

# IBPS SO Exam

**Direction (1-5):** Study the information given below and answer the questions based on it.

8 friends A, I, C, D, E, F, G and H are sitting in a straight line facing north and south direction. Among them four are facing south, while four are facing north. They play different games Swimming, Cricket, Kabaddi, Hockey, Tennis, Volleyball, Basketball and Chess. The following information is given about them:

- 1) I who plays chess sits exactly between D and the person who plays Kabaddi.
  - 2) The person who plays tennis faces north and is to the immediate right of the person who plays Swimming.
  - 3) C and D are not the immediate neighbours of G. They do not sit at the extreme ends of the row.
  - 4) The person who plays hockey sits at one of the ends and is second to the right of G who faces south. A does not like to play cricket.
  - 5) The person who plays cricket is third to the left of the person who plays volleyball.
  - 6) Also, C does not play Kabaddi. E faces south.
  - 7) H is second to the right of the person who plays basketball.
  - 8) A is to the immediate right of the person who faces north.
  - 9) Exactly one person sits between D and C. C faces south.
1. The person to the immediate left of C plays which of the following games?  
A. Swimming            B. Cricket  
C. Tennis                D. Basketball  
E. Kabaddi
  2. Who sits exactly between I and the person who plays volleyball?  
A. G                      B. D  
C. H                      D. F  
E. None of these
  3. Which of the following statements is true?  
A. The person second to the left of D faces north  
B. Exactly one person sits between I and C  
C. The person to the immediate right of A plays hockey.  
D. F faces south  
E. None of these
  4. Who plays cricket?  
A. D                      B. E  
C. G                      D. F  
E. A

5. Four of the following five are alike and hence form a group. Which of the following five does not belong to the group?

A. FA                      B. DH  
C. CE                      D. IG  
E. AD

**Direction (6-9):** Read the following information carefully and answer the questions that follow:

P, Q, R, S, T, V and W are seven different boxes of different colours i.e. black, silver, red, pink, yellow, white and green but not necessarily in the same order.

Box S is immediately above yellow colour box. More than three boxes are there between pink and silver colour box. There are two boxes between the box Q and box T. There is only one box between box T and box W. There are three boxes between box W and box P, which is of black colour. There are only two boxes between box P and box R, which is of white colour. The silver colour box is immediately above the box W. More than three boxes are there between yellow and pink colour box. T is of red colour box.

6. How many boxes are there between green colour box and silver colour box?  
A. One                    B. Two  
C. Three                 D. Four  
E. None
7. Box Q is of which colour?  
A. Silver                 B. Green  
C. Yellow                D. Black  
E. Pink
8. Which box is placed immediately above red colour box?  
A. P                        B. S  
C. R                        D. T  
E. W
9. How many boxes are there between box W and box Q?  
A. None                  B. One  
C. Two                    D. Three  
E. Four

10. **Direction:** Read the following information carefully and answer the questions that follow:

Seven persons Tina, Vini, Yasir, Rishi, Sanya, Pankaj and Urmila live on the separate floors of a 7- floor building. Ground floor is number one; second floor is number two and so on. Each of them goes to a city viz. Paris,

Istanbul, Shanghai, Durban, London, Madrid and Dubai but not necessarily in the same order.

Only three people live above the floor on which Sanya lives. Only one person lives between Sanya and the one who goes to Paris. Vini lives just below the person who goes to Madrid. Only three people live between the one who goes to Paris and London. The person who goes to Madrid lives on an even numbered floor. Urmila lives just above Rishi. Urmila does not go to London. Only two persons live between Pankaj and the one who goes to Durban. Pankaj lives above the person who goes to Durban. Yasir does not go to Istanbul. Tina does not live just above or just below Sanya. The one who goes to Shanghai does not live just above or just below Pankaj.

Who among the following lives on floor number 7?

- A. Tina
- B. Yasir
- C. Pankaj
- D. Urmila
- E. Vini

**Direction (11-15):** Read the following information carefully and answer the questions given below it.

Seven persons A, U, S, T, J, Z and M live in four different floors. The lowermost floor is floor number 1 and the topmost floor is floor number 4. Two persons live on each floor while only one person lives on any of the floor. They go to movies in different months viz. January, February, March and April. They go to movies either on 13<sup>th</sup> of the month or on 27<sup>th</sup> of the month. Two persons go on each month while only one person go in any of the month.

A lives neither on floor 1 nor on floor 4. M goes to movie in a month which has the least number of days but not on 27<sup>th</sup>. U does not go to movie on 13<sup>th</sup> of any month. Only one person lives on floor 3 and he goes to movies in February. J and Z go to movies in the same month but not in January. They live on same floor. A does not go to movie on 13<sup>th</sup> of any month. U does not live above M. Only one person goes to movie in February. S and T go to movies in different months. S does not live with U or T. T goes in March along with A. J

goes after Z. J and Z can't be on first floor. S does not go to movie on 27<sup>th</sup> of any month. T goes on 13<sup>th</sup> of the month.

11. Who goes to movies in April?  
A. Z and J                      B. S and U  
C. T and A                      D. M and S  
E. T and M
12. Find the odd man out.  
A. Z                                B. J  
C. M                                D. A  
E. T
13. When does S go to the movie?  
A. 27<sup>th</sup> January                B. 13<sup>th</sup> April  
C. 13<sup>th</sup> March                    D. 27<sup>th</sup> April  
E. 13<sup>th</sup> January
14. How many persons go to movie between J and U?  
A. One                              B. Three  
C. More than three              D. Two  
E. None
15. Who goes fourth to watch the movie?  
A. M                                B. A  
C. T                                D. U  
E. S

**Direction (16-20):** Study the following information carefully and answer the question given below:

Eight person P, Q, R, S, T, U, V & W belongs to six different states viz. Rajasthan, Delhi, Goa, Bihar, Punjab & Haryana and all of them sit on a circular table. Out of the eight persons, three of them are facing towards the centre. Two of the persons belongs to Rajasthan state and another two persons belong from Bihar state.

Both of the persons who belong to Bihar state is an immediate neighbour of S. W, a person from Bihar is an immediate neighbour of the person from Punjab. The person from Punjab is sitting 2<sup>nd</sup> left of P. There are three persons between P & S. The person from Goa is an immediate neighbour of the person from Delhi and another person Q from Rajasthan. T, another person from Bihar is an immediate neighbour of Q. P is facing towards the centre. Another person S from Haryana is also facing the centre. V is an immediate neighbour of U and the person from Delhi. Both of the immediate neighbours of V are facing towards the centre.

16. Which of the following person belongs to Goa?  
 A. U                                      B. P  
 C. R                                      D. V  
 E. None of these
17. Which of the following person belongs to Rajasthan?  
 A. V, Q                                      B. R, Q  
 C. P, Q                                      D. U, Q  
 E. None of these
18. Who is sitting 3<sup>rd</sup> left of V?  
 A. R                                      B. P  
 C. S                                      D. Q  
 E. None of these
19. Which state's person is sitting 3<sup>rd</sup> to right of the person from Punjab?  
 A. Delhi                                      B. Rajasthan  
 C. Bihar                                      D. Goa  
 E. None of these
20. Which of the following persons belong to Delhi & Punjab respectively?  
 A. P, U                                      B. R, U  
 C. U, V                                      D. P, V  
 E. None of these

**Direction (21-25):** Study the information given below and answer the questions based on it.

Eight persons A, B, C, D, E, F, G and H are staying on eight storey building. Lowermost floor is numbered 1 and topmost floor is numbered 8. They like different colors i.e. Red, Pink, Silver, Blue, Black, Brown, White and Yellow, not necessarily in the same order. C likes Yellow and is staying on an odd numbered floor. Three persons are staying between C and B. B lives above C. The number of floors between B and A is same as C and D. A lives above D but below B. Two floors are between B and E who likes Brown. E doesn't stay on top floor. G likes White and lives below E. Two floors are between G and the one who likes Pink. One floor is between F and H who likes Red. At least one person is staying between F and A. The one who likes Blue is staying just above the one who likes Black. C doesn't like Silver.

21. Which of the following doesn't belong to the group?  
 A. F                                      B. H  
 C. E                                      D. G  
 E. D

22. Which of the following combination is correct?  
 A. B-Blue                                      B. F-Black  
 C. C-Yellow                                      D. D-Yellow  
 E. A-Black
23. How many persons are staying between D and A?  
 A. 1                                      B. 2  
 C. 3                                      D. 4  
 E. More than 4
24. Who among the following likes Silver?  
 A. D                                      B. B  
 C. F                                      D. A  
 E. G
25. Which of the following statement is TRUE?  
 A. F lives on bottom floor  
 B. H lives just below A  
 C. The one who lives on 1<sup>st</sup> floor likes Yellow  
 D. One person is staying between A and C  
 E. B lives below D
26. **Direction:** In the following question assuming the given statements to be true, find which of the conclusion among given conclusions is/are definitely true and then give your answers accordingly.  
**Statements:**  $P > Q \leq R > Z$ ;  $Y > X > P \geq U$ ;  
 $Q \geq S < T$   
**Conclusions:**  
 I.  $P > S$   
 II.  $Z < T$   
 A. None is true  
 B. Only I is true  
 C. Only II is true  
 D. Either I or II is true  
 E. Both I and II are true
27. **Direction:** In the following question assuming the given statements to be true, find which of the conclusion among given conclusions is/are definitely true and then give your answers accordingly.  
**Statements:**  $Y \leq K < D = S$ ;  $D < B < O$ ;  $A \geq D < Z$   
**Conclusions:**  
 I.  $A > B$   
 II.  $Y < Z$   
 A. None is true  
 B. Only I is true  
 C. Only II is true  
 D. Either I or II is true  
 E. Both I and II are true

28. **Direction:** In the following question assuming the given statements to be true, find which of the conclusion among given conclusions is/are definitely true and then give your answers accordingly.

**Statements:**  $A > C$ ;  $G > E$ ;  $G \leq C$ ;  $R \leq I$ ;  $K \leq I$

**Conclusions:**

i.  $A > G$

ii.  $C > E$

- A. None is true      B. Only I is true  
C. Only II is true    D. Either I or II is true  
E. Both I and II are true

29. **Direction:** In the following question assuming the given statements to be true, find which of the conclusion among given conclusions is/are definitely true and then give your answers accordingly.

**Statements:**  $Z \leq K < D = S$ ;  $D < A < O$ ;  $G \geq D < R$

**Conclusions:**

i.  $G > A$

ii.  $Z < R$

- A. None is true      B. Only I is true  
C. Only II is true    D. Either I or II is true  
E. Both I and II are true

30. **Direction:** In the following question assuming the given statements to be true, find which of the conclusion among given conclusions is/are definitely true and then give your answers accordingly.

**Statements:**  $C \leq R \leq N = M \geq F$ ;  $Q \geq M < O$ ;  $D \geq L$ ;  $C \geq D \leq S \geq Z$

**Conclusions:**

i.  $R \leq F$

ii.  $C < Q$

- A. None is true      B. Only I is true  
C. Only II is true    D. Either I or II is true  
E. Both I and II are true

31. **Directions:** In each questions statement are given followed by two conclusions, Read all the conclusions and decide which of the given conclusion follow the given statements.

**Statements:**

No chair is table.

All chair is bench.

Some chair is box.

**Conclusions:**

I. No table is box

II. Some bench are box

- A. Only I follow  
B. Only II follows  
C. Either I or II follows  
D. Neither I nor II follow  
E. Both I and II follow

32. **Direction:** The question below has three statements followed by two conclusions numbered I and II. You have to take the three given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

**Statements:**

Some rings are bracelets.

All bracelets are earrings.

All earrings are necklaces.

**Conclusions:**

I. All those bracelets which are earrings can never be a ring is a possibility.

II. There is a possibility that all rings are necklaces.

- A. Only conclusion I follow.  
B. Only conclusion II follows.  
C. Only conclusion Either I or II follows.  
D. Only conclusion Neither I nor II follows.  
E. Only both conclusions I and II follow.

33. **Direction:** In the question below are given three statements followed by two conclusions which are numbered as I, and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts.

**Statements:**

Some pages are papers.

No page is a book.

All books are pencils.

**Conclusions:**

I. All books can never be papers.

II. All pencils are papers is a possibility.

- A. Only conclusion I follows  
B. Only conclusion II follows  
C. Either conclusion I or conclusion II follows  
D. Neither conclusion I nor conclusion II follows  
E. Both conclusion I and conclusion II follow

34. **Direction:** The following question consists of four statements followed by two conclusions. Consider the statements to be true even if they vary from commonly known facts and find out which of the conclusions logically follow(s).

**Statements:**

All papers are books.

All pencils are pens.

No paper is pencil.

No stationary is book.

**Conclusions:**

Some papers are stationary is a possibility.

Some pens are books as well as papers.

A. Only conclusion I follow.

B. Only conclusion II follow.

C. Either conclusion I or II follows.

D. Neither conclusion I or II follows.

E. Both conclusion I and II follows.

35. **Direction:** In the following question, some statements is followed by some conclusions, you have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given logically follow. Choose that conclusion as the answer.

**Statements:**

Some roads are not good.

Some railways are good.

All airways are good.

Some roads are bad.

**Conclusions:**

I. At least some bad are good.

II. No bad is good.

A. Only conclusion I follow.

B. Only conclusion II follow.

C. Either conclusion I or II follows.

D. Neither conclusion I or II follows.

E. Both conclusion I and II follows.

36. **Direction:** In question below is given a statement followed by assumptions. An assumption is something supposed or taken for granted. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.

**Statement:** The mind is the source of all human actions, yet the body is given more importance.

**Assumptions:**

I. The Mind is not given proper importance.

II. The Body is getting undeserved importance.

III. Every action starts from the brain.

A. Only I

B. Only II

C. Only II and III

D. Only III

E. All of them

37. **Direction:** The question below, there is a statement followed by two conclusions numbered I and II. You have to assume everything in the statement to be true. Then consider the 2 conclusion together and decide which of them follows beyond a reasonable doubt from the information given in the statement.

**Statement:** High pressure boilers are hazardous pieces of equipment, which are strictly regulated with special laws.

**Conclusions:**

I. If not regulated, high pressure boilers will be easily available in the market

II. High pressure boilers are rare.

A. Only conclusion I follows

B. Only conclusion II follows

C. Both conclusion I and II follows

D. Neither conclusion I nor II follows

E. Either conclusion I or II follows

38. **Direction:** In the question given below, a statement is given followed by three courses of action. A course of action is taken for improvement, follow up, etc. Read the statement carefully and give your answer accordingly.

**Statement:** The appearance of China-made globes that show Jammu and Kashmir not a part of India has alarmed the Indian diaspora in Canada.

**Courses of Actions:**

I. The Indian diaspora should lodge a complaint against the manufacturers for giving out inaccurate information.

II. The Chinese government should issue an official apology to the Indians.

III. The Canadian people should altogether stop buying Chinese made products.

A. Only course of action I follows

B. Only course of action II follows

C. Both I and II follow

D. Both II and III follow

E. None of them follow

39. A statement is given followed by three inferences numbered I, II, and III. Consider the statement to be true even if it is at variance with commonly known facts. You have to decide which of the inferences, if any, follow from the given statement.

**Statement:**

Japan will open up its doors to about two lakh IT professionals from India, and issue green cards to settle down in Japan and support the country's rapidly expanding IT infrastructure, said Shigeki Maeda, Executive Vice President at Japan External Trade Organisation (JETRO), a government body.

**Inferences:**

- I.** There is a dearth of IT professionals in Japan.  
**II.** IT professionals from India are way more talented and hardworking than professionals from other countries.  
**III.** Japan's IT industry is growing by leaps and bounds every year.
- A. Both I and II follow  
B. Both I and III follow  
C. Both II and III follow  
D. Only III follows  
E. All of them follow
40. The government is set to launch the most ambitious bets to ward off cybercrime in its Rs 1,000-crore National Cyber Coordination Centre project slated to begin operations by the end of this month. According to government officials, the Centre is meant to monitor the cyber traffic in the country and prevent possible large-scale cyber attacks by analyzing the traffic. It will begin with tracking the networks of a handful of Internet Service Providers (ISPs) and data centers.
- Which of the following statements most strongly supports the argument?**
- A. The government seems to be fast-tracking its efforts to strengthen cyber security especially after the unprecedented rise in the digital transactions in the country since demonetization.  
B. In the wake of large-scale cyber attacks in the country recently, the government has taken several measures to contain the spread of cybercrime.  
C. The Centre will monitor the flow of traffic and analyze upcoming attacks and take action in real time.

- D. None of these  
E. Either Option A or B

**Directions (41-43):** Study the following information and answer the question given.

P = Q means Q is the father of P

P \* Q means P is the sister of Q

P ? Q means Q is the mother P

P \$ Q means P is the brother of Q

P @ Q means Q is son of P

P # Q means P is the daughter of Q

41. Which of the following is incorrect?  
A. R # S ? T means R is granddaughter of T.  
B. P = Q ? R means R is grandmother of P.  
C. L \$ M \* O means L is the brother O.  
D. M \* O @ P = Q means Q and O are husband and wife.  
E. All are correct
42. **In a certain code language,** 'Siberia is a cold place' is written as 'a cold is place Siberia' in the same code, 'water freezes to ice here' is coded as 'freezes here ice to water'. How will 'covers ten per cent of earth' be written in the same code?  
A. covers earth percent ten of  
B. Earth of covers percent ten  
C. covers earth percent of ten  
D. covers earth of percent ten  
E. covers earth ten of percent
43. **In a certain code language,** 'it is dark outside' is written as 'ha no ti ju', 'is it still raining' is written as 'pa ha da no', 'go and play outside' is written as 'su ju ye la'. How is 'dark' written in that code language?  
A. ha  
B. ti  
C. su  
D. ye  
E. no
44. **Direction:** In each of the following questions, a question is followed by information given in three statements. You have to decide the information given in which of the statements is necessary and sufficient to answer the questions:  
A, B, C, D and E are sitting in a circle. Are all of them facing the centre?  
**I.** A is sitting second to the right of D; C is facing the centre and is not an immediate neighbour of D.  
**II.** B, who is sitting between C and D, is second to the right of E, who is not an immediate neighbour of C. B and A are facing each other.

**III.** D is sitting on the immediate left of B, who is not sitting on the immediate left of A. E is on the immediate right of D.

- A. Only I and II
- B. Only I and III
- C. Either I and II, or III
- D. Any two of the three
- E. None of these

45. **Directions:** Each of the questions below consists of a question and three statements numbered I, II and III given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read all the three statements and give answer.

There are six letters E, I, P, G, N and O is PIGEON the word formed after performing the following operations using these six letters only?

I. O is placed fourth to the right of P. G is not placed immediately next to either P or O.

II. N is placed immediately next (either left or right) to O. E is placed immediately next (either left or right) to G.

III. Both I and E are placed immediately next to G. The word does not begin with N. P is not placed immediately next to E.

A. If the data in statement I and II are sufficient to answer the question, while the data in statement III alone are not sufficient to answer the question.

B. If the data in statement I and III are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

C. If the data in statement II and III are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.

D. If the data either statement I alone or statement II alone or statement III alone are sufficient to answer the question.

E. If the data in all statements I, II and III together are necessary to answer the question.

46. **Direction:** In each of the following question, a question is followed by information given in three statements. You have to study the question along with the statements and decide the information given in which statement(s) is necessary and sufficient to answer the question.

In a family of seven members, how is P related to Q?

I. M and N are children of O, who is the wife of P.

II. A, the cousin of B, is the niece of M.

III. Q is the only brother-in-law of B.

A. Only I

B. Only I and II

C. Only II and III

D. All of them

E. None of these

47. **Direction:** The question below consists of a question and three statements numbered I, II and III given. You have to decide whether the data provided in which of the statements are sufficient to answer the question. Choose your answer from the options based on this.

How is M related to R?

I. T, the only son of M, has two sisters.

II. M's son is the brother of the only sister of R.

III. R and T are children of M.

A. Only I and III

B. Only II

C. Either I or II

D. Only II and III

E. None of these

48. **Direction:** A question and two statements numbered I and II are given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

A six storey building consisting of an unoccupied ground floor and above ground floor is floor no. 1, so on and topmost floor is no. 5. Different people lives in building viz. I, J, K, L and M. Who lives on the third floor?

I. K lives on an even numbered floor. I lives immediately above L. J lives immediately above I. M does not live on the topmost floor.

II. L lives on an odd numbered floor. I and J are immediate neighbours of each other. Similarly, K and M are immediate neighbours of each other. K does not live on an odd numbered floor.

A. The data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient to answer the question.

B. The data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.

C. The data either in Statement I alone or in Statement II alone are sufficient to answer the question.



D. The data in both the Statements I and II are not sufficient to answer the question.

E. The data in both the Statements I and II together are necessary to answer the question.

**Direction (49-50):** Study the following information and answer the questions.

Point A is 8m to the west of Point B. Point C is 4m to the south of Point B. Point D is 4m to the east of Point C. Point F is 6m to the north of Point D. Point E is 8m to the west of Point F. Point G is 2m to the south of Point E.

49. How far and in which direction is Point G from Point A?  
A. 4m to the east    B. 8m to the west  
C. 4m to the west    D. 8m to the east  
E. 6m to the south
50. If point G is 4m to the north of Point H, then what is the distance between H and D?  
A. 11m                      B. 8m  
C. 6m                        D. 4m  
E. None of these
51. A man spends 20% of his monthly income on rent. Out of the remaining monthly income, he spends 25% on food, Rs. 'a' on transportation and the remaining money is deposited in the savings account which is 48% of the total monthly salary. If the amount is deposited for 5 years in the savings account he gets a simple interest of Rs. 8294.4 at the rate of 7.2% per annum, then find the value of 'a'.  
A. Rs. 6240                B. Rs. 7280  
C. Rs. 5760                D. Rs. 6860  
E. None of these
52. When boatman A travels from point X to Y then the river has no speed of stream. He covers half the distance at a speed of 21 km/hr and the rest with a speed of 'x' km/hr which took him an overall time of 2 hours and 24 minutes. When boatman B travels from point X to Y with the speed of boat as 21 km/hr then the river has a speed of stream of 3 km/hr and he has to travel the entire distance at upstream. If boatman B took 2 hours and 20 minutes to cover the distance then find the value of 'x'.  
A. 12 km/hr                B. 14 km/hr  
C. 15 km/hr                D. 16 km/hr  
E. None of these
53. 12 men can complete a work in 10 days. 20 women can complete the same work in twelve days. 8 men and 4 women started working

together and after 6 days, 11 more women joined them. What are the total numbers of days required to complete the whole work?

- A.  $10\frac{27}{31}$  days            B.  $11\frac{27}{32}$  days  
C.  $9\frac{12}{13}$  days             D.  $9\frac{27}{31}$  days  
E. None of these

**Direction (54-58):** Study the following information to answer the questions.

In TATA group there are 5200 employees in five different subsidiary companies – TATA Retail, TATA Life, TATA Logistic, TATA Solar and TATA Steel. Out of the total number of female employees in the organization, 27% work in TATA Retail, 22% work in TATA Logistic, 16% work in TATA Life and the remaining 840 female employees in TATA Solar. Out of the total male employees in the group, 14% work in TATA Retail, 30% work in TATA Logistic, 25% work in TATA Life, 11% work in the TATA Solar and the remaining employees work in TATA Steel.

54. Find the total number of male employees in these three subsidiaries is TATA Retail, TATA Life and TATA Logistic?  
A. 1032                      B. 1932  
C. 1664                      D. 1200  
E. 1654
55. The total number of male employees working in TATA Life and TATA Logistic together is what % of the total number of employees working in these two firms?  
A. 52.47%                B. 62.8%  
C. 68.8%                    D. 50.8%  
E. 64.6%
56. What is the approx. average number of employees (male and female) who work in TATA Logistic, TATA Solar and TATA Steel together?  
A. 1044                      B. 1120  
C. 1025                      D. 986  
E. 1004
57. If 10 % male of TATA Steel leave the job and exact number of female join the TATA Life in place of those male employees who left the job. What is the total number of female employees in TATA Life?  
A. 440                        B. 520  
C. 480                        D. 580  
E. None of these

58. What % male employee's more or less than female employees?  
 A. 18.46                      B. 19.66  
 C. 20.23                      D. 14.56  
 E. 16.66

**Direction (59-63):** What value should come in place of the question marks (?) in the following questions?

59.  $\sqrt{729} + ? = 4\frac{2}{5}$  of 125  
 A. 531                          B. 503  
 C. 511                          D. 523  
 E. 513
60.  $\frac{21}{30}$  of 55% of 4200 = ?  $\times$  700  
 A. 3.81                          B. 1.11  
 C. 2.46                          D. 2.31  
 E. 1.26
61.  $\sqrt[3]{9261} - \sqrt[3]{125} + \sqrt[3]{5832} = ?$   
 A. 34                              B. 37  
 C. 39                              D. 31  
 E. 38
62.  $55 \times 53 - 20 \times 23 + 6671 = ?^2 \times 6$   
 A. 45                              B. 39  
 C. 33                              D. 35  
 E. 41
63.  $95\% \text{ of } \sqrt{14400} + 50\% \text{ of } 16^2 = ? + 214$   
 A. 33.0                          B. 28.0  
 C. 24.0                          D. 21.0  
 E. 31.0

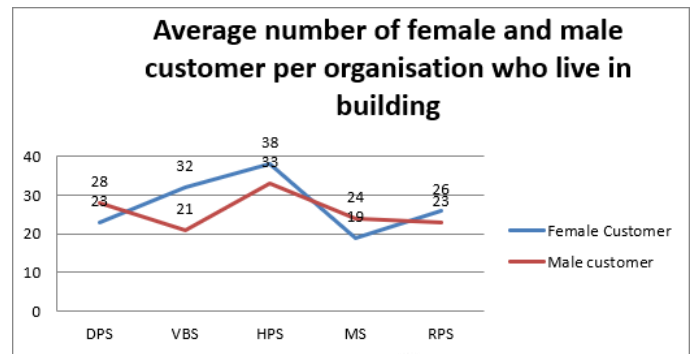
**Direction (64-68):** Answer the questions based on the information given below:

The first line graph represents the average number of female customers and male customers per organisation who live in building of five different headquarters.

The second line graph represents the total number of female customers and male customers in five different headquarters.

Note 1: There are total 12 organisations in each headquarter.

Note 2: Total number of customers in headquarters = Number of customer who live in building + number of part timers.



64. What is the difference between the number of part timers' male customers and the number of part timers' female customers in VBS?  
 A. 42                              B. 48  
 C. 45                              D. 37  
 E. 51
65. What is the average number of customers per organisation who are part timers' in RPS?  
 A. 58                              B. 71  
 C. 74                              D. 62  
 E. 67
66. What is the ratio of the number of male customers who are part timers in DPS to the number of male customers who are part timers in HPS?  
 A. 3: 4                              B. 2: 3  
 C. 4: 5                              D. 3: 1  
 E. None of these
67. Find the percentage of the number of female customers who are part timers in MS with respect to the number of male customers who are part timers in the same headquarter.  
 A. 102.2%                          B. 84.3%  
 C. 89.2%                          D. 95.7%  
 E. 92.6%

68. Find the difference between the total number of female customers who live in building in all the five headquarters together and the total number of male customers who live in building in all the five headquarters together.
- A. 16                      B. 19  
C. 12                      D. 7  
E. 26
69. A basketball team of 5 players is to be selected from a group of 10 men and 8 women players. A volley ball team of 6 players is to be selected from a group of 8 men and 7 women players. Find the difference in the number of ways in which both the teams are selected, given that each team has only 2 female players.
- A. 1890                    B. 1920  
C. 1950                    D. 1990  
E. None of these

**Direction (70-74):** In each question two equations numbered I and II are given. You have to solve both the equations and mark the answer:

70. I.  $10x^2 + 37x + 30 = 0$   
II.  $y^2 + 21y + 80 = 0$
- A. If  $x > y$               B. If  $x < y$   
C. If  $x = y$  or no relation is obtained  
D. If  $x \geq y$               E. If  $x \leq y$
71. I.  $x^2 - 11x + 10 = 0$   
II.  $y^2 + 6y - 7 = 0$
- A. If  $x > y$               B. If  $x < y$   
C. If  $x = y$  or no relation is obtained  
D. If  $x \geq y$               E. If  $x \leq y$
72. I.  $x^2 + 17x - 168 = 0$   
II.  $y^2 - 32y + 255 = 0$
- A. If  $x > y$               B. If  $x < y$   
C. If  $x = y$  or no relation is obtained  
D. If  $x \geq y$               E. If  $x \leq y$
73. I.  $x^2 + 22x + 72 = 0$   
II.  $15y^2 + 77y + 90 = 0$

- A. If  $x > y$               B. If  $x < y$   
C. If  $x = y$  or no relation is obtained  
D. If  $x \geq y$               E. If  $x \leq y$
74. I.  $x^2 + 31x + 234 = 0$   
II.  $y^2 - 9y - 22 = 0$
- A. If  $x > y$               B. If  $x < y$   
C. If  $x = y$  or no relation is obtained  
D. If  $x \geq y$               E. If  $x \leq y$
75. Mixture X and Mixture Y contain 35 litres and 50 litres respectively of mixtures of liquids A and B in different proportions. Quantity of liquid A in mixture X is 15 litres less than the quantity of liquid A in mixture Y. The total quantity of liquid B in both the mixtures is 30 liters. If 20% of the liquid is taken from mixture X and put into mixture Y, then what will be the ratio of liquid A to liquid B in mixture Y?
- A. 6: 13                    B. 1: 2  
C. 7: 3                    D. 13: 6  
E. Cannot be determined
76. A shopkeeper sold an article of marked price Rs. 2200 after giving two successive discounts of  $x\%$  and  $y\%$ . If the shopkeeper sold the article at Rs. 1881 and the second discount percentage is twice the first discount percentage, then find the value of  $x$ .
- A. 8%  
B. 7.25%  
C. 6.33%  
D. 5%  
E. None of these
77. The average weight of group of 10 boys is 50.8 kg. The individual weight of six of them is equal. Seventh boy has a weight equal to 98% of individual weight of first six boys and 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> boy has a weight 4%, 6% and 8% more than the individual weight of first six boys. Find the average weight of the group when two new boys of weights 54 kg and 56 kg respectively join the group and six boys having equal weights leave the group.
- A. 54 kg  
B. 53.5 kg  
C. 53 kg  
D. 52.5 kg  
E. None of these

78. A grocer has a sale of Rs.3250, Rs.2955, Rs.3682 and Rs.4943 respectively from January to April. He has a sale for further next three months to get an average sale of Rs.3096. If he has the sale in the ratio 1: 2: 1 for next three months, what will be the difference between the sales in the month March and July?
- A. 989                      B. 1060  
C. 1971.5                  D. 1220  
E. None of these
79. 10 years ago ,a father was twice of his elder son and the difference of their present ages is 15 years. If the younger son is 3 year smaller then the elder ones then the present age of younger son is
- A. 22                        B. 38  
C. 35                        D. 36  
E. 25
80. Three vessels contain alcoholic solutions with the concentrations of alcohol as 0.25, 0.5 and 0.75 respectively. 4 litres from the first, 6 litres from the second and 8 litres from the third are mixed. What is the ratio of alcohol and water in the resultant mixture?
- A. 1:2                        B. 1:3  
C. 1:1                        D. 5:9  
E. 5:4

**Direction (81-85):** In the following number series, only one number is missing. Find out the missing number.

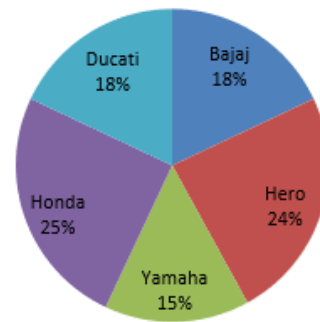
81. 1, 2, 15, 100, 749, ?
- A. 7017                      B. 6671  
C. 6627                      D. 6893  
E. 6822
82. 17, 35, 107, 538, 3770, ?
- A. 41475                      B. 41321  
C. 41608                      D. 41640  
E. 41617
83. 24, 95, 616, 5463, 59972, ?
- A. 779406                      B. 779522  
C. 779602                      D. 779637  
E. 779467
84. 30155, 25243, 21149, 17777, 15037, ?
- A. 12845                      B. 12780  
C. 12692                      D. 13035  
E. 12787
85. 90, 154, 254, 398, 594, ?
- A. 973                        B. 850  
C. 721                        D. 943  
E. 670

**Direction (86-90):** Answer the questions based on the information given below:

The given pie chart shows the percentage distribution of total number of bikes sold by five different companies in a year. All companies sell only two variants of bikes namely 'Standard' and 'Cruiser'.

The total number of bikes sold by these companies in a year = 36000

**Percentage distribution of bikes of different companies**



86. Ratio of the number of Standard Bikes sold to the number of Cruiser Bikes sold by Bajaj is 11:7; respectively while the ratio of the number of Standard Bikes sold to the number of Cruiser Bikes sold by Hero is 11: 16, respectively. Find the ratio between Cruiser bikes sold by Bajaj and Cruiser Bikes sold by Hero.
- A. 20: 19                      B. 63: 128  
C. 22: 15                      D. 18: 7  
E. 23: 18
87. The ratio of the number of Standard Bikes sold by Bajaj to the number of Standard Bikes sold by Honda is 4:7; respectively. If the number of Cruiser Bikes sold by Bajaj is equal to the number of Cruiser Bikes sold by Honda, then find the difference between total number of Standard bikes sold by Honda and Cruiser bikes sold by Bajaj.
- A. 2400                        B. 2520  
C. 2760                        D. 3120  
E. 6480
88. Find the average of total number of bikes sold by Yamaha, Honda and Ducati.
- A. 9630                        B. 6090  
C. 3690                        D. 6960  
E. 9360



99. Find the approximate profit of laxmipati Pvt. Ltd. of 2005, if profit of keshri Pvt. Ltd. of 2008 is 236 crores and income of keshri pvt Ltd. in 2008 is equal to expenditure of laxmipati pvt ltd in 2005.
- A. 374 crores      B. 347 crores  
C. 312 crores      D. 311 crores  
E. 340
100. by what approximate percent keshri Pvt. Ltd profit of 2009 is more than that of 2008.
- A. 27%              B. 38%  
C. 29%              D. 30%  
E. None of these

**Direction (101-110):** 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.

An influential new recruit has joined the chorus of bitcoin skeptics. The chief investment officer of UBS Plc, the world's biggest wealth manager, says it's too risky to be added to the firm's portfolios—and his assessment is relatively mild. Others have called it "the very definition of a bubble" and even "a fraud". Those stronger terms are justified, especially after the latest spell of wild price volatility. But the idea underlying bitcoin—blockchain, or distributed-ledger technology—could be transformative. The problem with bitcoin and other so-called digital currencies is that they're a misuse of this technology. As either a new form of money or an investment, bitcoin has fatal disadvantages. Tokens that are privately created—"mined," if you insist—can succeed in a limited way as a means of exchange and be used to execute certain kinds of transactions. (Cigarettes in prison are a kind of currency.) But as a reliable store of value, bitcoin is much less useful, because its volatility is so extreme.

The value of ordinary currencies is underwritten by governments and stabilized by central banks acting as trusted monopoly producers. Bitcoin and its rivals leave those vital roles vacant. Moreover, bitcoin has no fundamental value as an asset—no stream of future income, no ultimate assurance of liquidity or security, and (unlike gold, say) no alternative use. Its scarcity (hence some floor on its value) is **purportedly** guaranteed by

the underlying technology, but most of its buyers simply take that on trust. Should they come to doubt that guarantee, its price will collapse. In the meantime, bitcoin's utility as a means of exchange depends on official tolerance—a point rightly emphasized by UBS's Mark Haefele. That tolerance cannot be taken for granted, especially as bitcoin's appeal rests so much on the anonymity of its users. At the moment, its comparative advantage is its usefulness for illicit purposes. All this said, the blockchain technology that underlies bitcoin is potentially very powerful. By reducing the need for central intermediaries, it holds out the promise of processing transactions of various kinds more efficiently than today. Many banks and exchanges are exploring these applications. Blockchain technology might also be used one day to produce new kinds of central bank money. Central bank digital currency could start to replace the electronic payment systems that financial institutions use with each other. A more **radical** idea is to use digital currency, issued and supervised by the central bank, at the retail level to replace physical cash. All these ideas are worth study now. And they'll still be worth pursuing after the bitcoin bubble bursts.

Source:

<https://www.livemint.com/Opinion/rcSdqv5Gbmi3EW2HXKGziM/Bitcoin-may-be-a-bubble-but-blockchain-is-not.html>

101. Why is blockchain technology perceived to have a promising future for financial transactions?
- A. Because it is very secure and reliable  
B. Because it provides anonymity to its users  
C. Because it is cost effective and transparent  
D. Because it does not require any intermediary  
E. None of these
102. How can financial institutions benefit from the blockchain technology?
- (i) It can be used as an alternative to digital transactions for inter-financial markets  
(ii) Digital transactions can become more efficient with the use of blockchain technology  
(iii) It can help banks in cost saving as it is a cheaper alternative to physical cash
- A. Only (i)              B. Only (ii)  
C. Only (iii)            D. Both (i) and (ii)  
E. Both (i) and (iii)



103. Which of the following statements can be concluded about cryptocurrency?  
(i) It has an unending supply  
(ii) It is not backed by the government  
(iii) There is no guarantee of its liquidity  
A. Both (i) and (ii) B. Both (i) and (iii)  
C. Both (ii) and (iii) D. All of these  
E. None of these
104. Why does the author feel that calling "bitcoin" as "the very definition of a bubble" and even "a fraud" is justified?  
A. Because it is a misuse of a transformative technology like blockchain  
B. Because it is not backed by any security  
C. Because of bitcoin's volatility  
D. Because bitcoin has the potential to be used as a means for illicit purposes  
E. Because the bitcoin bubble may burst any moment crippling the financial system
105. Which of the following statements is definitely FALSE in the context of the given passage?  
A. Bitcoin cannot be used as a reliable store of value  
B. The technology used for bitcoin has a huge potential for future usage  
C. Bitcoin lacks stability and is highly volatile  
D. Bitcoin can have only limited usage as a means of exchange  
E. None of these
106. Which of the following statements can be inferred from the given passage?  
(i) Many banks are supportive of bitcoin due to its underlying technology that enables efficiency in certain types of transactions  
(ii) The role of central intermediaries also has an adverse effect on the execution of certain transactions to some extent  
(iii) The digital currency may soon replace physical cash in the near future  
A. Only (ii) B. Only (i)  
C. Only (iii) D. Both (i) and (ii)  
E. Both (i) and (iii)
107. Choose the word which is most nearly the SAME in meaning as the word printed in bold as used in the passage.  
**Purportedly**  
A. Purposedly B. Seemingly  
C. Supposedly D. Authentically  
E. Implicitly

108. Choose the word which is most nearly the OPPOSITE in meaning as the word printed in bold as used in the passage.  
**Radical**  
A. Exceptional B. Revolutionary  
C. Complex D. Fundamental  
E. Conservative
109. **Direction:** In the given question, a part of the sentence is printed in bold. Below the sentence, three alternatives to the bold part are given which may help improve the sentence. Choose the option that reflects the correct use of the phrase in the context of the sentence. In case the given sentence is correct, your answer is (E) i.e. No correction required.  
**There is little room for free and open inquiry**, and fundamental values and cultural norms remain largely unquestioned.  
I. There is a little room for free and open inquiry  
II. There is the little room for free and open inquiry  
III. There is lessening room for free and open inquiry  
A. Only I B. Only II  
C. Only III D. Both I and III  
E. No correction required
110. **Direction:** In the given question, a part of the sentence is printed in bold. Below the sentence three alternatives to the bold part are given which may help improve the sentence. Choose the option that reflects the correct use of the phrase in the context of the sentence. In case the given sentence is correct, your answer is (E) i.e. No correction required.  
Historians believe that much of Jesus' story can be reconstructed, **without the help of Bible, and with just the views** of historians who lived during his time.  
I. without the help of Bible, and by just the views  
II. without the help from Bible, and with just the views  
III. without the help of the Bible, and with just the views  
A. Only I B. Only II  
C. Only III D. Both I and III  
E. No correction required

111. **Direction:** In the given question, a part of the sentence is printed in bold. Below the sentence, three alternatives to the bold part are given which may help improve the sentence. Choose the option that reflects the correct use of the phrase in the context of the sentence. In case the given sentence is correct, your answer is (E) i.e. No correction required.

At first glance, it seems implausible that **such an intricately engineered bio system such as our** could have come about merely as a result of random modifications.

- i. such an intricately engineered bio system as ours
  - ii. such intricately engineered bio system such as our
  - iii. such intricately engineered bio system such as ours
- A. Only I                      B. Only ii  
C. Only iii                     D. Both ii and iii  
E. No correction required

112. **Direction:** In the given question, a part of the sentence is printed in bold. Below the sentence, three alternatives to the bold part are given which may help improve the sentence. Choose the option that reflects the correct use of the phrase in the context of the sentence. In case the given sentence is correct, your answer is (E) i.e. No correction required.

Monu and Sonu **attempted to make light their difficulties**, but it was obvious that things were going badly for them.

- i attempted to make their difficulties light
  - ii has attempted to make light their difficulties
  - iii attempted to make light of their difficulties
- A. Only I                      B. Only ii  
C. Only iii                     D. Both ii and iii  
E. No correction required

113. **Direction:** In the given question, a part of the sentence is printed in bold. Below the sentence, three alternatives to the bold part are given which may help improve the sentence. Choose the option that reflects the correct use of the phrase in the context of the sentence. In case the given sentence is correct, your answer is (E) i.e. No correction required.

The only bright spot so far this year for Apple is with its iPhone 8 Plus, which at 0.4% market share, **topped early performance** for the iPhone 7 Plus and iPhone 6 Plus, which attracted 0.2% and 0.3% market share, respectively.

- i. Topped in early performance
  - ii. Topped to perform early
  - iii. Topped in earlier performing
- A. Only i                      B. Only ii  
C. Only iii                     D. Both i and iii  
E. No correction required

114. **Direction:** In the given question, a part of the sentence is printed in bold. Below the sentence, three alternatives to the bold part are given which may help improve the sentence. Choose the option that reflects the correct use of the phrase in the context of the sentence. In case the given sentence is correct, your answer is (E) i.e. No correction required.

They hurried **up the booth's back** and waited for the malformed youth to disperse.

- i. to the booth's back
  - ii. for towards the booth's back
  - iii. for the booth's backing
- A. Only i                      B. Only ii  
C. Only iii                     D. Both i and ii  
E. No correction required

115. **Direction:** In the given question, a part of the sentence is printed in bold. Below the sentence, three alternatives to the bold part are given which may help improve the sentence. Choose the option that reflects the correct use of the phrase in the context of the sentence. In case the given sentence is correct, your answer is (E) i.e. No correction required.

Although I don't have any special bond **with the rank and folder of the Labour Union**, I know some top engineers.

- (i) in the rank and folders of the Labour Union
  - (ii) with the rank and portfolio of the Labour Union
  - (iii) with the rank and file of the Labour Union
- A. Only (i)  
B. Only (ii)  
C. Only (iii)  
D. (i) and (ii)  
E. No correction required



116. **Direction:** In the given question, a part of the sentence is printed in bold. Below the sentence, three alternatives to the bold part are given which may help improve the sentence. Choose the option that reflects the correct use of the phrase in the context of the sentence. In case the given sentence is correct, your answer is (E) i.e. No correction required.

Living in the **heart of New York city is certainly like a far cry from** living in the rural countryside.

(i) heart of New York city is certainly a far cry from

(ii) heart of New York city is a far cry than

(iii) heart of the New York city is certainly ruining

- A. Only (i)                      B. Only (ii)  
C. Only (iii)                    D. Both (ii) and (iii)  
E. No correction required

117. **Direction:** The given sentences, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of the sentences from among the five given choices to construct a coherent paragraph keeping 1 as the first statement.

1) The new year, 2018, is here! Nothing seems to have changed, despite the firecrackers.

A) Of course, in many parts of the world the firecrackers might have been confused with, or replaced by, bombs, and millions in those and other regions find firecrackers (let alone bombs) an unimaginable luxury as they struggle to obtain food or shelter.

B) I am aware that a group of increasingly loud fellow nationals might accuse me of celebrating 'foreign festivals'.

C) That too was widely celebrated, as it should be, though in a world where the homeless, children, refugees and foreignness are often abused.

D) New Year's Eve came, as it does, close on the heels of Christmas, which commemorates the birth of a homeless child to poor refugees in a foreign place.

- A. BDCA                      B. DCAB  
C. ADCB                    D. CDAB  
E. CABD

118. **Direction:** The given sentences, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of the sentences from among the five given choices to construct a coherent paragraph keeping 1 as the first statement.

1) In Hindu mythology, when Shiva opens his third eye, it is considered a terrible warning for the cosmos.

A) In somewhat similar fashion, in 2017, women across the world seemed to declare war — on harassment, abuse, rape, inequality and every form of injustice.

B) Anger, however, is only one facet of the fight for empowerment. Concomitantly, the year saw women stack up achievements on an unprecedented scale.

C) It means he is angry enough to incinerate anything that comes in his way.

D) Across the world, there was a furious outpouring of rage against men in power, men on the street, men at home, and in families.

- A. ABCD                      B. CBDA  
C. DBAC                    D. DACB  
E. CADB

119. **Direction:** The given sentences, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of the sentences from among the five given choices to construct a coherent paragraph keeping 1 as the first statement.

1) On one online forum, the sysadmins were enjoying some gallows humour.

A) They were discussing a pair of recently announced security flaws, known as Meltdown and Spectre that between them affect any computer powered by processors designed by Intel, AMD, ARM and others.

B) Another wrote, with tongue only half in cheek, that "computers were a mistake".

C) One simply posted a picture of a fire raging in a skip.

D) That's most of them, in other words, from smartphones and desktop PCs to games consoles and the racks of machines that run cloud-computing services from Microsoft, Amazon and the like.

- A. CBAD                      B. ADBC  
C. BCDA                    D. CADB  
E. DBCA

120. **Direction:** The given sentences, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of the sentences from among the five given choices to construct a coherent paragraph keeping 1 as the first statement.

1) You'd think the Indian economy had returned to rosy health.

A) Prime Minister Narendra Modi's decision just over a year ago to withdraw 86 per cent of the currency in circulation, and the poorly-planned rollout in the middle of 2017 of a new goods-and-services tax.

B) The Purchasing Managers' Index expanded the fastest it has in five years. At least one international rating agency has upgraded India's credit rating.

C) It seems to have recovered from two enormous disruptions.

D) Exports are no longer declining, as they had for several quarters; indeed, for the last month that data is available, they rose 30 per cent.

- A. ABDC                      B. ACBD  
C. CADB                      D. BCDA  
E. DBCA

121. **Direction:** The given sentences, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of the sentences from among the five given choices to construct a coherent paragraph keeping 1 as the first statement.

1) For first-time Indian travellers, stepping out of the airport in Singapore or Japan is a momentous, potentially mindset-changing experience.

A) But walk in a cramped gully in Delhi or even on the main road and everything that is not desirable inside, finds its way outside.

B) Public littering is a social issue that results in massive aesthetic, financial and health-related costs for India. It's not as if we don't value cleanliness. Our homes are the textbook definition of clean.

C) How does that compare with our paan-stained buses filled with peanut shells?

D) How can bustling cities packed with people be so spotless? As far as the eye can go, there is not a single piece of stray paper on the road or in public transport.

- A. BCAD                      B. DCBA  
C. DBCA                      D. ADBC  
E. ACBD

**Direction (122-126):** In the given questions, one statement with a blank is given along with four words. Two of the given words can fit into the given blank. Five options with various combinations of these words are given. Pick up the combination of the words that fits into the blank.

122. Due to the complexity of American water laws, water issues in the united states are not very \_\_\_\_\_ nor easily fixable.

- a) Amenable  
b) Controversial  
c) Irrelevant  
d) Compliant

- A. a-b                      B. b-c  
C. b-d                      D. c-d  
E. a-d

123. Chronic drought and food insecurity plague Sahel, which is already one of the poorest in the world moreover the climate and geography of the region \_\_\_\_\_ regional communities to relative isolation.

- a) Alleviates  
b) Relegates  
c) Downgrades  
d) Transgresses

- A. a-b                      B. b-c  
C. b-d                      D. c-d  
E. a-d

124. The global transition to clean energy will most likely slow due to the Trump Administration's policies, but it will not halt or reverse which indicates under the Trump Administration clean energy will remain \_\_\_\_\_.

- a) Compatible  
b) Unscathed  
c) Contentious  
d) Debatable

- A. a-b                      B. b-c  
C. b-d                      D. c-d  
E. a-d

125. Current transportation systems cannot meet the growing demand without increasing both congestion and pollution but the technological innovation spurred by the Fourth Industrial Revolution may offer opportunities to improve the system such as \_\_\_\_\_ vehicles, biometrics, and ultralight materials.

- a) Autonomous
- b) Self-sufficient
- c) Irresistible
- d) Customized

- A. a-b                      B. b-c
- C. b-d                      D. c-d
- E. a-d

126. The national power grid is woefully inefficient and the country is often crippled by power shortages and blackouts like the one in 2012 where three of India's five grids failed, leaving 20 of its 28 states and 700 million people without electricity for hours, which forced public services and private enterprises to shut down as \_\_\_\_\_ citizens rioted in the streets.

- a) Unbridled
- b) Contented
- c) Disgruntled
- d) Amicable

- A. a-b                      B. b-c
- C. b-d                      D. a-c
- E. a-d

127. **Direction:** In the given questions, one statement with a blank is given along with four words. Two of the given words can fit into the given blank. Five options with various combinations of these words are given. Pick up the combination of the words that fits into the blank.

After Chinese immigrants began arriving in \_\_\_\_\_ to work on the Central Pacific Railroad during the California Gold Rush, racial tensions between white laborers and Chinese newcomers began to emerge.

- a) Waves
- b) Perverse
- c) Swarms
- d) Diverge

- A. a-b                      B. b-c
- C. b-d                      D. c-a
- E. a-d

128. **Direction:** In the given questions, one statement with a blank is given along with four words. Two of the given words can fit into the given blank. Five options with various combinations of these words are given. Pick up the combination of the words that fits into the blank.

The second hour after sunset usually brought a night breeze that gave a little welcome respite from the \_\_\_\_\_ heat of the desert, where everyone was feeling weak, dehydrated and undernourished.

- a) Taciturn
- b) Oppressive
- c) Prosaic
- d) Torrid

- A. b-c                      B. b-d
- C. c-d                      D. a-d
- E. a-b

**Direction (129-133):** A sentence divided into four parts (1), (2), (3) and (4) is given. The errors are in two parts of the sentence. Determine the parts which require correction and mark it as your answer. If the sentence is correct as it is, mark the answer as No error.

129. They applauded almost (A)/ his tricks and at the end of the (B)/ perform begged him earnestly not (C)/ to go away again and leave them. (D)

- A. A-B                      B. C-D
- C. B-C                      D. A-C
- E. No error

130. He looked small in the middle (A)/ of the foyer, and he wore an insincere (B)/ smile like he might any other (C)/ piece of easily removed clothing. (D)

- A. A-C
- B. B-D
- C. B-C
- D. C-D
- E. No error

131. The expanse from the young population (A)/ makes it importance for India to (B)/ understand the needs, desires and (C)/ aspirations of its youth. (D)

- A. A-B                      B. B-C
- C. C-D                      D. B-D
- E. No error

132. First, it is important to realize (1)/ that in the video game industry, (B)/ much like in the film industry, an (C)/ idea is a miniscule part of the whole package. (D)  
 A. A-C                      B. B-C  
 C. B-D                      D. A-B  
 E. No error
133. The new agreements by Japan reflects efforts (A)/ to counter growing uncertainty in global markets, (B)/ largely due to unilateral actions by the Trump administration (C)/ and the trade war among the US and China. (D)  
 A. A-B                      B. A-D  
 C. B-C                      D. B-D  
 E. No error

**Direction (134-143):** *Given below is a passage in which each line is numbered (1)-(10). Four words in each sentence are highlighted. Find out which word is not grammatically/contextually suitable in each of the numbered sentences.*

(1) When **thinking** about retail in the **futuristic**, there are **several** areas to **consider**. (2) For instance, as VR **improved**, and the technology approaches real-world replication, many of the experiences once **thought** belonging to the brick-and-mortar world can be translated into the **digital** world. (3) The ability to **visualise** how pieces of clothes **would** look on you, to walk through a digital store, and to interact **virtually** with other people may take a lot **away** from the beauty of physical shops. (4) As we become more and more **connected** to the digital world, and as our ability to make use of data **increase**, purchasing may become **much** more "natural" online. (5) **Although** far from perfect, we should **assume** that this will **continue** to improve **significant**. (6) As this **happens**, the ability to **predict** our needs and wants might become just too **compelling** to ignore, and slowly chip **beyond** at the benefits of brick-and-mortar. (7) **Another** factor contributing to the **rise** of online **retailers** is fast **delivery**. (8) If you **order** something **online** a few years ago, it would **take** at least a few days to **arrive**. (9) Today, with **drone** technology, and with online **consumers** developing their own delivery chains, the **norm** has become 2-day delivery, and customer **expectations** have adapted. (10) **Accordingly** to Lin Grosman, we're not

- too far **from** two-hour delivery, and Amazon **has** even talked **about** 30-minute delivery.
134. Which of the following words is not appropriate in Sentence 1?  
 A. Thinking                      B. Futuristic  
 C. Several                      D. Consider  
 E. All correct
135. Which of the following words is not appropriate in Sentence 2?  
 A. Improved                      B. Thought  
 C. Mortar                      D. Digital  
 E. All correct
136. Which of the following words is not appropriate in Sentence 3?  
 A. Visualise                      B. Would  
 C. Virtually                      D. Away  
 E. All correct
137. Which of the following words is not appropriate in Sentence 4?  
 A. Connected                      B. Increase  
 C. Much                      D. Natural  
 E. All correct
138. Which of the following words is not appropriate in Sentence 5?  
 A. Although                      B. Assume  
 C. Continue                      D. Significant  
 E. All correct.
139. Which of the following words is not appropriate in Sentence 6?  
 A. Happens                      B. Predict  
 C. Compelling                      D. Beyond  
 E. All correct
140. Which of the following words is not appropriate in Sentence 7?  
 A. Another                      B. Rise  
 C. Retailers                      D. Delivery  
 E. All correct
141. Which of the following words is not appropriate in Sentence 8?  
 A. Order                      B. Online  
 C. Take                      D. Arrive  
 E. All correct
142. Which of the following words is not appropriate in Sentence 9?  
 A. Drone                      B. Consumers  
 C. Norm                      D. Expectation  
 E. All correct
143. Which of the following words is not appropriate in Sentence 10?  
 A. Accordingly                      B. From  
 C. Has                      D. About  
 E. All correct

144. **Direction:** 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.

Britain is pushing ahead with tests of self-driving cars on public roads despite **mounting** public concern over safety after a pedestrian was killed by one in the US. The country's biggest carmaker, Jaguar Land Rover, has been experimenting with autonomous cars on roads in the Midlands and is set to demonstrate more of the cars' features, including an emergency braking warning system, on urban streets this week. Government-backed trials using small autonomous vehicles in south London are due to end on Friday, with organisers reporting widespread public unease about the implications for road safety and cybersecurity. A self-driving Uber car killed a woman in Tempe, Arizona on Sunday night – the first time a self-driving vehicle has killed someone that was not its occupant. Elaine Herzberg, 49, was wheeling her bicycle when she was struck by the Volvo, and later died of her injuries in hospital.

US government safety investigators were sent to examine the crash site and Uber has suspended its test fleets of self-driving cars across the US and Canada. Police in Arizona said initial video footage suggested Herzberg walked out suddenly. One previous death involving autonomous cars, a Tesla Model S owner killed in Florida in 2016 when his car crashed on autopilot, was blamed on the driver's inattention, but investigators highlighted design flaws in the vehicle. Many in the motor and insurance industries expect safety benefits from autonomous cars since more than 90% of accidents involve human error. In 2016, the latest full year for which data is available, 448 pedestrians were killed by vehicles on UK roads, and more than 6,000 in the US. But fears remain over how driverless cars will interact with humans on the roads.

Christian Wolmar, the author of *Driverless Cars: A Road to Nowhere*, said the Arizona accident would have a big impact: "We don't know precisely what happened, but it is clear Uber are worried by withdrawing all their cars. Driverless cars will not be accepted if there is

a perception that they are not 100% safe. Of course, new technology has **blips**, but this one, that no one has particularly asked for, is being sold on the basis that it's so much safer."

Noel Sharkey, emeritus professor of artificial intelligence at the University of Sheffield, said: "Autonomous vehicles present us with a great future opportunity to make our roads safer. But the technology is just not ready yet and needs to mature before it goes on the road. Too many mistakes and the public may turn its back on the technology."

In London, members of the public have been using low-speed autonomous pods on cycle paths and walkways around the Greenwich peninsula as the culmination of a three-year Gateway study into people's responses to driverless technology.

Gateway said that under half of 1,300 public responses were positive about the new technology, with those uncertain or opposed citing cybersecurity and road safety fears. A spokesman said: "The lesson is you absolutely have to build in security and road safety from the get-go."

The pods have had one reported collision, hitting a barrier with the roads minister, Jesse Norman, onboard. He has nonetheless pledged to keep the UK in the **vanguard** of developing autonomous technology, recently confirming an overhaul of road laws to include self-driving cars. Greenwich is expected to allow Ford and Jaguar Land Rover autonomous cars on its streets in the next phase of testing. Gatwick announced it would be testing autonomous vehicles to shuttle staff across the airfield, which it said could lead to "an Uber-like service" for ground staff to hail.

Source:

<https://www.theguardian.com/technology/2018/mar/20/uk-self-driving-car-trials-to-continue-despite-fatal-collision-in-us>

144. How would the insurance agencies benefit from some driven cars?

A. Auto-mode being unsafe, would cause more accidents. So, people would take insurance from insurance agencies.

B. With the advent of autonomous vehicles, there will be an increase in vehicle density which would lead to more accidents.

- C. 90% of accidents are due to human error.
  - D. It won't benefit.
  - E. Data Inadequate
145. What is the following is the most similar to "blip"?
- A. Characteristics    B. Specifications
  - C. Interruptions    D. Elements
  - E. Trace
146. As per the author of the book "Driverless cars: A road to nowhere", driverless cars would not be accepted until;
- A. The year 2030. It will take that much time to legalize autonomous vehicles.
  - B. The next generation becomes active drivers. The current one being too scared to trust computer programmed cars.
  - C. People start selling their private cars and start using public transports or share cab or taxi.
  - D. They will never be accepted by the public.
  - E. They're not perceived to be 100% safe
147. What is the irony in the case of 'driverless cars'?
- A. They were supposed to be cheaper but are way costlier.
  - B. Driver is getting blamed for accidents involving autonomous vehicles.
  - C. They were supposed to be safe but had killed people.
  - D. The fuel costs more than the driver's salary.

- E. A driver always sits in the driver seat, despite the car being driverless.
148. Which of the following words are similar in meaning to 'vanguard'?
- A. Bodyguard, Protective shield
  - B. Followers, disciples
  - C. Cutting edge, forefront
  - D. Bodyguard, forefront
  - E. Followers, forefront
149. As per the passage, why did the government back trials in south London?
- A. Public grew uneasy about implications on road and cyber security.
  - B. Increasing accidents due to autonomous vehicles.
  - C. The parameters of testing had failed.
  - D. It was getting far too expensive to continue testing.
  - E. Public grew uneasy because of the risks involved in testing self-driven vehicles.
150. What were the main reasons behind the Uber accident?
- A. A glitch in the technology
  - B. No sensors were installed in the front
  - C. Braking system failed due to inefficient usage
  - D. The woman suddenly came in front, car couldn't break in so little time.
  - E. A bug in system's software, which made its reaction time too slow.

\*\*\*



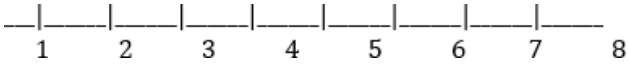
# IBPS SO Exam



## Solutions

1. Ans. D.

Let the seats be numbered 1 to 8 from left to right



From 4,

G will be on seat 3. Therefore, the person who plays hockey will be in seat 1

From 3 and 9, either C or D will be on seat 5 or 7.

From 1 and 6, D cannot be on seat 7. Therefore, D is on seat 5 and C is on seat 7. Thus, G plays Kabaddi and I who plays chess sits on seat 4.

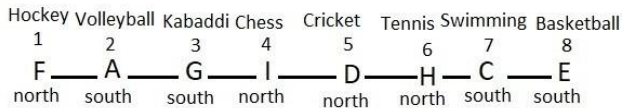
From 2, The person who plays tennis has to be on seat 6. Hence, C who faces south plays Swimming. From 8, A cannot be on seat 1, 6 or 8. Therefore A has to be on seat 2 and the person who plays hockey faces north.

From 6, E will be on seat 8.

From 7, H plays tennis. Also, E plays basketball and faces south. Hence, F plays hockey.

From 5, A plays volleyball and D play cricket.

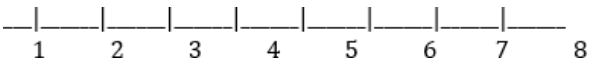
Therefore, the final arrangement is as follows:



The person to the immediate left of C plays Basketball

2. Ans. A.

Let the seats be numbered 1 to 8 from left to right



From 4,

G will be on seat 3. Therefore, the person who plays hockey will be in seat 1

From 3 and 9, either C or D will be on seat 5 or 7.

From 1 and 6, D cannot be on seat 7. Therefore, D is on seat 5 and C is on seat 7. Thus, G plays Kabaddi and I who plays chess sits on seat 4.

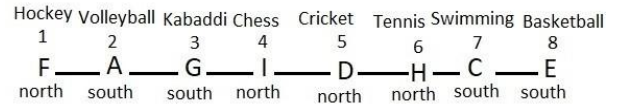
From 2, The person who plays tennis has to be on seat 6. Hence, C who faces south plays Swimming. From 8, A cannot be on seat 1, 6 or 8. Therefore A has to be on seat 2 and the person who plays hockey faces north.

From 6, E will be on seat 8.

From 7, H plays tennis. Also, E plays basketball and faces south. Hence, F plays hockey.

From 5, A plays volleyball and D play cricket.

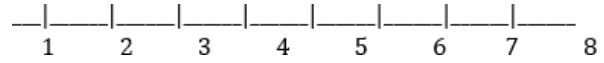
Therefore, the final arrangement is as follows:



G sits exactly between I and the person who plays volleyball.

3. Ans. C.

Let the seats be numbered 1 to 8 from left to right



From 4,

G will be on seat 3. Therefore, the person who plays hockey will be in seat 1

From 3 and 9, either C or D will be on seat 5 or 7.

From 1 and 6, D cannot be on seat 7. Therefore, D is on seat 5 and C is on seat 7. Thus, G plays Kabaddi and I who plays chess sits on seat 4.

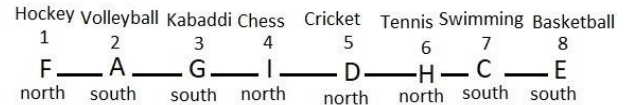
From 2, The person who plays tennis has to be on seat 6. Hence, C who faces south plays Swimming. From 8, A cannot be on seat 1, 6 or 8. Therefore A has to be on seat 2 and the person who plays hockey faces north.

From 6, E will be on seat 8.

From 7, H plays tennis. Also, E plays basketball and faces south. Hence, F plays hockey.

From 5, A plays volleyball and D play cricket.

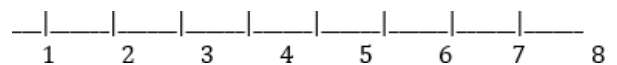
Therefore, the final arrangement is as follows:



The person to the immediate right of A plays hockey.

4. Ans. A.

Let the seats be numbered 1 to 8 from left to right



From 4,

G will be on seat 3. Therefore, the person who plays hockey will be in seat 1

From 3 and 9, either C or D will be on seat 5 or 7.

From 1 and 6, D cannot be on seat 7. Therefore, D is on seat 5 and C is on seat 7. Thus, G plays Kabaddi and I who plays chess sits on seat 4.

From 2, The person who plays tennis has to be on seat 6. Hence, C who faces south plays Swimming. From 8, A cannot be on seat 1, 6 or 8. Therefore A has to be on seat 2 and the person who plays

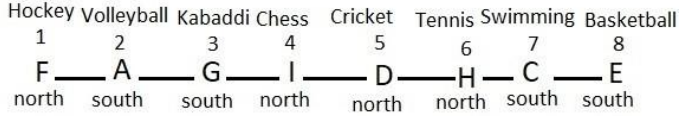
hockey faces north.

From 6, E will be on seat 8.

From 7, H plays tennis. Also, E plays basketball and faces south. Hence, F plays hockey.

From 5, A plays volleyball and D play cricket.

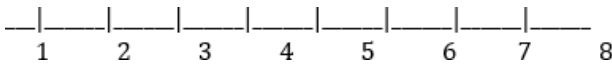
Therefore, the final arrangement is as follows:



D Plays cricket.

5. Ans. E.

Let the seats be numbered 1 to 8 from left to right



From 4,

G will be on seat 3. Therefore, the person who plays hockey will be in seat 1

From 3 and 9, either C or D will be on seat 5 or 7.

From 1 and 6, D cannot be on seat 7. Therefore, D is on seat 5 and C is on seat 7. Thus, G plays Kabaddi and I who plays chess sits on seat 4.

From 2, The person who plays tennis has to be on seat 6. Hence, C who faces south plays Swimming.

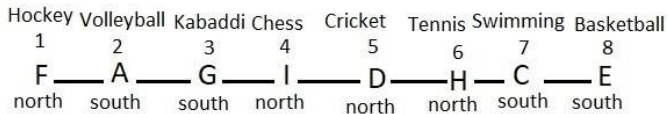
From 8, A cannot be on seat 1, 6 or 8. Therefore A has to be on seat 2 and the person who plays hockey faces north.

From 6, E will be on seat 8.

From 7, H plays tennis. Also, E plays basketball and faces south. Hence, F plays hockey.

From 5, A plays volleyball and D play cricket.

Therefore, the final arrangement is as follows:



AD does not belong the group.

6. Ans. C.

Box - P, Q, R, S, T, V and W

Colour - Black, silver, red, pink, yellow, white and green

1) There are two boxes between the box Q and box T. There is only one box between box T and box W. There are three boxes between box W and box P, which is of black colour. There are only two boxes between box P and box R, which is of white colour. The silver colour box is immediately above the box W.

Case 1:

Box	Colour
	Silver
W	
R	White
T	
P	Black
Q	

Case 2:

Box	Colour
Q	Silver
W	
R	White
T	
P	Black

2) Box S is immediately above yellow colour box. T is of red colour box.

This is not possible in case 2. So, case 1 is correct.

Box	Colour
S	Silver
W	Yellow
R	White
T	Red
V	
P	Black
Q	

3) More than three boxes are there between pink and silver colour box. More than three boxes are there between yellow and pink colour box.

Box	Colour
S	Silver
W	Yellow
R	White
T	Red
V	Green
P	Black
Q	Pink

Hence, three boxes are there between green and silver colour box.

7. Ans. E.

Box - P, Q, R, S, T, V and W

Colour - Black, silver, red, pink, yellow, white and green

1) There are two boxes between the box Q and box T. There is only one box between box T and box W. There are three boxes between box W and box P, which is of black colour. There are only two boxes between box P and box R, which is of white colour. The silver colour box is immediately above the box W.

Case 1:

Box	Colour
	Silver
W	
R	White
T	
P	Black
Q	

Case 2:

Box	Colour
Q	Silver
W	
R	White
T	
P	Black

2) Box S is immediately above yellow colour box. T is of red colour box.

This is not possible in case 2. So, case 1 is correct.

Box	Colour
S	Silver
W	Yellow
R	White
T	Red
V	
P	Black
Q	

3) More than three boxes are there between pink and silver colour box. More than three boxes are there between yellow and pink colour box.

Box	Colour
S	Silver
W	Yellow
R	White
T	Red
V	Green
P	Black
Q	Pink

Hence, box Q is of pink colour.

8. Ans. C.

Box - P, Q, R, S, T, V and W

Colour - Black, silver, red, pink, yellow, white and green

1) There are two boxes between the box Q and box T. There is only one box between box T and box W. There are three boxes between box W and box P, which is of black colour. There are only two boxes between box P and box R, which is of white colour.

The silver colour box is immediately above the box W.

Case 1:

Box	Colour
	Silver
W	
R	White
T	
P	Black
Q	

Case 2:

Box	Colour
Q	Silver
W	
R	White
T	
P	Black

2) Box S is immediately above yellow colour box. T is of red colour box.

This is not possible in case 2. So, case 1 is correct.

Box	Colour
S	Silver
W	Yellow
R	White
T	Red
V	
P	Black
Q	

3) More than three boxes are there between pink and silver colour box. More than three boxes are there between yellow and pink colour box.

Box	Colour
S	Silver
W	Yellow
R	White
T	Red
V	Green
P	Black
Q	Pink

Hence, box R is placed immediately above red colour box.

9. Ans. E.

Box - P, Q, R, S, T, V and W

Colour - Black, silver, red, pink, yellow, white and green

1) There are two boxes between the box Q and box T. There is only one box between box T and box W. There are three boxes between box W and box P,

which is of black colour. There are only two boxes between box P and box R, which is of white colour. The silver colour box is immediately above the box W.

Case 1:

Box	Colour
	Silver
W	
R	White
T	
P	Black
Q	

Case 2:

Box	Colour
Q	Silver
W	
R	White
T	
P	Black

2) Box S is immediately above yellow colour box. T is of red colour box.

This is not possible in case 2. So, case 1 is correct.

Box	Colour
S	Silver
W	Yellow
R	White
T	Red
V	
P	Black
Q	

3) More than three boxes are there between pink and silver colour box. More than three boxes are there between yellow and pink colour box.

Box	Colour
S	Silver
W	Yellow
R	White
T	Red
V	Green
P	Black
Q	Pink

Hence, four boxes are there between box W and box Q.

10. Ans. A.

Person - Tina, Vini, Yasir, Rishi, Sanya, Pankaj and Urmila

City - Paris, Istanbul, Shanghai, Durban, London, Madrid and Dubai

1) Only three people live above the floor on which Sanya lives. Only one person lives between Sanya and the one who goes to Paris. Only three people live between the one who goes to Paris and London.

Case 1:

Floor Number	Person	City
7		
6		Paris
5		
4	Sanya	
3		
2		London
1		

Case 2:

Floor Number	Person	City
7		
6		London
5		
4	Sanya	
3		
2		Paris
1		

2) Vini lives just below the person who goes to Madrid. The person who goes to Madrid lives on an even numbered floor.

Case 1:

Floor Number	Person	City
7		
6		Paris
5		
4	Sanya	Madrid
3	Vini	
2		London
1		

Case 2:

Floor Number	Person	City
7		
6		London
5		
4	Sanya	Madrid
3	Vini	
2		Paris
1		

3) Urmila lives just above Rishi. Urmila does not go to London. Only two persons live between Pankaj and the one who goes to Durban. Pankaj lives above the person who goes to Durban. This is not possible in case 1. So, case 2 is correct.

Floor Number	Person	City
7		
6	Pankaj	London
5		
4	Sanya	Madrid
3	Vini	Durban
2	Urmila	Paris
1	Rishi	

4) Yasir does not go to Istanbul. Tina does not live just above or below Sanya. The one who goes to Shanghai does not live above or below Pankaj.

Floor Number	Person	City
7	Tina	Istanbul
6	Pankaj	London
5	Yasir	Dubai
4	Sanya	Madrid
3	Vini	Durban
2	Urmila	Paris
1	Rishi	Shanghai

Hence, Tina lives on floor number 7.

11. Ans. A.

**Detail Solution:** T goes to movie on 13<sup>th</sup> of March.

On combining these two statements, we get that M goes to movie on 13<sup>th</sup> of February and lives on 3<sup>rd</sup> floor.

Only one person lives on floor 3 and he goes to movies in February. M goes to movie in a month which has the least number of days but not on 27<sup>th</sup>.

A lives neither on floor 1 nor on floor 4. A does not go to movie on 13<sup>th</sup> of any month.

Since floor 3 is already occupied, the only floor left for A is floor 2. He goes to movie on 27<sup>th</sup> of the month.

	13th	27th
4		
3	M (february)	-----
2		A
1		

U does not go to movie on 13<sup>th</sup> of any month. U does not live above M.

So U will go to movie on 27<sup>th</sup> and he lives on floor 1.

	13th	27th
4		
3	M (february)	-----
2		A
1		U

J and Z go to movies in the same month but not in January. They live on same floor. J goes after Z. The only floor left for both of them is floor 4.

	13th	27th
4	Z (march/april)	J (march/april)
3	M (february)	-----
2		A
1		U

S and T go to movies in different months. S does not live with U. So S will live on floor 3. T will live on floor 1.

	13th	27th
4	Z (march/april)	J (march/april)
3	M (february)	-----
2	S	A
1	T	U

T goes in March along with A. So J and Z will go in April. S and A will go in January.

	13th	27th
4	Z (april)	J (april)
3	M (february)	-----
2	S (january)	A (march)
1	T (march)	U (january)

This is the final arrangement.

12. Ans. C.

**Detail Solution:** T goes to movie on 13<sup>th</sup> of March.

On combining these two statements, we get that M goes to movie on 13<sup>th</sup> of February and lives on 3<sup>rd</sup> floor.

Only one person lives on floor 3 and he goes to movies in February. M goes to movie in a month which has the least number of days but not on 27<sup>th</sup>.

A lives neither on floor 1 nor on floor 4. A does not go to movie on 13<sup>th</sup> of any month.

Since floor 3 is already occupied, the only floor left for A is floor 2. He goes to movie on 27<sup>th</sup> of the month.

	13th	27th
4		
3	M (february)	-----
2		A
1		

U does not go to movie on 13<sup>th</sup> of any month. U does not live above M.

So U will go to movie on 27<sup>th</sup> and he lives on floor 1.

	13th	27th
4		
3	M (february)	-----
2		A
1		U

J and Z go to movies in the same month but not in January. They live on same floor. J goes after Z. The only floor left for both of them is floor 4.

	13th	27th
4	Z (march/april)	J (march/april)
3	M (february)	-----
2		A
1		U

S and T go to movies in different months. S does not live with U. So S will live on floor 3. T will live on floor 1.

	13th	27th
4	Z (march/april)	J (march/april)
3	M (february)	-----
2	S	A
1	T	U

T goes in March along with A. So J and Z will go in April. S and A will go in January.

	13th	27th
4	Z (april)	J (april)
3	M (february)	-----
2	S (january)	A (march)
1	T (march)	U (january)

This is the final arrangement.

13. Ans. E.

**Detail Solution:** T goes to movie on 13<sup>th</sup> of March.

On combining these two statements, we get that M goes to movie on 13<sup>th</sup> of February and lives on 3<sup>rd</sup> floor.

Only one person lives on floor 3 and he goes to movies in February. M goes to movie in a month which has the least number of days but not on 27<sup>th</sup>.

A lives neither on floor 1 nor on floor 4. A does not go to movie on 13<sup>th</sup> of any month.

Since floor 3 is already occupied, the only floor left for A is floor 2. He goes to movie on 27<sup>th</sup> of the month.

	13th	27th
4		
3	M (february)	-----
2		A
1		

U does not go to movie on 13<sup>th</sup> of any month. U does not live above M.

So U will go to movie on 27<sup>th</sup> and he lives on floor 1.

	13th	27th
4		
3	M (february)	-----
2		A
1		U

J and Z go to movies in the same month but not in January. They live on same floor. J goes after Z. The only floor left for both of them is floor 4.

	13th	27th
4	Z (march/april)	J (march/april)
3	M (february)	-----
2		A
1		U

S and T go to movies in different months. S does not live with U. So S will live on floor 3. T will live on floor 1.

	13th	27th
4	Z (march/april)	J (march/april)
3	M (february)	-----
2	S	A
1	T	U

T goes in March along with A. So J and Z will go in April. S and A will go in January.

	13th	27th
4	Z (april)	J (april)
3	M (february)	-----
2	S (january)	A (march)
1	T (march)	U (january)

This is the final arrangement.

14. Ans. C.

**Detail Solution:** T goes to movie on 13<sup>th</sup> of March.

On combining these two statements, we get that M goes to movie on 13<sup>th</sup> of February and lives on 3<sup>rd</sup> floor.

Only one person lives on floor 3 and he goes to movies in February. M goes to movie in a month which has the least number of days but not on 27<sup>th</sup>.

A lives neither on floor 1 nor on floor 4. A does not go to movie on 13<sup>th</sup> of any month.

Since floor 3 is already occupied, the only floor left for A is floor 2. He goes to movie on 27<sup>th</sup> of the month.

	13th	27th
4		
3	M (february)	-----
2		A
1		

U does not go to movie on 13<sup>th</sup> of any month. U does not live above M.

So U will go to movie on 27<sup>th</sup> and he lives on floor 1.

	13th	27th
4		
3	M (february)	-----
2		A
1		U

J and Z go to movies in the same month but not in January. They live on same floor. J goes after Z. The only floor left for both of them is floor 4.

	13th	27th
4	Z (march/april)	J (march/april)
3	M (february)	-----
2		A
1		U

S and T go to movies in different months. S does not live with U. So S will live on floor 3. T will live on floor 1.

	13th	27th
4	Z (march/april)	J (march/april)
3	M (february)	-----
2	S	A
1	T	U

T goes in March along with A. So J and Z will go in April. S and A will go in January.

	13th	27th
4	Z (april)	J (april)
3	M (february)	-----
2	S (january)	A (march)
1	T (march)	U (january)

This is the final arrangement.

15. Ans. C.

**Detail Solution:** T goes to movie on 13<sup>th</sup> of March.

On combining these two statements, we get that M goes to movie on 13<sup>th</sup> of February and lives on 3<sup>rd</sup> floor.

Only one person lives on floor 3 and he goes to movies in February. M goes to movie in a month which has the least number of days but not on 27<sup>th</sup>.

A lives neither on floor 1 nor on floor 4. A does not go to movie on 13<sup>th</sup> of any month.

Since floor 3 is already occupied, the only floor left for A is floor 2. He goes to movie on 27<sup>th</sup> of the month.

	13th	27th
4		
3	M (february)	-----
2		A
1		

U does not go to movie on 13<sup>th</sup> of any month. U does not live above M.

So U will go to movie on 27<sup>th</sup> and he lives on floor 1.

	13th	27th
4		
3	M (february)	-----
2		A
1		U

J and Z go to movies in the same month but not in January. They live on same floor. J goes after Z.

The only floor left for both of them is floor 4.

	13th	27th
4	Z (march/april)	J (march/april)
3	M (february)	-----
2		A
1		U

S and T go to movies in different months. S does not live with U. So S will live on floor 3. T will live on floor 1.

	13th	27th
4	Z (march/april)	J (march/april)
3	M (february)	-----
2	S	A
1	T	U

T goes in March along with A. So J and Z will go in April. S and A will go in January.

	13th	27th
4	Z (april)	J (april)
3	M (february)	-----
2	S (january)	A (march)
1	T (march)	U (january)

This is the final arrangement.



16. Ans. C.

R belongs to Goa

From the above information

I. There are eight people P, Q, R, S, T, U, V & W. They belong to six states viz. Delhi, Haryana, Bihar, Rajasthan, Punjab & Goa

II. There are two persons from Bihar viz. W & T and two persons from Rajasthan.

III. There are three persons between P & S; S belongs to Haryana; S & P both are facing towards the centre

IV. W & T both are immediate neighbours of S;

V. The person from Punjab is sitting 2<sup>nd</sup> left of P; W, one person from Bihar is an immediate neighbour of the person from Punjab i.e. W is sitting 3<sup>rd</sup> left of P.

VI. T, another person from Bihar is an immediate neighbour of Q; Q is from Rajasthan

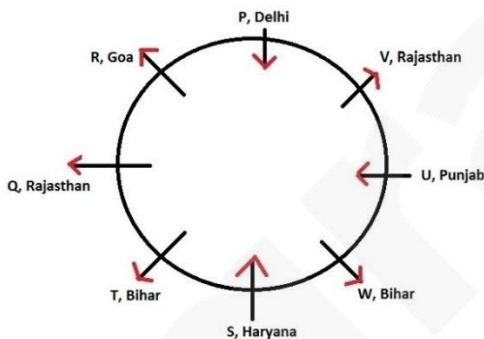
VII. The person from Goa is immediate neighbour of Q and one person from Delhi; clearly, P is from Delhi

VIII. V is an immediate neighbour of U and the person from Delhi; i.e. V is an immediate neighbour of P and U; So, U belongs to Punjab.

IX. Both the neighbours of V are facing towards centre i.e. P, U are facing towards the centre. S is also facing towards centre

X. Clearly R, Q, T, W & V facing opposite direction to the centre

XI. From the above information, it's clear that V is from Rajasthan and the person from Goa is R.



17. Ans. A.

V & Q person belongs to Rajasthan

From the above information

I. There are eight people P, Q, R, S, T, U, V & W. They belong to six states viz. Delhi, Haryana, Bihar, Rajasthan, Punjab & Goa

II. There are two persons from Bihar viz. W & T and two persons from Rajasthan.

III. There are three persons between P & S; S belongs to Haryana; S & P both are facing towards the centre

IV. W & T both are immediate neighbours of S;

V. The person from Punjab is sitting 2<sup>nd</sup> left of P; W, one person from Bihar is an immediate neighbour of the person from Punjab i.e. W is sitting 3<sup>rd</sup> left of P.

VI. T, another person from Bihar is an immediate neighbour of Q; Q is from Rajasthan

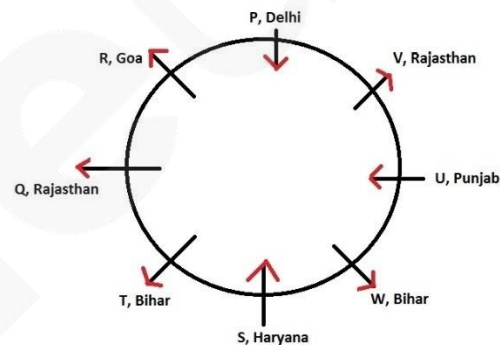
VII. The person from Goa is immediate neighbour of Q and one person from Delhi; clearly, P is from Delhi

VIII. V is an immediate neighbour of U and the person from Delhi; i.e. V is an immediate neighbour of P and U; So, U belongs to Punjab.

IX. Both the neighbours of V are facing towards centre i.e. P, U are facing towards the centre. S is also facing towards centre

X. Clearly R, Q, T, W & V facing opposite direction to the centre

XI. From the above information, it's clear that V is from Rajasthan and the person from Goa is R.



18. Ans. D.

Q; since V is facing opposite to the centre, so Q is sitting 3<sup>rd</sup> left of V.

From the above information

I. There are eight people P, Q, R, S, T, U, V & W. They belong to six states viz. Delhi, Haryana, Bihar, Rajasthan, Punjab & Goa

II. There are two persons from Bihar viz. W & T and two persons from Rajasthan.

III. There are three persons between P & S; S belongs to Haryana; S & P both are facing towards the centre

IV. W & T both are immediate neighbours of S;

V. The person from Punjab is sitting 2<sup>nd</sup> left of P; W, one person from Bihar is an immediate neighbour of the person from Punjab i.e. W is sitting 3<sup>rd</sup> left of P.

VI. T, another person from Bihar is an immediate neighbour of Q; Q is from Rajasthan

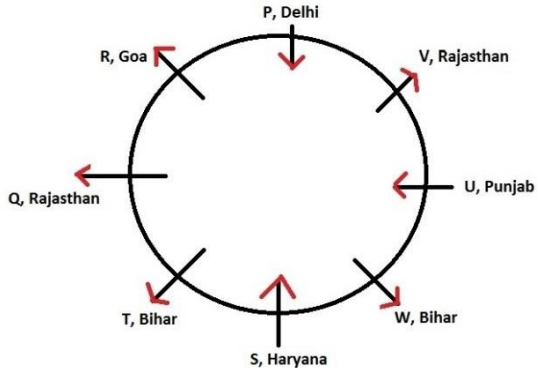
VII. The person from Goa is immediate neighbour of Q and one person from Delhi; clearly, P is from Delhi

VIII. V is an immediate neighbour of U and the person from Delhi; i.e. V is an immediate neighbour of P and U; So, U belongs to Punjab.

IX. Both the neighbours of V are facing towards centre i.e. P, U are facing towards the centre. S is also facing towards centre

X. Clearly R, Q, T, W & V facing opposite direction to the centre

XI. From the above information, it's clear that V is from Rajasthan and the person from Goa is R.



19. Ans. D.

Goa; U is the person from Punjab and U is facing towards the centre. So R, the person from Goa is sitting 3<sup>rd</sup> to the right of U.

From the above information

I. There are eight people P, Q, R, S, T, U, V & W. They belong to six states viz. Delhi, Haryana, Bihar, Rajasthan, Punjab & Goa

II. There are two persons from Bihar viz. W & T and two persons from Rajasthan.

III. There are three persons between P & S; S belongs to Haryana; S & P both are facing towards the centre

IV. W & T both are immediate neighbours of S; V. The person from Punjab is sitting 2<sup>nd</sup> left of P; W, one person from Bihar is an immediate neighbour of the person from Punjab i.e. W is sitting 3<sup>rd</sup> left of P.

VI. T, another person from Bihar is an immediate neighbour of Q; Q is from Rajasthan

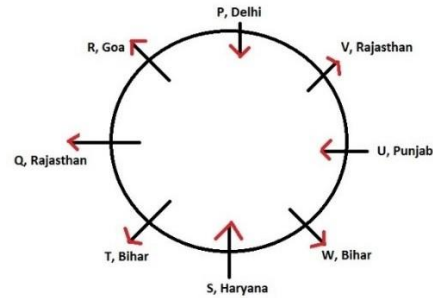
VII. The person from Goa is immediate neighbor of Q and one person from Delhi; clearly P is from Delhi

VIII. V is an immediate neighbour of U and the person from Delhi; i.e. V is an immediate neighbour of P and U; So, U belongs to Punjab.

IX. Both the neighbours of V are facing towards centre i.e. P, U are facing towards the centre. S is also facing towards centre

X. Clearly R, Q, T, W & V facing opposite direction to the centre

XI. From the above information, it's clear that V is from Rajasthan and the person from Goa is R.



20. Ans. A.

P, U; P belong to Delhi, U belongs to Punjab  
From the above information

I. There are eight people P, Q, R, S, T, U, V & W. They belong to six states viz. Delhi, Haryana, Bihar, Rajasthan, Punjab & Goa

II. There are two persons from Bihar viz. W & T and two persons from Rajasthan.

III. There are three persons between P & S; S belongs to Haryana; S & P both are facing towards the centre

IV. W & T both are immediate neighbours of S; V. The person from Punjab is sitting 2<sup>nd</sup> left of P; W, one person from Bihar is an immediate neighbour of the person from Punjab i.e. W is sitting 3<sup>rd</sup> left of P.

VI. T, another person from Bihar is an immediate neighbour of Q; Q is from Rajasthan

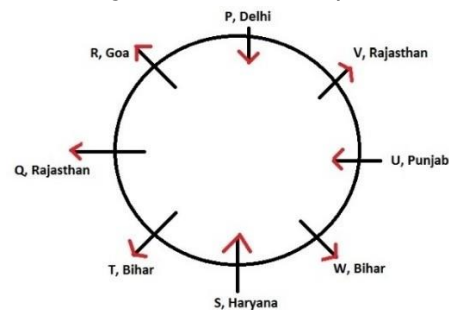
VII. The person from Goa is immediate neighbour of Q and one person from Delhi; clearly, P is from Delhi

VIII. V is an immediate neighbour of U and the person from Delhi; i.e. V is an immediate neighbour of P and U; So, U belongs to Punjab.

IX. Both the neighbours of V are facing towards centre i.e. P, U are facing towards the center. S is also facing towards centre

X. Clearly R, Q, T, W & V facing opposite direction to the centre

XI. From the above information, it's clear that V is from Rajasthan and the person from Goa is R.



21. Ans. E.

C likes Yellow and is staying on an odd numbered floor. Three persons are staying between C and B. B lives above C. So B either lives on 7<sup>th</sup> or 5<sup>th</sup> floor.

Floor	Case 1	Case 2
8		
7	B	
6		
5		B
4		
3	C	
2		
1		C

Two floors are between B and E who likes Brown. E doesn't staying on top floor.

Floor	Case 1	Case 2
8		
7	B	
6		
5		B
4	E/Brown	
3	C	
2		E/Brown
1		C

The number of floors between B and A is same as C and D. A lives above D but below B. From this statement case 2 gets rejected and we get two cases of case 1.

Floor	Case 1A	Case 1B
8		
7	B	B
6	A	
5		A
4	E/Brown	E/Brown
3	C	C
2	D	
1		D

G likes White and lives below E.

Floor	Case 1A	Case 1B
8		
7	B	B
6	A	
5		A
4	E/Brown	E/Brown
3	C	C
2	D	G/White
1	G/White	D

At least one person is staying between F and A so F lives on 8<sup>th</sup> floor. One floor is between F and H who likes Red. So case 1A gets rejected. Two floors are between G and the one who likes Pink. Then A likes Pink.

Floor	Case 1B
8	F
7	B
6	H/Red
5	A/Pink
4	E/Brown
3	C
2	G/White
1	D

The one who likes Blue is staying just above the one who likes Black. So F likes Blue and B likes Black. C doesn't like Silver then C likes Yellow and D likes Silver.

**Here is the final arrangement:**

Floor	Case 1B
8	F/Blue
7	B/Black
6	H/Red
5	A/Pink
4	E/Brown
3	C/Yellow
2	G/White
1	D/Silver

All the persons are staying on even numbered floor except D.

Hence, option E.

22. Ans. C.

C likes Yellow and is staying on an odd numbered floor. Three persons are staying between C and B. B lives above C. So B either lives on 7<sup>th</sup> or 5<sup>th</sup> floor.

Floor	Case 1	Case 2
8		
7	B	
6		
5		B
4		
3	C	
2		
1		C

Two floors are between B and E who likes Brown. E doesn't stay on top floor.

Floor	Case 1	Case 2
8		
7	B	
6		
5		B
4	E/Brown	
3	C	
2		E/Brown
1		C

The number of floors between B and A is same as C and D. A lives above D but below B. From this statement case 2 gets rejected and we get two cases of case 1.

Floor	Case 1A	Case 1B
8		
7	B	B
6	A	
5		A
4	E/Brown	E/Brown
3	C	C
2	D	
1		D

G likes White and lives below E.

Floor	Case 1A	Case 1B
8		
7	B	B
6	A	
5		A
4	E/Brown	E/Brown
3	C	C
2	D	G/White
1	G/White	D

At least one person is staying between F and A so F lives on 8<sup>th</sup> floor. One floor is between F and H who likes Red. So case 1A gets rejected. Two floors are between G and the one who likes Pink. Then A likes Pink.

Floor	Case 1B
8	F
7	B
6	H/Red
5	A/Pink
4	E/Brown
3	C
2	G/White
1	D

The one who likes Blue is staying just above the one who likes Black. So F likes Blue and B likes Black. C doesn't like Silver then C likes Yellow and D likes Silver.

**Here is the final arrangement:**

Floor	Case 1B
8	F/Blue
7	B/Black
6	H/Red
5	A/Pink
4	E/Brown
3	C/Yellow
2	G/White
1	D/Silver

C likes Yellow.

Hence, option C.

23. Ans. C.

C likes Yellow and is staying on an odd numbered floor. Three persons are staying between C and B. B lives above C. So B either lives on 7<sup>th</sup> or 5<sup>th</sup> floor.

Floor	Case 1	Case 2
8		
7	B	
6		
5		B
4		
3	C	
2		
1		C

Two floors are between B and E who likes Brown. E doesn't stay on top floor.

Floor	Case 1	Case 2
8		
7	B	
6		
5		B
4	E/Brown	
3	C	
2		E/Brown
1		C

The number of floors between B and A is same as C and D. A lives above D but below B. From this statement case 2 gets rejected and we get two cases of case 1.

Floor	Case 1A	Case 1B
8		
7	B	B
6	A	
5		A
4	E/Brown	E/Brown
3	C	C
2	D	
1		D

G likes White and lives below E.

Floor	Case 1A	Case 1B
8		
7	B	B
6	A	
5		A
4	E/Brown	E/Brown
3	C	C
2	D	G/White
1	G/White	D

At least one person is staying between F and A so F lives on 8<sup>th</sup> floor. One floor is between F and H who likes Red. So case 1A gets rejected. Two floors are between G and the one who likes Pink. Then A likes Pink.

Floor	Case 1B
8	F
7	B
6	H/Red
5	A/Pink
4	E/Brown
3	C
2	G/White
1	D

The one who likes Blue is staying just above the one who likes Black. So F likes Blue and B likes Black. C doesn't like Silver then C likes Yellow and D likes Silver.

**Here is the final arrangement:**

Floor	Case 1B
8	F/Blue
7	B/Black
6	H/Red
5	A/Pink
4	E/Brown
3	C/Yellow
2	G/White
1	D/Silver

Three persons are staying between D and A. Hence, option C.

24. Ans. A.

C likes Yellow and is staying on an odd numbered floor. Three persons are staying between C and B. B lives above C. So B either lives on 7<sup>th</sup> or 5<sup>th</sup> floor.

Floor	Case 1	Case 2
8		
7	B	
6		
5		B
4		
3	C	
2		
1		C

Two floors are between B and E who likes Brown. E doesn't staying on top floor.

Floor	Case 1	Case 2
8		
7	B	
6		
5		B
4	E/Brown	
3	C	
2		E/Brown
1		C

The number of floors between B and A is same as C and D. A lives above D but below B. From this statement case 2 gets rejected and we get two cases of case 1.

Floor	Case 1A	Case 1B
8		
7	B	B
6	A	
5		A
4	E/Brown	E/Brown
3	C	C
2	D	
1		D

G likes White and lives below E.

Floor	Case 1A	Case 1B
8		
7	B	B
6	A	
5		A
4	E/Brown	E/Brown
3	C	C
2	D	G/White
1	G/White	D

At least one person is staying between F and A so F lives on 8<sup>th</sup> floor. One floor is between F and H who likes Red. So case 1A gets rejected. Two floors are between G and the one who likes Pink. Then A likes Pink.

Floor	Case 1B
8	F
7	B
6	H/Red
5	A/Pink
4	E/Brown
3	C
2	G/White
1	D

The one who likes Blue is staying just above the one who likes Black. So F likes Blue and B likes Black. C doesn't like Silver then C likes Yellow and D likes Silver.

**Here is the final arrangement:**

Floor	Case 1B
8	F/Blue
7	B/Black
6	H/Red
5	A/Pink
4	E/Brown
3	C/Yellow
2	G/White
1	D/Silver

D likes Silver.

Hence, option A.

25. Ans. D.

C likes Yellow and is staying on an odd numbered floor. Three persons are staying between C and B. B lives above C. So B either lives on 7<sup>th</sup> or 5<sup>th</sup> floor.

Floor	Case 1	Case 2
8		
7	B	
6		
5		B
4		
3	C	
2		
1		C

Two floors are between B and E who likes Brown. E doesn't staying on top floor.

Floor	Case 1	Case 2
8		
7	B	
6		
5		B
4	E/Brown	
3	C	
2		E/Brown
1		C

The number of floors between B and A is same as C and D. A lives above D but below B. From this statement case 2 gets rejected and we get two cases of case 1.

Floor	Case 1A	Case 1B
8		
7	B	B
6	A	
5		A
4	E/Brown	E/Brown
3	C	C
2	D	
1		D

G likes White and lives below E.

Floor	Case 1A	Case 1B
8		
7	B	B
6	A	
5		A
4	E/Brown	E/Brown
3	C	C
2	D	G/White
1	G/White	D

At least one person is staying between F and A so F lives on 8<sup>th</sup> floor. One floor is between F and H who likes Red. So case 1A gets rejected. Two floors are between G and the one who likes Pink. Then A likes Pink.

Floor	Case 1B
8	F
7	B
6	H/Red
5	A/Pink
4	E/Brown
3	C
2	G/White
1	D

The one who likes Blue is staying just above the one who likes Black. So F likes Blue and B likes Black. C doesn't like Silver then C likes Yellow and D likes Silver.

**Here is the final arrangement:**

Floor	Case 1B
8	F/Blue
7	B/Black
6	H/Red
5	A/Pink
4	E/Brown
3	C/Yellow
2	G/White
1	D/Silver

One person is staying between A and C.

Hence, option D.

26. Ans. B.

Given statements:  $P > Q \leq R > Z$ ;  $Y > X > P \geq U$ ;  
 $Q \geq S < T$

On combining:  $P > Q \geq S < T$ ;  $Y > X > Q \leq R > Z$   
 Conclusions:

I.  $P > S \rightarrow$  True (as  $P > Q \geq S \rightarrow P > S$ )

II.  $Z < T \rightarrow$  False (as  $Z < R \geq Q \geq S < T \rightarrow$  thus clear relation between Z and T cannot be Determined)

Therefore, only conclusion I is true.

27. Ans. C.

Given statements:  $Y \leq K < D = S$ ;  $D < B < O$ ;  $A \geq D < Z$

On combining:  $Y \leq K < D < B < O$ ;  $A \geq D = S$ ;  $D < Z$

Conclusions:

i.  $A > B \rightarrow$  False (as  $A \geq D < B \rightarrow$  thus clear relation between A and B cannot be Determined)

ii.  $Y < Z \rightarrow$  True (as  $Y \leq K < D < Z \rightarrow Y < Z$ )

Therefore, only conclusion II is true.

28. Ans. E.

Given statements:  $A > C$ ;  $G > E$ ;  $G \leq C$ ;  $R \leq I$ ;  $K \leq I$

On combining:  $A > C \geq G > E$ ;  $K \leq I \geq R$

Conclusions:

i.  $A > G \rightarrow$  True (as  $A > C \geq G \rightarrow A > G$ )

ii.  $C > E \rightarrow$  True (as  $C \geq G > E \rightarrow C > E$ )

Therefore, both conclusions are true.

29. Ans. C.

Given statements:  $Z \leq K < D = S$ ;  $D < A < O$ ;  $G \geq D < R$

On combining:  $Z \leq K < D < A < O$ ;  $S = D < R$ ;  $G \geq D < R$

Conclusions:

i.  $G > A \rightarrow$  False (as  $G \geq D < A \rightarrow$  clear relation between G and A cannot be Determined)

ii.  $Z < R \rightarrow$  True (as  $Z \leq K < D < R \rightarrow Z < R$ )

Therefore, only conclusion II is true.

30. Ans. A.

Given statements:  $C \leq R \leq N = M \geq F$ ;  $Q \geq M < O$ ;  
 $D \geq L$ ;  $C \geq D \leq S \geq Z$

On combining:  $C \leq R \leq N = M < O$ ;  $F \leq M = N \geq R$   
 $\geq C \geq D \leq S \geq Z$

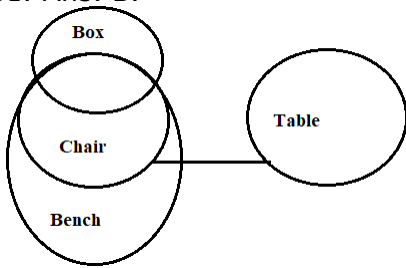
Conclusions:

i.  $R \leq F \rightarrow$  False (as  $F \leq M = N \geq R \rightarrow$  clear relation between R and F cannot be Determined)

ii.  $C < Q \rightarrow$  false (as  $C \leq R \leq N = M \leq Q \rightarrow C \leq Q$ )

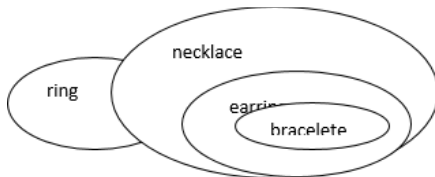
Therefore, None is true.

31. Ans. B.

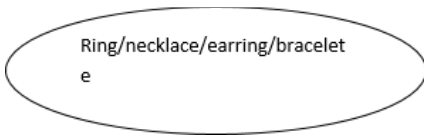


32. Ans. B.

A possible Venn-diagram is:

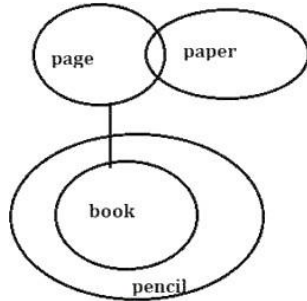


Another possible Venn-diagram is :



All the given statements are positive so there is no possibility for negative conclusion or given Venn-diagram did not follow I conclusion. For conclusion II all the positive statement can overlap each other. Hence conclusion II follows. Hence option B). is correct.

33. Ans. B.



Only conclusion II is follow.

Hence, option B.

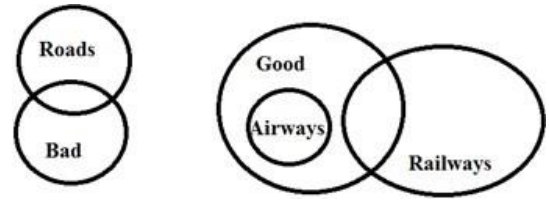
Conclusion I is not having some definite information. It is a case of 'can be or can not be'. So, it does not follow.

34. Ans. D.



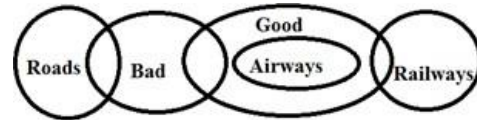
Conclusion I and II does not follow from the diagram.

35. Ans. C.



Conclusion I does not follow from the basic diagram.

For conclusion II:



Conclusion II does not follow.

36. Ans. A.

I is implicit, as the statement shows that importance is not being given where it has to be given. II is not implicit as it is not known from the statement whether the importance given to body is deserved or not. 3 is not implicit, as it is out of context. There's a difference between the brain and the mind. One should not confuse the two.

37. Ans. D.

The statement says that the high pressure boilers are **hazardous** and that's why they are strictly regulated with special laws. Conclusion 1 talks about availability although the statement does not relate to the availability. Conclusion 2 talks about the rarity of high pressure boilers although the statement does not mention it anywhere. Hence, option D is the correct option.

38. Ans. A.

Only course of action I follows. The Indians, or as a matter of fact anyone else, can lodge a complaint against the manufacturers for the inaccurate information. Courses of action II and III do not follow as both of them are rather extreme steps. It does not make sense for the Chinese government to issue an apology for a mistake committed by a Chinese manufacturer. Similarly, expecting the Canadian people to stop buying Chinese products simply because one manufacturer from China gave out incorrect information is not a feasible course of action. Therefore, option (A) is the correct answer.

39. Ans. B.

Both inferences I and III follow. Because there is a shortage of IT professionals in Japan, they want to recruit people from India. Also, the given statement says that Japan's IT infrastructure is rapidly

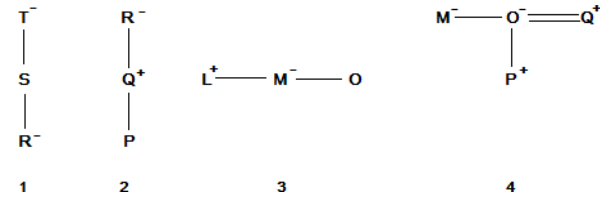


expanding, from which we can conclude that the IT industry in Japan is growing by leaps and bounds. Inference II does not follow because the given statement gives us no information on whether IT professionals from India are better than professionals from other countries. Therefore, option B is the correct answer.

40. Ans. B.

The answer is B. Almost all the options are in support with the passage. As B underlines the main cause, it is the strongest argument among all the given options.

41. Ans. E.



42. Ans. D.

Siberia	→	a	water	→	freezes
Is	→	cold	Freezes	→	here
A	→	place	To	→	ice
Cold	→	is	Ice	→	to
place	→	Siberia	Here	→	water

The code has been generated by arranging the words in alphabet order

Similarly for 'covers ten percent of earth' will be coded as Covers earth of percent ten

43. Ans. B.

The code for outside is - ju

The code for it/is - ha/no

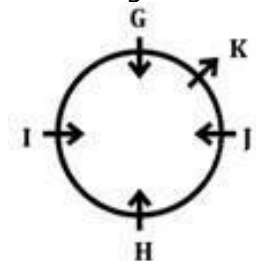
Hence, the code for dark is 'ti'

So, option B is correct.

44. Ans. D.

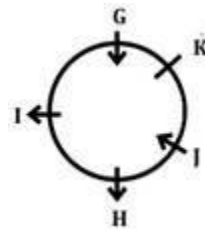
From I and II,

Not all of them are facing the centre. Therefore, I and II together are sufficient.



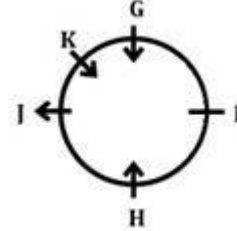
From I and III,

Not all of them are facing the centre. Therefore, I and III together are sufficient to answer.



From II and III,

Not all of them are facing the centre. Therefore, II and III together are sufficient



45. Ans. A.

PIGEON

**From Statement I -**

I. O is placed fourth to the right of P. G is not placed immediately next to either P or O.

P \_ G \_ O \_

**From Statement II -**

II. N is placed immediately next (either left or right) to O. E is placed immediately next (either left or right) to G.

N O

O N

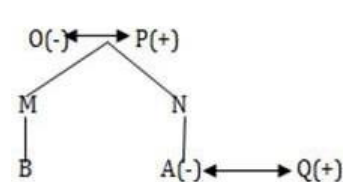
by combining both I & II Statement we can conclude -

P \_ G E O N

P I G E O N

Hence, statement I and II are sufficient to answer the question, while the data in statement III alone are not sufficient to answer the question.

46. Ans. D.



Hence, P is the grandfather-in-law of Q.

47. Ans. E.

From all these three statements the gender of M can't be determined. Hence, we can't find out how M is related to R.

48. Ans. A.

From I, The arrangement can be shown,

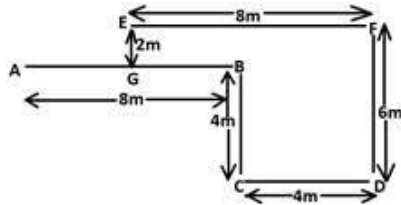
5	J
4	I
3	L
2	K
1	M
Ground Floor	

From II,

More than one arrangement is possible.

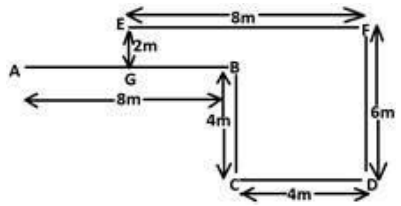
Hence, the question can be answered From I alone.

49. Ans. A.



Point G is 4m to the east from Point A

50. Ans. B.



If point G is 4m to the north of Point H, then the distance between H and D will be 8m

51. Ans. C.

Let, the total monthly income be Rs. 'x'

Amount spent on rent = Rs. 0.2x

Remaining monthly income = Rs. 0.8x

Amount spent on food = 0.25 x 0.8x = 0.2x

Amount deposited on savings account = Rs. 0.48x

So,  $0.2x + 0.2x + a + 0.48x = x$

$a = 0.12x$

$a = 12\%$  of x

$$8294.4 = \frac{0.48x \times 7.2 \times 5}{100}$$

Now,

$$829440 = 17.28x$$

$x = \text{Rs. } 48000$

So,  $a = 12\%$  of x

= Rs. 5760

So option (c) is the correct answer.

52. Ans. C.

Let, the distance between point X and Y be 'd' km

For boatman A,

$$\frac{0.5d}{21} + \frac{0.5d}{x} = 2.4$$

For boatman B,

Upstream speed =  $21 - 3 = 18$  km/hr

$$\text{So, } \frac{d}{18} = 2 + \frac{20}{60}$$

$$\text{So, } \frac{d}{18} = \frac{7}{3}; d = 42 \text{ km}$$

Now, putting the value of d

$$\frac{0.5 \times 42}{21} + \frac{0.5 \times 42}{x} = 2.4$$

$$= \frac{21}{21} + \frac{21}{x} = 2.4$$

$$= 1 + \frac{21}{x} = 2.4$$

$$= \frac{21}{x} = 1.4$$

$$= x = 15 \text{ km/hr}$$

So option (c) is the correct answer.

53. Ans. D.

According to the question,

12 men can complete a work in 10 days, hence

$$\text{amount of work done by 1 man} = \frac{1}{120}$$

$$\text{Similarly work done by one woman} = \frac{1}{240}$$

Total work done by 8 men and 4 women in 6 days

$$= 6 \left( \frac{8}{120} + \frac{4}{240} \right) = 6 \left( \frac{1}{15} + \frac{1}{60} \right) = \frac{5 \times 6}{60} = \frac{1}{2}$$

From 7<sup>th</sup> day onwards 8 men and 15 women will start working

Hence amount of work done on one day

$$= \frac{8}{120} + \frac{15}{240} = \frac{31}{240}$$

Hence time taken to complete the work

$$= \frac{\left(\frac{1}{2}\right)}{\frac{31}{240}} = \frac{240}{62} = 3 \frac{27}{31} \text{ days}$$

$$\text{Hence total time taken} = 6 + 3 \frac{27}{31} = 9 \frac{27}{31} \text{ days}$$

So option (d) is the correct answer.

54. Ans. B.

No. of female employees in TATA Solar = 840

% of female employees in TATA Solar = 100 -

(27+22+16) = 35%

35% = 840

100% = 2400

Therefore total female employees = 2400

And total male employees = 5200 - 2400 = 2800

company	male	female
TATA Retail	392	648
TATA Life	700	384
TATA Logistic	840	528
TATA Solar	308	840
TATA Steel	560	0
TOTAL	2800	2400

The total number of male employees in these three subsidiaries is TATA Retail, TATA Life and TATA Logistic=  $392+700+840=1932$

55. Ans. B.

No. of female employees in TATA Solar = 840

% of female employees in TATA Solar=  $100 - (27+22+16) = 35\%$

$35\%=840$

$100\%=2400$

Therefore total female employees = 2400

And total male employees =  $5200-2400= 2800$

company	male	female
TATA Retail	392	648
TATA Life	700	384
TATA Logistic	840	528
TATA Solar	308	840
TATA Steel	560	0
TOTAL	2800	2400

Total number of male employees working in TATA Life and TATA Logistic= $1540$

The total number of employees working in these two firms= $2452$

REQUIRED %= $1540*100/2452=62.8\%$

56. Ans. C.

No. of female employees in TATA Solar = 840

% of female employees in TATA Solar=  $100 - (27+22+16) = 35\%$

$35\%=840$

$100\%=2400$

Therefore total female employees = 2400

And total male employees =  $5200-2400= 2800$

company	male	female
TATA Retail	392	648
TATA Life	700	384
TATA Logistic	840	528
TATA Solar	308	840
TATA Steel	560	0
TOTAL	2800	2400

The approx. average number of employees (male and female) who work in TATA Logistic, TATA Solar and TATA Steel

together= $560+840+528+308+840/3=3076/3== 1025$

57. Ans. A.

No. of female employees in TATA Solar = 840

% of female employees in TATA Solar=  $100 - (27+22+16) = 35\%$

$35\%=840$

$100\%=2400$

Therefore total female employees = 2400

And total male employees =  $5200-2400= 2800$

company	male	female
TATA Retail	392	648
TATA Life	700	384
TATA Logistic	840	528
TATA Solar	308	840
TATA Steel	560	0
TOTAL	2800	2400

10 % male of TATA Steel=  $560*10/100=56$

The total number of female employees in TATA Life=  $56+384= 440$

58. Ans. E.

No. of female employees in TATA Solar = 840

% of female employees in TATA Solar=  $100 - (27+22+16) = 35\%$

$35\%=840$

$100\%=2400$

Therefore total female employees = 2400

And total male employees =  $5200-2400= 2800$

company	male	female
TATA Retail	392	648
TATA Life	700	384
TATA Logistic	840	528
TATA Solar	308	840
TATA Steel	560	0
TOTAL	2800	2400

Required %= $(2800-2400)*100/2400= 16.66\%$

59. Ans. D.

$$\sqrt{729+?} = \frac{22}{5} \times 125$$

$$27+? = 22 \times 25$$

$$? = 550 - 27$$

$$? = 523$$

So option (d) is the correct answer.

60. Ans. D.

$$\frac{21}{30} \times \frac{55}{100} \times 4200 = ? \times 700$$

$$\frac{21}{30} \times 11 \times \frac{5}{100} \times 30 \times 14 = ? \times 5 \times 140$$

$$? = \frac{21 \times 11 \times 5 \times 140}{5 \times 140 \times 100}$$

$$? = 21 \times \frac{11}{100} = 2.31$$

So option (d) is the correct answer.

61. Ans. A.

$$21^3 = 9261, 5^3 = 125, 18^3 = 5832$$

$$? = \sqrt[3]{9261} - \sqrt[3]{125} + \sqrt[3]{5832}$$

$$? = 21 - 5 + 18 = 34$$

So option (a) is the correct answer.

62. Ans. B.

$$?^2 \times 6 = 55 \times 53 - 20 \times 23 + 6671$$

$$?^2 \times 6 = 2915 - 460 + 6671$$

$$?^2 \times 6 = 9126$$

$$?^2 = 1521$$

$$? = 39$$

So option (b) is the correct answer.

63. Ans. B.

$$95\% \text{ of } \sqrt{14400} + 50\% \text{ of } 16^2 = ? + 214$$

$$\frac{95}{100} \times \sqrt{14400} + \frac{50}{100} \times 16^2 = ? + 214$$

$$\frac{95}{100} \times 120 + \frac{1}{2} \times 256 = ? + 214$$

$$19 \times 6 + 128 = ? + 214$$

$$114 + 128 = ? + 214$$

$$242 = ? + 214$$

$$? = 242 - 214 = 28$$

So option (b) is the correct answer.

64. Ans. B.

	Number of female customers live in building	Number of male customers live in building	Number of female customers who are part timers	Number of male customers who are part timers
DPS	23 x 12 = 276	28 x 12 = 336	708 - 276 = 432	696 - 336 = 360
VBS	32 x 12 = 384	31 x 12 = 372	852 - 384 = 468	792 - 372 = 420
HPS	38 x 12 = 456	33 x 12 = 396	960 - 456 = 504	876 - 396 = 480
MS	19 x 12 = 228	24 x 12 = 288	528 - 228 = 300	612 - 288 = 324
RPS	26 x 12 = 312	23 x 12 = 276	696 - 312 = 384	636 - 276 = 360

The number of part timers male customers in VBS = 420

The number of part timers female customers in VBS = 468

Required difference = 468 - 420 = 48

**So option (b) is the correct answer.**

65. Ans. D.

	Number of female customers live in building	Number of male customers live in building	Number of female customers who are part timers	Number of male customers who are part timers
DPS	23 x 12 = 276	28 x 12 = 336	708 - 276 = 432	696 - 336 = 360
VBS	32 x 12 = 384	31 x 12 = 372	852 - 384 = 468	792 - 372 = 420
HPS	38 x 12 = 456	33 x 12 = 396	960 - 456 = 504	876 - 396 = 480
MS	19 x 12 = 228	24 x 12 = 288	528 - 228 = 300	612 - 288 = 324
RPS	26 x 12 = 312	23 x 12 = 276	696 - 312 = 384	636 - 276 = 360

The number of female customers who are part timers in RPS = 384

The number of male customers who are part timers in RPS = 360

$$\frac{384+360}{2} = 62$$

Required average = 62

**So option (d) is the correct answer.**

66. Ans. A.

	Number of female customers live in building	Number of male customers live in building	Number of female customers who are part timers	Number of male customers who are part timers
DPS	23 x 12 = 276	28 x 12 = 336	708 - 276 = 432	696 - 336 = 360
VBS	32 x 12 = 384	31 x 12 = 372	852 - 384 = 468	792 - 372 = 420
HPS	38 x 12 = 456	33 x 12 = 396	960 - 456 = 504	876 - 396 = 480
MS	19 x 12 = 228	24 x 12 = 288	528 - 228 = 300	612 - 288 = 324
RPS	26 x 12 = 312	23 x 12 = 276	696 - 312 = 384	636 - 276 = 360

The number of male customers who are part timers in DPS = 360

The number of male customers who are part timers in HPS = 480

$$\frac{360}{480} = \frac{3}{4}$$

Required ratio =  $\frac{3}{4}$

**So option (a) is the correct answer.**

67. Ans. E.

	Number of female customers live in building	Number of male customers live in building	Number of female customers who are part timers	Number of male customers who are part timers
DPS	23 x 12 = 276	28 x 12 = 336	708 - 276 = 432	696 - 336 = 360
VBS	32 x 12 = 384	31 x 12 = 372	852 - 384 = 468	792 - 372 = 420
HPS	38 x 12 = 456	33 x 12 = 396	960 - 456 = 504	876 - 396 = 480
MS	19 x 12 = 228	24 x 12 = 288	528 - 228 = 300	612 - 288 = 324
RPS	26 x 12 = 312	23 x 12 = 276	696 - 312 = 384	636 - 276 = 360

The number of female customers who are part timers in MS = 300

The number of male customers who are part timers in MS = 324

$$\frac{300}{324} \times 100 = 92.6\%$$

Required percentage =  $\frac{300}{324} \times 100 = 92.6\%$   
**So option (e) is the correct answer.**

68. Ans. C.

	Number of female customers live in building	Number of male customers live in building	Number of female customers who are part timers	Number of male customers who are part timers
DPS	$23 \times 12 = 276$	$28 \times 12 = 336$	$708 - 276 = 432$	$696 - 336 = 360$
VBS	$32 \times 12 = 384$	$31 \times 12 = 372$	$852 - 384 = 468$	$792 - 372 = 420$
HPS	$38 \times 12 = 456$	$33 \times 12 = 396$	$960 - 456 = 504$	$876 - 396 = 480$
MS	$19 \times 12 = 228$	$24 \times 12 = 288$	$528 - 228 = 300$	$612 - 288 = 324$
RPS	$26 \times 12 = 312$	$23 \times 12 = 276$	$696 - 312 = 384$	$636 - 276 = 360$

The number of female customers who live in building =  $276 + 384 + 456 + 228 + 312 = 1656$   
 The number of male customers who live in building =  $336 + 372 + 396 + 288 + 276 = 1668$

Required difference =  $1668 - 1656 = 12$

**So option (c) is the correct answer.**

69. Ans. A.

Number of ways in which the basketball team is selected =  ${}^{10}C_3 \times {}^8C_2 = 120 \times 28 = 3360$

Number of ways in which the volleyball team is selected =  ${}^8C_4 \times {}^7C_2 = 70 \times 21 = 1470$

Required difference =  $3360 - 1470 = 1890$

So option (a) is the correct answer.

70. Ans. A.

According to the given equations:

I.  $10x^2 + 37x + 30 = 0$

$$10x^2 + 12x + 25x + 30 = 0$$

$$2x(5x + 6) + 5(5x + 6) = 0$$

$$(2x + 5)(5x + 6) = 0$$

$$x = -\frac{5}{2}, -\frac{6}{5}$$

II.  $y^2 + 21y + 80 = 0$

$$y^2 + 5y + 16y + 80 = 0$$

$$y(y + 5) + 16(y + 5) = 0$$

$$(y + 16)(y + 5) = 0$$

$$y = -16, -5$$

After comparison of both equations, the conclusion is  $x > y$

So option (a) is the correct answer.

71. Ans. D.

According to the given equations:

I.  $x^2 - 11x + 10 = 0$

$$x^2 - x - 10x + 10 = 0$$

$$x(x - 1) - 10(x - 1) = 0$$

$$(x - 10)(x - 1) = 0$$

$$x = 10, 1$$

II.  $y^2 + 6y - 7 = 0$

$$y^2 + 7y - y - 7 = 0$$

$$y(y + 7) - 1(y + 7) = 0$$

$$(y + 7)(y - 1) = 0$$

$$y = -7, 1$$

After comparison of both equations, the conclusion is  $x \geq y$

So option (d) is the correct answer.

72. Ans. B.

According to the given equations:

I.  $x^2 + 17x - 168 = 0$

$$x^2 - 7x + 24x - 168 = 0$$

$$x(x - 7) + 24(x - 7) = 0$$

$$(x + 24)(x - 7) = 0$$

$$x = -24, 7$$

II.  $y^2 - 32y + 255 = 0$

$$y^2 - 17y - 15y + 255 = 0$$

$$y(y - 17) - 15(y - 17) = 0$$

$$(y - 15)(y - 17) = 0$$

$$y = 15, 17$$

After comparison of both equations, the conclusion is  $x < y$

So option (b) is the correct answer.

73. Ans. B.

According to the given equations:

I.  $x^2 + 22x + 72 = 0$

$$x^2 + 4x + 18x + 72 = 0$$

$$x(x + 4) + 18(x + 4) = 0$$

$$(x + 18)(x + 4) = 0$$

$$x = -18, -4$$

II.  $15y^2 + 77y + 90 = 0$

$$15y^2 + 50y + 27y + 90 = 0$$

$$5y(3y + 10) + 9(3y + 10) = 0$$

$$(5y + 9)(3y + 10) = 0$$

$$y = -\frac{9}{5}, -\frac{10}{3}$$

After comparison of both equations, the conclusion is  $x < y$

So option (b) is the correct answer.

74. Ans. B.

According to the given equations:

$$\text{I. } x^2 + 31x + 234 = 0$$

$$x^2 + 18x + 13x + 234 = 0$$

$$x(x + 18) + 13(x + 18) = 0$$

$$(x + 13)(x + 18) = 0$$

$$x = -13, -18$$

$$\text{II. } y^2 - 9y - 22 = 0$$

$$y^2 + 2y - 11y - 22 = 0$$

$$y(y + 2) - 11(y + 2) = 0$$

$$(y + 2)(y - 11) = 0$$

$$y = -2, 11$$

After comparison of both equations, the conclusion is  $x < y$

So option (b) is the correct answer.

75. Ans. D.

Total quantity of liquid B in both mixtures = 30 liters

Let the quantity of liquid A in mixture X = x liters

Then, the quantity of liquid A in mixture Y = x + 15 liters

So,

$$x + x + 15 + 30 = 50 + 35$$

$$2x = 40; x = 20 \text{ liters}$$

Quantity of liquid A in mixture X = 20 liters

Quantity of liquid A in mixture Y = 20 + 15 = 35 liters

Quantity of liquid B in mixture X = 35 - 20 = 15 liters

Quantity of liquid B in mixture Y = 15 liters

Required ratio = 35 + 20% of 20 : 15 + 20% of 15 = 35 + 4 : 15 + 3 = 39 : 18 = 13 : 6

**So option (d) is the correct answer.**

76. Ans. D.

Marked price of the article = Rs. 2200

Selling price of the article = Rs. 1881

Overall discount = 2200 - 1881 = Rs. 319

$$\text{Overall discount \%} = \frac{319}{2200} \times 100 = 14.5$$

Since, the successive discounts are x% and y%

$$\text{So, overall discount} = x + y - \frac{xy}{100}$$

$$= 14.5 = x + 2x - x \times \frac{2x}{100}$$

$$= 14.5 = x + 2x - \frac{2x^2}{100}$$

$$= 1450 = 300x - 2x^2$$

$$= x^2 - 150x + 725 = 0$$

$$= x^2 - 5x - 145x + 725 = 0$$

$$= x(x - 5) - 145(x - 5) = 0$$

$$= (x - 5)(x - 145) = 0$$

So, x = 5, x = 145

Since, x = 145% discount is not possible

So, x = 5%

So option (d) is the correct answer.

77. Ans. C.

Let x be the individual weight of first six boys.

$$\text{Total weight of six boys} = 6x$$

$$\text{Weight of 7th boy} = \frac{98}{100}x$$

$$\text{Weight of 8th boy} = \frac{104}{100}x$$

$$\text{Weight of 9th boy} = \frac{106}{100}x$$

$$\text{Weight of 10th boy} = \frac{108}{100}x$$

$$\text{Then, } 50.8 \times 10 = 6$$

$$x + \frac{98}{100}x + \frac{104}{100}x + \frac{106}{100}x + \frac{108}{100}x$$

$$x = 50 \text{ kg}$$

$$\text{Now, weight of 7th boy} = \frac{98}{100} \times 50 = 49 \text{ kg}$$

$$\text{Weight of 8th boy} = \frac{104}{100} \times 50 = 52 \text{ kg}$$

$$\text{Weight of 9th boy} = \frac{106}{100} \times 50 = 53 \text{ kg}$$



Weight of 10<sup>th</sup> boy =  $\frac{108}{100} \times 50 = 54$  kg  
 Therefore, the average weight of the group when two new boys of weights 54 kg and 56 kg respectively join the group and six boys having equal weights leave the group,  

$$\frac{49+52+53+54+54+56}{6} = 53$$
 kg

78. Ans. C.

Sale on January = Rs.3250

Sale on February = Rs.2955

Sale on March = Rs.3682

Sale on April = Rs.4943

Let x be the sale on May, then sale on June and July are 2x and x respectively.

So, 3096

$$\times 7 = 3250 + 2955 + 3682 + 4943 + x + 2x + x$$

$$x = 1710.5$$

Then, sale on July = x = 1710.5

Therefore, difference between sale on March and July = 3682 - 1710.5 = Rs.1971.5.

79. Ans. A.

Let the age of father is X

Elder son age = y

$$\text{So, } X - 10 = 2(y - 10)$$

$$X - Y = 15$$

$$\text{So, } X = 40 \text{ \& } Y = 25$$

$$\text{Age of younger son Is } = 25 - 3 = 22$$

80. Ans. E.

The concentration of alcohol in the resulting mixture

$$= \frac{4 \times 0.25 + 6 \times 0.5 + 8 \times 0.75}{4 + 6 + 8} = \frac{10}{18} = \frac{5}{9}$$

Ratio of Alcohol : Water = 5:4

81. Ans. E.

The Pattern is:-1

$$(1 \times 1) + 1^2 = 2$$

$$(2 \times 3) + 3^2 = 15$$

$$(15 \times 5) + 5^2 = 100$$

$$(100 \times 7) + 7^2 = 749$$

$$(749 \times 9) + 9^2 = 6822$$

Thus, the missing number is 6822

So option (e) is the correct answer.

82. Ans. A.

The Pattern is:- 17

$$(1 \times 1) + 1^2 = 2$$

$$(2 \times 3) + 3^2 = 15$$

$$(15 \times 5) + 5^2 = 100$$

$$(100 \times 7) + 7^2 = 749$$

$$(749 \times 9) + 9^2 = 6822$$

Thus, the missing number is 41475

So option (a) is the correct answer.

83. Ans. E.

The Pattern is:-

24

$$(24 - 5) \times 5 = 95$$

$$(95 - 7) \times 7 = 616$$

$$(616 - 9) \times 9 = 5463$$

$$(5463 - 11) \times 11 = 59972$$

$$(59972 - 13) \times 13 = 779467$$

Thus, the missing number is 779467

So option (e) is the correct answer.

84. Ans. A.

The Pattern is:-

30155

$$30155 - 17^3 + 1 = 25243$$

$$25243 - 16^3 + 2 = 21149$$

$$21149 - 15^3 + 3 = 17777$$

$$17777 - 14^3 + 4 = 15037$$

$$15037 - 13^3 + 5 = 12845$$

Thus, the missing number is 12845

So option (a) is the correct answer.

85. Ans. B.

The Pattern is:-

90

$$90 + 8^2 = 154$$

$$154 + 10^2 = 254$$

$$254 + 12^2 = 398$$

$$398 + 14^2 = 594$$

$$594 + 16^2 = 850$$

Thus, the missing number is 850

So option (b) is the correct answer.

86. Ans. B.

Total number of bikes sold by Bajaj =  $0.18 \times 36000$   
= 6480

Total number of bikes sold by Hero =  $0.24 \times 36000$   
= 8640

Therefore, number of Cruiser Bikes sold by Bajaj

$$= \frac{7}{11+7} \times 6480 = 7 \times 360 = 2520$$

Number of Cruiser Bikes sold by Hero

$$= \frac{16}{11+16} \times 8640 = 16 \times 320 = 5120$$

$$\frac{2520}{5120} = \frac{63}{128}$$

Therefore, required ratio =  $\frac{63}{128}$

So option (b) is the correct answer.

87. Ans. C.

Total number of bikes sold by Bajaj =  $0.18 \times 36000$   
= 6480

Total number of bikes sold by Hero =  $0.24 \times 36000$   
= 8640

Let, the number of Cruiser Bikes sold by Bajaj and the number of Cruiser Bikes sold by Honda be x each.

$$\frac{6480-x}{9000-x} = \frac{4}{7}$$

$$\text{So, } 45360 - 7x = 36000 - 4x$$

$$x = 3120$$

Number of Standard bikes sold by Honda =  $9000 - 3120 = 5880$

Therefore, required difference =  $5880 - 3120 = 2760$

So option (c) is the correct answer.

88. Ans. D.

Total number of bikes sold by Honda =  $0.25 \times 36000 = 9000$

Total number of bikes sold by Yamaha =  $0.15 \times 36000 = 5400$

Total number of bikes sold by Ducati =  $0.18 \times 36000 = 6480$

Therefore, required average

$$= \frac{9000+5400+6480}{3} = \frac{20880}{3} = 6960$$

So option (d) is the correct answer.

89. Ans. B.

Total number of bikes sold by Ducati =  $0.18 \times 36000 = 6480$

Number of Cruiser bikes sold by Ducati

$$= \frac{5}{4+5} \times 6480 = 3600$$

Price of one Ducati Cruiser Bike

$$= \frac{450}{3600} = \text{Rs. } 0.125 \text{ crores} = 12.5 \text{ lakhs}$$

Therefore, price of one Standard Bike = Rs  $\frac{12.5}{4} =$   
Rs. 3.125 lakhs

So option (b) is the correct answer.

90. Ans. E.

Percentage share of Ducati Bike = 18%

Percentage share of Yamaha Bike = 15%

Total percentage share =  $18\% + 15\% = 33\%$

Total share = 100%

Also, we know that  $100\% = 360$  degree

$$\text{So, } 33\% \text{ would be } \frac{360}{100} \times 33 = 118.8 \cong 119$$

degree

So option (e) is the correct answer.

91. Ans. B.

$$\frac{25}{100} \times 2840 = 710$$

Grapes = 710

$$\frac{20}{100} \times (2840 - 710) = 426$$

Oranges = 426

$$\text{Apples} = 2840 - (710 + 426) = 1704$$

$$\frac{5}{4} \times 100 = 125$$

Cost of one apple = 125

$$\text{Total cost of all the apples} = 125 \times 1704 = 213000$$

Hence, option (b) is the answer.

92. Ans. C.

A alone can do = 20 days

Efficiency ratio of A & B = 4 : 5

Time required will be in ratio = 5 : 4

Hence B alone will do it in = 16 days

LCM of (16,20) = 80, Assume work size of 80 units

1 day work of A = 4 units

1 day work of B = 5 units

Work done by both in 4 days =  $4 \times (5+4) = 36$  units

Work left =  $80 - 36 = 44$  units

Now C takes 22 days to complete = 44 units.

Hence time taken by C alone to complete the work = 40 days

93. Ans. D.

Let the filling capacity of the tank =  $x \text{ m}^3$

emptying capacity =  $(x + 15) \text{ m}^3$

$$3000/x - 3000/(x + 15) = 10$$

$$3000x + 45000 - 3000x = 10x(x + 15)$$

$$45000 = 10x^2 + 150x$$

$$x^2 + 15x - 4500 = 0$$

$$x = 60, -75 \text{ (neglected)}$$

$$\text{Emptying capacity} = x + 15 = 75$$

94. Ans. D.

Let the number of marbles received by Ramu's elder and younger sons be e and y respectively



$$e > y \therefore e^2 > y^2$$

$$\therefore e^3 + y^3 = 21(e^2 - y^2)(e - y)$$

Dividing by  $e + y$ , we get

$$e^2 - ey + y^2 = 21e^2 - 42ey + 21y^2$$

$$\Rightarrow 20e^2 - 41ey + 20y^2 = 0$$

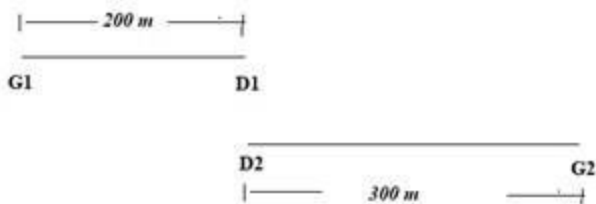
$$\Rightarrow (5e - 4y)(4e - 5y) = 0$$

$$e > y$$

$$\therefore \frac{e}{y} = \frac{5}{4}$$

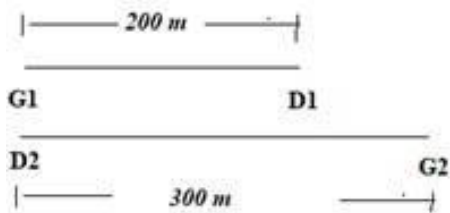
95. Ans. B.

Given,



Time gap passing  $D_1D_2$  and  $D_2G_1$  is = 30 sec  
Distance cover in 30 sec = 100 m (because speed of both the trains is same, so  $100+100=200$ )

$$\text{Speed} = \frac{100}{30} = \frac{10}{3} \text{ m/s}$$



Distance cover by both the trains =  $100+100=200\text{m}$  in 30 sec

Remaining distance for  $D_1G_2=100\text{ m}$

$$\text{So, time} = \frac{100}{\frac{10}{3}} \times 3 = 30 \text{ sec}$$

96. Ans. A.

$$\% \text{ profit} = \frac{\text{income} - \text{expenditure}}{\text{expenditure}} * 100$$

$$= 40 = (140 - E) * 100 / E$$

$$= 140 - E = 40E / 100$$

$$= 700 = 7E$$

$$= E = 100 \text{ crores}$$

97. Ans. C.

$$\text{Income} = \text{expenditure} (100 + \text{profit } \%) / 100$$

$$= 150(100 + 45\%) / 100 \text{ crores} = 217.5$$

$$\text{crores} \approx 218 \text{ crores}$$

98. Ans. A.

$$\text{keshri Pvt. Ltd income of 2009} = (155/55) * 110 = 2 * 155$$

expenditure of laxmi Pvt. Ltd. of 2008

$$= (120/60) * 100 = 2 * 100$$

percent keshri Pvt. Ltd income of 2009 is more than that of expenditure of laxmi Pvt. Ltd. of 2008

$$= [(2 * 155 - 2 * 100) / 2 * 100] * 100 = 55\%$$

99. Ans. B.

Income of keshri pvt Ltd. in 2008 = 140% of Expenditure

Given 40% of expenditure = 236 crore

$$\text{therefore } 140\% \text{ of expenditure} = 236 * 140 / 40 = 826 \text{ crore}$$

As, income of keshri pvt Ltd. in 2008 is equal to expenditure of laxmipati pvt Ltd in 2005

Therefore

$$\text{profit of laxmipati Pvt. Ltd. of 2005} = 42\% * 826 = 347 \text{ crore (approx)}$$

100. Ans. B.

$$\text{Required percent} = (55 - 40) * 100 / 40$$

$$= 37.5\% \approx 38\%$$

101. Ans. D.

Statement D can be interpreted from these lines, "By reducing the need for central intermediaries, it holds out the promise of processing transactions of various kinds more efficiently than today." Hence, option D is the correct answer.

102. Ans. A.

Statement (i) can be interpreted from these lines, "Central bank digital currency could start to replace the electronic payment systems that financial institutions use with each other. Statement (ii) is incorrect as blockchain technology is suggested as an alternative to digital transactions. Statement (iii) is also incorrect as it has not been stated in the passage.

103. Ans. C.

Statement (i) is incorrect which can be interpreted from these lines, "Its scarcity (hence some floor on its value) is purportedly guaranteed by the underlying technology..." Statement (ii) can be interpreted from these lines, The value of ordinary currencies is underwritten by governments and stabilized by central banks acting as trusted monopoly producers. Bitcoin and its rivals leave those vital roles vacant." Statement (iii) can be interpreted from these lines, "Moreover, bitcoin has no fundamental value as an asset...no ultimate assurance of liquidity or security." Hence, option C is the correct answer.

104. Ans. C.

It can be interpreted from the following lines of the passage, "Those stronger terms are justified, especially after the latest spell of wild price volatility." Hence, option C is the correct answer.

105. Ans. E.

Statement A is true which is obvious from the given line, "But as a reliable store of value, bitcoin is much less useful, because its volatility is so extreme." Statement B is also true as it has been stated in the second stanza that ". Moreover, bitcoin has no fundamental value as an asset—no stream of future income, no ultimate assurance of liquidity or security, and (unlike gold, say) no alternative use." Statement C is true which can be interpreted from the following lines, "Others have called it "the very definition of a bubble" and even "a fraud". Those stronger terms are justified, especially after the latest spell of wild price volatility." Statement D is true as bitcoin "can succeed in a limited way as a means of exchange and be used to execute certain kinds of transactions." Hence, option E is the correct answer.

106. Ans. A.

Statement (i) is incorrect as banks have been exploring applications of blockchain technology and it has nowhere been implied in the passage that banks are supportive of bitcoin. Since, it has been stated in the passage that "by reducing the need for central intermediaries, it holds out the promise of processing transactions of various kinds more efficiently than today", the vice-versa also holds true. Hence, option (ii) can be inferred from these lines. Statement (iii) is incorrect as it has been just introduced as a "radical" idea. Thus, we cannot conclude it as something imminent.

107. Ans. C.

Purposedly means in a purposed manner or purposely.

Seemingly means apparently.

Authentically means being so in fact.

Implicitly means indirectly or understood though not directly expressed.

Purportedly means believed to be the case.

Hence, supposedly which means presumed to be true is the most similar word.

108. Ans. E.

Exceptional means unusually excellent or superior.

Revolutionary means marked by or resulting in a radical change.

Complex means difficult to understand or being intricate.

Fundamental means basic.

Radical means departing markedly from the usual or customary.

On the contrary, conservative means averse to change or innovation and holding traditional values. Hence, option E is the correct answer

109. Ans. E.

'Little' carries a negative connotation and means hardly any or negligible. 'A little' carries a positive connotation and means 'some'. Since second part of the sentence mentions that 'fundamental values and cultural norms remain largely unquestioned', it can be concluded that something negative is being talked about. Thus, there would be no option for free and open inquiry. Thus, "little" defines the given situation and option E is correct.

110. Ans. C.

The proper noun "bible", requires the definite article 'the' before it. Whenever a classic or a holy book is being referred to, the article "the" must be used. Hence, option C is correct.

111. Ans. A.

In the above sentence, the example of our bio system is given when an intricately engineered bio system is talked about. To show possession here, "ours" will be used in place of "our". Hence, option A is correct.

112. Ans. C.

The correct option is C because the correct phrase that should be used here is 'make light of their difficulties.' It means 'trying to treat something as though it is not serious or important, when it in fact is.

113. Ans. E.

The phrase is correct and needs no change. The verb 'topped' does not need any preposition after it and the adjective 'early' and the noun 'performance' need no change thus option E is the correct answer.

114. Ans. A.

The correct preposition to be used with the verb 'hurried' is 'to' and not the others. 'Hurry to a place' means 'move to a place with great haste.' Thus option A is the correct answer.

115. Ans. C.

Option C is the correct answer because the correct phrase is 'rank and file' which means 'the ordinary members of an organization'.

116. Ans. A.

The part of the sentence that is most important in this sentence is 'a far cry.' It means 'vastly different from.' But here this phrase has not been used in

the correct way except option A. So option A is the correct answer.

117. Ans. C.

The correct sequence is ADCB.

The paragraph starts with the description of the event and what is the point to focus on, i.e. firecrackers. This can only be followed by statement A) as it is the only statement which talks about firecrackers. It talks about the struggles people are suffering with. This is followed by statement D) which links New Year to another festival i.e. Christmas. Statement D) is followed by statement C) as 'that' in this statement is Christmas and thus, this statement can come only after statement D). Statement C) is followed by statement B) as it goes with the flow and also it is talking about the author himself.

118. Ans. E.

The correct sequence is CADB.

The paragraph starts with example of Lord Shiva in Hindu mythology. This can only be followed by statement C) as 'it' here is referring to Lord Shiva opening his third eye, as mentioned in the previous sentence. Statement c) is followed by statement A) as it moves the paragraph ahead by linking it to the main topic of the paragraph. Statement A) is followed by statement D) which further explains what has been said in statement A). Statement D) is followed by statement B) as it talks about 'empowerment' which is further elaborated in in the same statement.

119. Ans. A.

The correct sequence is CBAD.

The paragraph starts with describing some sysadmins enjoying humour. This is followed by statement C) which further describes the scene, this can be aptly followed by statement b) as it adds another such description but can come only after statement C) as it starts with the word 'another'. Statement B) is followed by statement A) which comes to the reason behind the on-going rounds of comments. This is followed by statement D) as 'that' here is referring to 'any computer' the previous statement has mentioned.

120. Ans. C.

The correct sequence is CADB.

The paragraph starts with describing the illusion of the return of a resilient Indian economy. This should be followed by C) mentioning what it has actually returned from, followed by A) mentioning the two disruptions followed by D) mentioning the effect of the restoration. The last sentence should

be B) talks about the same restoration and about the index mentioned.

121. Ans. B.

The correct sequence is DCBA.

The paragraph starts with mentioning about the cleanliness in Singapore and Japan which must be followed by D which states the surprise one encounters at the place. Continuing the chain of thought, C presents the contradiction one sees in India. Between B and A, A comes latter as It carries the conjunction "but" which helps put forth a contrast of what is mentioned in B. Thus, the correct sequence is DCBA.

122. Ans. E.

The sentence talks about the complex policy of the America water laws and the "American water laws" has been used as a cause to show its effect on something which is mentioned in the latter part of the sentence. The latter part of the sentence mentions "water issues" of US, which is not easily fixable. "Not easily fixable" means "not easily corrected or repaired", hence there must have been some reason why that cannot be fixed. Amenable something which is manageable or controllable. Water issues may not have been managed or controlled due to complex water laws and that is why it is difficult to fix. Compliant which also means something which is manageable or amenable can fit in the sentence.

"irrelevant or not controversial" will not complete the sentence sensibly because if the water issues in the US are irrelevant or not controversial, the laws must not have been complex and may have got easily fixed which is contradictory to the given statement.

123. Ans. B.

The sentence talks about "drought and food security" which has pestered the region and in addition to that the climate and geography has worsened the matter and forced them to come to isolation. "Relegate and downgrade" are the two words which means to move down to a lower position are the most suitable word to be filled in the blank. "alleviates" which means to make less severe, will not complete the sentence sensibly. "Transgress" which means "to misbehave or to break the law" which does not fit in the context whatsoever.

124. Ans. D.

The sentence talks about the global countries are switching to clean energy which may slowdown and that is due to the Trump Administration's policies The sentence talks about the switching of the global

countries to clean energy may slow down due to the Trump Administration's policies and because of these policies clean energy will be debatable or contentious. Contentious means causing or likely to cause an argument; controversial. Debatable also fits in the context, which means open to discussion or argument. Unscathed will not complete the sentence sensibly because unscathed means undamaged. Hence, the answer is

125. Ans. A.

The sentence states that the current transportation system is not able to meet the demand however the advancement in technology may offer opportunities that will improve the system and as the improving of the system is mentioned it shows it must be upgraded. "Autonomous" which means self-governing or self-sufficient. And it indicates self-sufficient vehicles, biometrics. "Customize" cannot be used as "customization" is used in a context when a trivial modification is done and here innovation done in technology to improve the system is mentioned, thus it should be something significant. "Irresistible" is totally out of context.

126. Ans. D.

the sentence states that the national power grid usually gets crippled and that forced public service and private enterprises to shut down because citizens rioted in the street and since they rioted they must have been disgruntled which means angry or dissatisfied or unbridled which means uncontrolled; unconstrained. contented or amicable does not complete the sentence sensibly.

127. Ans. D.

'Waves' means a sudden occurrence of or increase in a phenomenon, feeling, or emotion, 'Perverse' means showing a deliberate and obstinate desire to behave in a way that is unreasonable or unacceptable, 'Swarms' means move somewhere in large numbers. 'Diverge' means (of a road, route, or line) separate from another route and go in a different direction. As the sentence is talking about Chinese immigrants i.e. a person who comes to live permanently in a foreign country, so they will be occurring in large numbers. So, 'Waves' and 'Swarms' fit contextually. Other options don't fit logically. Hence, option D is the correct answer.

128. Ans. B.

The adjective applicable in the blank would qualify the heat of the desert and among the given options 'Torrid' and 'Oppressive' are two adjectives that are used before the heat. 'Torrid' means very hot and dry, 'Prosaic' means having or using the style or diction of prose as opposed to poetry;

lacking imaginativeness or originality, 'Oppressive' means (of weather) close and sultry, 'Taciturn' means (of a person) reserved or uncommunicative in speech; saying little.

129. Ans. D.

Parts A and C carry the error. The phrase "almost his tricks" in part A does not make sense at all. It can either be "almost all his tricks" or "all his tricks". In the third part of the sentence, "at the end of" will be followed by a noun. Thus, the verb "perform" should be replaced by the noun "performance". Thus, option D is the correct answer.

130. Ans. B.

Parts B and D are incorrect. In part B, "worn" is the past participle form of the verb and will require the auxiliary verb "had" before it to make the past perfect tense. But, since "had" is missing, the simple past tense "wore" should be used. The sentence conveys the sense that the concerned person wore a smile like he would wear a cloth that can be removed easily. Thus, instead of "removed", the adjective "removable" should be used.

131. Ans. A.

Parts A and B are incorrect. In part A "expanse" means the wide range or the huge number of the young population. So, the preposition "of" should be used instead of "from" to convey the correct sense. In part B, the noun "importance" should be replaced by the adjective "important" to make the sentence grammatically correct. Thus, option A is the correct answer.

132. Ans. E.

The sentence is structurally and grammatically correct. It states that the video game industry is similar to the film industry in the sense that in both of them an 'idea' plays a minor role.

133. Ans. B.

Parts A and D are grammatically incorrect. In the first part of the sentence, the subject and the verb do not agree with each other. The subject "agreements" is plural here, thus, the verb should be "reflect" (plural). In the fourth part of the sentence, only two entities have been mentioned, thus, the word "between" should be used instead of "among" (used to compare more than two entities). Thus, option B is the correct answer.

134. Ans. B.

B is the correct answer. "Futuristic" is an adjective, but we do not have a noun which it can modify. The noun "future" can replace "futuristic". Thus, option B is the answer as the word is incorrect.

135. Ans. A.

Option A is the correct answer as "improved" is incorrect with respect to the tense of the given sentence. "Approaches" is in the simple present tense, thus, "improves" should be written instead of "improved" to maintain parallelism.

136. Ans. E.

All the words in the third sentence are grammatically and contextually correct. Thus, option E is the correct answer.

137. Ans. B.

The plural verb "increase" is incorrect as the subject, "ability" is singular here. Since, "ability" cannot be made plural with respect to the direction of the question, the verb must be made singular to agree with the singular subject. Thus, "increases" must replace "increase", and option B is the correct answer.

138. Ans. D.

In the fifth sentence, "improve" is a verb and "significant" is an adjective. We require a word that would define the quality of the improvement. Hence, we need an adverb to modify the verb "improve". Thus, "significantly" should be used instead of "significant".

139. Ans. D.

This is a little tricky. We require a preposition which when combined with "chip" will make a phrasal verb, the meaning of which will fit in the context of the given passage. "Chip beyond" is not a phrasal verb and does not convey an appropriate meaning. "Chip away" means to gradually make something weaker, smaller, or less effective, which fits in the context of the passage as it says that with the increase of online shopping, offline shopping will gradually fade away. Thus, option D is the correct answer.

140. Ans. E.

All the highlighted words in the sentence 7 are grammatically and contextually correct, thus, option E is the correct answer.

141. Ans. A.

The tense of the verb "order" is incorrect as the sentence mentions the phrase "a few years ago", which shows the context of the past. Hence, "ordered" should be written instead of "order".

142. Ans. B.

Though there is no grammatical error in this sentence, the word "consumers" is incorrect contextually. The sentence states that delivery chains have been developed by someone. So, these people must be the sellers or the retailers and not

the consumers, as the sellers would deliver goods. Thus, option B is the correct answer.

143. Ans. A.

In the given sentence, Lin Grosman, a concerned person in the subject-matter, is being quoted. Also, since the preposition "to" is mentioned after "accordingly", the phrase should be "According to", which means "as stated by". Hence, option A is the correct answer.

"Accordingly" is an adverb which means therefore/ as a result of, and is inappropriate in the given sentence.

144. Ans. E.

The fourth paragraph of the passage states, 'Many in the motor and insurance industries expect safety benefits from autonomous cars since more than 90% of accidents involve human error.' With the coming in of autonomous cars, an era of safety can be ushered, given everything will be technologically driven. Although, this can lead to a profitable situation for the insurance sectors since there will not be any accidents (or low rates of accidents) and hence the liability on the insurance sector to pay their clients off is minimised. However, technology also has its bane. In this background, it can not be inferred if the given situation will be nothing but only beneficial for the insurance sector. Thus, option E is the correct answer.

145. Ans. C.

Blip refers to minor interruptions or minor shocks, hence option C is the correct answer. Contextually it means that new technology encounters some interruptions when it is in the developing phase.

146. Ans. E.

As per Christian Wolmar, the author of "Driverless Cars: A Road to Nowhere", such accidents reduce the probability of public using autonomous vehicles. He goes on to emphasise the impact of these accidents and that the public would not completely accept self-driven vehicles until they're perceived to be 100% safe. Therefore, E is the right answer.

147. Ans. C.

The companies claim that driverless cars will be much more safe and secure, as it will be void of any human errors. But technology has its shortcomings too. As humans take time to learn driving, so will these driverless cars. As per the passage, it's not the first time that a car has killed someone, hence they aren't as safe as one might think them to be. Therefore, option C is the correct answer.

148. Ans. C.

Vanguard means a position at the forefront of the development of new ideas or to be at the leading or cutting-edge position. Therefore, C is the correct answer.

149. Ans. A.

The Government had to back the trials which it was about to conduct to demonstrate the new features of self-driven cars, due to rising public concern over the road safety and cybersecurity. Amid the accident in which a pedestrian died due to a

collision with the autonomous vehicle, people are concerned about their road safety. Therefore, A. is the correct option.

150. Ans. D.

As per the passage, when investigators looked up the footage of the accident, it seemed that women came out suddenly in front of the car, wheeling her bicycle. Due to less reaction time, the Uber car couldn't break its speed, resulting in the accident. Hence, option D is the correct option.

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