given questions.
No. of different types of channels provided by six different cable operators:

|  | Type Of Channels |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Cable Name | Entertainment | News | Sports | Devotional |
| A | 140 | 35 | 40 | 18 |
| B | 105 | 45 | 56 | 20 |
| C | 135 | 20 | 45 | 25 |
| D | 125 | 25 | 35 | 15 |
| E | 110 | 30 | 20 | 20 |
| F | 120 | 28 | 25 | 24 |

71. Which Cable operator has second highest no. of total channels?
A. A
B. B
C. C
D. $A \& B$
E. F
72. The no. of entertainment and news channels is what percent of the no. of sports and devotional channels of cable operator E ?
A. $88 \%$
B. $29 \%$
C. $350 \%$
D. $120 \%$
E. None of these
73. What is the average no. of channels for Cable operator B, C, D and F?
A. 201
B. 218
C. 221
D. 212
E. None of these
74. If each cable operator provides additional $20 \%$ of the entertainment channels completely unique from other operators if yearly subscription is taken then find the sum of the total number of unique channels for all cable operators.
A. 130
B. 147
C. 111
D. 154
E. None of these
75. For which cable operator, the no. of entertainment channels is 4.8 times of the no. of sports channels?
A. C
B. E
C. B
D. F
E. None of these

Direction (76-81): Study the following pie charts below and answer the questions that follow:


Percentage of Professors teaching six different subjects in University X (Total $=50$ )

76. If the respective ratio between total number of male professors and total number of female professors is 9:16, and the ratio between the total number of male assistant professors and total number of female assistant professors is 9:11, what was the total number of female professors and assistant professors teaching the given 6 subjects in the university?
A. 63
B. 90
C. 77
D. 73
E. 87
77. What is the central angle corresponding to the total number of professors and assistant professors teaching Hindi?
A. $46.8^{\circ}$
B. $50.4^{\circ}$
C. $43.2^{\circ}$
D. $39.6^{\circ}$
E. $45.2^{\circ}$
78. What percent of professors are teaching Psychology and Sociology together out of the total number of professors and assistant professors teaching these two subjects together?
A. $175 / 6$
B. $97 / 4$
C. $155 / 6$
D. $87 / 4$
E. 133/6
79. Total number of assistant professors teaching Economics and English together are what percent more than the total number of professors teaching these two subjects together?
A. 88
B. 55
C. 98
D. 92
E. 82
80. What is the approximate average number of professors teaching computer science, psychology, English and sociology?
A. 9
B. 8
C. 10
D. 11
E. 17
81. Direction: What will come in place of the question mark (?) in the following number series?
5, 15, 37, 63, 101, ?
A. 95
B. 265
C. 152
D. 206
E. 143
82. Direction: What will come in place of the question mark (?) in the following number series?
409, ?, 361, 312, 223, 54
A. 375
B. 290
C. 390
D. 250
E. None of these
83. Direction: What will come in place of the question mark (?) in the following number series?
3, 4, 12, 48, 576, ?
A. 28750
B. 26176
C. 29525
D. 27648
E. 25395
84. Direction: What will come in place of the question mark (?) in the following number series?
82, ?, 286, 373, 436, 451
A. 155
B. 175
C. 139
D. 145
E. 187
85. Direction: What will come in place of the question mark (?) in the following number series?
20, 43, 62, ?, 92, 103
A. 85
B. 79
C. 95
D. 65
E. 58
86. In a class of 75 students, $1 / 5^{\text {th }}$ of the total number of girls and $3 / 5^{\text {th }}$ of the total number of boys join a cricket club. If the total number of boys joining the club is 27 . What is the respective ratio of the total number of boys to the total number of girls joining the club?
A. $9: 4$
B. $3: 2$
C. $5: 4$
D. $8: 3$
E. None of these
87. Rita borrows two equal sums at the same time at $6 \%$ and $5 \%$ p.a. simple interest respectively. She finds that if she pays the former sum with simple interest on a certain date exactly one year before the latter, she will have to pay in each case the same amount i.e., Rs.3900. Find the sum.
A. Rs. 2600
B. Rs. 2800
C. Rs. 3000
D. Rs. 3200
E. Rs. 3400
88. A car moves for 2 hr at a speed of 40 kmph and another can travels for $50 \%$ more time and at $25 \%$ less speed. Find the ratio of the distance covered by the two cars.
A. $7: 5$
B. $5: 2$
C. $6: 8$
D. $8: 9$
E. 9:12
89. A car and bike dealer bought 30 second hand cars and bikes for Rs. 472500. He bought 8 cars and the rest were bikes. Find the price at which he should sell each of the cars such that by selling bikes at $3 / 4^{\text {th }}$ of this price he makes a profit of $40 \%$.
A. Rs. 18000
B. Rs. 24000
C. Rs. 24600
D. Rs. 27000
E. Rs. 32000
90. The average weight of 15 girls was recorded as 54 kg . If the weight of the teacher was added, the average increased by two kg . What was the teacher's weight?
A. 75 kg
B. 95 kg
C. 78 kg
D. 86 kg
E. None of these
91. Two years ago the ratio of Sammy's age and Nitin's age was 1:3. Ten years from now, the ratio of their respective ages will be 7:9. If Amey is 4 years older to his brother Nitin, what is Amey's present age?
A. 13
B. 8
C. 32
D. 12
E. 16
92. In a college, 2000 students are there in which $36 \%$ are girls. Each boy's monthly fees is ₹480 and each girl paid 25\% less monthly fees in comparison to boy. What is the total monthly fees amount paid by boys and girls?
A. 873400
B. 867300
C. 876300
D. 873600
E. None of these
93. If 6 years is subtracted from Atul's age and the remainder is divided by 18, the present age of his son Aman is obtained. Aman is 3 years younger to Vibhav whose current age is $1 / 6^{\text {th }}$ Atul's age. Find the age of Aman.
A. 2
B. 1
C. 1.5
D. 2.25
E. 3
94. A sum of money is divided amongst $\mathrm{P}, \mathrm{Q}$ and $R$ in the ratio of $3: 4: 5$. Another amount is divided amongst $A$ and $B$ in the respective ratio of 2 : 1. If $B$ got Rs. 1050 less than $Q$, what is the amount received by R ?
A. Rs. 2850
B. Rs. 1000
C. Rs. 1840
D. Cannot be determined
E. None of these
95. An alcohol addict drank $1 / 3$ of the bottle and added water to fill the bottle completely. He drank $2 / 3$ of the contents and again filled the bottle with water. What is the ratio of water to alcohol in the bottle now?
A. 2: 7
B. 7: 2
C. 3: 2
D. 2: 3
E. None of these
96. A boat which is capable of travelling at 32 kmph in still water is going downstream in a stream with speed 4 kmph and against the wind blowing at 2 kmph . If the boat is going at $75 \%$ of its maximum speed in still water then how long will it take to travel 91 km in such a scenario.
A. 2 hours
B. 2.5 hours
C. 3 hours
D. 3.5 hours
E. None of these
97. Gopal went to a fruit market with certain amount of money. With this money he can buy either 50 oranges or 40 mangoes. He retains $10 \%$ of the money for taxi fare. If he buys 20 mangoes, then the number of oranges he can buy is
A. 25
B. 20
C. 18
D. 6
E. 10
98. Two pipes $A$ and $B$ can fill a tank independently in 10 hours and 15 hours respectively, while pipe C can empty it in 30 hours. All pipes are kept open for 6 hours after which pipes $B$ and $C$ are closed. In what time now onwards would the tank get full?
A. 6 hours
B. 2 hours
C. 2.5 hours
D. 3 hours
E. None of these
99. A job can be completed by a person $A$ alone in 24 days and by another person $B$ alone in 40 days. A and B work on the job together and C works with them for 6 days. The three complete the job in 12 days. In how many days can C alone complete the job?
A. 33 days
B. 36 days
C. 24 days
D. 30 days
E. None of these
100. Four different integers are such that sum of extreme numbers is 21 and sum of rest two is 19. The sum of the squares of all numbers is 442. What is the maximum number among all four?
A. 7
B. 9
C. 12
D. 15
E. 17
101. Direction: In the question below, there are given some statements followed by three or more conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts.
Statements:
No green is purple
All purple are acute.
All acute are pink
All pink are red.

## Conclusion:

I. No green is a pink
II. All purple is pink
III. At least some green are pink
IV. Some pink are red.
A. Only II follows
B. Only I and IV follow
C. Only II and III follow
D. Only III and IV follow
E. None of these
102. Directions: In each of the questions below are given some statements followed by three or more conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts.

## Statement:

Some boxes are Cards
No card is a plate
All plates are pens
Some pens are chairs
Conclusion:
I. Some chairs are boxes
II. No chair is box
III. Some pens are Cards
A. None follows
B. Only either I or II follows
C. Only either I or II and III follows
D. Only III follows
E. Only II follows
103. Directions: In each of the questions below are given some statements followed by three or more conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts.

## Statements:

All stops are horns.
No horns is a right
Some rights are drums
All drums are Waves

## Conclusion:

I. Some waves are stops.
II. Some waves are right
III. No wave is stop
IV. Some rights are stops.
A. Only I follows.
B. Only II follows
C. Only III follows
D. Only either I or III follows
E. Only either I or III and II follows
104. Directions: In each of the questions below are given some statements followed by three or more conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts.

## Statements:

Some bees are grapes
Some grapes are hooks
Some hooks are lights
Some lights are tables
Conclusions:
A. Some tables are grapes
B. No table is grapes
C. Some lights are bees
D. No light is bee
A. Only either I or II follows
B. Only either III or IV follows
C. Only either I or II \& either III or IV follow
D. Only I and III follow
E. None of these
105. Directions: In each of the questions below are given some statements followed by three or more conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts.

## Statements:

All disks are chocos.
All chocos are tools.
All tools are books.
All books are tablets.

## Conclusion:

I. Some tablets are tools.
II. All chocos are books.
III. Some books are disks
IV. All disks are tablets.
A. Only I, II and III follows
B. Only I, III and IV follows
C. Only II, III, and IV follow
D. All follow.
E. None of these

Direction (106-110): Read the following information and answer the question:

10 people are sitting in two rows facing each other. In Row 1 A, B, C, D and E are seated facing south and in row II P, Q, R, S and T are seated facing north.
They all study in either Government or private colleges having reservations under different categories General, SC, ST, OBC and PWD respectively.
No SC candidate is sitting at extreme ends. There are as many people between $A$ and $B$ as between A and OBC candidate.
T who sits at extreme right is a PWD candidate is diagonally opposite to the one who belongs to general and is in private college. Q is opposite to A who is to the immediate left of an SC candidate. Those who are diagonally opposite are not in same college. D who is in Government College is second to the right of PWD candidate. R is opposite to E who is not sitting at the extreme end is in private college. Person from same category and college are not opposite each other. Exactly 1 person sits between ST and General category candidate. Exactly 1 person sits between ST and Q.
106. Who is sitting between $C$ and $A$ ?
A. E
B. D
C. Either E or D
D. Cannot be determined
E. None of these
107. Who among the following does not belong to Government College?
A. Q
B. E
C. A
D. Either Q or E
E. None of these
108. If P is in Govt. College than to which category will S belong to?
A. ST
B. OBC
C. Either A or B
D. None of these
E. Cannot be determined
109. Which of the following is true?
A. Q belongs to ST category.
B. R is in govt college
C. T is in pvt college
D. $C$ sits at one of the extreme end
E. None of these
110. Who is second to the right of ST candidate?
A. $Q$ and $C$
B. $R$ and $E$
C. B and R
D. B and Q
E. D and Q

Direction (111-115): Study the following information carefully and answer the questions given below:
A, B, G, H, K, L, O and S are living in eight floors of the same building. The floors are numbered 1 to 8 from bottom to top. Each person in the building likes these cars-Audi, Skoda and Honda. Not more than three people use the same car.

- The one who lives on the topmost floor and the one who lives in the ground floor are do not like Skoda.
- Only two people like Audi and both of them live in an even numbered floor.
- Only one person is living below O's floor and only one person is living above H's floor.
- S stays on such a floor where the number of persons below his floor is three more than the number of persons above his floors and likes Honda.
- A is living between K's and L's floor and neither of them uses Audi.
- O is living immediately below L's floor and likes Audi.
- L and G like the same car.

111. Who among the following like Audi?
A. A and B
B. O and B
C. $G$ and $B$
D. S and L
E. A and O
112. If all the persons are arrange in the alphabetical series according to their name from top to bottom then how many person positions will be unchanged?
A. 0
B. 1
C. 2
D. 3
E. 4
113. Who among the following does not like Honda?
A. H
B. $S$
C. L
D. G
E. None of these
114. How many persons live between H and A ?
A. 0
B. 1
C. 2
D. 4
E. 5
115. Which of the following combination is correct?
A. S-7th-Honda
B. K-5th-Audi
C. A-4th-Honda
D. O-2nd-Audi
E. L-3rd-Skoda

Direction: Study the following information carefully and answer the questions given below:
$\mathrm{M}, \mathrm{N}, \mathrm{O}, \mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}$ and T are sitting around a square table in such a way that four of them sit at four corners of the square while four sit in the middle of each of the four sides. The ones who sit at the four corners face the centre of the table while those who sit in the middle of the sides face outside. Each of them likes a different fruits, viz Banana, Apple, Plum, Grapes, Orange, Papaya, Mango and Pear (None of the information given in necessarily in the same order.)

* O sits third to the left of the one who likes Pear. The one who likes pear faces outside. Only two persons sit between O and T .
* The one who likes Banana sits on the immediate right of T . The one who likes Orange sits second to the right of $\mathrm{S} . \mathrm{S}$ is neither an immediate neighbour of T nor of O . $S$ does not like Pear.
* Only one person sits between M and the one who likes Orange.
* $P$ sits on the immediate left of the one who likes Papaya. S does not like Papaya.
* Q likes Mango. Q is not an immediate neighbour of $M$.
* The one who likes Apple is an immediate neighbour of Q .
* The one who likes Grapes is an immediate neighbour of $R$.

116. Who amongst the following sits diagonally opposite the one who likes Banana?
A. The one who likes Apple
B. P
C. M
D. The one who likes Plum
E. The one who likes Grapes
117. Who among the following represent the immediate neighbours of the one who likes Orange?
A. N, R
B. $\mathrm{O}, \mathrm{Q}$
C. N, Q
D. $P, R$
E. R, T
118. Who among the following sits exactly between T and N ?
A. 0
B. The one who likes Apple
C. The one who likes Plum
D. S
E. M
119. Which of the following is true regarding N ?
A. $N$ is one of the immediate neighbours of $P$.
$B$. The one who likes Pear is an immediate neighbour of N .
C. N sits second to the left of T .
D. N likes Mango.
E. $N$ is an immediate neighbour of the one who likes Banana.
120. What is the position of the one who likes Papaya with respect to S ?
A. Second to the left
B. Third to the right
C. Fourth to the left
D. Second to the right
E. Third to the left

Direction (121-125): A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.
Input : season 2342 passion 54 session section parliament 3667 flower 91
Step I : 23 season 42 passion 54 session section parliament 3667 flower 91
Step II : 2367 season 42 passion 54 session section parliament 36 flower 91
Step III : 236791 season 42 passion 54 session section parliament 36 flower
Step IV : 236791 season 42 passion session section parliament 36 flower 54
Step V : 236791 season passion session section parliament 36 flower 5442
Step VI : 236791 season passion session section parliament flower 544236
Step VII : session 236791 season passion section parliament 544236 flower
Step VIII : section session 236791 season passion 544236 flower parliament
Step IX : season section session 23679154 4236 flower parliament passion
And step IX is the last step of the arrangement.
As per the above rule followed in the above steps, find out in each of the following questions the appropriate step for the input given below
121. Input: 77 limpid 66 arrest lipid 5544 lively How many steps would be required to get the output?
A. Six
B. Seven
C. Five
D. Eight
E. Four
122. Step II: 1325 various 38 variety vary 66 vampire
What will be the fifth step?
A. 1325 various 38 variety vary vampire 66
B. 1325 various variety vary vampire 6638
C. vary 1325 various variety 6638 vampire
D. various vary 13256638 vampire variety
E. There will be no such step.
123. What will be the third element from the right and second element from the left respectively in Step IV?
Simplicity 71 obstacle obstinate oblivious 65 9846
A. 98 , Simplicity
B. 46 , simplicity
C. 71, Obstinate
D. Oblivious, 65
E. 98, 71
124. How many elements are between the fourth element from the right and third element from the left in the IV step?
89 mobile 76 laptop Bluetooth 13 password 50
A. Two
B. Three
C. Four
D. One
E. None of these
125. In step $V$, which of the following word would be on the 5th position (from the right)? 13278 Mandatory 117 attend percentage 90 57 students compulsory 111 present
A. Mandatory
B. attend
C. percentage
D. students
E. compulsory

Directions (126-130): In each question below is given a group of letters followed by four combinations of digits/symbols numbered (1), (2), (3) and (4). You have to find out which of the combinations correctly represents the group of letters based on the following coding system and the conditions and mark the number of that combination as your answer. If none of the combinations correctly represents the group of /otters, mark (5) ie, 'None of these' as your answer
Letter: RATKFQEPJIMUDH
Digit/Symbol Code: 3 @ 2194 C \% 58 \$ 6 7 \#
Conditions:
(i) If the first letter is a consonant and the last letter is a vowel, their codes are to be interchanged.
(ii) If both the first and the last letters are vowels, both are to be coded as *..
(iii) If both the first and the last letters are consonants, both are to be coded as the code for the last letter.
126. DPEHQA
A. 7\% ©\#4@
B. @\% @\#47
C. $7 \%$ © $\# 47$
D. @\% ©\#4@
E. None of these
127. KEMRDF
A. * © $\$ 379$
B. 1 © $\$ 379$
C. 1 © $\$ 37 *$
D. * © $\$ 31^{*}$
E. None of these
128. AHDUQK
A. 1\#764@
B. 1 \#7641
C. *\#764*
D. @\#764@
E. None of these
129. IDQJPT
A. $8745 \% 2$
B. $2745 \% 8$
C. $* 745 \% *$
D. $2745 \% 2$
E. None of these
130. UDKFME
A. $* 719 \$$ ©
B. $6719 \$$ ©
C. $* 719$ *
D. © $919 \# \$ 6$
E. None of these

Direction (131-135): In each of the following questions, a relationship between different elements is shown in the statements. The statements are followed by some of the conclusions. Assuming the given statements to be true, find out which of the given conclusions is/are definitely true.
' $\mathrm{A}=$ ! B ' means ' A is not smaller than B '.
' $A<>B$ ' means ' $A$ is not greater than $B$ '.
' $A € B$ ' means ' $A$ is neither greater than nor equal to $\mathrm{B}^{\prime}$.
' $\mathrm{A} \# \mathrm{~B}^{\prime}$ means ' A is neither smaller than nor equal to $\mathrm{B}^{\prime}$.
$' A \neq B$ ' means ' $A$ is neither smaller than nor greater than $\mathrm{B}^{\prime}$.
131. Statements:
$A=!B ; D \in E ; D \in C ; C<>B$
Conclusions:
I. A \# E
II. $\mathrm{C}<>\mathrm{A}$
III. $\mathrm{B}=$ ! D
IV. E \# B
A. Only conclusion II is true
B. Conclusion II, III and IV are true
C. Conclusion I and IV are true
D. Conclusion I and II are true
E. All are true
132. Statements:

S < > T; O € M; R \# T; R € O

## Conclusions:

I. M \# T
II. $S \in O$
III. $\mathrm{R}=$ ! S
IV. $O € T$
A. Only conclusion II is true
B. Conclusion I and II are true
C. Conclusion II and IV are true.
D. Conclusion III and IV are true.
E. Conclusion I, II and IV are true.
133. Statements:

G € H; K = L; F \# G; H =! K
Conclusions:
I. F \# H
II. $G € \mathrm{~L}$
III. $L<>H$
IV. $K \in F$
A. Conclusion I and II are true
B. Conclusion I and III are true
C. Conclusion I, II and III are true.
D. Only Conclusion III is true.
E. Only conclusion IV is true.
134. Statements:
$X<>Z ; Y \neq U ; Y \neq X ; V \in U$
Conclusions:
I. $X \neq U$
II. $\mathrm{Y}<>\mathrm{Z}$
III. $Z=$ ! $V$
IV. $V € Y$
A. Conclusion II and IV are true
B. Conclusion I, III and IV are true
C. Conclusion I, II and IV are true.
D. Conclusion II and III are true.
E. Conclusion I and III are true.
135. Statements:

P = I; N \# Q; T < > Q; I € N
Conclusions:
I. $P \in Q$
II. N \# P
III. T € I
IV. $I € Q$
A. Only conclusion I is true
B. Conclusion I and IV are true
C. Conclusion I, III and IV are true.
D. Only Conclusion II is true.
E. All are true.

Direction (136-138): Study the following information carefully and answer the questions given below:

Nisha starts walking from point $G$ and walks 20 m towards south. She then takes a right turn and walks for 30 m . She takes a left turn and stops at point $A$ after walking for 15 m . point $T$ is 10 m to the east of point $A$. Point $K$ is 35 m to the north of point $T$. point $B$ is 5 m to the west of point K.
136. If Komal is standing at point $C$ which is 10 m to the north of point B then, in which direction will she have to walk in order to reach point A?
A. Northeast
B. West
C. Southwest
D. South
E. Southeast
137. How far and in which direction is point $B$ with respect to point G ?
A. 25 m towards west
B. 20 m towards east
C. 25 m towards east
D. 20 m towards west
E. 25 m towards north
138. The point where Nisha takes her first turn is in which direction with respect to A?
A. Northwest
B. Northeast
C. North
D. South
E. Can't be determined

Direction (139-141): Study the following information and answer it:
A family of 8 persons - P, Q, R, S, T, U, V and W has three generations and three couples and each couple has at least one child. R is the only sister of $U$. T has only one daughter who is the aunt of $V$. W is the father of $U$, who is married to $\mathrm{Q} . \mathrm{S}$ is not a male.
139. How is $Q$ related to $T$ ?
A. Daughter
B. Sister-in-law
C. Mother
D. Daughter-in-law
E. Brother-in-law
140. Who is R's father, son-in-law?
A. V
B. Q
C. P
D. W
E. None of these
141. What is the ratio of females to the males in the family?
A. 1
B. $3: 5$
C. 5: 3
D. Either (A) or (C)
E. Either (A) or (B)

Direction (142-146): Study the following information carefully and answer the questions given below:
NGH ASB OWP BCA RMO
142. If the given words are arranged in the reverse order as they would appear in the English dictionary from left to right, which of the following will be the second from the right?
A. NGH
B. ASB
C. OWP
D. BCA
E. RMO
143. If in each of the given words, each of the consonant is changed to a letter which is two place before that consonant and each vowel is changed to a letter which is three place after that vowel in English alphabetical series, then how many words thus formed would be having two vowels?
A. 0
B. 1
C. 2
D. 3
E. 4
144. If in each of the given words, all the consonants are changed to next letter in English alphabetical order than all the alphabets are arranged in English alphabetical order within the word from left to right, then how many words will have vowel at first place?
A. 0
B. 1
C. 2
D. 3
E. 4
145. If in all the words, the first alphabet is changed to the previous letter and last alphabet is changed to next letter in English alphabetical series then how many words will begin and end with the same letter?
A. 0
B. 1
C. 2
D. 3
E. 4
146. How many letters are there in the English alphabetical series between the second letter of the second word from the right and second letter of the first word from the left?
A. 0
B. 1
C. 2
D. 3
E. 4
147. How many pairs of letters are there in the world SERVICES each of which has as many letters between them as in the English alphabetical series?
A. One
B. Two
C. None
D. Three
E. Four
148. Direction: Each even digit in the number 8795342 is replaced by the next higher digit and each odd digit is replaced by the previous lower digit and the digits so obtained are rearranged in ascending order. Which of the following will be the third from the left end after the rearrangement?
A. 2
B. 6
C. 5
D. 4
E. None of these
149. In a row of thirty boys, $R$ is fourth from the right end and $W$ is tenth from the left end. How many boys are there between R and W ?
A. 15
B. 16
C. 17
D. Cannot be determined
E. None of the above
150. Direction: How many such pairs of digits are there in the number 5134876, each of which has as many digits between them in the number as when the digits are rearranged in ascending order within the number?
A. None
B. One
C. Two
D. Three
E. More than three

## Solutions

## 1. Ans. C

It is clear from the passage that the man was taking hasty decisions and believed in taking risks in the game.
It can be inferred from the following lines of the passage, 'Father and son were at chess, the former, who possessed ideas about the game involving radical changes, putting his king into such sharp and unnecessary perils that it even provoked comment from the white-haired old lady knitting placidly by the fire. "Hark at the wind," said Mr. White, who, having seen a fatal mistake after it was too late, was amiably desirous of preventing his son from seeing it.'
Thus $C$ is the correct answer.

## 2. Ans. B

It can be inferred from the following statements of the passage, "I should hardly think that he'd come to-night," said his father, with his hand poised over the board. "Mate," replied the son. "That's the worst of living so far out," bawled Mr. White' Thus option B can be inferred from the passage.
3. Ans. D

It can be understood that Mr. White was complaining about the weather and their locality out of irritation that he had lost the game. Mrs. White understood this so she told him that he might have his luck in the next round.
It can be inferred from the following lines of the passage,'"Never mind, dear," said his wife, soothingly; "perhaps you'll win the next one". Mr. White looked up sharply, just in time to intercept a knowing glance between mother and son. ' Thus $D$ is the correct answer.

## 4. Ans. A

There are many instances which make it clear that Morris did not like the paw and considered it to be a harmful object. He did not want to cause any more danger. He totally believed in its powers and wanted people to avoid it.
It can be inferred from the following lines of the passage,'The sergeant-major himself has already had his three wishes, as has another man, who used his third wish to ask for death. The sergeantmajor has considered selling the paw, but he doesn't want it to cause any more trouble than it already has.'
Thus A is the correct answer.
5. Ans. E

It is clear from the passage that Morris had been apprehensive about giving the paw and he considered it to be a danger. He was genuinely afraid that something dangerous might happen. It can be inferred from the following lines of the passage, '"Don't you think you might wish for four pairs of hands for me? "Her husband drew the talisman from pocket, and then all three burst into laughter as the sergeant-major, with a look of alarm on his face, caught him by the arm. "If you must wish," he said, gruffly, "wish for something sensible."
Thus E is the correct answer.
6. Ans. B

The Whites were joking and laughing on the paw. They had not at all believed in it and failed to realize that the situation was grave.
It can be inferred from the following lines of the passage, ""Sounds like the Arabian Nights," said Mrs. White, as she rose and began to set the supper. "Don't you think you might wish for four pairs of hands for me? "Her husband drew the talisman from pocket, and then all three burst into laughter as the sergeant-major, with a look of alarm on his face, caught him by the arm.' Thus $B$ can be inferred from the passage.
They had not thought or felt like mocking at Morris or doubted his intentions.
7. Ans. C

It is mentioned in the passage 'He explains that a fakir (a mystic miracle worker) placed a spell on the paw to prove that people's lives are governed by fate and that it is dangerous to meddle with fate.'
Thus option $C$ is the correct answer.
8. Ans. A

The whole story revolves around the wishing power of the paw. Morris narrates how the paw had special powers and three men could wish using it. Two others had suffered, including himself so he wanted to destroy it. The Whites were curious about it and took it from Morris.
Thus $A$ is the correct theme of the passage.
9. Ans. C

The word 'placidly' means 'calmly'. Thus option $C$ is the correct antonym.
10. Ans. C

The word 'bawled' means 'shouted or called out noisily and unrestrainedly.' Thus C is the correct synonym.
11. Ans. B

Humans out of 'greed' (i.e. selfish desire) utilize resources more than the average level. This greedy overutilization causes 'imbalance' in the ecosystem. Overexploitation causes difference in the composition of the ecosystem which ultimately has its harmful results.
Lust means have a strong desire for something.
Parity means the state or condition of being equal, especially as regards status or pay.
Bounty means a sum paid for killing or capturing a person or animal.
Disparity means a great difference.
Itch means an uncomfortable sensation on the skin that causes a desire to scratch.
12. Ans. B

The adjective 'smart' refers to having a quick witted intelligence. The verb 'Keep' is more suitable than its past tense 'kept' since the whole sentence is in present tense.
13. Ans. A
'Walking a tightrope' is an idiom which means to be in a situation in which one must be very cautious. Breach refers to an act of breaking the law.
14. Ans. C

Everything refers to the amount of effect globalization had on the trade and obsession is meant as the reason for the collapse. These two words are the most appropriate for the sentence. 15. Ans. A

Consecutive refers to a series of events and against means in opposition to. These two words fill the void pretty well and give meaning to the sentence. 16. Ans. C

Refer to the last question of the series.
17. Ans. A

Refer to the last question of the series.
18. Ans. E

Refer to the last question of the series.
19. Ans. D

Refer to the last question of the series.
20. Ans. B

While arranging sentences in a paragraph we should first understand the central idea and then arrange the following sentences. $D$ should be the introductory statement followed by B as the continuing statement. It should be followed by statement $A$ which is a continuing statement to B(talks about the force). Next should be statement $E$ which is a continuing statement to A.(A mentions individual while E mentions he/she) Next should be statement $F$ which draws a comparison. Concluding
statement should be C.
Hence the correct sequence is DBAEFC.
21. Ans. B

In the above sentence, 'defeat' should be used as a noun which is used to show an instance of defeating or being defeated. So 'defeated' must be replaced with 'defeat'. The correct answer is option B.

## 22. Ans. D

The preposition "according to" is used for mentioning where information or ideas have come from. "According for" doesn't make any sense. The correct answer is option D.
23. Ans. A

The error lies in the first part of the sentence.
Since police have already given out the statement, it is a past event, so 'rule' must be changed to 'ruled'.
24. Ans. D

The error lies in the fourth part of the sentence. In the given sentence, 'but' which is used to connect contrasting clauses in a sentence is used which is incorrect. There must be 'and' which is used to connect parts of the sentence in the same context. Here, the connection is 'between......and' which specifies the parties involved in the war. The correct answer is option D.
25. Ans. A

The process of "accelerating the process of considering Indian requests" is a past event as it has already been done. So we must use the past tense of the verb 'accelerate' in the sentence. The correct answer is option A. The latter part of the sentence defines a following action, hence will not take 'had accelerated'.
26. Ans. C

Ahead of is a phrase that means 'in front of or before'. Hence the correct answer is option C. 27. Ans. C

Helpless should be replaced by helplessly as it is modifying stranded.
28. Ans. B

The previous verb i.e. 'works' is in third person present tense which is why the other verb 'used' needs to be in the same tense. It should be replaced by 'uses'. Option D makes the sentence structurally incomplete, hence can't be used. The correct answer is option B.
29. Ans. C
'Following' means coming on after or as a result of something. It gives a continuity to the sentence, hence option C is the most suitable response.
30. Ans. C

An outpost is a small military camp or position at some distance from the main army, used especially as a guard against surprise attack.
Since the number of outposts proposed to be built is 50 , we must use the plural form of the word 'outpost'. Hence, the correct answer is option C.
31. Ans. B

The preposition 'for' is used to show an amount of time or distance. In this case the bonds fell for two consecutive days.
Fell to would have been used had the level of the fall been indicates just after it.
Falling makes the sentence grammatically incorrect.
With is used to denote accompaniment, which is clearly not the case here.
Hence the correct answer is option B.
32. Ans. C

The verb 'broaden' means to become larger in distance or amount. Since the other verb used in the sentence is 'weakening' and it complements the verb used at the start, 'broaden' should have the same tense. It should be replaced with
'broadening'. Hence the correct answer is option C.
33. Ans. D
'After' is used to show the time frame following an event, which in this case is a natural disaster. Since heart-breaking describes the natural disaster, it is correct in the given form. Among should be replaced with after.
Hence, option D is the most suitable response.
34. Ans. C
'Increasingly' means "to an increasing extent". 'In'
shows the situation that a person is in so it must be used as well.
Increasingly is an adverb which modifies 'fragile health' in the given sentence.
Hence, the correct answer is option C.
35. Ans. C

The given sentence has a prepositional error. 'through' should be used to make the sentence convey the proper sense.
The sentence means that an object from space passes through the atmosphere and slams into the Earth.
36. Ans. C

To avoid the error of parallelism, miss and touch should be in the same form.
Hence, only options B and C can be correct. However, missing estimating makes no sense, hence option B can also be eliminated.
The correct answer is option $C$.
37. Ans. A

A is correct as it properly uses both "attempts" and "floundered" and thus gives a proper meaning to the sentence.
$B$ is incorrect because of the incorrect usage of "attempting".
$C$ is incorrect because of the incorrect use of "floundering".
D is incorrect because of the incorrect use of "attempted".
$E$ is incorrect because of the incorrect use of "flounders".
Hence the correct answer is option A.
38. Ans. B

A is incorrect because of the incorrect use of "doesn't".
$B$ is correct because of the correct use of "don't" and the expression 'cater to'.
$C$ is incorrect because of the incorrect expression 'cater in'.
$D$ is incorrect because it changes the context of the statement by defining the products in the past and is also grammatically unstructured.
$E$ is incorrect because it specifically defines the products as those which were not able to cater to the sectors in the past and because of incorrect expression 'catering with' .
Hence the correct answer is option B.
39. Ans. C

The tone of the sentence is such that it describes SENSEX and it is evident that the companies involved must be stable and had existed for a long time. The following sentence strengthens this idea. The word 'established' is the apt word for this blank as it means 'having existed or done something for a long time and therefore recognized and generally accepted'. A company cannot be called as 'well'transformed'. Thus option D can be eliminated. Option B is eliminated as the blank is succeeded by the word 'financially' that would amount to repetition. 'Known' and 'renowned can be eliminated as given the context, the companies must be better established than be popular to constitute the SENSEX.
40. Ans. A

The passage gives us the idea that the companies are well-financed. So the word 'sound' fits the best to convey the meaning that these companies are financially strong. Option D conveys the opposite meaning so it is eliminated. The word 'disabled' means 'ineffective'. Option C does not convey any meaning if put in the blank. Option $E$ is inappropriate here.
41. Ans. B

The tone of the sentence is such that these companies have good trade transactions. Moreover it is mentioned that they are the 'largest'
companies in some particular field. Thus option $B$ is the correct word. The word 'actively' conveys the meaning that companies have active trade transactions. Option A is grammatically incorrect here. So is option C as the word 'profitable' would have been more appropriate. Option D can be eliminated as it does not convey the required meaning. The word 'functional' means 'useful' which does not convey any meaning here. Thus option B is the correct answer.
42. Ans. D

In the given context option A is inappropriate as 'members of various industrial sectors of the Indian economy' does not make an appropriate sense. It can be understood that that these companies characterize various industrial sectors of the country. Thus the word 'representatives' and 'symbols' can be used in the blank. Between these two, option D is the more appropriate. as 'symbols'. The word 'beneficiaries' means 'those who get benefited' which is irrelevant in the context. Thus option B is eliminated. Option E is completely irrelevant here.
43. Ans. B

It is clear that the SENSEX is the backbone of the domestic stock markets and it plays the main role. Thus option B is the correct word. The word 'pulse' means 'the heartbeat which can be felt at the wrist or neck' and hence the most essential component. It cannot be said to be a 'consequence' meaning 'result or outcome'. 'Original' is completely out of context here. The word 'burst' means 'split or open' which is incorrect here. It is not 'success' as it is not the outcome of the stock markets. Thus option $E$ is incorrect too.
44. Ans. E

If 'works' and 'control' are put in the blank space, the sentence will become grammatically incorrect. 'Works for' or 'controls' could have been better fits. 'focuses' should also be followed by the preposition 'upon'. 'Triples' does not make any sense here as a market condition cannot be tripled. The SENSEX shows the changes or the current trends in the stock market. So the word 'reflects' fits here the best.
45. Ans. A

This term is strictly related to SENSEX. 'Free float capitalization' refers to an index construction methodology that takes into consideration only
the free-floatmarket capitalization of a company for the purpose of index calculation and assigning weight to stocks in the Index. Thus the rest of the options are eliminated and only 'capitalization' can fit here.
46. Ans. C

The presence of the article 'a' makes it evident that option E cannot be the word. In case of SENSEX the price or the stock keeps on changing and it does not remain fixed. Thus option A is eliminated and it is the word 'variation' that fits in the blank. 'Variation' means 'a change or slight difference in condition'. 'Variable' is the adjective of the noun 'variation' which is grammatically incorrect here. It is not a 'quantity', thus it can be rejected. They fail to convey any proper meaning.
47. Ans. E

The word 'offensive' means 'derogatory' which which does not suit the blank as it is followed by the word 'shares'. Shares of a company cannot be 'offensive' or 'direct'. If a share is not in hand right now it cannot be taken into calculation. Thus option $C$ is eliminated as well. The word 'impending' means 'forthcoming' and is incorrect again. The word 'outstanding' means 'not paid or not dealt with yet'. This conveys a relevant meaning if put in the blank space. Thus option E is the correct answer.
48. Ans. C

The sentence portrays that there has been a change in the rate and thus it can be understood that the index has incremented over the years. The presence of the prepositions 'by over' makes it clear that the index has increased. Thus option $C$ is the correct answer. Option B is grammatically and logically incorrect here. Option A is less appropriate than option C. Options D and E do not convey any meaning if put in the blank, 49. Ans. A

Statement B is eliminated as we cannot infer from the passage that the brain structure of chimpanzees is identical to that of humans. Statement $C$ is eliminated because the passage does not say that the new study has 'confirmed' that chimpanzees can learn a new language. Statement D cannot be deduced from the passage as it has not been explicitly mentioned. Statement A is correct in the light of the above passage and summarizes what the passage tries to convey. Hence, A is the correct answer.
50. Ans. C

The passage talks generally of the richness in the biodiversity supported by the Amazon. It concludes
by pointing that despite all the research and recognition, the causes for this richness could not be ascertained. Statement A cannot be directly inferred from the passage. Statement 2 is eliminated as the passage speaks nothing about Amazon forests serving as a work-site to 'budding' naturalists. Statement $D$ just makes a part of the passage and does not summarize it. Only statement C expresses the gist.
Hence, C is the correct answer.
51. Ans. A
$18.9^{2} \times 20.024+299.9 \times 5.99=13 \times$ ?
$19^{2} \times 20+300 \times 6=13 \times$ ?
$361 \times 20+1800=13 \times$ ?
$7220+1800=13 \times$ ?
$\Rightarrow ?=\frac{9020}{13} \approx 694$
52. Ans. A
$12.13 \%$ of $935.81+1498 \%$ of $25.85=$ ?
$12 * 936 / 100+1500 * 26 / 100=$ ?
? $=112.32+390$
? $=112+390$
$=502=500$ (approximately)
53. Ans. A

Approximate value be calculated as
$9980 \div 49 \times(4.9)^{2}-1130=$ ?
$? \approx 10000 \div 50 \times 25-1130$
$=200 \times 25-1130=3870$
54. Ans. A
$(66789.62-43542.06-22246.46) \times \frac{(100)^{2}}{(10)^{2}}=(10)^{2}$
$(66790-65788) \times \frac{\left(10^{2}\right)^{2}}{(10)^{2}}=(10)^{7}$
(1002) $\times \frac{10^{4}}{10^{2}}=(10)^{7}$
$\frac{10^{3} \times 10^{4}}{10^{2}}=(10)^{7}$
$10^{(17-2)}=(10)^{7}$
?=5
55. Ans. A
$12.13 \%$ of $935.81+1498 \%$ of $25.85=$ ?
$12 * 936 / 100+1500 * 26 / 100=$ ?
? $=112.32+390$
? $=112+390$
= 502 = 500(approximately)
56. Ans. A
$?=\frac{165+24}{39-19}$
$?=\frac{189}{20}$
$?=9 \frac{9}{?}$
57. Ans. B
$-676.76+1237.87+897.34-?=1294.25$
$?=-676.76+1237.87+897.34-1294.25$
$?=2135.21-1971.01$
$?=164.2$

Hence, option B is correct.
58. Ans. D

```
\(\sqrt[3]{?}=\)
\[
(35 \% \text { of } 120+125-55)
\]
\[
\sqrt[3]{?}=(42+125-55)
\]
\[
\sqrt[3]{?}=
\]
(112)
\[
=>?=1404928
\]
59. Ans. C
\[
a^{2}+b^{2}=\left[(a+b)^{2}+(a-b)^{2}\right] / 2
\]
\[
?=184041+6889
\]
\[
\text { ? = } 95465
\]
60. Ans. A
\[
\Rightarrow 35 \% \text { of } 1870+456.60=699.1+?
\]
\[
\Rightarrow 654.5+456.60-699.1=\text { ? }
\]
\[
\Rightarrow ?=412
\]
```

61. Ans. C

Number of students studying math in college $\mathrm{B}=180$
Number of students studying English in college $\mathrm{C}=75$
Hence required ratio $=180: 75=12: 5$
62. Ans. D

Total number of students studying Maths $=690$
Total number of students studying science $=450$
$25 \%$ of $690=172.5$
$20 \%$ of $450=90$
so, required percentage $=[(172.5-90) * 100] / 90$
= 825/9 = 91.67
63. Ans. A

Required percentage $=(180 / 140) * 100=128.57 \%$
64. Ans. D

Required difference $=(200+160)-(140+90)$
$=360-230=130$
65. Ans. C
$=40 \%$ of $690: 30 \%$ of 505
=276:151.5
= 184:101
66. Ans. A
I. $8 x^{2}+26 x=-15$
$\Rightarrow 8 x^{2}+26 x+15=0$
$8 x^{2}+20 x+6 x+15=0$
$(4 x+3)(2 x+5)$
$\Rightarrow x=-3 / 4,-5 / 2$
II. $12 y^{2}-20 y+8=0$
$12 y^{2}-12 y-8 y+8=0$
$\Rightarrow(12 y-8)(y-1)$
$\Rightarrow y=2 / 3,1$
So $x<y$
67. Ans. E
I. $8 x^{2}+18 x+4=0$
$=>(8 x+2)(x+2)$
$\Rightarrow>x=-1 / 4,-2$
II. $2 y^{2}+29 y+14=0$
$=>(2 y+1)(y+14)$
$=>y=-1 / 2,-14$
So the relationship cannot be established
68. Ans. D
I. $5 a^{2}-27 a+36=0$
$5 a^{2}-15 a-12 a+36=0$
$5 a(a-3)-12(a-3)=0$
$(5 a-12)(a-3)=0$
$a=\frac{12}{5}, 3$
II. $25 b^{2}-90 b+72=0$
$5 b(5 b-12)-6(5 b-12)=0$
$(5 b-6)(5 b-12)=0$
$\mathrm{b}=\frac{6}{5}, \frac{12}{5}$
Hence, $\mathrm{a} \geq \mathrm{b}$
69. Ans. C
I. $25 x^{2}+35 x+12=0$
$(5 x+4)(5 x+3)=0$
$x=-4 / 5$ or,$-3 / 5$
II. $10 y^{2}+9 y+2=0$
$(2 x+1)(5 y+2)=0$
$y=-1 / 2$ or, $-2 / 5$
Clearly, $x<y$
70. Ans. E
I. $3 x^{2}-13 x-10=0$
$(x-5)(3 x+2)=0$
$x=5$ or $-(2 / 3)$
II. $3 y^{2}+10 y-8=0$
$(3 x-2)(y+4)=0$
$y=(2 / 3)$ or -4
71. Ans. B

From the table,

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Type Of Channels |  |  |  |  |
| Cable Name | Entertainment | News | Sports | Devotional | Total no. of channels |
| A | 140 | 35 | 40 | 18 | $140+35+40+18=233$ |
| B | 105 | 45 | 56 | 20 | $105+45+56+20=226$ |
| C | 135 | 20 | 45 | 25 | $135+20+45+25=225$ |
| D | 125 | 25 | 35 | 15 | $125+25+35+15=200$ |
| E | 110 | 30 | 20 | 20 | $110+30+20+20=180$ |
| F | 120 | 28 | 25 | 24 | $120+28+25+24=197$ |

$\therefore$ We can clearly observe that Cable operator B had second highest no. of total channels.
72. Ans. C

From the table,
Total no. of entertainment and sports channels of Cable operator E
$=110+30=140$
Total no. of sports and devotional channels of Cable operator E
$=20+20=40$
$\therefore$ The required percentage $=[(140 / 40) \times 100] \%=$ 350\%.
73. Ans. D

From the table,

|  | Type Of Channels |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Cable Name | Entertainment | News | Sports | Devotional | Total no. of channels |
| B | 105 | 45 | 56 | 20 | $105+45+56+20=226$ |
| C | 135 | 20 | 45 | 25 | $135+20+45+25=225$ |
| D | 125 | 25 | 35 | 15 | $125+25+35+15=200$ |
| F | 120 | 28 | 25 | 24 | $120+28+25+24=197$ |

So, the total no. of channels for Cable operator B,
C, D and F
$=226+225+200+197=848$
$\therefore$ The average no. of channels for Cable operator B, $C, D$ and $F=848 / 4=212$.
74. Ans.

Each Cable operator provides 20\% unique entertainment channels from others.
The total no. of entertainment channels for all
Cable operators together
$=140+105+135+125+110+120=735$
$\therefore$ The total no. of unique channels for all cable operators
$=735 \times(20 / 100)=147$
75. Ans. D

From the table,
For Cable operator F ,
No. of entertainment channels $=120$
No. of sports channels $=25$
$\therefore$ The no. of entertainment channels is $120 / 25=$
4.8 times of the no. of sports channels.
76. Ans. E

Total male professors $=(9 / 25) * 50=18$
So, Female professors $=50-18=32$
Total assistant professors $=150-50=100$
Total male assistant professors $=(9 / 20) * 100=$
45
Total female assistant professors $=100-45=55$
Total female professors and assistant professors =
$32+55=87$
77. Ans. B

Angle $=(14 / 100) * 360=50.4^{\circ}$
78. Ans. A

Total professors teaching Psychology and Sociology together $=((16+12) / 100) * 50=14$
Total number of professors and assistant professors teaching Psychology and Sociology together $=$ ( $(18$ $+14) / 100) * 150=48$
Required $\%=14 / 48 * 100=175 / 6$
79. Ans. E

Total number of professors teaching Economics and
English together $=(((10+24) / 100) * 50=17$
Total number of professors and assistant professors teaching Economics and English together = $((10+22) / 1000 * 150=48$
Total number of assistant professors teaching
Economics and English together $=48-17=31$
Required $\%=(31-17) / 17 * 100=82 \%$
80. Ans. A

Professors teaching -
Computer Science $=22 / 100 * 50=11$
Psychology $=12 / 100 * 50=6$
English $=24 / 100 * 50=12$
Sociology $=16 / 100 * 50=8$
Average $=(11+6+12+8) / 4=9.25=9$
81. Ans. E

83. Ans. D

84. Ans. E

85. Ans. B

86. Ans. E

Total student $=75$
$\frac{3}{5} t h$ of the total number of boys $=27$
$\therefore$ Total number of boys $=27 \times 3 / 5=45$
$\therefore$ Total number of girls $=75-45=30$
$\left(\frac{1}{5}\right)_{\mathrm{th}}$
th of the total number of girls $=6$
Hence, required ratio $=27: 6=9: 2$
87. Ans. C

The total interest given is same; this means the total rate percent is same,
$6 * t=5 *(t+1)=6 t=5 t+5=t=5$
Amount $=3900$, time $=5$ years and rate of interest
= 6\%
Sum $=100 \mathrm{~A} /(100+\mathrm{RT})=3900 * 100 /(100+6 * 5)=$
Rs. 3000
88. Ans. D

Distance covered by a car $=2 * 40=80 \mathrm{KM}$
According to question
Time $=2 * 150 / 100=3 \mathrm{hr}$
Speed $=40 * 75 / 100=30 \mathrm{~km} / \mathrm{hr}$
Distance travelled by another car $=30 * 3=90 \mathrm{~km}$
Ratio $=80 / 90=8: 9$
89. Ans. D

Given, car and bike dealer bought 30 second hand cars and bikes for Rs. 472500.
He bought eight cars and rest of them were bikes.
Let the selling price of each car be 'a'
Given, he made a profit of $40 \%$ by selling them.
$\Rightarrow 8 a+(3 a / 4) \times 22=472500+40 \%$ of 472500
$\Rightarrow 49 a / 2=1.4 \times 472500$
$\Rightarrow a=R s .27000$
90. Ans. D

The total weight of 15 girls $=15 \times 54=810 \mathrm{~kg}$
Let the teacher's weight be $x \mathrm{~kg}$. since, after adding teacher's weight, , the average increased by two kg.
Therefore,
$(54+2)=\frac{810+x}{16}$
$56 \times 16=810+x$
$x=896-810=86 \mathrm{~kg}$
Thus, the teacher's weight is 86 kg .
Hence, option D is correct.
91. Ans. D

Let the present ages of Sammy and Nitin be 'S' and 'N' respectively.
Two years ago the ratio of their ages was $1: 3$
$\therefore \frac{S-2}{N-2}=\frac{1}{3}$
$\therefore 3 S-6=N-2$
$\therefore 3 S-N=4$
Ten years from now, the ratio of their respective ages will be 7:9
$\therefore \frac{S+10}{N+10}=\frac{7}{9}$
$\therefore 9 S+90=7 N+70$
$\therefore 9 S-7 N=-20$
Multiplying equation (1) by 3
$\therefore 9 S-3 N=12$
Subtracting equation (2) from (3) we get,
$4 N=32$
$\therefore N=8$
Therefore, Nitin's age is 8 years right now.
Amey is 4 years older than Nitin, Amey's present
age $=8+4=12$ years.
Hence the correct option is option (D).
92. Ans. D

Number of girls in school
$=2000 \times \frac{\mathbf{3 6}}{100}=720$
Number of boys in school
= 2000-720 = 1280
Each girl's monthly fees
$=480 \times \frac{75}{100}=$
$\therefore$ Total monthly fees
$=1280 \times 480+720 \times 360$
$=614400+259200$
$=₹ 873600$
93. Ans. B

Given, If 6 years is subtracted from Atul's age and the remainder is divided by 18 the present age of his son Aman is obtained. Aman is 4 years younger to Vibhav whose current age is $1 / 6^{\text {th }}$ Atul's age.
Let Atul's age be 'a'
Aman's age $=(a-6) / 18$
Vibhav's age $=a / 6$
Now, $\frac{a-6}{18}=\frac{a}{6}-3$
$\Rightarrow(a-6) / 18=(a-18) / 6$
$\Rightarrow a-6=3 a-54$
$\Rightarrow a=24$ years
Age of Aman $=(24-6) / 18=1$ year old
94. Ans. D

Let the money received by $P, Q$ and $R$ be Rs. $3 x$, $4 x$ and $5 x$, respectively and money received by $A$ and $B$ be Rs. $2 y$ and $y$,
$\therefore 4 x-y=1050$
Since, we cannot form another equation here. So, we cannot solve it.
95. Ans. B

Let the capacity of bottle be X ml
Initial amount of alcohol $=\mathrm{X} \mathrm{ml}$
Alcohol consumed $=\mathrm{X} / 3 \mathrm{ml}$
Alcohol left $=2 X / 3 \mathrm{ml}$
Water added $=\mathrm{X} / 3 \mathrm{ml}$
Alcohol to water ratio at this point 2: 1
Mixture consumed $=2 X / 3 \mathrm{ml}$
Alcohol consumed $=2 / 3 * 2 \mathrm{X} / 3 \mathrm{ml}=4 \mathrm{X} / 9 \mathrm{ml}$
Water consumed $=1 / 3 * 2 \mathrm{X} / 3 \mathrm{ml}=2 \mathrm{X} / 9 \mathrm{ml}$
Alcohol left $=2 X / 3-4 X / 9 \mathrm{ml}=2 \mathrm{X} / 9 \mathrm{ml}$
Water left $=X / 3-2 X / 9 \mathrm{ml}=\mathrm{X} / 9 \mathrm{ml}$
Water added $=2 \mathrm{X} / 3 \mathrm{ml}$
Water left $=\mathrm{X} / 9+2 \mathrm{X} / 3 \mathrm{ml}=7 \mathrm{X} / 9 \mathrm{ml}$
Alcohol to water ratio $=2 \mathrm{X} / 9: 7 \mathrm{X} / 9=2: 7$
Water to Alcohol ratio $=7: 2$
96. Ans. D

Maximum speed of boat in still water $=32 \mathrm{kmph}$ $75 \%$ of speed of the boat $=0.75 * 32=24 \mathrm{kmph}$
Resultant speed $=$ speed of boat in still water +
speed of steam - speed of wind
Resultant speed $=24+4-2=26 \mathrm{kmph}$
Distance to travel $=91 \mathrm{~km}$
Time required $=91 / 26=3.5$ hours
97. Ans. B

Let the amount with Gopal be Rs. 400. Therefore price of an orange is then Rs. 8 and that of a mango is Rs. 10. If he keeps $10 \%$ of the money for taxi fare, he is left with Rs. 360 . Now if he buys 20 mangoes, then he spends on mangoes Rs. 200.
Now he is left with Rs. 160, in which he can buy 20 oranges.
98. Ans. B

Let the capacity of the tank be 30 litres. So Pipe A can fill 3 litre/hour, Pipe B can fill 2 litre/hour and Pipe C can empty 1 litre/hour.
Together they can fill $=3+2-1=4$ litre/hour Tank filled in 6 hours $=24$ litres
Time to fill the remaining tank by pipe A alone $=$ 6/3 = 2 hours
99. Ans. D

Let the number of days taken by C to complete the job be X .
Part of the job completed by $A$ in a day $=1 / 24$ and part of the job completed by $B$ in a day $=1 / 40$.
Part of the job completed by $C$ in a day $=1 / x$.

Now A, B and C working for 6 days complete the job together in 12 days
Thus $(1 / 24+1 / 40) *(12-6)+(1 / 24+1 / 40+1 / x)$ * $6=1$ (Since only A and B will work for 6 days and $A, B$ and $C$ will work for the other 6 days)
Hence $(1 / 15) * 6+(1 / 15+1 / x) * 6=1(1 / 15$ $+1 / x) * 6=1-6 / 15=9 / 15$. Hence $1 / 15+1 / x$ $=1 / 10$. Thus, $10 x+150=15 x, x=150 / 5=30$. Hence $C$ alone can complete the job in 30 days. Hence option d
100. Ans. D

Let $\mathrm{a}, \mathrm{b}, \mathrm{c}$ and d are integers such that $\mathrm{a}<\mathrm{b}<\mathrm{c}<\mathrm{d}$
Given: a + d = 21 $\mathrm{eq}(1)$
$b+c=19$ $\qquad$ eq(2)
$a^{2}+b^{2}+c^{2}+d^{2}=442$ $\qquad$ eq(3)
Squaring equation 1 and 2 and subtracting the sum with equation 3
$2 \mathrm{ad}+2 \mathrm{bc}=360$ $\qquad$ eq(4)
$\mathrm{Eq}(3)-\mathrm{eq}(4)$
$(d-a)^{2}+(c-b)^{2}=82$
In above equation 82 has to be some of perfect squares
$82=81+1 \Rightarrow d-a=9$ and $c-b=1$
From this and eq(1) and (2) we get $a=6, b=9$, $\mathrm{c}=10, \mathrm{~d}=15$
101. Ans. E


Conlusion II \& IV follow follow and either I and III follows.
102. Ans. B


Only either I or II follows
103. Ans. E

Here conclusion I. Some waves are stops. III. No wave is stop - forms a complementary pairs hence, conclusion either I or III and II follows

104. Ans. C

Only either I or II and either III or IV follow

105. Ans. D

106. Ans. A

1) There are as many people between $A$ and $B$ as between A and OBC candidate.
T who sits at extreme right is a PWD candidate is diagonally opposite to the one who belongs to general and is in private college.

|  | B-GEN-Private | A | IOBC |
| :---: | :---: | :---: | :---: |

2) $Q$ is opposite to $A$ who is to the immediate left of an SC candidate.

3) Those who are diagonally opposite are not in same college, thus T must be in govt as B is in private.
D who is in Government College is second to the right of PWD candidate.
$R$ who is in pvt college is opposite to $E$ who is not sitting at the extreme end. Now in row I extreme left position is left so C must be there, category ST is left so $A$ must be ST

| B-GEN-Private | D-SC-govt | A-ST- | PWD-E-govt | OBC-C- |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  | Q- | R-pvt |

Person from same category and college are not opposite each other. Exactly 1 person sits between ST and General category candidate.
Those who are diagonally opposite are not in same college.
E and OBC candidate in row II are diagonally opposite thus OBC candidate belongs to pvt.
Not more than 2 people from same college are adjacent to each other, thus. A must be in pvt college and Q is opposite to A so Q must be in govt college.

 | ST-Govt-? | OBC---pvt | Q-GEN-govt | R-pvt-SC | T-PWD-govt. |
| :--- | :--- | :--- | :--- | :--- | :--- |

107. Ans. C
1) There are as many people between $A$ and $B$ as between A and OBC candidate.
T who sits at extreme right is a PWD candidate is diagonally opposite to the one who belongs to general and is in private college.

2) $Q$ is opposite to $A$ who is to the immediate left of an SC candidate.

| B-GEN-Private | SC | A |  | OBC |
| :--- | :--- | :--- | :--- | :--- |

3) Those who are diagonally opposite are not in same college, thus $T$ must be in govt as $B$ is in private.
D who is in Government College is second to the right of PWD candidate.
$R$ who is in pvt college is opposite to $E$ who is not sitting at the extreme end. Now in row I extreme left position is left so $C$ must be there, category ST is left so A must be ST

| B-GEN-Private | D-SC-govt | A-ST- | PWD-E-govt | OBC-C- |
| :--- | :--- | :--- | :--- | :--- |
|  |  | Q- | R-pvt | T-PWD-govt. |

Person from same category and college are not opposite each other. Exactly 1 person sits between ST and General category candidate.
Those who are diagonally opposite are not in same college.
E and OBC candidate in row II are diagonally opposite thus OBC candidate belongs to pvt.
Not more than 2 people from same college are adjacent to each other, thus. A must be in pvt college and Q is opposite to A so Q must be in govt college.

| B-GEN-Private | D-SC-govt | A-ST-pvt | PWD-E-govt. | OBC-C-Pvt |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
|  |  |  |  |  |  |
| ST-Govt-? | OBC-?-pvt | Q-GEN-govt | R-pvt-SC | T-PWD-govt. |  |

108. Ans. B
1) There are as many people between $A$ and $B$ as between A and OBC candidate.

T who sits at extreme right is a PWD candidate is diagonally opposite to the one who belongs to general and is in private college.

2) $Q$ is opposite to $A$ who is to the immediate left of an SC candidate.

3) Those who are diagonally opposite are not in same college, thus T must be in govt as B is in private.
D who is in Government College is second to the right of PWD candidate.
$R$ who is in pvt college is opposite to $E$ who is not sitting at the extreme end. Now in row I extreme left position is left so $C$ must be there, category ST is left so A must be ST

| B-GEN-Private | D-SC-govt | A-ST- | PWD-E-govt | OBC-C- |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
|  |  |  |  |  |  |
|  |  | Q- | R-pvt | T-PWD-govt. |  |

Person from same category and college are not opposite each other. Exactly 1 person sits between ST and General category candidate.
Those who are diagonally opposite are not in same college.
E and OBC candidate in row II are diagonally opposite thus OBC candidate belongs to pvt.
Not more than 2 people from same college are adjacent to each other, thus. A must be in pvt college and Q is opposite to A so Q must be in govt college.


109. Ans. D

1) There are as many people between $A$ and $B$ as between A and OBC candidate.
T who sits at extreme right is a PWD candidate is diagonally opposite to the one who belongs to general and is in private college.

2) $Q$ is opposite to $A$ who is to the immediate left of an SC candidate.

| B-GEN-Private | SC | A |  | OBC |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  | Q- |  | T-PWD- |

3) Those who are diagonally opposite are not in same college, thus T must be in govt as B is in private.
D who is in Government College is second to the right of PWD candidate.
R who is in pvt college is opposite to E who is not sitting at the extreme end. Now in row I extreme left position is left so C must be there, category ST
is left so A must be ST

| B-GEN-Private | D-SC-govt | A-ST- | PWD-E-govt | OBC-C- |
| :--- | :--- | :--- | :--- | :--- |
|  |  | Q- | R-pvt | T-PWD-govt. |

Person from same category and college are not opposite each other. Exactly 1 person sits between ST and General category candidate.
Those who are diagonally opposite are not in same college.
E and OBC candidate in row II are diagonally opposite thus OBC candidate belongs to pvt. Not more than 2 people from same college are adjacent to each other, thus. A must be in pvt college and $Q$ is opposite to $A$ so $Q$ must be in govt college.

| B-GEN-Private | D-SC-govt | A-ST-pvt | PWD-E-govt. | OBC-C-Pvt |
| :--- | :--- | :--- | :--- | :--- |


| ST-Govt-? | OBC-?-pvt | Q-GEN-govt | R-pvt-SC | T-PWD-govt |
| :--- | :--- | :--- | :--- | :--- |

110. Ans. D
1) There are as many people between $A$ and $B$ as between A and OBC candidate.
T who sits at extreme right is a PWD candidate is diagonally opposite to the one who belongs to general and is in private college.

| B-GEN-Private |  | A |  | OBC |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  | T-PWD- |

2) $Q$ is opposite to $A$ who is to the immediate left of an SC candidate.

| B-GEN-Private | SC | A |  | OBC |
| :--- | :--- | :--- | :--- | :--- |
|   Q-PWD- |  |  |  |  |

3) Those who are diagonally opposite are not in same college, thus $T$ must be in govt as $B$ is in private.
D who is in Government College is second to the right of PWD candidate.
$R$ who is in pvt college is opposite to $E$ who is not sitting at the extreme end. Now in row I extreme left position is left so C must be there, category ST is left so A must be ST

| B-GEN-Private | D-SC-govt | A-ST- | PWD-E-govt | OBC-C- |
| :--- | :--- | :--- | :--- | :--- |

R-pvt $\quad$ T-PWD-govt
Person from same category and college are not opposite each other. Exactly 1 person sits between ST and General category candidate.
Those who are diagonally opposite are not in same college.
$E$ and $O B C$ candidate in row II are diagonally opposite thus OBC candidate belongs to pvt.
Not more than 2 people from same college are adjacent to each other, thus. A must be in pvt college and Q is opposite to A so Q must be in govt college.

| B-GEN-Private | D-SC-govt | A-ST-pvt | PWD-E-govt. | OBC-C-Pvt |
| :--- | :--- | :--- | :--- | :--- |
| ST-Govt-? OBC-?-pvt Q-GEN-govt R-pvt-SC T-PWD-govt. |  |  |  |  |$.$

111. Ans. B

- Only one person is living below O's floor and only one person is living above $\mathrm{H}^{\prime} \mathrm{s}$ floor so O must be living on the $2^{\text {nd }}$ and H must be living on the $7^{\text {th }}$ floor.
- S stays on such a floor where the number of persons below his floor is three more than the number of persons above his floors, that mean $S$ lives on $6^{\text {th }}$ floor and likes Honda.
- A is living between K's and L's floor, only one place where $A$ can be live is $4^{\text {th }}$ floor and K and L live either on $5^{\text {th }}$ or $3^{\text {rd }}$ floor. Ans. A.s we know that O is living immediately below L's floor, as O is living on $2^{\text {nd }}$ then L must live on $3^{\text {rd }}$ and K must live on $5^{\text {th }}$ floor.
- A, K and L do not like Audi and only two people like Audi and both of them live in an even numbered floor, We know that O likes Audi and he is on $2^{\text {nd }}$ floor now only one even numbered floor is vacant for Audi which is $8^{\text {th }}$ floor.
- The one who lives in the ground floor are do not like Skoda it means he likes Honda.
- L and G like the same car, G can be live on $1^{\text {st }}$ or $8^{\text {th }}$ if $G$ lives on $8^{\text {th }}$ and $L$ must like Audi but that is not possible so $G$ lives on $1^{\text {st }}$ and likes Honda and $L$ also likes Honda.
- Only one place for B which is $8^{\text {th }}$ floor.
- Now Honda is liked by three persons already it means rest one likes Skoda, whom are $\mathrm{H}, \mathrm{K}$ and A .
Here is the Final table-

| 8 | B | Audi |
| :--- | :--- | :--- |
| 7 | H | Skoda |
| 6 | S | Honda |
| 5 | K | Skoda |
| 4 | A | Skoda |
| 3 | L | Honda |
| 2 | O | Audi |
| $\mathbf{1}$ | G | Honda |

112. Ans. C

- Only one person is living below O's floor and only one person is living above H's floor so O must be living on the $2^{\text {nd }}$ and H must be living on the $7^{\text {th }}$ floor.
- S stays on such a floor where the number of persons below his floor is three more than the number of persons above his floors, that mean $S$ lives on $6^{\text {th }}$ floor and likes Honda.
- A is living between K's and L's floor, only one place where $A$ can be live is $4^{\text {th }}$ floor and K and L live either on $5^{\text {th }}$ or $3^{\text {rd }}$ floor. Ans. A.s we know that O is living immediately below L's floor, as O is living on $2^{\text {nd }}$ then $L$ must live on $3^{\text {rd }}$ and $K$ must live on $5^{\text {th }}$ floor.
- A, K and L do not like Audi and only two people like Audi and both of them live in an even numbered floor, We know that O likes Audi and he is on $2^{\text {nd }}$ floor now only one even numbered floor is vacant for Audi which is $8^{\text {th }}$ floor.
- The one who lives in the ground floor are do not like Skoda it means he likes Honda.
- L and G like the same car, G can be live on $1^{\text {st }}$ or $8^{\text {th }}$ if G lives on $8^{\text {th }}$ and L must like Audi but that is not possible so G lives on $1^{\text {st }}$ and likes Honda and L also likes Honda.
- Only one place for B which is $8^{\text {th }}$ floor.
- Now Honda is liked by three persons already it means rest one likes Skoda, whom are H, K and A.
Here is the Final table-

| $\mathbf{8}$ | B | Audi |
| :--- | :--- | :--- |
| $\mathbf{7}$ | H | Skoda |
| $\mathbf{6}$ | S | Honda |
| $\mathbf{5}$ | K | Skoda |
| $\mathbf{4}$ | A | Skoda |
| $\mathbf{3}$ | L | Honda |
| $\mathbf{2}$ | $\mathbf{O}$ | Audi |
| $\mathbf{1}$ | G | Honda |

113. Ans. A

- Only one person is living below O's floor and only one person is living above $\mathrm{H}^{\prime}$ s floor so O must be living on the $2^{\text {nd }}$ and H must be living on the $7^{\text {th }}$ floor.
- S stays on such a floor where the number of persons below his floor is three more than the number of persons above his floors, that mean S lives on $6^{\text {th }}$ floor and likes Honda.
- A is living between K's and L's floor, only one place where $A$ can be live is $4^{\text {th }}$ floor and K and L live either on $5^{\text {th }}$ or $3^{\text {rd }}$ floor. Ans. A.s we know that O is living immediately below L's floor, as O is living on $2^{\text {nd }}$ then $L$ must live on $3^{\text {rd }}$ and $K$ must live on $5^{\text {th }}$ floor.
- A, K and L do not like Audi and only two people like Audi and both of them live in an even numbered floor, We know that O likes Audi and he is on $2^{\text {nd }}$ floor now only one even numbered floor is vacant for Audi which is $8^{\text {th }}$ floor.
- The one who lives in the ground floor are do not like Skoda it means he likes Honda.
- L and G like the same car, G can be live on $1^{\text {st }}$ or $8^{\text {th }}$ if G lives on $8^{\text {th }}$ and L must like Audi but that is not possible so $G$ lives on $1^{\text {st }}$ and likes Honda and $L$ also likes Honda.
- Only one place for B which is $8^{\text {th }}$ floor.
- Now Honda is liked by three persons already it means rest one likes Skoda, whom are H, K and A.

Here is the Final table-

| 8 | B | Audi |
| :--- | :--- | :--- |
| 7 | H | Skoda |
| 6 | S | Honda |
| 5 | K | Skoda |
| 4 | A | Skoda |
| 3 | L | Honda |
| 2 | O | Audi |
| $\mathbf{1}$ | G | Honda |

114. Ans. C

- Only one person is living below O's floor and only one person is living above H's floor so O must be living on the $2^{\text {nd }}$ and H must be living on the $7^{\text {th }}$ floor.
- S stays on such a floor where the number of persons below his floor is three more than the number of persons above his floors, that mean $S$ lives on $6^{\text {th }}$ floor and likes Honda.
- A is living between K's and L's floor, only one place where $A$ can be live is $4^{\text {th }}$ floor and K and L live either on $5^{\text {th }}$ or $3^{\text {rd }}$ floor. Ans. A.s we know that O is living immediately below L's floor, as O is living on $2^{\text {nd }}$ then $L$ must live on $3^{\text {rd }}$ and $K$ must live on $5^{\text {th }}$ floor.
- A, K and L do not like Audi and only two people like Audi and both of them live in an even numbered floor, We know that O likes Audi and he is on $2^{\text {nd }}$ floor now only one even numbered floor is vacant for Audi which is $8^{\text {th }}$ floor.
- The one who lives in the ground floor are do not like Skoda it means he likes Honda.
- L and G like the same car, G can be live on $1^{\text {st }}$ or $8^{\text {th }}$ if G lives on $8^{\text {th }}$ and L must like Audi but that is not possible so $G$ lives on $1^{\text {st }}$ and likes Honda and $L$ also likes Honda.
- Only one place for B which is $8^{\text {th }}$ floor.
- Now Honda is liked by three persons already it means rest one likes Skoda, whom are H, K and A.


## Here is the Final table-

| 8 | B | Audi |
| :--- | :--- | :--- |
| 7 | H | Skoda |
| 6 | S | Honda |
| 5 | K | Skoda |
| 4 | A | Skoda |
| 3 | L | Honda |
| 2 | O | Audi |
| $\mathbf{1}$ | G | Honda |

115. Ans. D

- Only one person is living below O's floor and only one person is living above H's floor so O must be living on the $2^{\text {nd }}$ and H must be living on the $7^{\text {th }}$ floor.
- S stays on such a floor where the number of persons below his floor is three more than the number of persons above his floors, that mean $S$ lives on $6^{\text {th }}$ floor and likes Honda.
- A is living between K's and L's floor, only one place where $A$ can be live is $4^{\text {th }}$ floor and K and L live either on $5^{\text {th }}$ or $3^{\text {rd }}$ floor. Ans. A.s we know that O is living immediately below L's floor, as O is living on $2^{\text {nd }}$ then $L$ must live on $3^{\text {rd }}$ and K must live on $5^{\text {th }}$ floor.
- A, K and L do not like Audi and only two people like Audi and both of them live in an even numbered floor, We know that O likes Audi and he is on $2^{\text {nd }}$ floor now only one even numbered floor is vacant for Audi which is $8^{\text {th }}$ floor.
- The one who lives in the ground floor are do not like Skoda it means he likes Honda.
- L and G like the same car, G can be live on $1^{\text {st }}$ or $8^{\text {th }}$ if G lives on $8^{\text {th }}$ and L must like Audi but that is not possible so G lives on $1^{\text {st }}$ and likes Honda and L also likes Honda.
- Only one place for B which is $8^{\text {th }}$ floor.
- Now Honda is liked by three persons already it means rest one likes Skoda, whom are $\mathrm{H}, \mathrm{K}$ and A .
Here is the Final table-

| $\mathbf{8}$ | B | Audi |
| :--- | :--- | :--- |
| $\mathbf{7}$ | H | Skoda |
| $\mathbf{6}$ | S | Honda |
| $\mathbf{5}$ | K | Skoda |
| $\mathbf{4}$ | A | Skoda |
| $\mathbf{3}$ | L | Honda |
| $\mathbf{2}$ | O | Audi |
| $\mathbf{1}$ | G | Honda |

116. 117. Ans. A

As per the solution figure, the person who likes apple sits diagonally opposite the one who likes Banana.

117. Ans. C

As per the solution figure, $\mathrm{N} \& \mathrm{Q}$ are the immediate neighbours of the one who likes Orange.

118. Ans. E

As per the solution figure, M sits exactly between T and $N$.

119. Ans. E

As per the solution figure, N is an immediate neighbour of the one who likes Banana.

120. Ans. E

As per the solution figure, the position T who likes Papaya with respect to S is third to the left.

121. Ans. C

In the question, there is a pattern. In the initial steps we have to arrange the odd numbers in increasing order. Then we have to arrange the even numbers in the decreasing order. Then in the next step the word which would come at last in dictionary will come forth and the first dictionary word out of the given words will go at last.
77 limpid 66 arrest lipid 5544 lively

Step I: 5577 limpid 66 arrest lipid 44 lively Step II: 5577 limpid arrest lipid 44 lively 66 Step III: 5577 limpid arrest lipid lively 6644 Step IV: lively 5577 limpid lipid 6644 arrest Step V: lipid lively 55776644 arrest limpid Five steps are required to get the output. 122. Ans. C

In the question, there is a pattern. In the initial steps we have to arrange the odd numbers in increasing order. Then we have to arrange the even numbers in the decreasing order. Then in the next step the word which would come at last in dictionary will come forth and the first dictionary word out of the given words will go at last.

## Step II: $13 \mathbf{2 5}$ various $\mathbf{3 8}$ variety vary 66 vampire

Step III: 1325 various 38 variety vary vampire 66 Step IV: 1325 various variety vary vampire 6638 Step V: vary 1325 various variety 6638 vampire 123. Ans. B

In the question, there is a pattern. In the initial steps we have to arrange the odd numbers in increasing order. Then we have to arrange the even numbers in the decreasing order. Then in the next step the word which would come at last in dictionary will come forth and the first dictionary word out of the given words will go at last.
Simplicity 71 obstacle obstinate oblivious 65 9846
Step I: 65 Simplicity 71 obstacle obstinate oblivious 9846
Step II: 6571 Simplicity obstacle obstinate oblivious 9846
Step III: simplicity 6571 obstacle obstinate 9846 oblivious
Step IV: obstinate simplicity 65719846 oblivious obstacle
124. Ans. D

In the question, there is a pattern. In the initial steps we have to arrange the odd numbers in increasing order. Then we have to arrange the even numbers in the decreasing order. Then in the next step the word which would come at last in dictionary will come forth and the first dictionary word out of the given words will go at last.
89 mobile 76 laptop Bluetooth 13 password 50
Step I: 1389 mobile 76 laptop Bluetooth password 50
Step II: 1389 mobile laptop Bluetooth password 50 76
Step III: 1389 mobile laptop Bluetooth password 7650

Step IV: password 1389 mobile laptop 7650 Bluetooth
125. Ans. D

In the question, there is a pattern. In the initial steps we have to arrange the odd numbers in increasing order. Then we have to arrange the even numbers in the decreasing order. Then in the next step the word which would come at last in dictionary will come forth and the first dictionary word out of the given words will go at last.
13278 Mandatory 117 attend percentage 90 57 student compulsory 111 present
Step I: 11713278 Mandatory attend percentage 9057 student compulsory 111 present Step II: 11111713278 Mandatory attend percentage 9057 student compulsory present Step III: 5711111713278 Mandatory attend percentage 90 student compulsory present Step IV: 5711111778 Mandatory attend percentage 90 student compulsory present 132 Step V: 5711111778 Mandatory attend percentage student compulsory present 13290 126. Ans. B


Please note that D and A's symbols are interchanged since first condition is satisfied. (If the first letter is a consonant and the last letter is a vowel, their codes are to be interchanged)
127. Ans.


Please note that F 's symbol is replaced as 9 since third condition is satisfied. (If both the first and the last letters are consonants, both are to be coded as the code for the last letter).
128. Ans. E


Please note that No condition follows since first letter is vowel while last letter is consonant.
129. Ans. A


Please note that No condition follows since first letter is vowel while last letter is consonant.
130. Ans. C


Please note that both $U$ and E's symbols are replaced as $*$ since second condition is satisfied. (If both the first and the last letters are vowels, both are to be coded as *)
131. Ans. A

| Symbols | Actual <br> Meaning |
| :--- | :--- |
| $=!$ | $\geq$ |
| $\rangle$ | $\leq$ |
| $€$ | $<$ |
| $\#$ | $>$ |
| $\neq$ | $=$ |

Using this table, we can decode the given
statements and conclusions:
Decoded Statements:
$A \geq B$,
$D<E$,
D < C,
$\mathrm{C} \leq \mathrm{B}$
Decoded conclusions:
A > E
$\mathrm{C} \leq \mathrm{A}$
$B \geq D$
E > B
The resultant final solution: $A \geq B \geq C>D<E$
For conclusion $I$, we can draw ( $A \geq B \geq C>D<E$ ), we can't establish a relation between $A$ and $E$, as they are connected with opposite signs. So, conclusion I do not follow.
For conclusion II, we can draw ( $A \geq B \geq C$ ), we can establish a relation between $A$ and $C$
( $A \geq C$ ) or ( $C \leq A$ ) follows. So, conclusion II does follow.
For conclusion III, we can draw ( $B \geq C>D$ ), we can establish a relation between $B$ and $D(B>D)$, but ( $B \geq D$ ) does not follow. So, conclusion II does not follow.
For conclusion IV, we can draw ( $\mathrm{B} \geq \mathrm{C}>\mathrm{D}<\mathrm{E}$ ), we can't establish a relation between $B$ and $E$, as they are connected with opposite signs. So, conclusion IV does not follow.
Hence, Conclusion II follows.
132. Ans. B

| Symbols | Actual <br> Meaning |
| :--- | :--- |
| $=!$ | $\geq$ |
| $<>$ | $\leq$ |
| $€$ | $<$ |
| $\#$ | $>$ |
| $\neq$ | $=$ |

Using this table, we can decode the given statements and conclusions:

## Decoded Statements:

$\mathrm{S} \leq \mathrm{T}$,
$\mathrm{O}<\mathrm{M}$,
$R>T$,
$\mathrm{R}<\mathrm{O}$

## Decoded conclusions:

M > T
$\mathrm{S}<\mathrm{O}$
$\mathrm{R} \geq \mathrm{S}$
$0<T$
The resultant final solution: $\mathrm{S} \leq \mathrm{T}<\mathrm{R}<\mathrm{O}<\mathrm{M}$ For conclusion I, we can draw ( $\mathrm{T}<\mathrm{R}<\mathrm{O}<\mathrm{M}$ ), we can establish a relation between M and T , ( $\mathrm{T}<\mathrm{M}$ ) or ( $\mathrm{M}>\mathrm{T}$ ) follow. So, conclusion I do follow.
For conclusion II, we can draw ( $\mathrm{S} \leq \mathrm{T}<\mathrm{R}<\mathrm{O}$ ), we can establish a relation between S and $\mathrm{O},(\mathrm{S}<\mathrm{O})$. So, conclusion II follows.
For conclusion III, we can draw ( $\mathrm{S} \leq \mathrm{T}<\mathrm{R}$ ) we can establish a relation between $R$ and $S$,
( $S<R$ ), but ( $R \geq S$ ) or ( $S \leq R$ ) does not follow. So, conclusion III does not follow.
For conclusion IV, we can draw ( $\mathrm{T}<\mathrm{R}<\mathrm{O}$ ), we can establish a relation between O and T , ( $\mathrm{T}<\mathrm{O}$ ), but $(\mathrm{O}<\mathrm{T})$ or $(\mathrm{T}>\mathrm{O})$ does not follow. So, conclusion IV does not follow.
Hence, conclusion I and II follows.
133. Ans. D

| Symbols | Actual <br> Meaning |
| :--- | :--- |
| $=!$ | $\geq$ |
| $\rangle$ | $\leq$ |
| $€$ | $<$ |
| $\#$ | $>$ |
| $\neq$ | $=$ |

Using this table, we can decode the given statements and conclusions:

## Decoded Statements:

G < H,
$K=L$,
F > G,
$\mathrm{H} \geq \mathrm{K}$

## Decoded conclusions:

F > H,
G < L,
$L \leq H$,
$\mathrm{K}<\mathrm{F}$

The resultant final solution: $\mathrm{F}>\mathrm{G}<\mathrm{H} \geq \mathrm{K}=\mathrm{L}$ For conclusion I, we can draw ( $\mathrm{F}>\mathrm{G}<\mathrm{H}$ ), we can't establish a relation between $F$ and $H$, as they are connected with opposite signs. So, conclusion I do not follow.
For conclusion II, we can draw ( $\mathrm{G}<\mathrm{H} \geq \mathrm{K}=\mathrm{L}$ ), we can't establish a relation between G and L , as they are connected with opposite signs. So, conclusion II does not follow.
For conclusion III, we can draw ( $\mathrm{H} \geq \mathrm{K}=\mathrm{L}$ ), we can establish a relation between $L$ and $H,(H \geq L)$ or ( $\mathrm{L} \leq \mathrm{H}$ ) does follow. So, conclusion III do follow. For conclusion IV, we can draw ( $F>G<H \geq K$ ), we can't establish a relation between $K$ and $F$, as they are connected with opposite signs. So, conclusion IV does not follow.
Hence, only conclusion III follows.
134. Ans. C

| Symbols | Actual <br> Meaning |
| :--- | :--- |
| $=!$ | $\geq$ |
| $<>$ | $\leq$ |
| $€$ | $<$ |
| $\#$ | $>$ |
| $\neq$ | $=$ |

Using this table, we can decode the given statements and conclusions:

## Decoded Statements:

$\mathrm{X} \leq \mathrm{Z}$,
$Y=U$,
$Y=X$,
$\mathrm{V}<\mathrm{U}$

## Decoded conclusions:

$\mathrm{X}=\mathrm{U}$
$Y \leq Z$
$Z \geq V$
$\mathrm{V}<\mathrm{Y}$
The resultant final solution: $Z \geq X=Y=U>V$
For conclusion I , we can draw ( $\mathrm{X}=\mathrm{Y}=\mathrm{U}$ ), we can establish a relation between X and $\mathrm{U},(\mathrm{X}=\mathrm{U})$ does follow. So, conclusion I do follow.
For conclusion II, we can draw ( $Z \geq X=Y$ ), we can establish a specific relation between $Z$ and $Y,(Z \geq$ $Y$ ) or $(Y \leq Z)$ does follow. So, conclusion II follows. For conclusion III, we can draw ( $Z \geq X=Y=U>$ $V$ ), we can establish a relation between $Z$ and $V(Z$ $>\mathrm{V}$ ), but ( $\mathrm{Z} \geq \mathrm{V}$ ) does not follow. So, conclusion III does not follow.
For conclusion IV, we can draw ( $\mathrm{Y}=\mathrm{U}>\mathrm{V}$ ), we can establish a relation between Y and $\mathrm{V},(\mathrm{Y}>\mathrm{V}$ ) or ( V $<\mathrm{Y}$ ) does follows. So, conclusion IV does follow. Hence, Conclusion I, II and IV follows.
135. Ans. D

| Symbols | Actual Meaning |
| :---: | :---: |
| $=!$ | $\geq$ |
| $<>$ | $\leq$ |
| $\epsilon$ | $<$ |
| $\#$ | $>$ |
| $\neq$ | $=$ |

Using this table, we can decode the given statements and conclusions:
The resultant final solution: $\mathrm{P}=\mathrm{I}<\mathrm{N}\rangle \mathrm{Q} \geq \mathrm{T}$ For conclusion I, we can draw ( $\mathrm{P}=\mathrm{I}<\mathrm{N}>\mathrm{Q}$ ), we can't establish a relation between P and Q , as they are connected with opposite signs. So, conclusion I do not follow.
For conclusion II, we can draw ( $\mathrm{P}=\mathrm{I}<\mathrm{N}$ ), we can establish a relation between P and N , ( $\mathrm{P}<\mathrm{N}$ ) or ( $\mathrm{N}>\mathrm{P}$ ) follows. So, conclusion II does follow.
For conclusion III, we can draw ( $\mathrm{I}<\mathrm{N}>\mathrm{Q} \geq \mathrm{T}$ ), we can't establish a relation between T and I , as they are connected with opposite signs. So, conclusion III does not follow.
For conclusion IV, we can draw ( $\mathrm{I}<\mathrm{N}>\mathrm{Q}$ ), we can't establish a relation between I and Q, as they are connected with opposite signs. So, conclusion IV does not follow.
Hence, Conclusions II is true.
136. Ans. C


If Komal is standing at point $C$ which is 10 m to the north of point B then, in Southwest direction she have to walk in order to reach point $A$.
137. Ans. A

$B G=B K+K G$
$B G=5+20$
$B G=25 \mathrm{~m}$ towards west
138. Ans. B


The point where Nisha takes her first turn is in Northeast direction with respect to A.
139. Ans. D

R is the only sister of U . T has only one daughter who is the aunt of $V$. $W$ is the father of $U$, who is married to Q . S is not a male.


## 140. Ans. C

$R$ is the only sister of $U$. T has only one daughter who is the aunt of $V . W$ is the father of $U$, who is married to Q . S is not a male.

141. Ans. D
$R$ is the only sister of U. T has only one daughter who is the aunt of $V$. $W$ is the father of $U$, who is married to Q . S is not a male.

142. Ans. D

After arranging the words from left to right in reverse order-
RMO OWP NGH BCA ASB
$B C A$, is second from the right end.
143. Ans. A

After arranging the words,
LEF DQZ RUN ZAD PKR
There is no word having two vowels.
144. Ans. D

Change consonant to next letter,
OHI ATC OXQ CDA SNO
Arrange alphabets in English alphabetical order,
HIO ACT OQX ACD NOS
ACT, OQX and ACD have vowel at the first place.
145. Ans. A

After arranging the words,
MGI ZSC NWQ ACB QMP
No such word starts and ends with same letter.
146. Ans.

The second letter of the second word from the right is ' $\mathrm{C}^{\prime}$. -
The second letter of the first word from the left is 'G'.
There are three letters (D, E \& F) between C and G in English alphabetical series.
147. Ans. A

Only one pair - SV
148. Ans. D

Before arrangement 8795342
After arrangement 9684253
ascending order 2345689
149. Ans. B

Number of children between R and W in a line $=30$
$-(4+10)=16$
150. Ans. E

The given number : 5134876
In ascending order: 1345678
Thus the equidistant pairs are $(5,3),(1,3),(1,4)$, $(3,4),(8,7),(8,6)$ an $(7,6)$.

