SBI PO Mains 2020

REASONING ABILITY

Directions (1-4): Study the following information carefully to answer the given question.

There are eight members i.e. M, N, Q, A, R, O, B and P in a family having three generation and all are related to Q in a certain way and there are only two married couple in the family. They all sit around a circular table such that all face towards the centre. Q sits third to the left of his mother-in-law, who sits second to the left of sister of R. N is unmarried. O has only one son. B is the grandson of A, who sits third to the right of N, who is the aunt of B. O is the mother of R. M is the mother-in-law of P and sits on the immediate left of brother in law of Q. N is the only daughter of M. A and O is not the married couple. Son of Q sits third to the right of Q's brother-in-law. R is not married. N is not the immediate neighbour of P. P is married to Q.

1. How is O related to Q?
(a) Mother (b) Father (c) Grandmother
(d) Mother-in-law (e) None of these

2. Who among the following sits second to the right of son of Q?
(a) Mother of Q (b) Father of B (c) Father of N
(d) Brother of N (e) None of these

3. How many persons sit between P and sister of Q?
(a) Three (b) Two (c) One
(d) Four (e) None of these

4. Who among the following is the mother of B?
(a) P (b) M (c) O
(d) R (e) None of these

Directions (5-7): Study the given information and answer the questions:

When a number arrangement machine is given an input line of numbers, it arranges them following a particular rule. The following is an illustration of an input and its rearrangement.

INPUT: 76 91 29 83 47 66 39 57

STEP I: 152 182 58 166 94 132 78 114

STEP II: 60 120 216 130 76 105 72

STEP III: 15 7 22 10 22

STEP IV: 5 7 4 0 4

Step IV, is the last step of the above arrangement as the intended arrangement is obtained.

As per the rules followed in the given steps find out the appropriate steps for the given input:
Input: 52 36 69 73 57 23 41 84

5. What is the sum of all the numbers in the last step of the given arrangement?
(a) 17 (b) 23 (c) 28
(d) 16 (e) None of the above

6. Which element is 2nd to the right of the one which is 4th from the left element in step II?
(a) 105 (b) 68 (c) 64
(d) 46 (e) None of these

7. What is the product of the numbers which is 2nd from the right end and 3rd from the left end in final step of the given arrangement?
(a) 28 (b) 140 (c) 18
(d) 100 (e) None of the above

Directions (8-11): Read the given information carefully and answer the questions given below.

There is a family of nine members A, D, G, J, K, L, M, P and R. All of them are sitting on a straight bench in the garden with an equal distance between them, but not necessarily in the same order. Some of them are facing north and rest are facing south. There are three generation in the family.

D, who is L's mother sits fourth to the left of P. The ones who sit at the extreme ends face the south direction. P is the only son of R and both face the opposite directions. D sits immediate to M. A is not married and faces the same direction as K. R, who is the sister of A sits at one of the extreme ends with a male member. D's neighbours are males and face the opposite directions. G's soul mate D faces the south direction. M, who is the husband of K sits exactly in the middle of the bench and faces the north direction. L, who is a male, is the only sibling of K, who sits exactly between A and P's sister, who is a female. L faces the same direction as G. A sits third to the left of G, who is P's grandfather and who sits immediate to M.

8. How many female members are there in the family?
(a) Two (b) Five (c) Four
(d) Six (e) Three

9. How many members face the north direction?
(a) Two (b) Four (c) Three
(d) Five (e) More than five

10. How is J related to L?
(a) Son (b) Brother (c) Sister
(d) Nephew (e) Daughter

11. Which of the following pair sits at the extreme ends of the bench?

(a) R, A (b) P, R (c) R, J
(d) K, R (e) None of these

Direction (12): In the following question a statement is given followed by two more statements numbered as I and II. You have to read both the statement and decide which of them strength which of them strengthens or weakens the statement.

12. Statement- As an emerging economic superpower, it is quite tragic that more than one in three children in India are stunted. Stunting is associated with an underdeveloped brain, with long-lasting harmful consequences, and increased risks of nutrition-related chronic diseases, such as diabetes, hypertension, and obesity in future. Thus, stunting can be classified by itself as an illness as it leads to negatively affecting the present and future of the child.

(I) Higher economic growth and increased spending on nutrition access programme have not resulted in proportionate decrease in child malnutrition or stunting.
(II) Multiple researchers have proven the link between illness and malnutrition/ stunting in children.
(a) Both I and II strengthens
(b) I strengthen while II weakens
(c) II strengthens while I weaken
(d) Statement I strengthen while Statement II is neutral.
(e) Both I and II weakens.

Direction (13): In the following question a statement is given followed by three assumptions numbered as I, II and III. You have to read all the statements and decide which of them follows the argument mentioned in statement.

13. Rooftop solar power growth has demonstrated an overall positive trend, But this will need to be scaled up massively to achieve the national target.

Assumption:

(I) With ongoing improvements to solar cell efficiency and battery technology, rooftops will only get more attractive in the future.
(II) Major **solar** projects that connect to the grid often face the challenge of land acquisition and transmission connectivity.
(III) A survey helps determine usable rooftops, separating them from green spaces, and analyses the quality of the solar resource.
(a) Only II follows
(b) Both II and III follows
(c) Both I and III follows
(d) Only I follows
(e) Both I and II follows

Directions (14-18): Study the following information carefully and answer the questions given below.

There are seven boxes i.e. A, B, C, D, E, F and G which are of different colour and kept one above the another. The boxes are of different weights. Only two boxes are kept between box A and box C. Yellow colour box is kept immediately below C. Box A is of Blue colour. There is only one box kept between Yellow colour box and Black colour box. Blue colour box is kept above Black colour box. Only two boxes are lighter than Blue colour box. Only three boxes are kept between Red colour and Black colour box. White colour box is heavier than Red colour box but just lighter than Black colour box. Yellow colour box is just lighter than Red colour box. Black colour box is not the heaviest. Only two boxes are kept between box B and Red colour box. Box B is heavier than box E which is kept immediately below box B. Black colour box is just lighter than box D. Only one box kept between box E and box F. Box G is kept immediately below Green colour box. One of the box is of Pink colour.

14. Which of the following box is of Green colour?

(a) Box D (b) Box B (c) Box E
(d) Box C (e) None of these

15. Which of the following box is the lightest?

(a) Box E (b) Box D (c) Box F
(d) Box B (e) None of these

16. How many boxes are lighter than the box which is kept immediately below A?

(a) One (b) Four (c) Three
(d) Two (e) None of these

17. Box C is of which colour box?

(a) Green (b) Red (c) White
(d) Black (e) None of these

18. How many boxes are kept below the box which is just lighter than box D?

(a) None (b) One (c) Two
(d) Three (e) None of these

Directions (19-21): In each group of questions below are two conclusions followed by some statements. You have to choose the correct set of statements that logically satisfies both the conclusions even if they seem to be at variance with commonly known facts:

19. Conclusion: I. All Home can be Office.
II. Some Party is not Building.
Statements: (a) No Office is Home.
No Office is Building.
All Office is Party.

(b) No Home is Building.
All Office is Home.
All Party is Building.
(c) All Home is Party.
All Office is Party.
No Office is Building.
Some Office are Home.
(d) All Building is Home.
Some Home is Office.
Some Office is Party.
(e) None of these

20. Conclusion: I. Some Dog is not Horse.
II. Some Cat can be Horse.
Statements: (a) Some Horse is Dog.
No Elephant is Horse.
Some Cat is Dog.
(b) All Elephant is Cat.
All Dog is Horse.
Some Elephant is Dog.
(c) All Elephant is Dog.
All Dog is Cat.
No Cat is Horse.
(d) No Elephant is Horse.
Some Dog is Elephant.
No Dog is Cat.
(e) None of these

21. Conclusion: I. Some Suzuki is Maruti.
II. Some Tata are not Honda.
Statements: (a) Some Suzuki is Honda.
No Honda is Maruti.
Some Tata is Maruti.
(b) All Tata is Suzuki.
All Maruti is Tata.
No Maruti is Honda.
(c) All Maruti is Tata.
All Suzuki is Tata.
No Tata is Honda.
(d) No Maruti is Suzuki.
Some Suzuki is Tata.
No Tata is Honda.
(e) None of these

Directions (22-26): Study the following information carefully and answer the questions given below:

Six employees i.e. P, Q, R S, T and U are working in a company at different designations i.e. Chief Legal Officer (CLO), Chief Marketing Officer (CMO), Chief Technology Officer (CTO), Chief Financial Officer (CFO), Chief Operating Officer (COO) and Chief Executive Officer (CEO). Sequence of the posts are same as mentioned above with Chief Legal Officer (CLO) being the junior most position and Chief Executive Officer (CEO) being the topmost position and . They all have different years of working experiences and gets different salaries on the basis of the sequence of their designation (senior most employee get the highest salary and has the maximum years of experience and the junior most has least experience and salary). All the information is not necessarily in the same order.

The salary of P is a multiple of 11. The one who has 10 years of experience earns 10K less than U who is not CFO. At most one person is senior to S. Only two employees are junior than the one who has 8 years of working experience. The one who is COO has 3 years more experience than the one who is getting 60K. The sum of the salaries of CLO and CMO is same as the salary of the one who has the maximum work experience. 15 years is the maximum years of working experience. Only two designations are there in between the designations of S and P. The working experiences of CMO and CTO are in consecutive years. CMO is getting 50K. R is junior than P. The CEO salary is 5k less than the square of the smallest two digit number. Q is junior than R and having the working experience equal to the sum of the digit of the salary what R gets. The salary of CTO is less than 57K.

22. Who among the following has 10 years of working experience?
(a) The one who gets 55K
(b) The one who is just junior than U
(c) T
(d) Both (b) and (c)
(e) Both (a) and (c)

23. Who among the following is Chief Executive Officer (CEO)?
(a) S (b) T
(c) The one who is getting 70 k
(d)Q (e) None of these

24. What is the difference between the working experience (years) of Chief Operating Officer (COO) and the one who is 55k salary?
(a) 3 (b) 4 (c) 5
(d) 2 (e) None of these

25. Which of the following statement is true?
(a) T is senior than U
(b) S is getting 95K salary
(c) More than two employees are junior than P
(d) P's salary is more than T's salary
(e) T is the junior among all

26. Who among the following employee is just senior than the one who has 13 Years of working experience?
(a)S (b)T (c)P
(d)R (e)None of these

Direction (27): In the following question a statement is given followed by two statements numbered as I and II. You have to read all the statements and decide which of them follows the argument mentioned in statement.

27. The Indian Meteorological Department's forecast of above-normal maximum and minimum temperatures across the country during the pre-monsoon March-May period is a timely alert for State authorities to review their preparedness.

(I) Even a marginal rise above the normal will lead to enormous heat stress for millions of Indians.

(II) A spike in summer temperatures in India is not new as in recent decades it has resulted in a higher probability of extreme heat waves and caused a lot of deaths.

(a) Only II follows
(b) Only I follows
(c) Either I or II follows
(d) Neither I nor II follows
(e) Both I and II follows

Directions (28-31): Study the information carefully and answer the questions given below.

Six people Varun, charu, Trisha, Mohit, Anko and Virat are born in different years with the current base is taken as 2018. None of them is older than 90 years old. They like different colours Red, Blue, White, Pink, Yellow, Black.

Note- The last two digits or reverse of the last two digits of the year in which a person is born can be the age of some other person. (Like A is born in 1943 and age of B is denoted by the last two digits of the birth year of A. Then B's age will be either 34 or 43).

Virat is just older than the one who likes Black colour. Anko was born in the year 1979. The difference of age between Anko and Varun is 24 years. Trisha's age is sum of the digits of the year in which Varun was born. The who likes Blue colour is just younger than Mohit. Mohit's age is either the last two digits or reverse of the last two digits of the year in which Trisha was born. Only one person is older than Mohit. The one who likes Red colour is 3 years elder to Trisha. The one who likes white colour is 1 year younger than the one who likes Pink color. Charu is born before Anko.

28. Who among the following likes Yellow colour?
(a) Anko (b) Trisha (c) Charu
(d) Varun (e) none of these

29. Who among the following is the eldest?
(a) Anko (b) Mohit (c) Charu
(d) Virat (e) none of these

30. Which of the following combination is true?
(a) Anko- 1979-Red
(b) Varun- 1955- Yellow
(c) Charu-1928- pink
(d) Trisha-1998- Blue
(e) none of these

31. Which of the following statement is correct?
(a) Anko is younger than Virat
(b) Virat is the youngest
(c) Trisha born in 1998
(d) Varun is the eldest
(e) All are correct

Directions (32-35): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statement are sufficient to answer the question. Read both the statements and Give answer:

(a) If 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) If 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) If the data either in statement I alone or in statement II alone are sufficient to answer the question.
(d) If the data even in both statements I and II together are not sufficient to answer the question.
(e) If the data in both statements I and II together are necessary to answer the question.

32. On which of the following day of the week starting from Monday to Sunday Riya leaves for Puducherry?

I. Riya's sister correctly remembers that Riya left for Puducherry one of the day after Wednesday.

II. Riya's mother correctly remembers that Riya left for Puducherry after Tuesday but before Saturday.

33. How is N related to M?

I. M is Father of J. R is the son of K. R is the son-in-law of N. J is the sister of R. O is the only daughter of N.

II. R is the son of N and is the father-in-law of M. O is the brother M. K is married to M. K is the only son of R.

34. Who among the following Ashu, Ravi, Neha, Nitin and Riya got the highest marks in the examination (out of 100)?

I. The one who got 75 marks is the person who got second highest marks in the examination. Ashu scored more marks than Neha and Riya. Ashu does not got the highest marks.

II. Riya get more marks than only one person. Neha got more marks than Riya but not the second highest marks.

35. Some persons are sitting in a row facing in the same direction. How many persons are sitting in the row?

I. A sits third to the left of G, and second to the right of M. Both M and G does not sit at the end of the row. B sits at the end of the row.

II. L sits fourth to the left of E and sits at the end of the row. B sits fourth to the right of K, who sits second to the right of A. E, sits between M and A.

Directions (36-40): Read the following information carefully and answer the given questions.

Thirteen persons are standing in four different queues in front of the four different counters viz. A, B, C and D. All the counter are in the same line aligned in west to east direction starting with counter A at the easternmost end followed by counter B to the west of it till counter D at the westernmost end. All the persons are facing towards North. The distance between two persons standing in a queue is same for all the queue. Among the thirteen persons four of them are married couple and no couple stands in the queue of same counter.

Two person stands between K and J in a queue. Number of persons standing in queue against counter D and counter A is same. The first person standing at counter D and A is a female. Number of person at counter B and C is less than counter A. The first person at counter B is a male and he is not married. Only one person stands to the east of R, who is married to Q. Number of person standing at counter B is less than counter C. N is a female and is married to K. P is a male and stands immediately ahead of M who is married to J. More than one person stands on the west of P. Q stands immediately ahead of S, who stands to the west of O, who is a male. L is married to U, who is a female. L stands on the west of T. T is male. The one who stands last at counter A is a female and is not married to K. N does not stand in the same queue with O. V is one of the person standing in the queue. Q is a female. The wife of L does not stand first in the queue.

36. Who among the following person stands first at counter B?

(a) N (b) M (c) T
(d) L (e) None of these

37. Who among the following is standing at the third position in the queue on counter D?

(a) Q (b) M (c) S
(d) Cannot be determined (e) None of these

38. Who among the following is standing behind O in the queue?

(a) K (b) L (c) P
(d) No one (e) None of these

39. The wife of K is standing against which of the following counter?

(a) A (b) B (c) C
(d) D (e) Either Counter B or D

40. Who among the following is standing to the immediate right of the person standing at the second position in the queue on counter C?

(a) M (b) J (c) O
(d) N (e) None of these

Direction (41-43): Study the following information carefully and answer the questions:

Clubs (♣), diamonds (♦), hearts (♥) and spades (♠)

A ♥ B means A is to the North of B

A ♣ B means A is to the South of B

A ♠ B means A is to the East of B

A ♦ B means A is to the West of B

There are 3 buses travelling from P to Q.

Bus 1: A 14 ♠ P, B 6 ♥ A, C 10 ♦ B, D 6 ♥ C, Q 4 ♦ D

Bus 2: M 10 ♣ P, N 10 ♦ M, O 6 ♥ N, R 5 ♠ O, S 10 ♥ R, T 5 ♠ S, Q 6 ♥ T

Bus 3: J 12 ♦ P, K 10 ♥ J, L 2 ♠ K, U 5 ♥ L, V 10 ♠ U, Q 3 ♣ V

41. What is the distance between U and N?

(a) 20 (b) 15 (c) 14
(d) 25 (e) None of these

42. S is in which direction and distance from B?

(a) 19, East (b) 19, West (c) 20, East
(d) 20, West (e) None of these

43. Which of the following lie in a straight line?

(a) SRU (b) VQT (c) ONJ
(d) LQD (e) None of these

Direction (44-45): In the following question a statement is given followed by two statements numbered as I and II. You have to read all the statements and decide which of the following is the suitable course of action for the mentioned statement above.

44. To provide proper education, we need to improve our education system. To improve education system, we need good teachers. To provide good teachers, we again need good education. **I**n India there are some good institutes too but most of the students opt for a job rather than trying the career in teaching field which requires post-graduation as minimum eligibility criteria because they do not get a good salary there.

Course of Action-

(I) The Salary of the teachers should be hiked to encourage them for opting teaching.

(II) The minimum eligibility criterion to be a teacher should be graduate rather than post-graduation and PhD to become a teacher as students can get a job even after graduation.

(a) Only II follows
(b) Only I follows
(c) Either I or II follows
(d) Neither I nor II follows
(e) Both I and II follows

45. The cost of treatment and proper health care is unaffordable by the already needy masses.

Course of action:

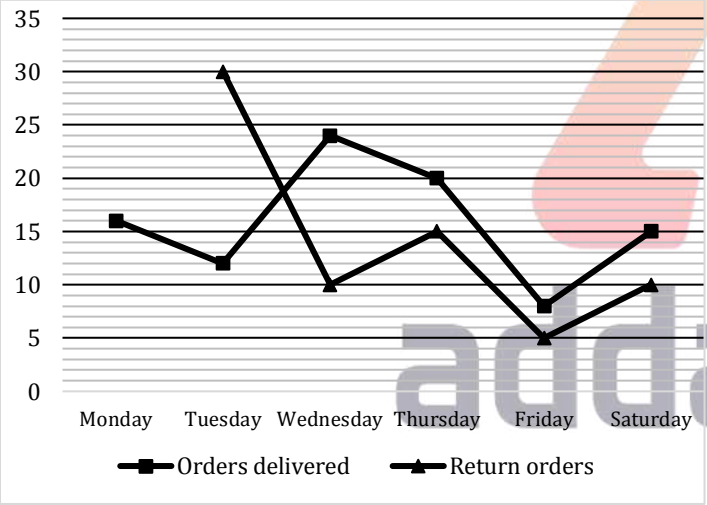
(I) The treatment for all should be free of cost of every disease.

(II) The government should establish itself in manufacturing and distribution of medical equipment.

(a) Only II follows
(b) Only I follows
(c) Either I or II follows
(d) Neither I nor II follows
(e) Both I and II follows

QUANTITATIVE APTITUDE

Direction (46-51): Line graph shows percentage distribution of orders delivered in week II and percentage of orders returns on the following days. Read the data carefully and answer the questions.



Note –

(i) Total order received on Sunday of Week II it will be delivered on next six days of week (Monday, Tuesday, Wednesday, Thursday, Friday & Saturday).

(ii) Remaining orders which did not delivered in these six days of week II are 25.

(iii) orders which received did not return on same day it has to be return next day of delivery. No orders are return on Sunday of week III

46. Find sum of total number of orders delivered on Tuesday and total orders returned on Wednesday?
(a) 66 (b) 56 (c) 64
(d) 68 (e) 76

47. Total returned orders on Saturday are what percent more or less than that of on Wednesday?
(a) 20% (b) $66\frac{2}{3}\%$ (c) $36\frac{1}{3}\%$
(d) $33\frac{1}{3}\%$ (e) $30\frac{1}{3}\%$

48. If we are arranging returns orders in increasing order, then find the average of returned orders from Wednesday to Friday?
(a) $\frac{31}{3}$ (b) $\frac{32}{3}$ (c) $\frac{29}{3}$
(d) $\frac{35}{3}$ (e) $\frac{26}{3}$

49. If we interchange the delivered orders on Friday and Thursday, then find the difference between orders returned on Friday and Saturday now?
(a) 8 (b) 16 (c) 24
(d) 4 (e) 6

50. Find the ratio of total orders returned on Tuesday & Thursday together to total orders received on Saturday?
(a) 7 : 25 (b) 7 : 15 (c) 16 : 25
(d) 12 : 25 (e) 14 : 25

51. Find total number of returned orders from Tuesday to Saturday?
(a) 61 (b) 57 (c) 55
(d) 59 (e) 63

Direction (52 – 53): Read the data carefully and answer the following the questions.

20, (a), (b), (c), (d), 65

$a - 20 = X^2 + Y$

$b - a = (X + 1)^2 + Y (b > a)$

$c - b = (X + 2)^2 + Y (c > b)$

$d - c = (X + 3)^2 + Y (d > c)$

Given, X = HCF of M & N, which are prime numbers

And, Y = Smallest root of $z^2 - z - 6 = 0$

52. How many numbers are divisible by 3?
(a) a & c Only (b) a, b & d Only (c) b & d Only
(d) c & d Only (e) a & d Only

53. Find the value of 'd'?

(a) 19 (b) 21 (c) 28
(d) 42 (e) 48

Direction (54-56): Read the data carefully and answer the following questions.

A school conduct an exam in which there are two papers written and practical. Maximum marks of written paper is 80 and maximum marks of practical paper is 60.

Note –

(i) Total maximum marks in exam = Maximum marks of written paper + Maximum marks of practical paper

(ii) Total maximum weightage score = Weightage percentage × Maximum marks of written paper + Weightage percentage × Maximum marks of practical paper

(iii) Total obtained weightage score = Weightage percentage × obtained marks of written paper + Weightage percentage × obtained marks of practical paper

(iv) Weightage percentage of written exam is 60% and weightage percentage of practical exam is 40%.

A obtained 52 weighted score in exam. B obtained 52 weighted score in exam and he gets 55 marks in practical paper. C obtained 50 marks in practical paper. D obtained 70 marks in written paper and he gets 75% in practical paper.

54. If C obtained 65 weightage score in exam, then find the ratio of marks obtained by C in written paper to that of B?

(a) 2 : 3 (b) 3 : 2 (c) 2 : 1
(d) 3 : 1 (e) None of these

55. If D scored $7\frac{1}{7}\%$ more marks in written paper and C scored 60 marks in written paper, then find the difference between obtained weighted score of C and D is what percent (approximate) of maximum weighted score

(a) 12% (b) 8% (c) 10%
(d) 15% (e) 5%

56. If A scored 12% more in written paper than B, then find the scored obtained by A in practical paper?

(a) 46 (b) 48 (c) 42
(d) 36 (e) 40

57. What will be the probability of choosing two fresh eggs simultaneously from tray A given that there are only two trays i.e. tray A and tray B?

Statement I: Tray B contains 30 Eggs in which fresh and rotten eggs in the ratio 7 : 3. Ratio of fresh eggs in Tray A and Tray B is 2 : 3

Statement II: Tray A contains 20 Eggs in total out of which 14 are fresh and rest are rotten.

Statement III: Tray B contains 30 Eggs and Tray A contains 20 Eggs respectively. Ratio of Rotten eggs and fresh eggs in Tray A is 3:7

(a) Either I or II
(b) Either II or III
(c) Any one of them
(d) I alone
(e) All statements are required

58. Read the given information carefully and answer.

Statement I: $\sqrt[8]{8!} > \sqrt[9]{9!}$

Statement II: 2, 19 and 7 are the only prime factors of 408842.

Statement III: Ram could not have an average speed of 2a km/hr for the whole journey if he travels 50% of that distance at an average speed of a km/hr.

(a) Both statements I & II are correct
(b) Both statements II & III are correct
(c) All statements are correct
(d) Both statements III & I are correct
(e) None of the above

59. P, Q and R entered into a partnership by investing certain amount for 12 months, T months and 12 – T months respectively. Find the value of T?

Statement I: Q invested 50% more amount than invested by P and R invested twice the amount invested by Q.

Statement II: At the end of partnership total profit earned by them is Rs. 700 and Q gets Rs. 100 as profit share.

Statement III: Ratio of profit share of P to R is 1 : 2.

(a) Only I and II together
(b) Either I and II or I and III
(c) All three statements together sufficient
(d) Only II and III together
(e) Only I and III together

60. Find the cost price of article?

Statement I: An article is mark up by T% above its cost price and sold at discount of 20% and shopkeeper manages to earn profit of 44%.

Statement II: If shopkeeper offers discount of 40% on mark price, then still shopkeeper earns profit of Rs. 16.

Statement III: If shopkeeper doesn't allows any discount on mark price then selling price will be Rs. 160 more than cost price of article.

(a) Only I and II together
(b) Only I and II or III together
(c) All three statements together sufficient

(d) Only II and III together
(e) I and II or II and III or I and III

61. If a, b, c and d are positive integers, then comparison these quantities.
(i) $\frac{a^{-b}}{a^{-a}} = a^b \times c$
(ii) $\frac{a^3 \times b^3}{ab^2} = \frac{d^4 \times b^3}{d \times b}$
Quantity I : Find value of C.
Quantity II : Find value of d.
(a) Quantity I > Quantity II
(b) Quantity I < Quantity II
(c) Quantity I ≥ Quantity II
(d) Quantity I ≤ Quantity II
(e) Quantity I = Quantity II or no relation

Direction (62- 65): There was a football tournament of three teams, A, B & C and each team played two matches. There are some patterns of each match;
(i) Each team get two points for scoring a goal to opponent team.
(ii) Each team get one point extra scoring goal outside form D area.
(iii) Each team get penalty of one point if it conceded any goal. Goal conceded means goal is scored by opponent team.
(iv) Only three players from each team scored goal.
Match of team A to B: B is winner in this match and B gets four points. Team A scored two goals in match against B. No player scored goal outside form D area.
Match of team A to C: C has zero points in this match. Only one player from team A scored goal outside form D area. A has secured four points from this match.
Match of team B to C : B gets six points from the match and team C scored one goal more than B. . Only one player from team B scored goal outside form D area.

62. If rank three team received Rs. 60000 as prize money and ratio of prize money of rank one, rank two and rank three is 8 : 5 : 3, then which of following combination is correct.
(a) Prize money of team B gets > 150000 Rs.
(b) Difference between prize money received by team A & B is equal to prize money received by team C
(c) None of these
(d) (a) and (b) both
(e) Can't determine

63. What is sum of maximum goal scored by a single player in each match?
(a) 11 (b) 12 (c) 13
(d) 15 (e) 16

64. Total points gets by team A is wat percent less than total scored gets by team B?
(a) 25% (b) 50% (c) 40%
(d) 75% (e) None of these

65. Team B won the tournament by how much points as compare to team C?
(a) 1 (b) 2 (c) 3
(d) 4 (e) 5

Direction (66-68): A dishonest milkman mixed some water in milk and sold it to three person P, Q & R in same order. After mixing the ratio of milk and water becomes 5 : 1 respectively. Table given below show how the exchange took place (Milkman sold 120 liters to person P and then he added 80 liters of milk and 0 liters of water. The same is given for B & C)

Shopkeepers	Quantity sold (l)	Milk added (l)	Water added (l)	Mixture left (l)
P	120	80	0	560
Q	Y	80	10	M
R	87	3r	r	z

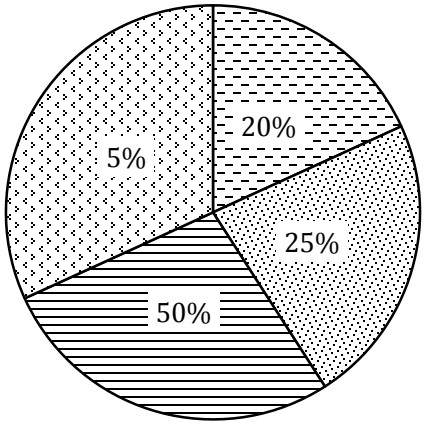
66. If the quantity of mixture right before selling to P was 'X' liters, then find value of X?
(a) 720 (b) 540 (c) 600
(d) 660 (e) 480

67. If the ratio of milk to water with milkman has just before selling it to R is 25: 4, then find the quantity of mixture milkman has just before selling it to R?
(a) 580 liters (b) 660 liters (c) 425 liters
(d) 520 liters (e) 740 liters

68. If the difference between milk and water in the final mixture is 427 liters, then find the value of 'r' (use the data from the previous questions)?
(a) 28 (b) 27 (c) 25
(d) 35 (e) 21

Direction (69-71): Four yoga trainers A, B, C & D take classes in a month. Pie chart shows total hours distribution taken by these all four trainers to take classes. Read the data carefully and answer the questions.

Total hours = 60



A B C D

Note:

(i) They take classes for 1 hour (Basic classes), 2 hours (Regular classes) and 3 hours (Advance classes). No trainer can leave class before time and can not take class for any extra time.

(ii) D does not take any regular classes. He will take either basic or advance class.

69. If A takes twice basic classes than advance classes, then find number of classes taken by A?

(a) 5 (b) 7 (c) 8
(d) 9 (e) 10

70. Next month D takes 10 hours classes and he use three hours at same pattern as previous month. If number of basic classes taken by D in next month is twice the advance classes, then find the difference between basic and advance classes taken by him in next month?

(a) 1 (b) 2 (c) 3
(d) 4 (e) 5

71. B and C takes all three types of classes. Basic classes taken by B is equal to regular classes taken by him and C takes four regular classes in the month. If number of advance classes taken by B & C are same, then find minimum and maximum basic classes taken by C?

(a) 7,19 (b) 11,19 (c) 10, 19
(d) 10, 17 (e) 7, 17

72. A can complete a piece of work in 'a' days by working 'm' hours per day, and B can complete the same work in 'b' days by working 'n' hours per day. If each of them reduces his working hours per day by 4 hours, each of them would take 5 days more to finish the work (m, n < 16). Which of the following is the time taken if A and B started working together such that A worked for 'm' hours per day and B worked for 'n' hours per day? (m, n,a, b are all integers)

I. 5 days II. 4 days III. $\frac{10}{3}$ *days*
IV. 2.5 days V. $3\frac{1}{2}$ days

(a)Both I and V (b) I, III and IV (c) Both I and III
(d) Both III and IV (e) II, IV and V

73. A sum of Rs. _____ invested in scheme 'A' at the rate of 16% p.a. for five years at simple interest. 75% amount from scheme 'A' invested in scheme 'B' offering compound interest at the rate of 20% p.a. for two years and the total interest from scheme 'B' is Rs. _____.

(a) 8500 & 5049 (b) 13000 & 7722 (c) 16000 & 6336
(d) 7500 & 5940

(a) Only C & D (b) Only A & B (c) Only A, C & D
(d) Only A & D (e) All A, B, C & D

Direction (74-76): Read the given information carefully and answer the following questions.

Annual sales of a laptop company depend on markets and brand ambassador used to advertise the product. Market is of three states: State I, State II and State III with probabilities of 0.4, 0.4 and 0.3 respectively. Per unit selling price and cost price of a laptop is Rs. 40000 and Rs. 38500 respectively. The given table shows the annual targeted sales (number of units) of the company. (assume there is no change in cost of selling and cost price of laptop after advertising with brand ambassador).

	State I	State II	State III
With brand ambassador	10000	8000	5000
Without brand ambassador	8000	5000	3000

Expected profit of company = $\sum XiPi$
Where, Xi = Profit
Pi = Probability of each market state.

74. The maximum amount that the company can afford to pay its brand ambassador.

(a) Rs. 45 lakhs (b) Rs. 39 lakhs (c) Rs. 36 lakhs
(d) Rs. 40 lakhs (e) Rs. 42 lakhs

75. If company signed a contract with Mr. X to be a brand ambassador of company for Rs. 24.5 lakh then find the increment in the profit on selling a unit of laptop in the market?

(a) Rs. 150 (b) Rs. 175 (c) Rs. 183.34
(d) Rs. 160 (e) Rs. 166.67

76. If signing a contract with Mr. X for Rs. 24.5 lakh, then cost price of a laptop in each state of market goes up by Rs. 100. Find the total profit earned by the company?

(a) Rs. 5.8 lakhs (b) Rs. 6.2 lakhs (c) Rs. 4.5 lakhs
(d) Rs. 5 lakhs (e) Rs. 6.4 lakhs

Direction (77-80): In each of the following questions, three quantities (**Quantity I, Quantity II, Quantity III**) are given. Compare their numerical value and choose the correct options.

Direction (77-78): Read the given information and answer the following questions carefully.

There are total 200 students in a class who are playing either badminton or tennis or both. Boys playing only tennis is $\frac{1}{3}rd$ of the total number of girls playing only one game and girls playing badminton is equal to the number of boys in the class. Number of girls playing both the games together and girls playing only tennis is respectively 40% more than and twice of number of boys playing only badminton. Number of boys playing both the games together is half of the girls playing only badminton.

77. Quantity I: Number of boys playing tennis.
Quantity II: Number of girls playing only tennis.
Quantity III: Difference between number of boys playing only badminton and number of students playing both the games together.
(a) Quantity II>Quantity III>Quantity I
(b) Quantity I=Quantity II=Quantity III
(c) Quantity I=Quantity II>Quantity III
(d) Quantity II<Quantity I>Quantity III
(e) Quantity III=Quantity I>Quantity II

78. Quantity I: Difference between the number of girls playing either of the two games only.
Quantity II: 60% of the number of boys playing both the games together.
Quantity III: 40% of the difference between boys playing only badminton and girls playing only tennis.
(a) Quantity II=Quantity I>Quantity III
(b) Quantity I=Quantity II=Quantity III
(c) Quantity III=Quantity II>Quantity II
(d) Quantity II>Quantity III=Quantity I
(e) None of the these

79. Quantity I: 'b'- First vessel contains 40 lit of mixture (milk: water=2: 1). Second vessel contains only 'a' lit of water. When 'b' lit of mixture is taken out from first vessel and poured into second vessel then ratio of milk to water in it becomes 2:3. And if 33 lit of mixture is taken from first vessel and added to second vessel then quantity of milk and water becomes equal in second vessel.
Quantity II: 'c' - 20 lit of acid solution of 15% acid content is mixed with 'c' liters of acid solution of 30% acid content so that the acid content in the resulting mixture be more than or equal to 22.5% but less than or equal to 25%.
Quantity III: Vessel A & B contains the mixture of three cold-drinks (i.e. Sprite, Fanta, Coke) in the ratio of 5: 3: 8 & 3: 2: 2 respectively. If both vessels are mixed in the respective ratio of 8: 7 into vessel C then difference between quantities of Sprite (taken from A and B) in C is four liters, then find difference between the quantity of Fanta and Coke in vessel C?
(a) Quantity II<Quantity I≤Quantity III
(b) Quantity I<Quantity III≤Quantity II
(c) Quantity III=Quantity II>Quantity II
(d) Quantity II≥Quantity III=Quantity I
(e) None of these

80. Quantity I: The chances of India wining a match against England is $\frac{1}{5}$. What is the minimum number of matches India should play against England so that there is a fair chance of winning a match?
Quantity II: How many five digits numbers are possible when unit digit of that number is prime and the product of all the digits of that number is also prime.
Quantity III: A and B starts walking towards each other at 6 AM at the respective speed of 5 km/h and 8 km/h. They meet at a place where they have coffee and at 12:04 PM they again start walking towards their destination. Find the time spent on coffee (in minutes) if A reach his destination at 9:40 PM.
(a) Quantity II<Quantity I≤Quantity III
(b) Quantity I<Quantity III≤Quantity II
(c) Quantity III=Quantity II>Quantity II
(d) Quantity II≥Quantity III=Quantity I
(e) None of these

ENGLISH LANGUAGE

Directions (81-87): Read the passage carefully and answer the questions given below it.

Global warming, largely caused by industrial development and consumer demands, has been causing havoc across the

world. Temperatures are shooting up, floods have been ravaging South China and Northeast India, unseasonal rains and, ironically, delayed and poor monsoon rains are experienced. A major solution to **mitigate** such climate changes is to reduce the levels of greenhouse gases, particularly carbon dioxide, which causes this warming. In an effort to try and limit this warming, many countries across the world are gathering together and agreeing to make efforts to limit the rise in temperature to no higher than 1.5 degrees by the year 2050.The major way to do so is to increase the number of plants, trees and forests across the world. They all absorb carbon dioxide from the air, and with the help of sunlight and water, produce food (staple for us) and oxygen (which we breathe). ***And the wood and timber they offer are used by us in buildings and furniture. They are, thus, justly named in Sanskrit as Kalpataru — the wish-giving tree.***

Yet, we kill them: deforestation has been going on decade after decade across the world, affecting the weather as well as the lives of plants, animals, microbes and the livelihood of human tribes that live in forests. The total surface area of our Earth is 52 billion hectares (Ha), and 31% of this has been forest cover. But the huge Amazon forests of South America are being chopped off for commercial reasons. Peru and Bolivia in the western Amazon region are the worst affected by such deforestation; so are Mexico and its neighbours in Mesoamerica. Russia, with forests occupying 45% of its land area, is chopping off trees. Large scale deforestation this kind has contributed to global warming over the years.

The Food and Agriculture Organization (FAO) defines a "forest" as a land area of at least 0.5 hectares, covered by at least 10% tree cover,_____ . Using this definition, a group of Swiss and French ecologists have analysed these 4.4 billion hectares of tree canopy that can exist under the current climate. And, excluding existing trees and agricultural and urban areas, there is room for an extra 0.9 billion hectares. Their analysis using the latest ecological methods, was published two weeks ago. Thus, there is the potential climate change mitigation through global tree restoration. They point out that more than 50% of this restoration potential can be found in six countries (Russia, USA, Canada, Australia, Brazil and China). While it is not clear how much of this land is public or private, they confirm that the calculation of 1 billion hectares (>10% tree cover) is achievable.

Happily enough, several group (and governments) in countries, notably Philippines and State government in India have moved towards more tree plantations. In India with its 7,08,273 sq km land area, 21.54% has tree cover. And between 2015 and 2018, we have added 6,778 sq km. Madhya Pradesh has the largest forest cover, followed by Chhattisgarh, Odisha and Arunachal Pradesh while Punjab, Haryana, UP and Rajasthan have the least.

81. As per the given information, infer the impact of increasing demand on nature?
(a) Agriculture will become an attractive source of income for more people.
(b) Earth's climate will face catastrophic changes.
(c) Plantation will happen for more production of goods having great demand.
(d) There will be less natural calamities with the use of advance technologies.
(e) None of these

82. Which of the following statement is false as per the information given in passage?
(a) Cutting down trees is the reason for the decrease in the Greenhouse gases
(b) Approximately one-third land is covered by forest of total surface area
(c) Countries need to come forward to manage increasing temperature
(d) Many major countries are facing deforestation due to commercial purpose
(e) None of these

83. Which of the following statement supports 'partial recovery' by some nations?
(a) Only six countries are responsible for full restoration while all countries are responsible for deforestation
(b) The effect is more of cutting down of the largest forest in the world
(c) Only six countries among the many, are able to restore more than half of the forest
(d) Deforestation is more majorly due to two countries which are South America and Russia
(e) None of these

84. Select the word which is a synonym of the word 'mitigate' which is in bold in the passage?
(a) Lessen (b) Emphasize (c) Exaggerate
(d) Promote (e) None of these

85. Which of the following step(s) is/are taken by different countries are governments?
(i) Governments are planning to form an international organization to make rules more stringent.
(ii) Overseas governments are coming forward to promote plantation.
(iii) Huge plantation has been initiated by State governments in many states.
(a) Only (i)
(b) Only (ii)

(c) Only (iii) and (i)
(d) Only (iii) and (ii)
(e) All (i),(ii) and (iii)

86. Which of the following given phrases will be fill in the blank given in the passage?
(a) Comply with the consumer demands for zero deforestation products.
(b) Poor implementation of the existing ones cited as the main causes.
(c) Deforestation due to commodity-driven plantations.
(d) Without any agricultural activity or human settlement.
(e) The amount of forest land taken over by industrially valuable crops.

Directions (87-93): In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five pair of options are given. Find out the appropriate pair of words which fits the blank appropriately without changing the meaning.

U.S. President Joe Biden's attempts to revive the Joint Comprehensive Plan of Action (JCPOA), better known as the Iran nuclear deal, have not seen any _____ (87) with both sides waiting for the other to blink. The Biden administration says it would return to the deal if Iran starts complying with its terms. Tehran, on the other side, asks the U.S., which unilaterally _____ (88) the deal under the Donald Trump administration in May 2018, to return to the agreement first and lift sanctions on Iran. The EU's efforts to organise direct U.S.-Iran talks were also unsuccessful as Tehran reportedly_____ (89) the offer. Iran has also accelerated its nuclear programme. This game of chicken continues as the clock is ticking. Iran will elect a new President in June. Hassan Rouhani, who bet his presidency on the deal — only to be repudiated by Mr. Trump — cannot stand in a third consecutive election. There is no guarantee that a moderate like Mr. Rouhani would be elected this time. And it is not a secret that there is considerable opposition among the hardliners, a powerful constituency, towards any kind of _____ (90) with the U.S. Mr. Biden's best bet is to get the nuclear agreement back on track before Mr. Rouhani leaves office.

To be sure, Mr. Biden has moved with a sense of urgency after _____ (91) power. He appointed a special envoy for Iran, showed signs of rebalancing ties with Saudi Arabia, and sent clear signals to Tehran about America's desire to get back to the deal. But these actions do not seem to be enough to _____(92) the trust after the acrimonious Trump years. Some of Iran's concerns are genuine. After the September 11, 2001 terrorist attack, Iran had cooperated with the U.S. in the war against the Taliban. But once the Taliban were _____ (93) out of power, the Bush administration branded Iran as part of an "Axis of Evil" along with Iraq and North Korea. As President Barack Obama offered diplomacy, the Iranians grabbed the opportunity, leading to the signing of the JCPOA in 2015.

87. (a) anatomy, speculate
(b)significance, implication
(c) breakthrough, success
(d)surprise, factor
(e)rival, enemy

88. (a) relate, oppose
(b) thaw, announce
(c) resolve, tangle
(d) prevail, provoke
(e)quit, leave

89. (a) rejected, refused
(b) routed, directed
(c) extend, enhance
(d) include, involve
(e) describe, recall

90. (a) agreement, consent
(b) conflict, infringement
(c) reallocate, defuse
(d) engagement, involvement
(e) growing, becoming

91.
(a) violate, break
(b)deploy, secure
(c) assuming, undertaking
(d) granting, allowing
(e) giving, renounce

92. (a) indicate, reason
(b) deluge, dilute
(c) forming, planning
(d) rebuild, restore
(e)enshrine, implicate

93. (a) delineated, dividing
(b) appoint, posted
(c) driven, push
(d)aligned, commute
(e) remove, vanish

Directions (94-100): Read the passage carefully and answer the questions given below it.

The development of MICE industry (meetings, incentives, conferences and events) contributes to economic diversification, stimulates the rational use of cultural and natural-recreational resources, and enables a balanced growth of the whole tourism sector. For the United Arab

Emirates (UAE), the tourism sector is especially important as a driver of national gross domestic product (GDP). As stated by the Dubai Annual Visitor Report 2019, at the end of 2019, tourism was **responsible** for contributing an impressive 11.5 per cent in GDP value. Furthermore, according to the World Travel and Tourism Council's Cities Report, Dubai's tourism sector was ranked one of 'Top 10' strongest economic share generators.

More than 2.3 million visitors cited business as their main purpose of travel to Dubai in 2019, marking a two per cent increase compared to 2018. In the year 2019, Dubai World Trade Center (DWTC) welcomed its record 3.57 million delegates, which **declared** the visitation growth of up to four per cent from the previous year. Such an increase was driven by 349 MICE and business events, 97 of which were large scale with over 2000 attendees. Since 2019, international participation in DWTC events grew by 15 per cent (equivalent to 1.2 million visitors), underlining the strong benefits the world businesses see in coming to Dubai with the aim of sharing knowledge, networking and accelerating their development. Last year, the business tourism events accounted for 3.3% of GDP, which amounts to USD 3.57 billion. The business tourism was a key element in **stimulating** the national economic growth and in the nearest future was supposed to reach intense development, making the UAE among the central players in the global MICE industry. However, the introduced quarantine ruined these plans.

The COVID-19 pandemic has led to more than 4.3 million confirmed cases and more than 290.000 deaths worldwide. It raised fears of an impending economic crisis and recession. Social distancing, self-isolation, and travel restrictions have **reduced** the workforce in all sectors of the economy and have led to the loss of many jobs. Due to the lack of a vaccine and very limited treatment options, non-pharmaceutical interventions occurred to be the primary strategy to contain the pandemic. Unprecedented global travel restrictions and appeals to stay at home have caused the most critical disruptions of the global economy since World War II. **Given the international travel bans that effect more than 90% of the global population and widespread restrictions on public gatherings and community mobility, tourism largely ceased in March 2020**. Since the quarantine introduction, millions of jobs in the global tourism sector were lost due to flight, event and hotel cancellations.

Given that international arrivals exceeded 1.5 billion for the first time only in 2019, the long-term evolution of tourism is proved to be **great** dependent on a decade of growth since the global financial crisis. Though, this last period of unhindered business tourism development has suddenly come to an end with the COVID-19.

Accompanied by quarantine in most countries and closed borders worldwide, COVID-19 pandemic heavily hit the MICE industry. The majority of domestic and international airlines were forced to cancel their flights due_____, as people were frightened. The MICE industry was undermined by government efforts to contain and combat the pandemic. Borders were closed, trips banned, social and business events cancelled, and people were ordered to stay in their homes. By taking these actions, governments around the world sought to strike a balance between maintaining their economies and preventing dangerous levels of unemployment and deprivation.

94. From which of the following statement the impact of COVID-19 on UAE can be inferred?
(a) The local tourists were the same as before because there was less impact of COVID-19.
(b) Tourism sector is the only sector in UAE which got affected due to pandemic.
(c) The rank of the UAE has been improved as other countries were also worse off by the pandemic.
(d) The country had the lowest GDP rate due to lesser demand in the tourism sector.
(e) None of these

95. What is the reason for other countries' attraction to UAE for business and trade purposes?
(a) Easy trade policies and government support to trade increase the tourist for business.
(b) The country provides vast opportunities for the flourishment of exotic ideas and relations.
(c) UAE has natural resources in huge amount which lure other countries for investment.
(d) Because UAE is a developing country with more opportunities of investment and ideas.
(e) None of these

96. What is the reason for great unemployment in the tourism industry compared to other sectors?
(a) As people were facing financial crises due to loss of jobs in other sectors also.
(b) Shut down of many tourist businesses as this is a highly risky sector due to mobility.
(c) A downturn in the tourism sector as people were avoiding traveling due to unwillingness to quarantine.
(d) Only (a) and (c)
(e) Only (b) and (c)

97. In the above passage, there are few words highlighted which may or may not be contextually and grammatically correct. If there is an incorrect word, find out which word it is?
(a) responsible (b) declared (c) stimulating
(d) reduced (e) great

98. Which of the following given phrases will be fill in the blank given in the passage?
(a) To enforce severe quarantine measures and a lack of passengers.
(b) Ensuring tourism's restart and recovery puts people first.
(c) Most reliant on tourism for jobs and economic growth.
(d) With immense socio-economic consequences for communities reliant on tourism.
(e) Particularly for workers temporarily without jobs and for job seekers.

99. There is a highlighted sentence in the passage which may or may not have contain grammatical error. If there is any error, find out which part have error?
(a) Given the international travel bans
(b) That effect more than 90% of
(c) The global population and widespread,
(d) Restrictions on public gatherings and community mobility
(e) Tourism largely ceased in March 2020.

100. Which of the following statement is true as per the information given in the above passage?
(A) Total lockdown on tourism sector was challenging for government as there was high risk of impoverishment.
(B) MICE and DWTC play important role in increase in international participation.
(C) Previous year of breakout of COVID-19 was sublime for tourism.
(a) Only (A) and (B)
(b) Only (C)
(c) Only (A)
(d) Both (B) and (C)
(e) All (A), (B) and (C)

Directions (101-105): In the following question there are two statements in each question. Each sentence has two highlighted words which may or may not be contextually and grammatically incorrect. Find the correct combination(s) of words which must be replaced to make both the sentences grammatically and contextually correct.

101. (I) What makes the February ceasefire **termination (A)** is the fact that this agreement is different from the routine ceasefire **assurances (B)** that the two sides made till January 2021.
(II) The history of India Pakistan ceasefire pacts and war **significant (C)** agreements is both complex and **instructive (D).**
(a) Only (A)-(C)
(b) Only (B)-(C)
(c) BOTH (A)-(D) and (B)-(C)
(d) Only (A)-(C)
(e) No correction required

102. (I) A smooth and **inequality (A)** roll-out of the vaccine, with the private sector drafted in to achieve scale, is an imperative to help India navigate the bumps ahead more **deftly (B).**
(II) Democracy demands informed debate especially when it comes to economic **expeditious (C)** which has been admittedly growing **exponentially (D)** in India.
(a) Both (A)-(D) and (B)-(C)
(b) Only (A)-(C)
(c) Only (A)-(D)
(d) only (B)-(D)
(e) No correction required

103. (I) Public **possession (A)** of COVID-appropriate behaviour cannot be **valuables (B)**.
(II) Those who have information about storage, **compliance(C)** or movement of a large amount of cash or jewellery or other **diluted(D)** can pass it on to the control room.
(a) Both (A)-(C) and (B)-(D)
(b)only (A)-(C)
(c)Only (A)-(D)
(d) only (B)-(D)
(e) No correction required

104. (I) COVID-19 patients have to get a **certificate (A)** from sanitation officers to cast postal ballot before **submitting (B)** it to the returning officers
(II) The filled-in applications for postal ballot will be **received(C)**from the voters by a mobile team after the list of candidates is **finalized (D)**in each of the 16 Assembly constituencies in the district.
(a) Both (A)-(D)
(b)only (A)-(C)
(c)Only (A)-(D)
(d) only (B)-(D) and (B)-(C)
(e) No correction required

105. (I) The city police, with the help of traders, removed **focus (A)** from **mandating (B).**
(II) Several colleges and universities in India have rules **pavements (C)** that campuses be apolitical spaces where students should **encroachments (D)** on studies.
(a) only (B)-(D)

(b) only (A)-(D) and (B) - (C)
(c) Only (A)-(D)
(d) Both (A)-(C) and (B)-(D)
(e) No correction required

Directions (106-110): In the questions given below, few sentences are given which are grammatically correct and meaningful. Connect them by the word given below the statements in the best possible way without changing the intended meaning. Choose the best possible combination as your answer accordingly from the options to form a correct, coherent sentence.

106. Column I
(A) Bulls seem to be returning
(B) Throwback pic of Jeff Bezos
(C) The number of COVID-19 cases
Column II
(D) Elon Musk's meeting goes viral
(E) NIFTY are showing all bearish signals
(F) the second day in a row
(i) and
(ii) but
(iii)Otherwise
(a) (A)-(ii) -(E)
(b) (B)-(iii)- (F) and (A)-(ii) -(D)
(c) (A)-(ii) -(E) and (B)-(i) -(D)
(d) (C)-(i) -(D) and (B)-(ii) -(F)
(e) None of these

107. Column I
(A) A peek into the world of solitary bees who
(B) The number of COVID-19 cases continued
(C) More funds should be allocated for free vaccination
Column II
(D) live in hives nor make honey
(E) upward trend in the Capital
(F) most people can't afford vaccination
(i) neither
(ii) but
(iii) as
(a) (A)-(iii)-(E)
(b) (A)-(i)-(D) and (C)-(iii)-(F)
(c) (C)-(i)-(D) and (B)-(ii)-(F)
(d) (B)-(iii)- (F) and (A)-(ii)-(D)
(e) None of these

108. Column I
(A) 50 trees hacked illegally in twin town
(B) Cloudy weather and light rain
(C) A large number of protesters from Western Uttar Pradesh
Column II
(D) order was to trim
(E) started gathering at the Ghazipur border
(F) likely to bring the mercury down
(i) although
(ii) even
(iii) in spite
(a) (B)-(ii)-(F) and (C)-(iii)-(E)
(b) (C)-(iii)-(F) and (A)-(ii)-(E)
(c) (B)-(iii)- (D) and (C)-(ii)-(F)
(d) (A)-(i)-(D)
(e) None of these

109. Column I
(A) We continue to believe in the growth of company
(B)The petition stated that in case of emergencies,
(C) They sell makeup products and fashion accessories
Column II
(D) products for men and women on website
(E) few have retained our stakes for fund
(F) eradicated reserved lane for unrestricted use of emergency services
(i) as
(ii) as well as
(iii) therefore
(a) (A)-(iii)-(E) and (C)-(ii)-(D)
(b) (A)-(iii)-(F) and (B)-(i)-(E)
(c) (C)-(iii)- (F) and (B)-(ii)-(D)
(d) (A)-(i)-(E)
(e) None of these

110. Column I
(A) When you look at the number of voters
(B) In view of the ongoing farmers' agitation
(C) Only 5% Gujrat land is acquired
Column II
(D) a beneficiary namghar, the move could be a mathematical masterstroke,
(E) to be acquired for Mumbai-Ahmedabad corridor
(F) had appointed six duty magistrates to maintain law
(i) nor
(ii) yet
(iii) so
(a) (A)-(i) -(F) and (E)-(ii) -(F)
(b) (C)-(ii) -(E)
(c) (C)-(iii)- (F) and (B)-(ii) -(D)

(d) (A)-(ii) -(D)
(e) None of these

Directions (111-113) In each of the following statements, there are some highlighted phrases which may or may contain a grammatical error. Find out which highlighted phase in both the statements have errors. If there is no error, choose 'no error' as your answer.

111. (A) This campaign **was a failure as the Houthis (i)** entrenched themselves in the north-west **despite of the military and economic challenges (ii).**
(B) The Anti-Bank Fraud Wing of the Central Crime Branch (CCB) **have arrested two persons (iii)** for taking loans **from a private bank by (iv)** producing fabricated documents.
(a) (i) and (iii) (b) (iii) and (iv) (c) (ii) and (iii)
(d) (i) and (iv) (e) No error

112. (A) At least 20 people, **including any security personnel (i)**, have crossed into Mizoram from military coup-hit Myanmar and **have sought refuge in India (ii)**.
(B) Every death is regrettable **but we also have to ask (iii)** ourselves why is there a problem, and the **problem is because off crime (iv).**
(a) Only (i) (b) (ii) and (iii) (c) Only (iv)
(d) (i) and (iv) (e) No error

113. (A) Election time **usual presents a challenge (i)** to leaders in choosing the right candidates from **among thousands of aspirants (ii).**
(B) They complain that surveillance teams **seize even raw materials (iii)**, suspecting that **it are been used to make (iv)** ornaments to be distributed among voters.
(a) only (i) and (iv)
(b) (ii) and (iv)
(c) only (iii)
(d) (iii) and (iv)
(e) no error

Directions (114-115): In each of the following paragraph, there are three words in bold. Below each paragraph, there are five options and each option consists of three words which can replace the word given in bold respectively to make the paragraph grammatically and coherently correct. Find the most appropriate set of words that fit into the blanks contextually. If the words given in bold are correct then choose option (e) i.e., 'no replacement required' as your answer choice.

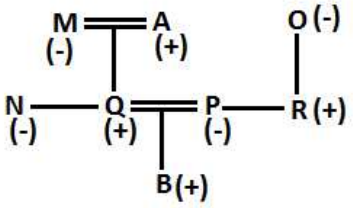
114. Our courts must ensure that they _____to _____the first line of defence against the _____of the liberty of citizens.
(a) diverge, influence, preference
(b) continue, remain, deprivation
(c) pursuing, support, amid
(d) presence, progressive, cancelling
(e) None of these

115. While _____between government officials is a regular exercise, there is another _____dimension to the growth of bilateral_____.
(a) temper, appear, approach
(b) require, qualify, provide
(c) assessment, remains, outreach
(d) interaction, significant, relations
(e) None of these

Solutions

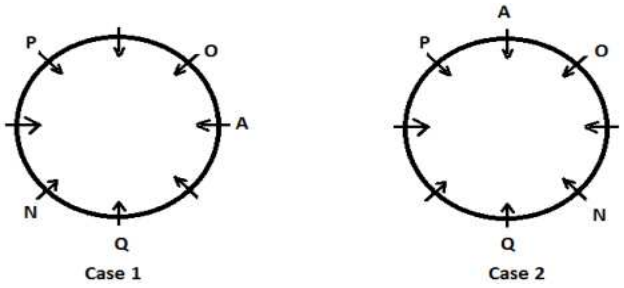
REASONING ABILITY

Directions (1-4):
Step 1:- From the given conditions, first we will establish the blood relation among the eight members of the family who all are related to Q in a certain way, Q sits third to the left of his mother-in-law from this statement it is clear that Q is a male. B is the grandson of A, N is the aunt of B. N is unmarried. N is the only daughter of M. A and O is not the married couple. O has only one son. O is the mother of R. Son of Q sits third to the right of Q's brother-in-law. R is not married. M is the mother-in-law of P. From this given condition N is sister of Q. Q is married to P, who is sister of R. A is husband of M, who is the mother of N. P is married to Q.
Blood Relation Tree

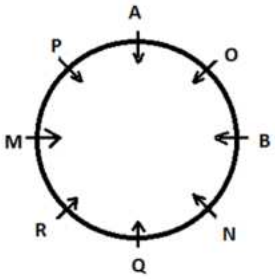


Step 2 :- Using the given conditions, Q sits third to the left of his mother-in-law, who sits second to the left of sister of R (i.e. P). N is not the immediate neighbour of P. A sits third

to the right of N. So, there will be two possible cases in which N sits either on the immediate left or on immediate right of Q.



Step 3:- From the remaining conditions, M sits on the immediate left of brother in law of Q (i.e. R). So case 1 will be eliminated as there is no possible sitting for M and R. Now continuing with case 2, Son of Q (i.e. B) sits third to the right of Q's brother-in-law (i.e. R) from these condition we get our final solution.



1. (d): **2. (c):** **3. (a):**

4. (a):

Directions (5-7): In this input output question only numbers is arranged in each step. Let us understand the logic behind it- In each step the numbers are arranged

In step 1: all the even number and odd numbers (of input) are multiplied with 2.

Step 2: In this step first two numbers are subtracted, and the resultant is multiplied by 2 and again the 2nd and 3rd number is added, and the resultant is divided by 2 and so on.

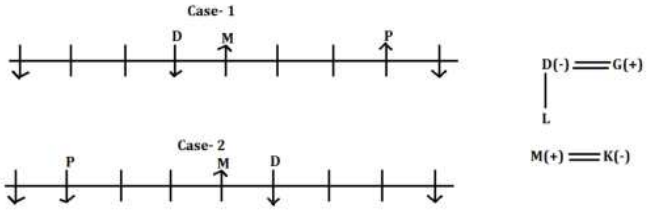
Step 3: In this step all the digits are added of the numbers marked with arrows.

Step4: The resultant of the multiplication of the digits of numbers in the previous step.

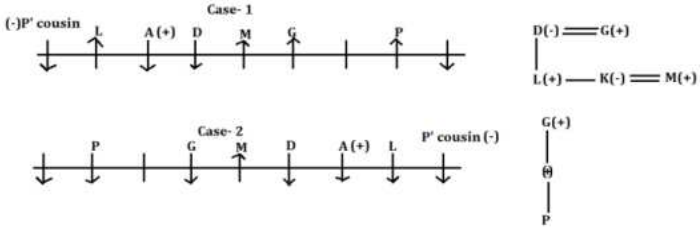
INPUT:	52	36	69	73	57	23	41	84
STEP I:	104	72	138	146	114	46	82	168
STEP II:	64	105	16	130	136	64	172	
STEP III:		17	10	17	14	20		
STEP IV:		7	0	7	4	0		

5. (e): **6. (c):** **7. (a):**

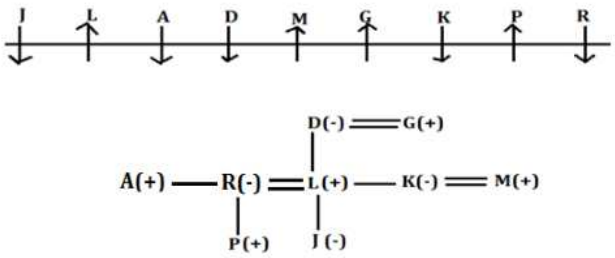
Directions (8-11): D, who is L's mother sits fourth to the left of P. The ones who sit at the extreme ends face the south direction. G's soul mate D faces the south direction. M, who is the husband of K sits exactly in the middle of the bench and faces the north direction. D sits immediate to M. From these conditions we have two possible cases-



A sits third to the left of G, who is P's grandfather and one of them who sits immediate to M. L, who is male, is the only sibling of K sits exactly between A and P's cousin, who is a female. D's neighbours are males and face the opposite directions. L faces the same direction as G. So new arrangement will be-



R, who is the sister of A sits at one of the extreme ends with a male member. P is the only son of R and both face the opposite directions. So, R is married to L. By these conditions case- 2 is cancelled. A is not married and faces the same direction as K. There is only one possibility that J is sister of P. So final arrangement will be-



8. (c): **9. (b):** **10. (e):**

11. (c):

12. (d): Statement I strengthen the given statement as even the economic growth is higher the problem of stunting is keep on increasing among children. But statement II is neutral statement.

13. (d): Only (I) can be assumed from the given statement as it is mentioned in the given statement that rooftop solar power technology is showing growth.

Directions (14-18):

Only two boxes are kept between box A and box C. Yellow colour box is kept immediately below C. Box A is of Blue colour. There is only one box kept between Yellow colour box and Black colour box. Box A is of Blue colour. Blue colour box is kept above Black colour box. Only two boxes are lighter than Blue colour box.

Case 1		Case 2	
Box	**Colour**	**Box**	**Colour**
A	Blue	A	Blue
			Black
C		C	
	Yellow		Yellow
	Black		

> **>** **>** **>** A(Blue) **>** **>**

Only three boxes are kept between Red colour and Black colour box. White colour box is heavier than Red colour box but just lighter than Black colour box. Yellow colour box is just lighter than Red colour box. Black colour box is not the heaviest. Only two boxes are kept between box B and Red colour box. Box B is heavier than box E which is kept immediately below box B. So from these statements case 2a will be eliminated.

Case 1		~~Case 2a~~		Case 2b	
Box	**Colour**	~~**Box**~~	~~**Colour**~~	**Box**	**Colour**
A	Blue	~~A~~	~~Blue~~		Red
	Red		~~Black~~	A	Blue
C		~~C~~		B	
	Yellow		~~Yellow~~	E	Black
B				C	
E	Black		~~Red~~		Yellow

> **>** **>** **>** A(Blue) **>** (Red) **>** (Yellow)

& B **>** E(Black) **>** (White) **>** (Red)**>** (Yellow)

Black colour box is just lighter than box D. Only one box kept between box E and box F. Box G is kept immediately below Green colour box. So, case 2b gets eliminated.

Case 1	
Box	**Colour**
A	Blue
D	Green
G	Red
C	White
F	Yellow
B	Pink
E	Black

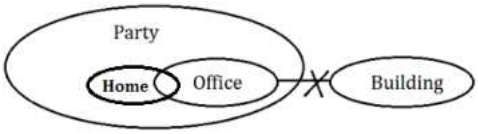
B(Pink) **>** D (Green) **>** E(Black) **>** C(White) **>** A(Blue) **>** G(Red) **>** F (Yellow)

14. (a): **15. (c):** **16. (e):**

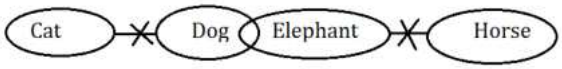
17. (c): **18. (a)**

Directions (19-21):

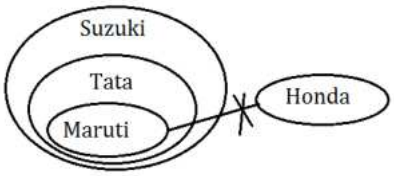
19. (c):



20. (d):



21. (b):



Directions (22-26):

From the given statements, only two employees are junior than the one who has 8 years of working experience. 15 years is the maximum years of working experience which means CEO has 15 years of experience. The CEO salary is 5k less than the square of the smallest two digit number which means CEO has 95k salary (100-5=95). At most one person is senior to S. Here we have two possible cases i.e. case1 and case2. Only two designations are there in between the designations of S and P.

Designations	CASE 1			CASE 2		
	Persons	Experience (years)	Salary	Persons	Experience (years)	Salary
Chief Legal Officer (CLO)						
Chief Marketing Officer (CMO)	P					
Chief Technology Officer (CTO)		8		P	8	
Chief Financial Officer (CFO)						
Chief Operating Officer (COO)	S					
Chief Executive Officer (CEO)		15	95k	S	15	95k

CMO is getting 50K. The sum of the salaries of CLO and CMO is same as the salary of the one who has the maximum work experience which means CLO gets 45K. The working experiences of CMO and CTO are in consecutive years which means CMO has 7 years of experience.

Designations	CASE 1			CASE 2		
	Person	Experience (years)	Salary	Persons	Experience (years)	Salary
Chief Legal Officer (CLO)			45K			45K
Chief Marketing Officer (CMO)	P	7	50K		7	50K
Chief Technology Officer (CTO)		8		P	8	
Chief Financial Officer (CFO)						
Chief Operating Officer (COO)	S					
Chief Executive Officer (CEO)		15	95k	S	15	95k

R is junior than P. Q is junior than R and having the working experience equal to the sum of the digit of the salary what R gets and therefor, case 1 gets eliminated here. Hence, Q has 5 years of experience. The salary of CTO is less than 57K which means CFO gets 60 K. The one who is COO has 3 years more experience than the one who is getting 60K which means COO has 13 years of experience. The one who has 10 years of experience earns 10K less than U who is not CFO. The salary of P is a multiple of 11 which means salary of P is 55k (between 50K and 60K)

Designations	Persons	Experience (years)	Salary
Chief Legal Officer (CLO)	Q	5	45K
Chief Marketing Officer (CMO)	R	7	50K
Chief Technology Officer (CTO)	P	8	55K
Chief Financial Officer (CFO)	T	10	60K
Chief Operating Officer (COO)	U	13	70K
Chief Executive Officer (CEO)	S	15	95K

22. (d): **23. (a):** **24. (c):**

25. (b): **26. (a):**

27. (b): Only Statement (I) can be inferred from the given statement as Metrological department forecasted the above-normal maximum and minimum temperature that means a little rise in temperature lead to enormous heat. But (II) can't be inferred as nothing is mentioned about the deaths caused by high temperature.

Directions (28-31): Anko was born in the year 1979. The difference of age between Anko and Varun is 24 years. Trisha's age is sum of the digits of the year in which Varun was born. (i.e. there are two possibilities for the birth year of Varun and Trisha that if Varun born in 2013(5years) then Trisha born in 2010(8years) and if Varun born in 1955 then Trisha born in 1998.) The one who likes Red colour is 3 years elder to Trisha (two possible cases for then one who like Red colour which is 2010/1995).

Case 1			
Person	**Year**	**Age**	**Colour**
Varun	1955	63 yrs	
Anko	1979	39 yrs	
	1995	23 yrs	Red
Trisha	1998	20 yrs	
Case 2			
Person	**Year**	**Age**	**Colour**
Anko	1979	39 yrs	
Varun	2003	15 yrs	
	2010	8 yrs	Red
Trisha	2013	5 yrs	

Mohit's age is either the last two digits or reverse of the last two digits of the year in which Trisha was born. So, in case 2 age of mohit can be 13 or 31, but only one person is older than Mohit. Therefore, age of mohit is 31 in case 2 and 89 in case 1.

Case 1			
Person	**Year**	**Age**	**Colour**
	1928	90 yrs	
Mohit	1929	89 yrs	
Varun	1955	63 yrs	
Anko	1979	39 yrs	
	1995	23 yrs	Red
Trisha	1998	20 yrs	
Case 2			
Person	**Year**	**Age**	**Colour**
Anko	1979	39 yrs	
Mohit	1987	31 yrs	
Varun	2003	15 yrs	
	2010	8 yrs	Red
Trisha	2013	5 yrs	

Charu is born before Anko. Therefore, case 2 will be eliminated. The who likes Blue color is just younger than Mohit. The one who likes white colour is 1 year younger than the one who likes Pink colour.

Case 1			
Person	**Year**	**Age**	**Colour**
Charu	1928	90 yrs	Pink
Mohit	1929	89 yrs	White
Varun	1955	63 yrs	Blue
Anko	1979	39 yrs	Yellow
Virat	1995	23 yrs	Red
Trisha	1998	20 yrs	Black

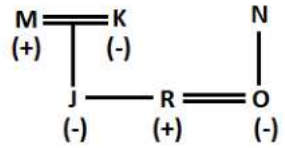
28. (a): **29. (c):** **30. (c):**

31. (c):

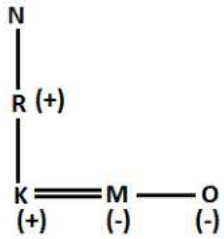
Directions (32-35):

32. (d): From statement I, Riya leave for Puducherry after Wednesday which may be either on Thursday, Friday, Saturday or on Sunday.
From statement II, Riya leave for Puducherry either on Wednesday, Thursday or on Friday.
And even after combining these two statement we don't get the confirm day on which Riya leave for Puducherry as it may be on Thursday or on Friday.

33. (d): From Statement 1,



From Statement II,



34. (d): From statement I, it is cleared that the one who got 75 marks is the person who got second highest marks in the examination.

2nd highest > > > >

75 marks

As it is also given that Ashu scored more marks than Neha and Riya. Ashu does not got the highest marks.

From Statement II, Riya get more marks than only one person. Neha got more marks than Riya but not the second highest marks.

Neha > Riya >

After combining these two we get that Ashu gets the second highest marks (75 marks) in the examination.

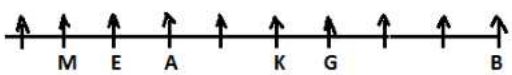
2nd highest

Nitin/Ravi > Ashu > Neha > Riya > Nitin/Ravi

75 marks

35. (e): As from statement I alone and from statement II alone we can't say that how many persons are sitting in the row.

Step I: Combining statements, I and II, when all are facing north. A, sits third to the left of G, and second to the right of M. Both M and A does not sit at the end of the row. B sits at the end of the row. B sits fourth to the right of K, who sits second to the right of A. E, sits between M and A.

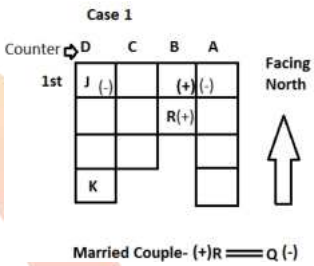


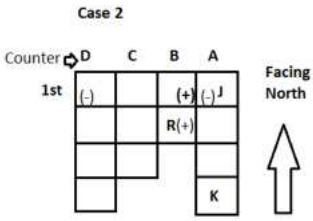
Step 20: Using the remaining conditions, L sits fourth to the left of E and sits at the end of the row.

Hence, there are 12 persons are sitting in the row.

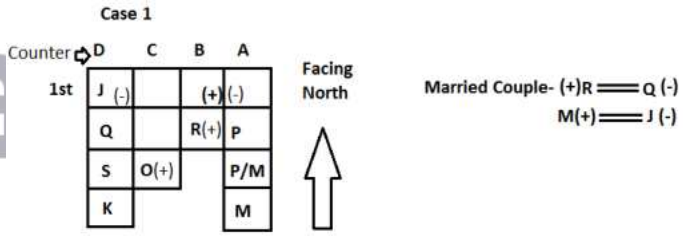
Directions (36-40):

Number of persons standing in ques against counter D and counter A is same. The first person standing at counter D and A is a female. Number of person at counter B and C is less than counter A. Number of person standing at counter B is less than counter C. So, from these conditions we get that number of persons standing on counter D and A is 4, while number of persons on counter C is 3 and B is 2. The first person at counter B is a male and he is not married. Only one person sits on the east of R, who is married to Q. N is a female and is married to K. Two person stands between K and J. Q is a female.

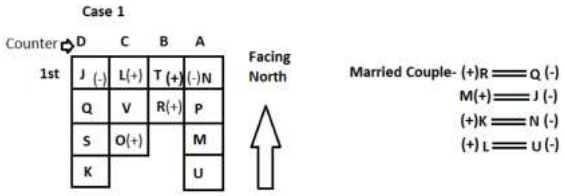




P is a male and stands immediately ahead of M who is married to J. More than one person stands on the west of P. So from these case 2 will be eliminated as no couple stands in the same queue. Q stands immediately ahead of S, who stands to the west of O, who is a male.



L is married to U, who is a female. L stands on the west of T. T is male. The one who stands last at counter A is a female and is not married to K. N does not stand in the same queue with O. The wife of L does not stand first in the queue.



36. (c):

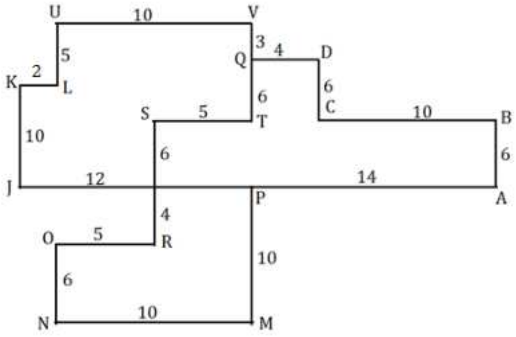
37. (c):

38. (d):

39. (a):

40. (e):

Direction (41-43):



41. (d): **42. (b):** **43. (b):**

Direction (44-45):

44. (e): Both I and II follows as salary is an important factor for encouraging students to opt teaching as a career option rather than job and changing the eligibility criterion to graduation for being a teacher as generally the students choose their career option after graduation.

45. (a): Statement (II) follows as by engaging itself in manufacturing and distribution of medical equipment the government can provide affordable treatment. But (I) does not follow as it is not a practical solution.

QUANTITATIVE APTITUDE

Sol. (46-51)

Let total order received on Sunday of Week II = 100%

So, it clearly the week two started with Sunday

Given, Remaining orders which did not delivered in these six days of week II are 25

So, 100% - (16% + 12% + 24% + 20% + 8% + 15%) = 25

5% = 25%

So, 100% = 500

Days	Total orders delivered	Orders return
Monday	80	No return
Tuesday	60	24
Wednesday	120	6
Thursday	100	18
Friday	40	5
Saturday	75	4

46. (a): Required sum = 60 + 6 = 66

47. (d): Required percentage = $\frac{6-4}{6} \times 100 = 33\frac{1}{3}\%$

48. (c): When we are arranging returns orders in increasing order, then it will be 4, 5, 6, 18 & 24

So required average = $\frac{5+6+18}{3} = \frac{29}{3}$

49. (a): When we interchange the delivered orders on Friday and Thursday

Total delivered orders on Thursday = 40

And total delivered orders on Friday = 100

Required difference = $100 \times \frac{10}{100} - 40 \times \frac{5}{100}$

$= 10 - 2 = 8$

50. (e): Required ratio = (24 + 18) : 75

= 42 : 75

= 14 : 25

51. (b): Required sum = (24 + 6 +18 + 5 + 4) = 57

Sol. (52 – 53):

We know, common factor of any prime number be 1

And HCF of prime number be 1

So, X = 1

And from $z^2 - z - 6 = 0$

We get z = 3 & −2

Given, Y = Smallest root of $z^2 - z - 6 = 0$

So, Y = −2

Now from value of X & Y we get

a = 19

b = 21

c = 28

d = 42

Now series – 20, 19, 21, 28, 42, 65

52. (c): From series we get only b & d are divisible by 3

53. (d): From series we get value of d = 42

Sol. (54 – 56)

Form (iv) we get, total maximum weightage score = $\frac{60}{100} \times 80 + \frac{40}{100} \times 60$

= 48 + 24 = 72

For B,

Let B gets obtained marks in written paper be 'x'

So, $52 = \frac{60}{100} \times x + \frac{40}{100} \times 55$

x = 50

For D,

Total obtained weightage score by D

$= \frac{60}{100} \times 70 + \frac{75}{100} \times 60 \times \frac{40}{100}$

= 42 + 18 = 60

54. (b): Let C obtained marks in written paper be 'x'

So, $65 = \frac{60}{100} \times x + \frac{40}{100} \times 50$

x = 75

Required ratio = 75 : 50 = 3 : 2

55. (c): New marks obtained by D in written paper = $70 \times \frac{15}{14} = 75$

So, C obtained weightage score = $\frac{60}{100} \times 60 + \frac{40}{100} \times 50 = 56$

D obtained weightage score

$= \frac{60}{100} \times 75 + \frac{40}{100} \times 45 = 63$

Required percentage = $\frac{63-56}{72} \times 100$

$= \frac{7}{72} \times 100 = 9.72 \approx 10\%$

56. (a): Total scored of A in written paper = $50 \times \frac{112}{100} = 56$

Let A scored 'n' marks in practical paper

So,

$52 = \frac{60}{100} \times 56 + \frac{40}{100} \times n$

0.4n = 18.4

n = 46

57. (b): **From Statement I,**

Tray B = 30

Rotten eggs in Tray B = 9

Fresh eggs in Tray B = 21

Tray A,

Fresh eggs = 14

From Statement II,

Tray A = 20 eggs

Fresh eggs in Tray A = 14

Rotten eggs in Tray A = 6

From Statement III,

Tray B = 30 eggs

Tray A = 20 Eggs

Rotten eggs in Tray A =6

Fresh eggs in Tray A = 14

From Either II or III question can be solved.

58. (e): **From** Statement I:

$\sqrt[8]{8!} > \sqrt[9]{9!}$

$[8!]^{72\times\frac{1}{8}} > [9!]^{72\times\frac{1}{9}}$

$[72\ is\ the\ LCM\ of\ 8\ \&\ 9]$

$[8!]^9 > [9!]^8$

$\Rightarrow 8! \times [8!]^8 > [9 \times 8!]^8$

$\Rightarrow 8! \times [8!]^8 > 9^8 \times [8!]^8$

Here, 9^8 is greater than 8!

So, Statement I is false

From Statement II:

On dividing 408842 by 2, 19 and 7 we get 1537 as answer.

Further 1537 is the product of 53 & 29.

So, Statement II is also false

From Statement III:

Let the total distance be 2x km and let the remaining distance he travelled at a speed of y km/hr.

ATQ,

$\frac{x}{y} + \frac{x}{a} = \frac{2x}{2a}$

$\Rightarrow \frac{x}{y} = 0$ (It is not possible)

So, Statements III is true.

59. (b): Given, P, Q and R entered into a partnership by investing certain amount for 12 months, T months and 12 – T months respectively

From Statement I,

Let P investment = 2X Rs.

So, Q investment = $2X \times \frac{150}{100} = 3X$ Rs.

And, investment of R = $3X \times 2 = 6X$ Rs.

So, ratio of investment of P, Q & R = 2 : 3 : 6

So, statement I alone not sufficient to give answer

From Statement II,

Ratio of profit share of (P + R) and Q = (700 – 100): 100 = 6: 1

So, statement II alone not sufficient to give answer

From Statement I & Statement II together

We have ratio of investment, ratio of profit share and investment time periods

So, from Statement I & Statement II together we can get the answer

From Statement I & Statement III together

We have ratio of investment, ratio of profit share and investment time periods

So, from Statement I & Statement III together we can get the answer

60. (e): **From Statement I:**

Let cost price of article = 100x

So, selling price of article = $100x \times \frac{144}{100} = 144x$

And mark price of article = $144x \times \frac{100}{80} = 180x$

And, T = 80%

So, statement I alone not sufficient

From Statement II:

Shopkeeper offers discount of 40% on mark price and earns profit of Rs. 16.

From Statement I & Statement II together:

Selling price of article = $180x \times \frac{60}{100} = 108x$

= 108x – 16 = 100x

x = 2 Rs.

Cost price = 200 Rs.

Form Statement I & Statement III together:

180x – 160 = 100x

x = 2 Rs.

So, cost price = 200 Rs.

From Statement II & Statement III together:

180x – 160 = 108x – 16
x = 2 Rs.
So, cost price = 200 Rs.
So, I and II or II and III or I and III sufficient to give answer the questions.

61. (e): From (i) we get $c = a^{(a-2b)}$
From (ii) $d^3 = \frac{a^2}{b}$
There are four variable and only two equations given we cannot determine any value of given variables
So, there we cannot determine any relationship between these quantities

Sol. (62-66)

For match of team A to B:
Given total goal score by team A = 2
So, total point team A should get = $2 \times 2 = 4$
So, if team A scored two goals against team B so, team B conceded two goals.
So, actual point gets in this match = 4 + 2 = 6 = team B scored three goals
against team A
now when team B scored three goals against team A, so team A conceded three goals.
So, actual point scored by team A = 4 – 3 = 1

Teams	Points get	Goal scored
A	1	2
B	4	3

For match of team A to C:
Actual points scored by team A = 4 + 1 = 5 (here point 1 for because one player scored goal outside form D area)
But given team A has secured four points from this match, it means team C scored one goal against team A.
So, team C actual scored = 2
But he conceded two goals so team C point = 2 – 2 = 0

Teams	Points get	Goal scored
A	4	2
C	0	1

For match of team B to C:
Let goal score by team B = x
So, goal score by team C= x + 1
Given, one player from team B scored goal outside form D area.
So, total point scored by team B = 2x + 1
ATQ –
$2x + 1 - (x + 1) \times 1 = 6$
x = 6
Total goals scored by team C = 6 + 1 = 7
So, total point scored by team C = $7 \times 2 - 6 = 8$

Teams	Points get	Goal scored
B	6	6
C	8	7

Teams	Total goals scored in tournament	Total points gets in tournament
A	4	5
B	9	10
C	8	8

62. (d): According to table
Rank third of team A
Rank second of will be team C
And rank first will be team B
So, team A gets Rs. 60000
So, 3 = 60000 Rs.
1 = 20000 Rs.
Team B gets = $8 \times 20000 = 160000\ Rs.$
Team C gets = $5 \times 20000 = 100000\ Rs.$
So, (a) and (b) both right

63. (d): Let in each team three players X, Y & Z score goals
For maximum sum of goal, player X & Y from each team score minimum goal which is equal to one goal
So, player Z from each team scored maximum number of goals
= $(4 - 2\times 1) + (9 - 2 \times 1) + (8 - 2 \times 1)$
= 2 + 7 + 6
= 15

64. (b): Form the table
Required percentage = $\frac{10-5}{10} \times 100 = 50\%$

65. (b): From the table its clearly shows Team B won the tournament by two points as compare to team C.

Sol (66 -68):
Let initial mixture milkman has = x liter
For person P –
When milk man sold 120-liter mixture and added 80 liters of milk and 0 liters of water then the remaining mixture he has = 560 liters
So, x – 120 + 80 = 560
x = 600 liter
So, initial milk in mixture = $600 \times \frac{5}{6} = 500\ liters$
And initial water in mixture = $600 \times \frac{1}{6} = 100\ liters$
Now milk remaining in mixture after selling P = $500 - 120 \times \frac{5}{6} + 80 = 480$ liters
And water remaining in mixture after selling P = $100 - 120 \times \frac{1}{6} = 80$ liters

66. (c): X = 600 liters

67. (a): Let Y = 7n

ATQ –

$\frac{480-7n\times\frac{6}{7}+80}{80-7n\times\frac{1}{7}+10}=\frac{25}{4}$

n = 10 liters

Milk before selling to R = 480 – 60 + 80 = 500 liters

Water before selling to R = 80 – 10 + 10 = 80 liters

Required quantity of mixture = 580 liters

68. (d): ATQ –

$(500-87\times\frac{25}{29}+3r)-(80-87\times\frac{4}{29}+r)=427$

2r + 357 = 427

2r = 70

r = 35 liters

69. (b): Let total advance classes taken by A = x

So, total basic classes taken by A = 2x

And. total regular classes taken by A = y

Now, $2x + 2y + 3x = 60 \times \frac{20}{100}$

5x + 2y = 12

When we put x = 1 then y = 3.5 which not satisfied

Now we put x = 2 then y = 1

Then total number of classes taken by A = $2 \times 2 + 2 + 1 = 7$

70. (b): For previous month total hour classes taken by D = $60 \times \frac{5}{100} = 3\ hours$

There will be two conditions

Either D takes three basic classes in previous month

Or he takes one advance classes in previous month

Now in next month for seven hours there will be first condition

D takes 3 + 1 = 4 basic classes and two advance classes (which only follow the given condition 'number of basic classes taken by D in next month is twice the advance classes')

So, required difference = 4 – 2 = 2

71. (c): Let basic classes taken by B = x

So, number of regular classes taken by B = x

And let total number of advance classes taken by either B or C = y

For B, $x + 2x + 3y = 60 \times \frac{25}{100}$

x + y = 5

For C,

Let number of basic classes = n

So, $n + 4 \times 2 + 3y = 60 \times \frac{50}{100}$

n + 3y = 22

So, only option (c) satisfies the above equation

72. (b): A can complete his work by working "m" hrs in "a" days or by working "m-4" hrs in "a+5" days

$m \times a = (m-4) \times (a+5) \rightarrow 5m-4a = 20$

Possible values of m and a → ((8,5), (12,10))

B complete his work by working "n" hrs in "b" days or by working "n-4" hrs in "b+5" days

$n \times b = (n-4) \times (b+5) \rightarrow 5n-4b = 20$

Possible value of n and b → ((8,5), (12,10))

Now work completed by A & B together in 1 day will be

(when a=5 and b=5)

required days=2.5 days

(when a=5 and b=10)

required days=10/3 days

(when a=10 and b=10)

required days=5 days

73. (b): Let Rs. 'X' is invested in scheme 'A' and Rs. 'Y' is interest earned from scheme 'B'

Amount get from scheme A = $X + X \times \frac{16\times5}{100} = \frac{9X}{5}$ Rs.

75% amount from scheme 'A' = $\frac{9X}{5} \times \frac{3}{4} = \frac{27X}{20}$

Compound interest from scheme B = Y

Equivalent CI for two years at the rate of 20% = $20 + 20 + \frac{20\times20}{100} = 44\%$

$Y = \frac{27X}{20} \times \frac{44}{100}$

$Y = \frac{1188X}{2000}$

$\frac{Y}{X} = \frac{297}{500}$ ---------- (i)

Now, check using given values

Only, A & B follow the equation (i):

Sol. (74-76):

74. (b): maximum profit given to brand ambassador is the increase in profit of company after advertising with brand ambassador.

Required sum$=(40000-38500)[(10000-8000)\times0.4+(8000-5000)\times0.4+(5000-3000)\times0.3]$

$\Rightarrow 1500 \times (800 + 1200 + 600)$

$\Rightarrow 39\ lakhs$

75. (e): Expected profit when advertised with brand ambassador

$= (40{,}000 - 38{,}500) \times [10{,}000 \times 0.4 + 8000 \times 0.4 + 5000 \times 0.3] = 130.5\ lakhs.$

Expected profit without brand ambassador

$= (40{,}000 - 38{,}500) \times [8000 \times 0.4 + 5000 \times 0.4 + 3000 \times 0.3] = 91.5$ lakh.

Maximum sum can be paid to brand ambassador = $130.5 - 91.5 = 39\ lakhs$

Increase in profit of company after payment to brand ambassador = $39 - 24.5 = 14.5\ lakh$

Let increment in profit per unit is Rs. x

ATQ

$x \times [10000 \times 0.4 + 8000 \times 0.4 + 5000 \times 0.3] = 1450000$

$x = \frac{1450000}{8700} = Rs.166.67$

76. (a): maximum profit that can be earned when advertised with brand ambassador

$(40000 - 38500 - 100)[10000 \times 0.4 + 8000 \times 0.4 + 5000 \times 0.3] = 121.8\ lakhs$

Expected profit without brand ambassador

= (40,000 – 38,500) × [8000 × 0.4 + 5000 × 0.4 + 3000 × 0.3] = 91.5 lakh.

Net profit earned by company after payment to brand ambassador=$(121.8 - 91.5 - 24.5) = 5.8\ lakhs$

Sol. (77-80):

Let the total number of boys in the class be 'x'

Then, number of girls in the class = (200-x)

And number of girls playing badminton=x

Number of girls playing only tennis = (200 –x) –x = (200 – 2x)

Number of boys playing only badminton = $\frac{200-2x}{2}$ = (100–x)

Let number of girls playing only badminton be 'y'

Number of boys playing both the games together = $\frac{y}{2}$

Number of girls playing both the games together = 1.4 (100 – x)

Number of boys playing only tennis = $\frac{1}{3}$ (200 – 2x + y)

ATQ,

Girls playing badminton=x=y+1.4(100-x)

$\Rightarrow 2.4x = y + 140 \ldots\ldots\ldots\ldots (i)$

And,

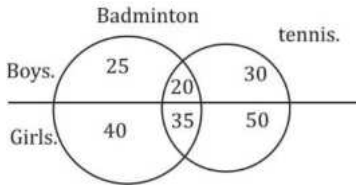
Number of boys = x = (100 – x) + $\frac{y}{2} + \frac{1}{3}$(200 – 2x + y)

$\Rightarrow 16x = 5y + 1000$ ..... (ii)

From (i) & (ii)

We have, x = 75

y=40



77. (c): Quantity I: number of boys playing tennis=50

Quantity II: number of girls playing only tennis=50

Quantity III: required difference = (20+35)-25 = 30

So, Quantity I=Quantity II>Quantity III

78. (d): Quantity I: required difference= 50-40=10

Quantity II: required number = 12

Quantity III: required number= 40% of (50-25) = 10

So, Quantity II>Quantity III=Quantity I

79. (b): Quantity I:

ATQ

$\frac{\left(b \times \frac{2}{3}\right)}{b \times \frac{1}{3} + a} = \frac{2}{3}$

$2b = 3a \ldots\ldots\ldots (i)$

And

$\frac{22}{11+a} = \frac{1}{1}$

$a = 11$

Then, from (i)

b=16.5 liters

Quantity II: let two value of c i.e. x and y liters

Where, x lit of c gives 22.5% acid content and y liters of c gives 25% acid content

ATQ

$\frac{15}{100} \times 20 + x \times \frac{30}{100} = \frac{22.5}{100} \times (20 + x)$

$x = 20\ lit$

And

$\frac{15}{100} \times 20 + y \times \frac{30}{100} = \frac{25}{100} \times (20 + y)$

$y = 40\ lit$

i.e. $20 \leq c \leq 40$

Quantity III:

Let quantity of mixture from vessel A & B which are mixed into C be 8x and 7x respectively.

ATQ—

$7x \times \frac{3}{(3+2+2)} - 8x \times \frac{5}{(5+3+8)} = 4$

$3x - 2.5x = 4$

x = 8 liters

Required difference =

$\left[(8 \times 8) \times \frac{8}{16} + (7 \times 8) \times \frac{2}{7}\right] - \left[(8 \times 8) \times \frac{3}{16} + (7 \times 8) \times \frac{2}{7}\right]$

= (32 + 16) – (12 + 16)

= 20 liters

So, Quantity I<Quantity III≤Quantity II

80. (e): Quantity I: Let the number of matches India played be x

To have a fair chance of winning a match, we have

$1 - \left(\frac{4}{5}\right)^x \geq \frac{1}{2}$

$\Rightarrow \left(\frac{4}{5}\right)^x \leq \frac{1}{2}$

For x=1, we get $\frac{4}{5}$ which is greater than $\frac{1}{2}$

For x=2, we get $\frac{16}{25}$ which is greater than $\frac{1}{2}$

For x=3, we get $\frac{64}{125}$ which is greater than $\frac{1}{2}$

For x=4, we get $\frac{256}{625}$ which is smaller than $\frac{1}{2}$

So, India needs to play a minimum of 4 matches so that it has a fair chance of winning a match.

Quantity II: As the unit digits are prime, so it will be one of 2/3/5/7

Product of two numbers to be prime is only possible when one number is 1 and other is prime.

So, possible numbers are
= 11112/11113/11115/11117
i.e. only 4 such numbers are possible.
Quantity III: Let they meet after 't' hours after 6AM to have a coffee
Distance covered by A=5t km
And distance covered by B=8t km

After their coffee, distance covered by B will now be covered by A in order to reach his destination in 9hr 36 min
$\Rightarrow 8t=\frac{48}{5}\times 5$
$\Rightarrow t=6$ h
Required time spent by them on coffee= 4 min

ENGLISH LANGUAGE

81. (b): With respect to paragraph 1, which mentions," Global warming, largely caused by industrial development and consumer demands, has been causing havoc across the world." we can infer that earth's climate will change and cause global warming.

82. (a): All statements given are correct except statement (a). With reference to the first paragraph which mentions," A major solution to mitigate such climate changes is to reduce the levels of greenhouse gases, particularly carbon dioxide, which cause this warming. In an effort to try and limit this warming, many countries across the world are gathering together and agreeing to make efforts to limit the rise in temperature to no higher than 1.5 degrees by the year 2050. The major way to do so is to increase the number of plants, trees and forests across the world. They all absorb carbon dioxide from the air, and with the help of sunlight and water, produce food (staple for us) and oxygen (which we breathe)."

83. (c): Option (c) is a correct choice with reference to the third paragraph which mentions," They point out that more than 50% of this restoration potential can be found in six countries (Russia, USA, Canada, Australia, Brazil and China)". Option (a) is incorrect as these countries are not liable for a full recovery. Hence, option (c) is the right answer.

84. (a): Synonym of 'mitigate' will be 'lessen' because to mitigate means to cause to become less harsh or hostile; to make less severe or painful.
'Emphasize' means give special importance or value to (something) in speaking or writing.
'Exaggerate' means represent (something) as being larger, better, or worse than it really is.
'Promote' means support or actively encourage (a cause, venture, etc.); further the progress of.

85. (d): Only statement (ii) and statement (iii) are correct as per the information given in the passage. Hence, option (d) is the correct answer here.
Statement (ii) can be inferred from the first paragraph which mentions," In an effort to try and limit this warming, many countries across the world are gathering together and agreeing to make efforts to limit the rise in temperature to no higher than 1.5 degrees by the year 2050. The major way to do so is to increase the number of plants, trees and forests across the world."
Statement (iii) can be inferred from the last paragraph which mentions," Happily enough, several groups (and governments) in countries, notably Philippines and State government in India have moved towards more tree plantations. In India with its 7,08,273 sq km land area, 21.54% has tree cover."
Statement (i) hasn't been mentioned in the passage.

86. (d): "without any agricultural activity or human settlement" fits the blank to make sentence grammatically and contextually correct and meaningful. Hence, option (d) is the correct answer choice.

87. (c): The above paragraph mentions the U.S. President's attempt to revive the JCPOA and the disagreement between Iran and Tehran. The most suitable pair of words will be "breakthrough, success".
Hence, option (c) is the correct choice here.
Anatomy means a person's body.
Speculate means form a theory or conjecture about a subject without firm evidence.
Implication means the conclusion that can be drawn from something although it is not explicitly stated.
Rival means a person or thing that equals another in quality.

88. (e): The above paragraph mentions the U.S. President's attempt to revive the JCPOA and the disagreement between Iran and Tehran. The most suitable pair of words will be "quit, leave".
Hence, option (e) is the correct choice here.

Oppose means disagree with and attempt to prevent, especially by argument.
Thaw means become liquid or soft as a result of warming up.
Tangle means twist together into a confused mass.
Resolve means settle or find a solution.
Prevailing means prove more powerful or superior.
Provoke means stimulate or give rise to.

89. (a): The above paragraph mentions the U.S. President's attempt to revive the JCPOA and the disagreement between Iran and Tehran. The most suitable pair of words will be "rejected, refused".
Hence, option (a) is the correct choice here.
Refuse means indicate or show that one is not willing to do something.
Routed means defeat and cause to retreat in disorder.
Extend means cause to cover a wider area; make larger.
Enhance means intensify, increase.
Recall means remember.

90. (d): The above paragraph mentions the U.S. President's attempt to revive the JCPOA and the disagreement between Iran and Tehran. The most suitable pair of words will be "engagement, involvement".
Hence, option (d) is the correct choice here.
Consent means permission for something
Defuse means to make (a situation) less tense or dangerous.
Infringement means the action of breaking the terms of a law,

91. (c): The above paragraph mentions the U.S. President's attempt to revive the JCPOA and the disagreement between Iran and Tehran. The most suitable pair of words will be "assuming, undertaking".
Hence, option (c) is the correct choice here.
Deploy means move (troops or equipment) into position for military action.
Granting means agree to give or allow (something requested) to.
Renounce means formally declare one's abandonment.

92. (d): The above paragraph mentions the U.S. President's attempt to revive the JCPOA and the disagreement between Iran and Tehran. The most suitable pair of words will be "rebuild, restore".
Hence, option (d) is the correct choice here.
Deluge means a sudden very heavy fall of rain; a flood
Enshrine means the place (a revered or precious object) in an appropriate receptacle.
Implicate means show (someone) to be involved in a crime.

93. (c): The above paragraph mentions the U.S. President's attempt to revive the JCPOA and the disagreement between Iran and Tehran. The most suitable pair of words will be "driven, push".
Hence, option (c) is the correct choice here.
Delineate means to describe.
Aligned means to arrange things in a straight line.
Commute means to travel a long distance from home to work every day.
Vanish means to disappear suddenly.

94. (d): The correct answer is option (d) which can be inferred from first paragraph which mentions,"As stated by the Dubai Annual Visitor Report 2019, at the end of 2019, tourism was responsible for contributing an impressive 11.5 per cent in GDP value". Hence, we can conclude that there was negative impact of C0VID-19 on GDP.

95. (b): The correct choice here is option (b) which can be inferred from the second paragraph which mentions," Since 2019, international participation in DWTC events grew by 15 percent (equivalent to 1.2 million visitors), underlining the strong benefits the world businesses see in coming to Dubai with the aim of sharing knowledge, networking and accelerating their development."

96. (e): Option (e) is correct choice here i.e. option (b) and option (c), both are correct. With reference to the third paragraph which mentions," Unprecedented global travel restrictions and appeals to stay at home have caused the most critical disruptions of the global economy since World War II. Given the international travel bans that affect more than 90% of the global population and widespread restrictions on public gatherings and community mobility, tourism largely ceased in March 2020. Since the quarantine introduction, millions of jobs in the global tourism sector were lost due to flight, event and hotel cancellations."

97. (e): The correct answer is option (e) i.e. 'great'. Here replace 'great' with 'greatly' as we need adverb here for adjective 'dependence'.

98. (a): "to enforce severe quarantine measures and a lack of passengers" will be grammatically and

contextually correct option for blank. Hence option (a) is the correct answer choice.

99. (b): The error lies in option (b). Replace 'effect' with 'affect' as we need a verb here.
'effect' is a noun and 'affect' is a verb

100. (e): All the given statements are correct as per the information given in the passage. Hence, option (e) is the correct answer here.
Statement (A) can be concluded from the last paragraph which mentions, "By taking these actions, governments around the world sought to strike a balance between maintaining their economies and preventing dangerous levels of unemployment and deprivation."
Statement (B) can be inferred from the second paragraph which mentions, "In the year 2019, Dubai World Trade Center (DWTC) welcomed its record 3.57 million delegates, which declared the visitation growth of up to four per cent from the previous year. Such an increase was driven by 349 MICE and business events, 97 of which were large scale with over 2000 attendees".
Statement (C) can be inferred from last paragraph which mentions, "Given that international arrivals exceeded 1.5 billion for the first time only in 2019, the long-term evolution of tourism is proved to be great dependent on a decade of growth since the global financial crisis."

101. (d): In above (A) and (C) need to be exchanged to make statements grammatically and contextually correct.
Hence, the correct statement will be "What makes the February ceasefire significant is the fact that this agreement is different from the routine ceasefire assurances that the two sides made till January 2021."
"The history of India Pakistan ceasefire pacts and war termination agreements is both complex and instructive."

102. (b): In above (A) and (C) need to be exchanged to make statements grammatically and contextually correct.
Hence the correct statement will be "A smooth and expeditious roll-out of the vaccine, with the private sector drafted in to achieve scale, is imperative to help India navigate the bumps ahead more deftly."
"Democracy demands informed debate especially when it comes to economic inequality which has been admittedly growing exponentially in India".

103. (a): In above (A) with (C) and (B) with (D) need to be exchanged to make statements grammatically and contextually correct.
Hence the correct statement will be "Public compliance of COVID-appropriate behaviour cannot be diluted."
"Those who have information about storage, possession or movement of a large amount of cash or jewellery or other valuables can pass it on to the control room."

104. (e): The above given statements are contextually and grammatically correct, hence no correction required.

105. (b): In above (A) with (D) and (B) with (C) need to be exchanged to make statements grammatically and contextually correct.
Hence the correct statement will be "The city police, with the help of traders, removed encroachments from pavements."
"Several colleges and universities in India have rules mandating that campuses be apolitical spaces where students should focus on studies".

106. (c): Option (c) is the correct choice. Statements (A) and (E) can be joined together using the conjunction "(ii)" which is 'BUT'. Statements (B) and (D) can be combined using (i) which is 'AND'. The sentences will be "Bulls seem to be returning but NIFTY showing all bearish signals' and 'Throwback pic of Jeff Bezos and Elon Musk's meeting goes viral". All the other combinations of the statements fail to connect using any conjunction.

107. (b): Option (b) is the correct choice. Statements (A) and (D) can be joined together using the conjunction "(i)" which is 'NEITHER'. Statements (C) and (F) can be combined using (iii) which is 'AS'. The sentences will be "A peek into the world of solitary bees who neither live in hives nor make honey' and 'More funds should be allocated for free vaccination as most people can't afford vaccination". All the other combinations of the statements fail to connect using any conjunction.

108. (d): Option (d) is the correct choice. Statements (A) and (D) can be joined together using the conjunction "(i)" which is 'ALTHOUGH'. The sentence will be "50 trees hacked illegally in twin

town although order was to trim". All the other combinations of the statements fail to connect using any conjunction.

109. (a): Option (a) is the correct choice. Only Statement (A) and (E) can be joined together using the conjunction "(iii)" which is 'therefore' and statement (C) and statement (D) can be joined using "(ii)" which is "as well as" The sentences will be "We continue to believe in the growth of company therefore few have retained our stakes for fund" and "They sell makeup products and fashion accessories as well as products for men and women on website". All the other combinations of the statements fail to connect using any conjunction.

110. (b): Option (b) is the correct choice. Only Statements (C) and (E) can be joined together using the conjunction "(ii)" which is 'YET'. The sentence will be "only 5% Gujrat land is acquired yet to be acquired for Mumbai-Ahmedabad corridor". All the other combinations of the statements fail to connect using any conjunction.

111. (c): In the given statements, (ii) and (iii) have errors. In (ii), remove 'of' as despite never follows by 'of'. In (iii), 'have' should be 'has' because the subject is singular here.

112. (d): In the given statements, (i) and (iv) have errors. In (i), 'any' should be replaced by 'some'. In (iv), "off" should be replaced "of".

113. (a): In the given statements, (i) and (iv) have errors. In (i), 'usual' should be replaced by 'usually' as we need adverb here. In (iv), "it" should be replaced with "they" for subject 'surveillance team'.

114. (b): Option (b) is the most suitable answer choice. The words 'continue, remain, deprivation' fit appropriately in the context of the paragraph satisfying the grammatical syntax of the sentences. All the other words do not comprehend the context of the paragraph.

115. (d): Option (d) is the most suitable answer choice. The words 'interaction, significant, relations' fit appropriately in the context of the paragraph satisfying the grammatical syntax of the sentences. All the other words do not comprehend with the context of the paragraph

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