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TEST FORM NUMBER

Maximum Marks : 100
Total Questions : 100
Time Allowed : 60 Min.

INSTRUCTIONS TO CANDIDATE

Read the following instructions carefully before you begin to attempt the questions.

(1) This booklet contains **100 Questions** in all comprising the following **three** parts.

Part-(I) : English Language   **(30 Questions)**

Part-(II) : Quantitative Aptitude   **(35 Questions)**

Part-(III) : Reasoning Aptitude   **(35 Questions)**

(2) All the questions are compulsory and carry equal marks.

(3) Before you start to attempt the questions you must explore this booklet and ensure that it contains all the pages and find that no page is missing or replaced. If you find any flaw in this booklet, you must get it replaced immediately.

(4) **Each question carries negative marking also as 0.25 mark will be deducted for each wrong answer.**

(5) You will be supplied the Answer-sheet separately by the invigilator. You must complete the details of Name, Roll number, Test name/Id and name of the examination on the Answer-Sheet carefully before you actually start attempting the questions. You must also put your signature on the Answer-Sheet at the prescribed place. These instructions must be fully complied with, failing which, your Answer-Sheet will not be evaluated and you will be awarded 'ZERO' mark.

(6) Answer must be shown by completely blackening the corresponding circles on the Answer-Sheet against the relevant question number by **pencil or Black/Blue ball pen** only.

(7) A machine will read the coded information in the OMR Answer-Sheet. In case the information is incompletely/ different from the information given in the application form, the candidature of such candidate will be treated as cancelled.

(8) The Answer-Sheet must be handed over to the Invigilator before you leave the Examination Hall.

(9) Failure to comply with any of the above Instructions will make a candidate liable to such action/penalty as may be deemed fit.

(10) Answer the questions as quickly and as carefully as you can. Some questions may be difficult and others easy. Do not spend too much time on any question.

(11) Mobile phones and wireless communication device are completely banned in the examination halls/rooms. Candidates are advised not to keep mobile phones/any other wireless communication devices with them even switching it off, in their own interest. Failing to comply with this provision will be considered as using unfair means in the examination and action will be taken against them including cancellation of their candidature.

(12) No rough work is to be done on the Answer-Sheet.

(13) No candidate can leave the examination hall before completion of the exam.

NAME OF CANDIDATE:..
DATE :........................ CENTRE CODE :..................
ROLL No ....

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO

English Language

Direction (01-05): In the following passage, some of the words have been left out and replaced by a blank represented by a letter. First read the passage and try to understand what it is about. Then fill in the blanks as per the questions given.

In February, the Kerala police ___(1)___ a robot for police work. The same month, Chennai got its second robot-themed restaurant, where robots not only serve as waiters but also interact with customers in English and Tamil. In Ahmedabad, in December 2018, a cardiologist performed the world's first in-human telerobotic coronary intervention on a patient nearly 32 km away. All these examples ___(2)___ the arrival of Artificial Intelligence (AI) in our everyday lives. AI has several positive applications, as seen in these examples. But the capability of AI systems to learn from experience and to perform autonomously for humans makes AI the most ___(3)___ and self-transformative technology of the 21st century. If AI is not ___(4)___ properly, it is bound to have unmanageable implications. Imagine, for instance, that electricity supply suddenly stops while a robot is performing a surgery, and access to a doctor is lost? And what if a drone hits a human being? These questions have already ___(5)___ courts in the U.S. and Germany. All countries, including India, need to be legally prepared to face such kind of disruptive technology.

1. (A) ceased   (B) inducted
    (C) discharged   (D) amalgamated
    (E) heaped

2. (A) refrain   (B) persuade
    (C) symbolise   (D) adopt
    (E) supersede

3. (A) disruptive   (B) pursued
    (C) daunting   (D) alarming
    (E) cinched

4. (A) curbed   (B) planned
    (C) exalted   (D) regulated
    (E) advanced

5. (A) evaded   (B) confronted
    (C) dodged   (D) countered
    (E) eschewed

Direction (06-08): In the given sentence, a blank is given indicating that something is missing. From the given options a combination of words would fit the blank thereby making it grammatically and contextually correct.

6. Herrera, with help from other researchers, spent four months at Cerrejón, _____ more than 2,000 plant specimens from several different pit mines.
    1. gathering   2. committing
    3. recollecting   4. collecting
    (A) 1 and 3   (B) 1 and 4
    (C) 2 and 3   (D) 2 and 4
    (E) All fit

7. The _____ of African grey parrots and cicadas filled her ears and the smell of the rich clay soil—musty decay with a hint of cocoa—permeated her nostrils.
    1. hubbub   2. Cacophony   3. din

(A) Only 2   (B) Only 1 and 2
(C) Only 3   (D) Only 2 and 3
(E) All 1, 2 and 3

8. The ecotourism activities that provide financial support for many conservation efforts dried up, and many restoration projects had to be _____.
    1. deferred   2. referred
    3. postponed   4. hindered
    (A) 1 and 3   (B) 1 and 4
    (C) 2 and 3   (D) 2 and 4
    (E) All fit

Direction (09-13): In the question given below, a sentence is given, divided into parts. One of the parts may contain an error. Identify the part that contains the error, and mark it as the answer. Ignore errors of punctuation. In case the sentence is correct as it is, mark option (e), that is, 'No error'. Note – The words in bold are grammatically and contextually correct.

9. Just as it is possible to plan earthquake-resilient structures and site them scientifically, but hard to anticipate a major quake, similarly, proper **planning** can insure against the inevitable extremities **of nature**.
    (A) Just as it is possible to plan earthquake-resilient structures
    (B) and site them scientifically, but hard
    (C) to anticipate a major quake, similarly, proper
    (D) can insure against the inevitable extremities
    (E) No error

10. International climate change agreements to limit **greenhouse gas emissions** will yield benefits only in the very **long term** but what is did in the near future will mean the difference between surviving and thriving.
    (A) International climate change agreements to limit
    (B) will yield benefits only in the very
    (C) but what is did in the near future will mean
    (D) the difference between surviving and thriving.
    (E) No error

11. **The interaction** between warming, rainfall and temperature **is complex** and variables such as aerosol emissions, particulate matter pollution, agriculture and forestry patterns must be accounted off.
    (A) between warming, rainfall and temperature
    (B) and variables such as aerosol emissions,
    (C) particulate matter pollution, agriculture and
    (D) forestry patterns must be accounted off.
    (E) No error

12. The bigger challenge is to undertake **so-called** climate-proofing of the most **vulnerable** regions and taking warnings of scientific risk assessment serious.
    (A) The bigger challenge is to undertake
    (B) climate-proofing of the most
    (C) regions and taking warnings of
    (D) scientific risk assessment serious.
    (E) No error

13. With inflation looming as a visceral threat, **demand yet to** regain traction and political appetite in government for more fiscal support negligible, India's policymakers have little option but to hasten the vaccine roll-out on a **war footing**.
    (A) With inflation looming as a visceral threat,
    (B) to regain traction and political appetite in
    (C) government for more fiscal support negligible, India's policymakers

(D) have little option but to hasten the vaccine roll-out on a
(E) No error

Direction (14-16): In the question below, a sentence is given, four words have been highlighted in bold. Find out if the words are appropriate (grammatically and contextually). Only one word will be inappropriate, mark that as your answer. If all are appropriate, mark "All are correct".

14.   **Resilience** is important not only when there is a major **upholster**, but also in everyday life as we **navigate** personal and professional **disappointments**.
       (A) resilience   **(B)** upholster
       (C) navigate   **(D)** disappointments
       (E) All are correct

15.   The dust storms on Mars are the largest in the solar system, **capable** of **blanketing** the **attire** planet and **lasting** for months.
       (A) capable   **(B)** blanketing
       (C) attire   **(D)** lasting
       (E) All are correct

16.   Anyone who claims to live a perfect life is perhaps **recurring** to the fact that **amidst** all the **imperfections**, he has found the golden mean of **navigating** all of it with grace and dignity.
       (A) recurring   **(B)** amidst
       (C) imperfections   **(D)** navigating
       (E) All are correct

Direction (17-18): Which of the following phrases (1), (2), and (3) given below each sentence should replace the phrase printed in bold letters to make the sentence grammatically correct? Choose the best option among the five given alternatives that reflect the correct use of the phrase in the context of the grammatically correct sentence. If the sentence is correct as it is, mark 'No Improvement' as the answer.

17.   The school children are **eager waiting for** the summer holidays.
       1. longing for   2. ardently waiting for
       3. looking to forgo
       (A) No Improvement   **(B)** Only 1 and 2
       (C) Only 1 and 3   **(D)** Only 2 and 3
       (E) All 1, 2 and 3

18.   The little boy wanted to hide in the bush so that **no one should see him**.
       1. he become invisible
       2. he is not seen by anyone
       3. none could see him
       (A) No Improvement   **(B)** Only 1 and 2
       (C) Only 1 and 3   **(D)** Only 2 and 3
       (E) All 1, 2 and 3

Direction (19-25): Read the following passage and answer the questions.

As a marker of identity that transcends national borders, religion influences many environmentally relevant behaviors. Thus, understanding its role is key to tackling environmental challenges that are fundamentally transnational. Previous research has found that religion influences many aspects of lifestyle that affect the environment. These include childbearing decisions, the use of contraceptives and resulting effects on population growth; risk behaviors and use of health services, which affect life expectancy; whether people see climatic change as human-caused, or related to forces beyond human control; consumption patterns, and thereby use of natural resources and emissions of greenhouse gases; and willingness to take actions to abate environmental degradation.

A new study published in the Journal of Religion and Demography investigates the link between environmental challenges and religion. The work builds on a growing body of research carried out at the Center for International Earth Science Information Network and the Columbia Aging Center. It looks at the environment-religion relationship by analyzing religious affiliation together with a variety of environment and climate change-related indicators at the country level. The researchers responsible for the study also conducted exploratory and descriptive statistical analyses to better understand the associations among religion on one hand, and economic development, greenhouse gas emissions and exposure to environmental stressors on the other.

Basically, they found that nations whose inhabitants are less religious tend to use more resources and produce more emissions; yet, they are also better prepared to deal with resulting environmental challenges, because they are wealthier. On the other hand, nations whose populations are more religious tend to use fewer resources; yet at the same time, they have less capacity to meet environmental challenges, and are subject to more adverse outcomes, in part due to their high levels of poverty and continuing population growth.

The study argues that it is important to consider the religious dimension when discussing who wins and who loses amid environmental degradation, resource shortages and global warming. To address issues of environmental justice, we need to identify groups that are disproportionately causing environmental risks, and those who are disproportionately exposed. A key aim xof the study is to assess the religious composition of those subject to environmental changes, and how gaining an understanding can help to craft environmental policies that are more effective in fighting climate change. This aspect is especially relevant in the poorest nations of the world, where close to 100 percent of the population ascribes to a religion, and where religion plays a very important role in providing basic services and social cohesion.

Further, the study looks into the role of religion in shaping human behavior. Religious change can affect social cohesion, consumption trends and willingness to pay for climate-change mitigation or adaptation initiatives. Our findings indicate that religious affiliation relates to greenhouse gas emissions, energy use and gross domestic product on a global scale. Countries with more emissions and greater GDP tend to be less religious, have less population growth and to be better prepared for environmental challenges. Conversely, countries with a greater proportion of religiously affiliated people tend to have younger populations, higher environmental risks, lower GDP and lower preparedness levels.

19.   According to the passage, which of the following aspects of lifestyle affect(s) the environment?
       1. consumption patterns
       2. age of retirement
       3. use of contraceptives
       (A) Only 2   **(B)** Only 3
       (C) Only 1 and 2   **(D)** Only 2 and 3
       (E) Only 1 and 3

20. Researchers responsible for the study published in the Journal of Religion and Demography conducted exploratory and descriptive statistical analyses of the associations between religion _____.
    (A) environmental literacy
    (B) economic development
    (C) greenhouse gas emissions
    (D) Both (B) and (C)
    (E) (A), (B) and (C)

21. Nations whose inhabitants are more religious are subject to more adverse outcomes resulting from environmental challenges. Which of the following can be cited as a reason for the same?
    1. unsustainable use of resources
    2. high levels of poverty
    3. population growth
    (A) Only 2   (B) Only 1 and 2
    (C) Only 2 and 3   (D) Only 1 and 3
    (E) All 1, 2 and 3

22. According to the passage, what do we need to do to address issues of environmental justice?
    (A) ban the use of plastic
    (B) replace fossil fuels with renewable sources of energy
    (C) identify groups that are disproportionately causing environmental risks
    (D) minimising use water by industries for processing by reusing and recycling it
    (E) All of the above

23. Which of the following is NOT true of countries where a major section of the population is religious?
    (A) they have younger populations
    (B) they show less population growth
    (C) they have lower preparedness levels
    (D) they face higher environmental risks
    (E) they have lower GDP

24. Which of the following words is the closest in meaning to the word 'abate' as used in the passage?
    (A) entrench   (B) reproach
    (C) bemuse   (D) summon
    (E) mitigate

25. Which of the following is the closest in meaning to the word 'cohesion' as used in the passage?
    (A) unity   (B) apprehension
    (C) prudence   (D) condolence
    (E) legitimacy

Direction (26-30): In the question below, a sentence is given, four words have been highlighted in bold, one of which might be grammatically or contextually inappropriate. From the given options, choose the one that provides the correct replacement for the incorrect word.

26. Ever since chemists began to **manufacture** substances that nature never **tainted**, the **problem** of water purification has become **complex**.
    (A) manufacture – forgo   (B) tainted – invented
    (C) problem – jinx   (D) complex – facile
    (E) None of the above

27. Pidgins are languages that are not **acquired** as mother tongues but are **used** for a **restricted** set of **communication** functions.
    (A) acquired – obtained
    (B) used – adopted
    (C) restricted – casual
    (D) communication – communicative

(E) None of the above

28. Some people **rely** on music to get them through the morning **commute**, while some turn up a favourite playlist to **stay pumped** during a workout.
    (A) rely – confide   (B) commute – realm
    (C) stay – crave   (D) pumped – lulled
    (E) None of the above

29. The funding **contrasts** in international markets could **impact** both the **availability** and cost of foreign **funding** for banks and corporates.
    (A) contrasts – constraints (B) impact – nudge
    (C) availability – credibility (D) funding – hunting
    (E) None of the above

30. Today, India **looks** to be on the **coarse** to **join** the **league** of developed nations.
    (A) looks -- grudges   (B) coarse - course
    (C) join -- inherit   (D) league – coterie
    (E) None of the above

Quantitative Aptitude

Direction (31-35): Answer the questions based on the information given below.

The following bar graph shows the number of soft and hard trolleys transported by Indigo on a particular day from five different airports viz. Delhi airport, Kolkata airport, Mumbai airport, Chennai airport and Bangalore airport.
Total number of trolley transported = Sum of the number of soft and hard trolley transported.
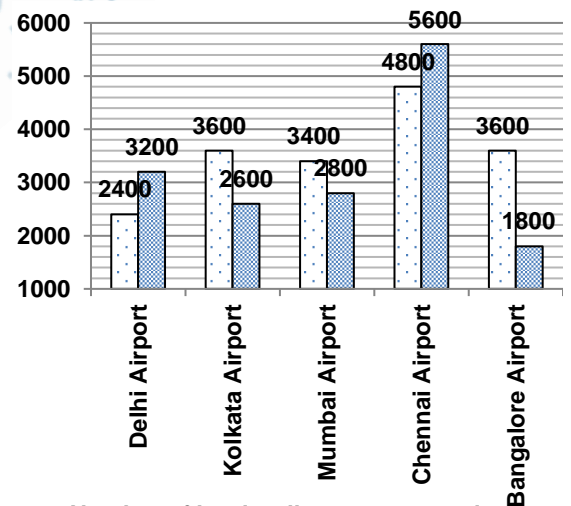
□ **Number of hard trolleys transported**

▨ **Number of soft trolleys transported**

31. If Indigo charges ₹10 for each hard trolley and ₹5 for each soft trolley as transportation fee, then find total revenue generated by Indigo from Chennai airport by transporting all the trolleys.
    (A) ₹76000   (B) ₹78000
    (C) ₹82000   (D) ₹70000
    (E) ₹84000

32. What is the ratio of total number of hard trolleys transported from Kolkata and Mumbai airports together to the total number of soft trolleys transported from Delhi and Bangalore airports together?
    (A) 6:5   (B) 7:5
    (C) 3:2   (D) 4:3
    (E) None of these

33. If half of the total number of trolleys which were supposed to be transported from Delhi airport were sent to Kolkata airport due to some logistic issue, then find the total number of trolleys transported from Kolkata airport now.
(A) 8000   (B) 6800
(C) 8800   (D) 9000
(E) 9200

34. What is the average number of trolleys transported from Mumbai and Chennai airports together?
(A) 8300   (B) 8500
(C) 7800   (D) 9200
(E) 8100

35. If number of hard trolley transported from Patna airport is $(2/5)^{th}$ of total number of trolleys transported from Bangalore airport, then find the number of hard trolleys transported from Patna airport.
(A) 2280   (B) 2400
(C) 1940   (D) 2480
(E) 2160

Direction (36-40): Answer the questions based on the information given below.

The following radar chart shows the number of two types of candies i.e. mango bite and boomer sold by 5 different shopkeepers namely 'Li', 'Mi', 'Ni', 'Ti' and 'Xi'.


—◆— Number of mango bites sold
—■— Number of boomers sold
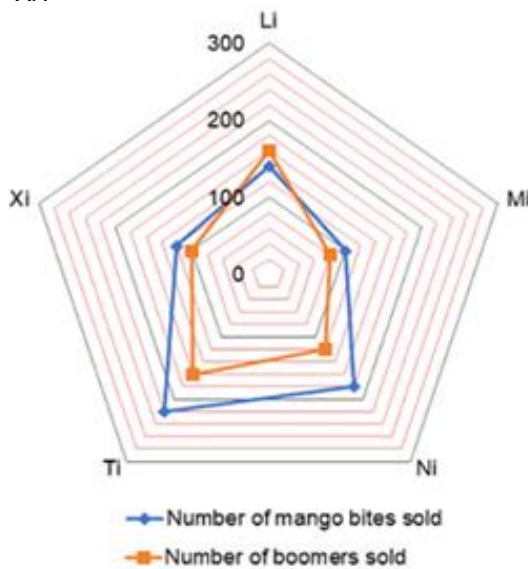
36. Number of mango bites sold by 'Ti' is how much percent (approximate value) of the number of boomers sold by 'Ni'?
(A) 183.33%   (B) 167.33%
(C) 195.67%   (D) 146.33%
(E) 189.67%

37. What is the average number of mango bites sold by all five shopkeepers together?
(A) 149   (B) 167
(C) 152   (D) 150
(E) 158

38. If 'Li' sold each boomer for ₹2, then find out the total revenue made by 'Li' from selling boomers.
(A) ₹300   (B) ₹230
(C) ₹360   (D) ₹340
(E) ₹320

39. If a container filled with mango bites contains 20 mango bites in it, then find the total number of containers containing mango bites in it sold by 'Ni'.
(A) 9   (B) 7
(C) 8   (D) 6
(E) 11

40. If another shopkeeper i.e. 'Yi' sold 20% more candies than that by 'Xi', then find out the number of candies sold by 'Yi'.
(A) 242   (B) 258
(C) 264   (D) 248
(E) 254

Direction (41-45): Answer the questions based on the information given below.

The following pie chart shows the distribution of marks obtained by a student in five different languages paper out of total marks obtained in all five language papers together in percentage measures.
Note: Marks obtained by the student in Marathi is 500.

Distribution of marks obtained in different language papers
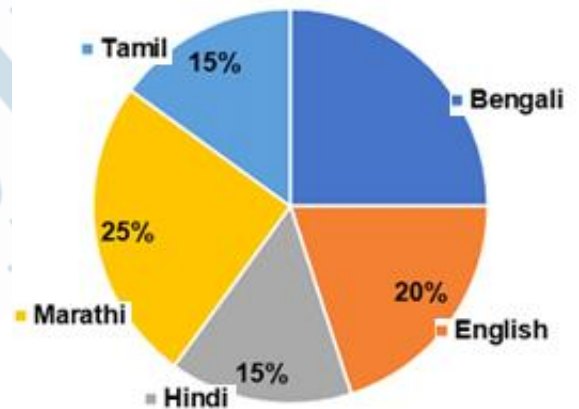
41. If the marks obtained by the student in Telugu is 120% of the marks obtained by him in Tamil, then find out the average marks obtained by him in Bengali and Telugu together.
(A) 410   (B) 460
(C) 430   (D) 420
(E) 440

42. If the students scored 80% marks in English language out of maximum marks for the same language paper, then find the maximum marks for English language paper.
(A) 600   (B) 450
(C) 520   (D) 500
(E) 480

43. If the student had scored 25% more marks in English and Hindi each and 20% less marks in Tamil and Marathi each than what he actually got, then what would have been the total marks obtained by him in these four subjects together.
(A) 1515   (B) 1445
(C) 1565   (D) 1535
(E) 1485

44. If maximum marks for each of the language paper was 700, then find the number of language papers in which the marks obtained by the student is more than 55%.

(A) 4   (B) 3
(C) 2   (D) 5
(E) 1

45. Marks scored by the student in English language paper is how much percent more or less than marks obtained by him in Marathi language paper?
(A) 20% more   (B) 30% less
(C) 40% more   (D) 20% less
(E) 10% less

Direction (46-48): In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.

46. I. $3x^2 - 27 = 0$ II. $2y^2 = \sqrt{(21 + 43)}$
(A) x > y   (B) x < y
(C) x = y or the relationship cannot be established
(D) x ≥ y   (E) x ≤ y

47. I. $2x + 3y = 13$ II. $3x + 2y = 12$
(A) x > y   (B) x < y
(C) x = y or the relationship cannot be established
(D) x ≥ y   (E) x ≤ y

48. I. $x^2 + 22x + 96 = 0$ II. $y^2 + y - 90 = 0$
(A) x > y   (B) x < y
(C) x = y or the relationship cannot be established
(D) x ≥ y   (E) x ≤ y

Direction (49-53): The following numbers form a series. Find the odd one out.

49. 32, 16, 24, 60, 220, 945
(A) 945   (B) 60
(C) 220   (D) 32
(E) 24

50. 14, 26, 50, 84, 134, 194
(A) 84   (B) 194
(C) 50   (D) 14
(E) 134

51. 11, 15, 24, 49, 98, 221
(A) 11   (B) 49
(C) 98   (D) 221
(E) 24

52. 12, 20, -7, 57, -65, 148
(A) 20   (B) -65
(C) -7   (D) 148
(E) 12

53. 1, 5, 11, 20, 29, 41
(A) 41   (B) 11
(C) 20   (D) 29
(E) 5

Direction (54-58): What approximate value will come in place of the question mark (?) in the following question?
(Note: You are not expected to calculate the exact value.)

54. 40.09% of 840.02 + 502.96 – 24.09 × 13.98 =?
(A) 503   (B) 412
(C) 594   (D) 313
(E) 712

55. 654.08 + 18.13 × 15.11 – 363.91 ÷ 13.89 = ?
(A) 239   (B) 684
(C) 898   (D) 526
(E) 345

56. 564.08 + 933.13 – 845.91 + 634.21 – 302.98 =?
(A) 526   (B) 718
(C) 842   (D) 501
(E) 982

57. ? = $\sqrt{\{1024.13 \div 3.87 + (12.01)1.99\}} \times 14.12$
(A) 70   (B) 140
(C) 510   (D) 280
(E) 350

58. ? = $72.5 \div {}^{2.97}\sqrt{515.22} + 89.98 - 24.12$
(A) -36   (B) 24
(C) 75   (D) 121
(E) 164

59. Shreya paid a ₹2000 note in the cash counter after buying goods worth ₹1600 and the cashier returned some ₹10, some ₹20 and some ₹100 notes to her in the ratio 2:4:1, respectively. Find the number of ₹20 notes returned to her by the cashier.
(A) 8   (B) 6
(C) 5   (D) 4
(E) 7

60. When 12 years is subtracted from the present age of Vipul and the obtained result is divided by 3, then the present age of his nephew is obtained. If the present age of his nephew is 4 years less than the present age of Vipul's son who is 16 years old, then find the present age of Vipul.
(A) 36 years   (B) 54 years
(C) 48 years   (D) 33 years
(E) 51 years

61. Ratio of cost price of article 'A' and 'B' is 9:5, respectively. The shopkeeper marked article 'A' 60% above its cost price and sold it after giving a discount of 50% and sold article 'B' at a profit of 40%. Find the ratio of their selling prices.
(A) 31:32   (B) 36:35
(C) 33:32   (D) 29:28
(E) None of these

62. Rajan divided ₹4800 in two parts in the ratio 5:3. He invested smaller part at 15% p.a. simple interest for 8 years and rest at 50% p.a. compound interest, compounded annually for 2 years. Find total interest received by Rajan.
(A) ₹5910   (B) ₹6100
(C) ₹4840   (D) ₹5720
(E) None of these

63. 684 ml of mixture contains milk and water in the ratio of 12:7 respectively. If 'x' ml of water and 'x + 44' ml of milk is added into it then the ratio of milk to water in the resultant mixture becomes 9:5 respectively. Find the value of 'x'.
(A) 18   (B) 38
(C) 48   (D) 28
(E) 8

64. Number of red, green and blue balls in a bag is 'x + 1', 'x' and 'x + 3', respectively. If probability of drawing a red and a green ball one after another and without replacement is (1/6), then find the probability of drawing a green ball.
(A) 0.2   (B) 0.375
(C) 0.4   (D) 0.25
(E) Can't be determined

65. A rectangular sheet of dimension 44 cm × 36 cm is folded along its length to form a hollow cylinder. Find the volume of the cylinder.

(A) 5524 cm³   (B) 5554 cm³
(C) 5544 cm³   (D) 5564 cm³
(E) None of these

Reasoning Aptitude

Direction (66-70): Answer the questions based on the information given below.

11 persons P, Q, R, S, T, U, V, W, X, Y and Z are sitting in a row facing north direction. The distance between each adjacent person is same. No two persons with names starting with consecutive alphabets sit adjacent to each other.
Two persons sit between R and S. Y sits third to the left of P but not at any extreme end. Four persons sit between Y and R. X sits exactly in the middle of the row. Q sits immediate left of U, who does not sit at extreme end. Z sits second to the left of W.

66.   Who among the following sits at extreme right end?
      (A) P   (B) T
      (C) W   (D) Z
      (E) S

67.   How many persons sit between V and T?
      (A) One   (B) Five
      (C) Three   (D) Six
      (E) Four

68.   Who among the following sits second to the left of P?
      (A) Q   (B) Y
      (C) X   (D) R
      (E) Z

69.   Who sits immediate left of R?
      (A) P   (B) S
      (C) W   (D) Z
      (E) X

70.   How many persons sit to the right of S?
      (A) Two   (B) One
      (C) Three   (D) Five
      (E) Four

Direction (71-75): Answer the questions based on the information given below.

Nine persons P, Q, R, S, T, U, V, W and X live on nine floors building such that ground floor is numbered as 1 and floor above the ground floor is numbered as 2 and so on. Also, each one likes different cars.
The one who likes Altroz lives on the floor which four floors above the floor on which Q lives but none of them lives on odd number floor. Only one person lives between Q and X, who likes Verna. The one who likes Brizza lives on second floor. More than three persons live between X and V. Only one person lives between V and R, who likes Cruz. T lives on an odd number floor below R. Number of floors between T and P is same as the number of floors between T and Q. S lives on an even number floor. W lives above U. The one who lives on 8ᵗʰ floor likes Swift.

71.   Who lives on the topmost floor?
      (A) The one who likes Swift
      (B) P
      (C) The one who likes Brizza
      (D) V
      (E) None of the above

72.   Who lives immediately below the floor on which the one who likes Verna lives?
      (A) W   (B) P
      (C) R   (D) T
      (E) None of the above

73.   Who lives two floors above the floor on which X lives?
      (A) V
      (B) The one who likes Altroz
      (C) P
      (D) The one who likes Verna
      (E) None of the above

74.   T lives on which of the following floor?
      (A) Fourth   (B) Third
      (C) Fifth   (D) Sixth
      (E) None of the above

75.   Four of the following are related to each other in some way and thus formed a group. Choose the one which does not belong to that group.
      (A) V   (B) R
      (C) T   (D) W
      (E) S

Directions (76-80): Answer the questions based on the information given below.

Seven students P, Q, R, S, T, U and V have exams on seven different days of a week from Monday to Sunday but not necessarily in same order. Each of them has different posts i.e. Head girl, Head boy, Games Captain, House Captain, Monitor, Prefect and Regulator, such that the Head girl is the highest post and Head boy is the 2nd highest post and so on.
T does not have exam on Saturday. P, who is a prefect, has exam just after T. T has exam three days after V, who is a house Captain. Head boy does not have exam on Sunday. U has exam just after S. Head boy has exam just after Q. R has higher post than that of T. R does not have exam after Q. Neither Q nor S is regulator.

76.   Who among the following is Regulator?
      (A) S
      (B) One, who has exam on Wednesday
      (C) One, who has exam on Tuesday
      (D) U
      (E) Q

77.   How many persons have exam before P?
      (A) Four   (B) Three
      (C) One   (D) Two
      (E) Five

78.   How many persons have better post than that of Q?
      (A) Two   (B) Four
      (C) One   (D) Three
      (E) Cannot be determined

79.   R is a _____.
      (A) House Captain   (B) Prefect
      (C) Monitor   (D) Head girl
      (E) Head boy

80.   U has exam on _____.
      (A) Saturday   (B) Sunday
      (C) Friday   (D) Wednesday
      (E) Monday

Direction (81-85): Answer the questions based on the information given below.

Certain number of people sitting around a triangular table such that only three persons are seated on the corner side of the table and rest are sitting on the sides of the table. All are facing away from the centre. At most two persons sit on each side of the table.

The one, who sits immediate right of W, is sitting on the corner of the table. P, who is sitting at the corner, sits third to the right of R. Only one person sits between R and V, who is not adjacent to P. S sits three places left of Q. T and U are immediate neighbors and sitting on the same side of the table. W sits immediate left of V and sits fourth to right of U.

81. How many persons are sitting around the table?
(A) Nine   (B) Seven
(C) Eight   (D) Either eight or nine
(E) Either seven or nine

82. Who sits second to the left of S?
(A) P   (B) U
(C) R   (D) T
(E) None of the above

83. Who sits immediate right of R?
(A) T   (B) U
(C) Q   (D) W
(E) None of the above

84. Who sits on the same side as S?
(A) W   (B) R
(C) V   (D) Either R or V
(E) T

85. Which of the following statements is correct?
I. R and V are sitting at the corner
II. W and P are sitting adjacent to each other
III. Q and V are immediate neighbors
(A) Only I   (B) Only II
(C) Only I and II   (D) Only III
(E) Only I and III

Direction (86-87): Answer the questions based on the given set of numbers.

436   254   617   783   943
Note: 1st, 2nd, and 3rd digits are taken from left end.

86. If all the digits in the number are rearranged in ascending order within the numbers, then which among the following will be the sum of the second digit of the lowest number and the third digit of the highest number?
(A) 11   (B) 12
(C) 17   (D) 13
(E) None of the above

87. If in each number, the first and the third digits are interchanged, then which among the following number will be a difference between the first digit of the highest number and the last digit of the second-lowest number?
(A) 1   (B) 0
(C) 3   (D) 2
(E) None of the above

88. How many such pairs of letters are there in the meaningful word "INCREMENT" each of which has as many letters between them in the word as in the English alphabetical series?
(A) One   (B) Two
(C) Three   (D) Four
(E) More than four

Direction (89-90): In the question below there are three statements followed by two conclusions I and II. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.

89. **Statements:** Only a few king is queen
No throne is queen
All queen is small
Conclusions: I. Some throne is king
II. All small is king is a possibility
(A) Only conclusion I follows
(B) Both the conclusions I and II follow
(C) Neither conclusion I nor II follows
(D) Only conclusion II follows
(E) Either conclusion I or II follows

90. **Statements:** Almost all cabbage is brinjal
Some brinjal is onion
No onion is chilly
Conclusions:
I. Some chilly being cabbage is a possibility
II. No chilly is brinjal
(A) Only conclusion I follows
(B) Both the conclusions I and II follow
(C) Neither conclusion I nor II follow
(D) Only conclusion II follows
(E) Either conclusion I or II follows

91. Which of the following symbols should replace the question marks (?) in the given expression in order to make the expressions 'M ≤ V' definitely true?
V ≥ L < C; M ≤ R (?) L; M > K
(A) >   (B) ≤
(C) ≥   (D) <
(E) None of the above

92. Which of the following symbols should replace (1) and (2) in the given expression in order to make the expressions 'K > M' and 'R ≥ G' definitely true?
K (1) R; M ≤ R ≥ D; M ≥ U (2) G
(A) ≥, >   (B) <, ≥
(C) >, ≤   (D) >, ≥
(E) None of the above

Direction (93-94): Answer the questions based on the information given below.

A&B means 'A is the wife of B'
A#B means 'A is the father of B'
A*B means 'A is the brother of B'
A+B means 'A is the daughter of B'
A?B means 'A is the husband of B'

93. If 'P#R&Y#T?S' is true then how is S related to R?
(A) Mother   (B) Brother-in-law
(C) Father-in-law   (D) Daughter-in-law
(E) Sister

94. If 'X*C&L*M+H' is true then how is M related to X?
(A) Husband   (B) Sister-in-law
(C) Brother   (D) Father
(E) Brother-in-law

95. In the question below there are three statements followed by two conclusions I and II. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.

Statements: Only a few toast is bread
No bread is milk
All milk is jam
Conclusions: I. Some toast is not milk
II. All toast can never be jam
(A) Only conclusion I follows
(B) Both the conclusions I and II follow
(C) Neither conclusion I nor II follow
(D) Only conclusion II follows
(E) Either conclusion I or II follows

Direction (96-100): Answer the questions based on the information given below.

Less than 22 persons sit around a circular table facing towards the centre.
E is not the immediate neighbor of C. Q sits 3rd to the right of A. Five persons sit between Q and C (either from left or right). Three persons sit between C and D (either from left or right). F sits 2nd to the left of C. E sits exactly in the middle of Q and D, counting from the right of Q. E sits 5th to the right of Q. Four persons sit between D and G. Q sits 2nd to the left of H. Four persons sit between H and Z.

96.   Who among the following sits 5th to the right of Z?
(A) H   (B) E

(C) D   (D) F
(E) Unknown

97.   How many people sit in the circular table?
(A) 18   (B) 19
(C) 20   (D) 12
(E) 21

98.   Who among the following sit 3rd to the left of G?
(A) D   (B) F
(C) C   (D) Q
(E) Can't be determined

99.   How many people sit between F and Q when counted from the left of F?
(A) 11   (B) 09
(C) 07   (D) 08
(E) 13

100.   Number of persons sitting between A and E when counted right of A, is equals to the number of people sit between __ and __.
(A) H and F, when counted from the left of F.
(B) H and C, when counted from the left of H.
(C) Q and D, when counted from the right of D.
(D) D and G, when counted from the left of G.
(E) None of the above

Space for rough work

English Language

1. Answer: (B)
We need a past form verb to fill the blank. INDUCTED (admitted (someone) formally to a post or organization) will fit here as the sentence tells how in February, the Kerala police formally admitted a robot for police work. Thus, (b) is the right answer.
Ceased (verb) - came or brought to an end. Discharged (verb) - dismissed. Amalgamated (verb) - merged. Heaped (verb) - piled up.

2. Answer: (C)
We need a verb to modify the noun EXAMPLES. SYMBOLISE (express or represent) will fit here as the sentence tells us how all the previously mentioned examples denote the advent of AI in our everyday lives. Thus, (c) is the right answer.
Refrain (verb) - stop oneself from doing something. Persuade (verb) - induce (someone) to do something through reasoning or argument. Adopt (verb) - choose to take up, follow, or use. Supersede (verb) - take the place of (a person or thing previously in authority or use); supplant.

3. Answer: (A)
We need an adjective to get modified by the adverb MOST. DISRUPTIVE (innovative or groundbreaking) will fit here as the sentence tells us how the potential of AI systems to learn from experience and to perform autonomously for humans makes it the most innovative and self-transformative technology of the 21st century. Thus, (a) is the right answer.
Pursued (verb) - seek to attain or accomplish (a goal) over a long period. Daunting (adj) - seeming difficult to deal with in prospect; intimidating. Alarming (adj) - worrying or disturbing. Cinched (verb) - make certain of.

4. Answer: (D)
We need a verb to modify the adverb PROPERLY. REGULATED (control or maintain the rate or speed of (a machine or process) so that it operates properly) will fit here as the sentence tells us how AI is destined to have unmanageable implications if it is not controlled properly. Thus, (d) is the right answer.
Curbed (verb) - restrain or keep in check. Planned (verb) - design or make a plan of (something to be made or built). Exalted (verb) - raise to a higher rank or position. Advanced (verb) - make or cause to make progress.

5. Answer: (B)
We need a past form verb to modify the noun COURTS. CONFRONTED (challenged) will fit here as the sentence tells us how the previously mentioned questions have already challenged the courts of the U.S and Germany. Thus, (b) is the right answer.
Evaded (verb) - escaped or avoided (someone or something), especially by guile or trickery. Dodged (verb) - avoided (someone or something) by a sudden quick movement. Countered (verb) - spoken or acted in opposition to. Eschewed (verb) - deliberately avoided using; abstained from.

6. Answer: (B)
We need a continuous form verb here to link the two clauses. GATHERING and COLLECTING mean accumulating, and will fit here as the sentence tells us how the researchers spent months accumulating plant specimens. Thus, (b) is the right answer.
Committing - dedicating. Recollecting - remembering.

7. Answer: (E)
We need a noun here to be modified by the definite article THE. All the three words mean a large, chaotic noise, and will fit here as the sentence tells us how the chaotic noise caused by the birds filled her ears. Thus, (e) is the right answer.

8. Answer: (A)
We need a past participle form verb to fit in the passive voice construction HAD + TO + BE + VERB. DEFERRED and POSTPONED means delayed and will fit here as the sentence tells us how many restoration projects were delayed. Thus, (a) is the right answer.
Referred - cited. Hindered - prevented.

9. Answer: (E)
The sentence is grammatically correct and free of error. Thus, (e) is the right answer.

10. Answer: (C)
In C, replace the second form verb DID with DONE as the passive voice construction IS + VERB will take the past participle form of the verb. Thus, (c) is the right answer.

11. Answer: (D)
In D, replace the preposition OFF with FOR as the phrasal verb ACCOUNT FOR means to take something into consideration. Thus, (d) is the right answer.

12. Answer: (D)
In D, replace the adjective SERIOUS with the adverb SERIOUSLY as it is being used to modify the verb TAKING. Thus, (d) is the right answer.

13. Answer: (E)
The sentence is grammatically correct and free of error. Thus, (e) is the right answer.

14. Answer: (B)
The sentence tells us how resilience (the ability to recover quickly from difficulties) is important not only when there is a major disruption, but also in everyday life as we navigate (find our way through) personal and professional disappointments (setbacks or failures). UPHOLSTER (to provide furniture with soft padded covering) is not apt in this context and should be replaced with UPHEAVAL (sudden or violent change affecting people's lives). Thus, (b) is the right answer.

15. Answer: (C)
The sentence tells us how the dust storms on Mars are capable (have the ability) of blanketing (covering) the whole planet and lasting (continuing) for months. ATTIRE (clothes) will not fit here and should be replaced with ENTIRE (complete or whole). Thus, (c) is the right answer.

16. Answer: (A)
The sentence tells us how anyone who claims to live a perfect life is perhaps mentioning the fact that amidst (in the middle of) all the imperfections (flaws), he has found the golden mean of navigating (crossing) all of it with grace and dignity. RECURRING (occurring repeatedly) will not fit here and should be replaced with REFERRING (talking about something). Thus, (a) is the right answer.

17. Answer: (B)
The sentence tells us how the school children are enthusiastically waiting for the summer holidays. Both the phrases in 1 and 2 can replace the highlighted portion to convey the requisite meaning. Thus, (b) is the right answer.
3 is incorrect because 'looking to forgo' means 'looking to refrain from something' which is contextually irrelevant. The highlighted phrase is incorrect as the adverb EAGERLY should replace the adjective EAGER.

18. Answer: (D)
The sentence tells us how the little boy wanted to take cover of the bush so that no one sees him. Both the phrases in 2 and 3 can replace the highlighted portion to convey the requisite meaning. Thus, (d) is the right answer.

1 is incorrect as the plural verb BECOME will not agree with the singular subject BOY. The highlighted phrase is incorrect as the modal verb 'SHOULD' should be replaced with the modal verb 'COULD' as the sentence talks about something that can happen and not something that ought to happen or must happen.

19. Answer: (E)
1 and 3 are correct. According to the passage, both consumption patterns and use of contraceptives affect the environment. Refer to the lines: "These include childbearing decisions, the use of contraceptives and resulting effects on population growth; risk behaviors and use of health services, which affect life expectancy; whether people see climatic change as human-caused, or related to forces beyond human control; consumption patterns, and thereby use of natural resources and emissions of greenhouse gases; and willingness to take actions to abate environmental degradation." Thus, (e) is the right answer. 2 is incorrect, The passage does not talk about the effect of one's age of retirement on the environment.

20. Answer: (D)
Both B and C are correct. Researchers involved in the said study conducted exploratory and descriptive statistical analyses of the associations of religion with economic development and greenhouse gas emissions. Refer to the lines: "A new study published in the Journal of Religion and Demography investigates the link between environmental challenges and religion. . . The researchers responsible for the study also conducted exploratory and descriptive statistical analyses to better understand the associations among religion on one hand, and economic development, greenhouse gas emissions and exposure to environmental stressors on the other." Thus, (d) is the right answer.
(a) is incorrect. The researchers did not conduct a statistical study of the association between religion and environmental literacy.

21. Answer: (C)
2 and 3 are correct. Refer to the line: "On the other hand, nations whose populations are more religious tend to use fewer resources; yet at the same time, they have less capacity to meet environmental challenges, and are subject to more adverse outcomes, in part due to their high levels of poverty and continuing population growth." Thus, (c) is the right answer.
1 is incorrect. According to the line quoted above, nations whose populations are more religious tend to use fewer resources.

22. Answer: (C)
The passage tells us that in order to address issues of environmental justice, we need to identify groups that are disproportionately causing environmental risks. Refer to the line: "To address issues of environmental justice, we need to identify groups that are disproportionately causing environmental risks, and those who are disproportionately exposed." Thus, (c) is the right answer.
The other options are incorrect as the passage does not suggest those steps for addressing issues of environmental justice.

23. Answer: (B)
Refer to the lines: "Countries with more emissions and greater GDP tend to be less religious, have less population growth and to be better prepared for environmental challenges. Conversely, countries with a greater proportion of religiously affiliated people tend to have younger populations, higher environmental risks, lower GDP and lower

preparedness levels." It is clear from the lines quoted above that countries where a major section of the population is religious do not show less population growth. Thus, (b) is the right answer. All the other options hold true of such countries.

24. Answer: (E)
ABATE has been used in the passage to talk about actions that can diminish the effects of environmental degradation. MITIGATE is the closest in meaning to the word as used in the passage. Thus, (e) is the right answer.
ENTRENCH - establish
REPROACH - rebuke or scold someone
BEMUSE puzzle or confuse
SUMMON - call for or send for someone

25. Answer: (A)
COHESION has been used in the passage to talk about social bonds or solidarity. UNITY is the closest in meaning to the word as used in the passage. Thus, (a) is the right answer.
APPREHENSION - anxiety or fear that something bad or unpleasant will happen
PRUDENCE cautiousness
CONDOLENCE sympathy or solace
LEGITIMACY - conformity to rules

26. Answer: (B)
The sentence tells that right from the time when chemists started to manufacture (produce) substances that nature never created, the problem (issue) of water purification has become complex (complicated). TAINTED (polluted) is inappropriate in this context, and should be replaced with INVENTED (created). Thus, (b) is the right answer.
Forgo – go without (something desirable). Jinx – curse. Facile – easy.

27. Answer: (D)
The sentence tells us how pidgins are languages that are not acquired (inherited) as mother tongues rather used (applied) for a restricted (limited) set of communicative functions. The use of the noun COMMUNICATION (transmission) is inappropriate in this context, and should be replaced with the adjective COMMUNICATIVE (relating to the conveyance or exchange of information) as it is being used to modify the noun FUNCTIONS. Thus, (d) is the right answer.
Obtained – procured. Adopted – acquired. Casual – relaxed and unconcerned.

28. Answer: (E)
The sentence tells us how some people rely (depend) on music that helps them in their morning commute (a regular journey to and from one's place of work), while some use it to stay (be) pumped (excited) during a workout. All the words are grammatically and contextually correct. Thus, (e) is the right answer.
Confide – reveal. Realm – domain. Crave – feel a powerful desire for (something). Lulled – calmed.

29. Answer: (A)
The sentence tells us how the funding restrictions in the international market could impact (affect) both the availability (the quality of being able to be used or obtained) and cost of foreign funding (the action or practice of providing funding) for banks and corporates. CONTRASTS (dissimilarities) is inappropriate in this context, and should be replaced with CONSTRAINTS (restrictions). Thus, (a) is the right answer.
Nudge – poke. Credibility – trustworthiness. Hunting – chasing.

30. Answer: (B)
The sentence tells us how India, today, looks (appears) to be on the path to join (meet) the league (alliance) of the developed nations. COARSE (rough)

is inappropriate in this context, and should be replaced with COURSE (path). Thus, (b) is the right answer.

Grudges – a persistent feeling of ill will or resentment resulting from a past insult or injury. Inherit – acquire. Coterie – a small group of people with shared interests or tastes.

Quantitative Aptitude

Directions (31-35):

Airport	Number of hard trolleys transported	Number of soft trolleys transported
Delhi Airport	2400	3200
Kolkata Airport	3600	2600
Mumbai Airport	3400	2800
Chennai Airport	4800	5600
Bangalore Airport	3600	1800

31.   **Answer: (A)**
Desired revenue generated = 10 × 4800 + 5 × 5600 = ₹76000

32.   **Answer: (B)**
Required ratio = (3600 + 3400):(3200 + 1800) = 7:5

33.   **Answer: (D)**
Required number of trolleys = 3600 + 2600 + (2400 + 3200)/2 = 9000

34.   **Answer: (A)**
Required average = (3400 + 4800 + 2800 + 5600)/2 = 8300

35.   **Answer: (E)**
Total number of hard trolleys transported from Patna airport = 2/5 × (3600 + 1800) = 2160

Direction (36-40):

Shopkeepers	Number of mango bites sold	Number of boomers sold
Li	140	160
Mi	100	80
Ni	180	120
Ti	220	160
Xi	120	100

36.   **Answer: (A)**
Required percentage = (220/120) × 100 = 183.33%

37.   **Answer: (C)**
Required average = (140 + 100 + 180 + 220 + 120)/5 = 152

38.   **Answer: (E)**
Required revenue = 160 × 2 = ₹320

39.   **Answer: (A)**
Number of containers sold = 180/20 = 9

40.   **Answer: (C)**
Number of candies sold by 'Yi' = 1.2 × (120 + 100) = 264

Direction (41-45):
Percentage of marks obtained in Bengali out of total marks obtained in all five language papers together = 100 – 20 – 15 – 25 – 15 = 25%
Let total marks obtained in all five marks together be 'x'
So, 0.25 × x = 500
Or, x = 500/0.25 = 2000

Language	Marks obtained
Bengali	2000 × 0.25 = 500
English	2000 × 0.20 = 400
Hindi	2000 × 0.15 = 300
Marathi	500
Tamil	2000 × 0.15 = 300

41.   **Answer: (C)**
Marks obtained by him in Telugu = 1.20 × 300 = 360
Required average = (360 + 500)/2 = 430

42.   **Answer: (D)**
Maximum marks for English language paper = 400 × (100/80) = 500

43.   **Answer: (A)**
Desired marks = (400 + 300) × 1.25 + (500 + 300) × 0.8 = 700 × 1.25 + 800 × 0.8 = 875 + 640 = 1515

44.   **Answer: (B)**
To obtain more than 55%, the student has to score more than 385 (700 × 0.55) marks
From the table, we can conclude that he got more than 385 in only 3 language papers i.e. Bengali, English and Marathi.

45.   **Answer: (D)**
Required percentage = {(500 – 400)/500} × 100 = 20% less

46.   **Answer: (C)**
From I:
$3x^2 – 27 = 0$
$x^2 = 9$
$x = ±3$
From II:
$2y^2 = \sqrt{(21 + 43)}$
$2y^2 = 8$
$y^2 = 4$
$y = ±2$

x	Relation	y
3	>	2
3	>	-2
-3	<	2
-3	<	-2

So, the relationship between x and y cannot be established.

47.   **Answer: (B)**
From I:
$2x + 3y = 13$
$6x + 9y = 39$ ----(i)
From II:
$3x + 2y = 12$
$6x + 4y = 24$ ----(ii)
Subtracting equation (ii) from equation (i), we get
$5y = 15$
$y = 3$
And, $x = 2$

x	Relation	y
2	<	3

So, x < y.

48.   **Answer: (C)**
From I:
$x^2 + 22x + 96 = 0$
$x^2 + 16x + 6x + 96 = 0$
$x(x + 16) + 6(x + 16) = 0$
$(x + 16)(x + 6) = 0$
$x = -16, -6$
From II:
$y^2 + y – 90 = 0$
$y^2 + 10y – 9y – 90 = 0$
$y(y + 10) – 9(y + 10) = 0$
$(y + 10)(y – 9) = 0$
$y = -10, 9$

X	Relation	Y
-16	<	-10
-16	<	9
-6	>	-10
-6	<	9

So, no relation can be established between x and y.

49.   **Answer: (C)**
32 × (1/2) = 16
16 × (3/2) = 24

24 × (5/2) = 60
60 × (7/2) = 210
210 × (9/2) = 945
Therefore, 210 should come in place of 220.

50. Answer: (A)
14 + (6 × 2) = 26
26 + (6 × 4) = 50
50 + (6 × 6) = 86
86 + (6 × 8) = 134
134 + (6 × 10) = 194
Therefore, 86 should come in place of 84.

51. Answer: (D)
The following series follows the pattern as: Number + square of consecutive prime numbers starting with 2.
$11 + 2^2 = 15$
$15 + 3^2 = 24$
$24 + 5^2 = 49$
$49 + 7^2 = 98$
$98 + 11^2 = 219$
Therefore, 219 should come in place of 221.

52. Answer: (B)
$12 + 2^3 = 20$
$20 - 3^3 = -7$
$-7 + 4^3 = 57$
$57 - 5^3 = -68$
$-68 + 6^3 = 148$
Therefore, -68 should come in place of -65.

53. Answer: (C)
1 × 2 – 1 = 1
2 × 3 – 1 = 5
3 × 4 – 1 = 11
4 × 5 – 1 = 19
5 × 6 – 1 = 29
6 × 7 – 1 = 41
Therefore, 19 should come in place of 20.

54. Answer: (A)
40.09% of 840.02 + 502.96 – 24.09 × 13.98 =?
40% of 840 + 503 – 24 × 14 ~ ?
336 + 503 – 336 ~ ?
503 ~ ?

55. Answer: (C)
654.08 + 18.13 × 15.11 – 363.91 ÷ 13.89 = ?
654 + 18 × 15 – 364 ÷ 14 ~ ?
654 + 270 – 26 ~ ?
898 ~ ?

56. Answer: (E)
564.08 + 933.13 – 845.91 + 634.21 – 302.98 =?
564 + 933 – 846 + 634 – 303 ~ ?
982 ~ ?

57. Answer: (D)
? = √{1024.13 ÷ 3.87 + (12.01)1.99} × 14.12
? ~ √{1024 ÷ 4 + 12²} × 14
? ~ √(256 + 144) × 14
? ~ √400 ×14
? ~ 280

58. Answer: (C)
? = 72.5 ÷ $^{2.97}$√515.22 + 89.98 – 24.12
? ~ 72 ÷ ^{3}√512 + 90 – 24
? ~ 72 ÷ 8 + 90 – 24
? ~ 99 – 24
? ~ 75

59. Answer: (A)
Let number of ₹10 notes, ₹20 notes and ₹100 notes returned by the cashier is '2x', '4x' and 'x', respectively.
According to the question,
2x × 10 + 4x × 20 + x × 100 = 2000 – 1600
Or, 20x + 80x + 100x = 400
Or, 200x = 400
Or, x = 2
Number of ₹20 notes returned by the cashier = 8

60. Answer: (C)
Let the Present age of Vipul be 'x' years

Present age of his nephew = 16 – 4 = 12 years
Therefore,
{(x – 12)/3} = 12
Or, x – 12 = 36
Or, x = 48
Therefore, present age of Vipul = 48 years

61. Answer: (B)
Let cost price of article 'A' and 'B' be ₹'9x' and ₹'5x', respectively.
Selling price of article 'A' = 0.50 × 1.60 × 9x = ₹7.2x
Selling price of article 'B' = 1.40 × 5x = 7x
Required ratio = 7.2x:7x = 72:70 = 36:35

62. Answer: (A)
Sum invested at simple interest = 4800 × (3/8) = ₹1800
Simple interest received = (1800 × 0.15 × 8) = ₹2160
Interest received at remaining sum = (4800 – 1800){(1 + 50/100)² – 1} = 6750 – 3000 = ₹3750
Total interest received = 3750 + 2160 = ₹5910

63. Answer: (D)
Quantity of milk in 684 ml of mixture = 684 × (12/19) = 432 ml
Quantity of water in 684 ml of mixture = 684 – 432 = 252 ml
According to question;
(432 + x + 44)/(252 + x) = 9/5
Or, 2380 + 5x = 2268 + 9x
Or, 4x = 112
Or, x = 28

64. Answer: (D)
Total number of balls in the bag = x + 1 + x + x + 3 = 3x + 4
ATQ;
{$^xC_1$ × $^{(x+1)}C_1$}/$^{(3x+4)}C_2$ = 1/6
Or, {2 × x(x + 1)}/{(3x + 4)(3x + 3)} = 1/6
Or, 4x(x + 1) = (3x + 4)(x + 1)
Or, 4x = 3x + 4
Or, x = 4
Number of green balls = 4
Total number of balls = 3 × 4 + 4 = 16
Desired probability = 4/16 = 1/4 = 0.25

65. Answer: (C)
Let radius of base of the cylinder is 'r' cm
And, height of the cylinder is 'h' cm
Since, the sheet is folded along its length. So, length of sheet = circumference of base of the cylinder
Or, 2πr = 44
Or, r = 7 cm
Height of cylinder = breadth of the rectangle = 36 cm
Desired Volume = $πr^2h$ = (22/7) × 7 × 7 × 36 = 5544 cm³

Reasoning Aptitude

Direction (66-70):

T/V	Y	Q	U	P	X	R	V/T	Z	S	W

66. Answer: (C)
W sits at extreme right end.

67. Answer: (D)
Six persons sit between V and T.

68. Answer: (A)
Q sits second to the left of P.

69. Answer: (E)
X sits immediate left of R.

70. Answer: (B)
One person sits to the right of S.

Direction (71-75):
The final arrangement is as follows:

Floor	Person	Car
9	V	_ _ _ _
8	P	Swift
7	R	Cruz

6	S	Altroz
5	T	_ _ _ _ _
4	X	Verna
3	W	_ _ _ _ _
2	Q	Brizza
1	U	_ _ _ _ _

71.   **Answer: (D)**
V lives on the topmost floor.
72.   **Answer: (A)**
W lives immediately below the floor on which Verna lives.
73.   **Answer: (B)**
The one who likes Altroz lives two floors above the floor on which X live.
74.   **Answer: (C)**
T lives on 5th floor.
75.   **Answer: (E)**
All are living on odd number floors except S.

Direction (76-80):

Days	Persons	Posts
Monday	V	House Captain
Tuesday	R	Head girl
Wednesday	Q	Games Captain/ Monitor
Thursday	T	Head boy
Friday	P	Prefect
Saturday	S	Monitor/Games Captain
Sunday	U	Regulator

76.   **Answer: (D)**
U is the Regulator.
77.   **Answer: (A)**
Four persons have exam before P.
78.   **Answer: (E)**
Either two or four persons have better post than that of Q.
79.   **Answer: (D)**
R is a head girl.
80.   **Answer: (B)**
U has exam on Sunday.

Direction (81-85):
The final arrangement is as follows:
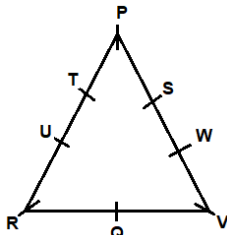
81.   **Answer: (C)**
Eight persons are sitting around the table.
82.   **Answer: (D)**
T sits 2nd to the left of S.
83.   **Answer: (B)**
U sits immediate right of R.
84.   **Answer: (A)**
W sits in the same side as S.
85.   **Answer: (E)**
Both the statements I and III are correct as per the arrangement.
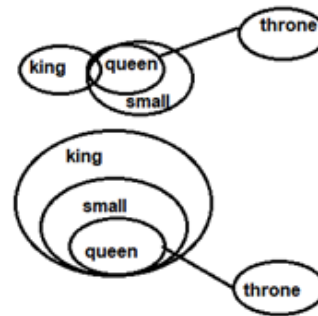
Direction (86-87):
Given numbers:
436   254   617   783   943
After rearrangement, we get,
346   245   167   378   349
86.   **Answer: (E)**
So, the sum is 14 (8 + 6)
87.   **Answer: (B)**
So, the difference is (7 − 7) = 0
88.   **Answer: (C)**

There is only 3 such pair in the given word INCREMENT i.e., CE, EI and NR.
89.   **Answer: (D)**
Following diagram can be formed from the statements:

From the above figure it is clear that all small can be king and there is no direct relation given between throne and king so, conclusion II follows.
90.   **Answer: (A)**
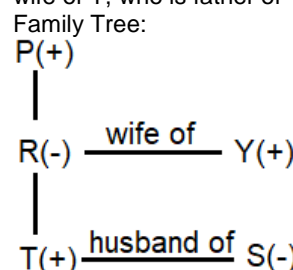Following diagram can be formed from the above statements.
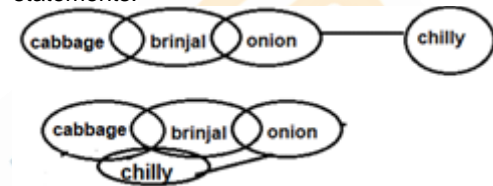
Some chilly can be cabbage so conclusion I follows.
91.   **Answer: (B)**
V ≥ L < C; M ≤ R (?) L; M > K
On combining, K < M ≤ R (?) L ≤ V
Replacing the signs of option (a) in the given inequality, K < M ≤ R > L ≤ V, it doesn't satisfy the given condition.
Replacing the signs of option (b) in the given inequality, K < M ≤ R ≤ L ≤ V, it satisfies the given condition.
Replacing the signs of option (c) in the given inequality, K < M ≤ R ≥ L ≤ V, it doesn't satisfy the given condition.
Replacing the signs of option (d) in the given inequality, K < M ≤ R < L ≤ V, it doesn't satisfy the given condition.
92.   **Answer: (D)**
K (1) R; M ≤ R ≥ D; M ≥ U (2) G
On combining, K (1) R ≥ M ≥ U (2) G
Replacing the signs of option (a) in the given inequality, K ≥ R ≥ M ≥ U > G, it doesn't satisfy the given condition.
Replacing the signs of option (b) in the given inequality, K < R ≥ M ≥ U ≥ G, it doesn't satisfy the given condition.
Replacing the signs of option (c) in the given inequality, K > R ≥ M ≥ U ≤ G, it doesn't satisfy the given condition.
Replacing the signs of option (d) in the given inequality, K > R ≥ M ≥ U ≥ G, it satisfies the given condition.
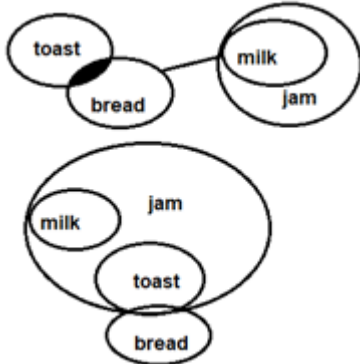**93.**   **Answer: (D)**
P#R&Y#T?S is decoded as P is father of R, who is wife of Y, who is father of T, who is husband of S.
Family Tree:

So, S is daughter-in-law of R.

94.　　Answer: (B)

X*C&L*M+H is decoded as X is brother of C, who is wife of L, who is brother of M, who is daughter of H.

Family Tree:

H(-/+)

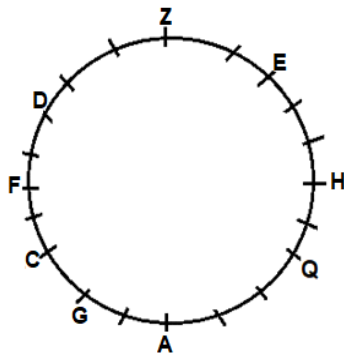M(-) ——sister of—— L(+) ——husband of—— C(-) ——sister of—— X(+)
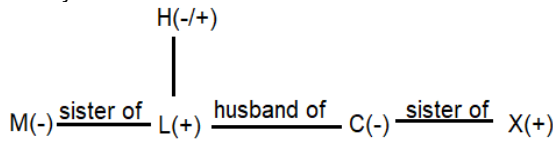
So, M is sister-in-law of X.

95.　　Answer: (A)

Following figures can be formed from the statements:

From the above figure it is clear all toast can be jam so, conclusion II does not follow.

Only conclusion I follows.

Direction (96-100):

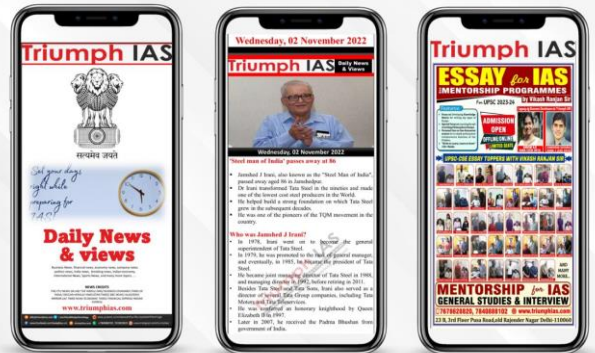**96.　　Answer: (D)**

F sits 5th to the right of Z.

97.　　Answer: (C)

20 people sit around the circular table.

98.　　Answer: (B)

F sits 3rd to the left of G.

99.　　Answer: (A)

11 people sit between F and Q when counted from the left of F.

100.　　Answer: (B)

7 people sit between A and E when counted from the right of A which is equals to number of people sit between H and C.

TesMus

...keeps you ahead

टेस्ट फॉर्म नंबर

अधिकतम अंक : 100
कुल प्रश्न : 100
निर्धारित समय : 60 मि.

उम्मीदवारों को निर्देश

प्रश्नों को हल करने से पहले निम्नलिखित निर्देशों को ध्यान से पढ़ें।

(1) इस पुस्तिका में **100 प्रश्न** हैं, जो कि कुल **3 भागों** में विभाजित हैं।

भाग -(I) : English Language **(30 प्रश्न)**

भाग -(II) : Quantitative Aptitude **(35 प्रश्न)**

भाग -(III) : Reasoning Aptitude **(35 प्रश्न)**

(2) सभी प्रश्न अनिवार्य हैं तथा सबके बराबर अंक हैं।

(3) प्रश्नों को हल करना प्रारम्भ करने से पहले आपको इस पुस्तिका की जांच करनी चाहिए और यह सुनिश्चित करना चाहिए कि इसमें सभी पृष्ठ उपस्थित हैं और कोई पृष्ठ कम या बदला हुआ नहीं है। अगर आपको इस पुस्तिका में कोई दोष मिलता है, तो आपको तुरंत इसे बदलना होगा।

(4) **प्रत्येक प्रश्न में नकारात्मक अंकन होता है क्योंकि प्रत्येक गलत उत्तर के लिए 0.25 अंक काट दिया जाएगा।**

(5) आपको निरीक्षक द्वारा उत्तर पुस्तिका अलग से दी जाएगी। आपको प्रश्नों को हल करना प्रारम्भ करने से पहले अपना नाम, रोल नंबर, टेस्ट नाम पुस्तिका में -पुस्तिका पर सावधानीपूर्वक पूरा करना होगा। आपको उत्तर-परीक्षा का नाम उत्तर/आईडी और/ निर्धारित स्थान पर अपना हस्ताक्षर भी करना होगा। इन निर्देशों का पूरी तरह से पालन किया जाना चाहिए, जिसको न करने पर आपकी उत्तरपु-स्तिका का मूल्यांकन नहीं किया जाएगा और आपको **'शून्य 'अंक** दिया जाएगा।

(6) उत्तर केवल **पेंसिल या ब्लैकब्लू बॉल पेन/** द्वारा उत्तरपुस्तिका प्रासंगिक प्रश्न संख्या के सम्बंधित गोले को पूरी तरह से ब्लैक - करके दिखाया जाना चाहिए।

(7) OMR उत्तर पुस्तिका को एक मशीन द्वारा जांचा जायेगा। यदि किसी स्थिति में उपलब्ध जानकारी, आवेदन पत्र में दी गयी जानकारी से अलग पायी गयी, तो आवेदक का आवेदन निरस्त कर दिया जायेगा।

(8) निरीक्षक की अनुमति मिलने के बाद ही कोई परीक्षा कक्ष छोड़ सकता है।

(9) उपरोक्त में से किसी भी निर्देश का अनुपालन करने में विफल उम्मीदवार को उपयुक्त कार्यवाही/जुर्माना के लिए उत्तरदायी समझा जा सकता है

(10) जितनी जल्दी हो सके उतनी जल्दी और सावधानी से प्रश्नों का उत्तर दें। कुछ सवाल कठिन हो सकते हैं और दूसरे आसान हो सकते हैं। किसी भी प्रश्न पर ज्यादा समय नहीं बिताएं।

(11) मोबाइल फोन और वायरलेस संचार उपकरण, परीक्षा कक्ष/कमरे में पूरी तरह से प्रतिबंधित हैं। कोई भी आवेदक अपने मोबाइल का या किसी वायरलेस संचार उपकरण को बंद करके भी अपने पास नहीं रख सकता। नियम का उल्लंघन करने पर आवेदक के विरूद्ध उचित कार्यवाही की जायेगी और उसका आवेदन भी निरस्त किया जा सकता है।

(12) उत्तर-पत्र पर कोई रफ काम नहीं किया जाना चाहिए।

(13) कोई भी उम्मीदवार परीक्षा पूरा होने से पहले परीक्षा कक्ष नहीं छोड़ सकता है।

परीक्षार्थी का नामः...
दिनाँकः.............. परीक्षा कोड ....
अनुक्रमांकः...

जब तक आपको यह परीक्षण पुस्तिका खोलने को न कहा जाए तब तक न खोलें ।

English Language

Direction (01-05): In the following passage, some of the words have been left out and replaced by a blank represented by a letter. First read the passage and try to understand what it is about. Then fill in the blanks as per the questions given.

In February, the Kerala police ___(1)___ a robot for police work. The same month, Chennai got its second robot-themed restaurant, where robots not only serve as waiters but also interact with customers in English and Tamil. In Ahmedabad, in December 2018, a cardiologist performed the world's first in-human telerobotic coronary intervention on a patient nearly 32 km away. All these examples ___(2)___ the arrival of Artificial Intelligence (AI) in our everyday lives. AI has several positive applications, as seen in these examples. But the capability of AI systems to learn from experience and to perform autonomously for humans makes AI the most ___(3)___ and self-transformative technology of the 21st century. If AI is not ___(4)___ properly, it is bound to have unmanageable implications. Imagine, for instance, that electricity supply suddenly stops while a robot is performing a surgery, and access to a doctor is lost? And what if a drone hits a human being? These questions have already ___(5)___ courts in the U.S. and Germany. All countries, including India, need to be legally prepared to face such kind of disruptive technology.

1. **(A)** ceased   **(B)** inducted
   (C) discharged   **(D)** amalgamated
   (E) heaped

2. **(A)** refrain   **(B)** persuade
   (C) symbolise   **(D)** adopt
   (E) supersede

3. **(A)** disruptive   **(B)** pursued
   (C) daunting   **(D)** alarming
   (E) cinched

4. **(A)** curbed   **(B)** planned
   (C) exalted   **(D)** regulated
   (E) advanced

5. **(A)** evaded   **(B)** confronted
   (C) dodged   **(D)** countered
   (E) eschewed

Direction (06-08): In the given sentence, a blank is given indicating that something is missing. From the given options a combination of words would fit the blank thereby making it grammatically and contextually correct.

6. Herrera, with help from other researchers, spent four months at Cerrejón, _____ more than 2,000 plant specimens from several different pit mines.
   1. gathering   **2.** committing
   3. recollecting   **4.** collecting
   (A) 1 and 3   **(B)** 1 and 4
   (C) 2 and 3   **(D)** 2 and 4
   (E) All fit

7. The _____ of African grey parrots and cicadas filled her ears and the smell of the rich clay soil—musty decay with a hint of cocoa—permeated her nostrils.
   1. hubbub   **2.** Cacophony   **3.** din

(A) Only 2   **(B)** Only 1 and 2
(C) Only 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

8. The ecotourism activities that provide financial support for many conservation efforts dried up, and many restoration projects had to be _____.
   1. deferred   **2.** referred
   3. postponed   **4.** hindered
   (A) 1 and 3   **(B)** 1 and 4
   (C) 2 and 3   **(D)** 2 and 4
   (E) All fit

Direction (09-13): In the question given below, a sentence is given, divided into parts. One of the parts may contain an error. Identify the part that contains the error, and mark it as the answer. Ignore errors of punctuation. In case the sentence is correct as it is, mark option (e), that is, 'No error'. Note – The words in bold are grammatically and contextually correct.

9. Just as it is possible to plan earthquake-resilient structures and site them scientifically, but hard to anticipate a major quake, similarly, proper **planning** can insure against the inevitable extremities **of nature**.
   (A) Just as it is possible to plan earthquake-resilient structures
   (B) and site them scientifically, but hard
   (C) to anticipate a major quake, similarly, proper
   (D) can insure against the inevitable extremities
   (E) No error

10. International climate change agreements to limit **greenhouse gas emissions** will yield benefits only in the very **long term** but what is did in the near future will mean the difference between surviving and thriving.
    (A) International climate change agreements to limit
    (B) will yield benefits only in the very
    (C) but what is did in the near future will mean
    (D) the difference between surviving and thriving.
    (E) No error

11. **The interaction** between warming, rainfall and temperature **is complex** and variables such as aerosol emissions, particulate matter pollution, agriculture and forestry patterns must be accounted off.
    (A) between warming, rainfall and temperature
    (B) and variables such as aerosol emissions,
    (C) particulate matter pollution, agriculture and
    (D) forestry patterns must be accounted off.
    (E) No error

12. The bigger challenge is to undertake **so-called** climate-proofing of the most **vulnerable** regions and taking warnings of scientific risk assessment serious.
    (A) The bigger challenge is to undertake
    (B) climate-proofing of the most
    (C) regions and taking warnings of
    (D) scientific risk assessment serious.
    (E) No error

13. With inflation looming as a visceral threat, **demand yet to** regain traction and political appetite in government for more fiscal support negligible, India's policymakers have little option but to hasten the vaccine roll-out on a **war footing**.
    (A) With inflation looming as a visceral threat,
    (B) to regain traction and political appetite in
    (C) government for more fiscal support negligible, India's policymakers

(D) have little option but to hasten the vaccine roll-out on a
(E) No error

Direction (14-16): In the question below, a sentence is given, four words have been highlighted in bold. Find out if the words are appropriate (grammatically and contextually). Only one word will be inappropriate, mark that as your answer. If all are appropriate, mark "All are correct".

14. **Resilience** is important not only when there is a major **upholster**, but also in everyday life as we **navigate** personal and professional **disappointments**.
(A) resilience   **(B)** upholster
(C) navigate   **(D)** disappointments
(E) All are correct

15. The dust storms on Mars are the largest in the solar system, **capable** of **blanketing** the **attire** planet and **lasting** for months.
(A) capable   **(B)** blanketing
(C) attire   **(D)** lasting
(E) All are correct

16. Anyone who claims to live a perfect life is perhaps **recurring** to the fact that **amidst** all the **imperfections**, he has found the golden mean of **navigating** all of it with grace and dignity.
(A) recurring   **(B)** amidst
(C) imperfections   **(D)** navigating
(E) All are correct

Direction (17-18): Which of the following phrases (1), (2), and (3) given below each sentence should replace the phrase printed in bold letters to make the sentence grammatically correct? Choose the best option among the five given alternatives that reflect the correct use of the phrase in the context of the grammatically correct sentence. If the sentence is correct as it is, mark 'No Improvement' as the answer.

17. The school children are **eager waiting for** the summer holidays.
1. longing for   2. ardently waiting for
3. looking to forgo
(A) No Improvement   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

18. The little boy wanted to hide in the bush so that **no one should see him**.
1. he become invisible
2. he is not seen by anyone
3. none could see him
(A) No Improvement   **(B)** Only 1 and 2
(C) Only 1 and 3   **(D)** Only 2 and 3
(E) All 1, 2 and 3

Direction (19-25): Read the following passage and answer the questions.

As a marker of identity that transcends national borders, religion influences many environmentally relevant behaviors. Thus, understanding its role is key to tackling environmental challenges that are fundamentally transnational. Previous research has found that religion influences many aspects of lifestyle that affect the environment. These include childbearing decisions, the use of contraceptives and resulting effects on population growth; risk behaviors and use of health services, which affect life expectancy; whether people see climatic change as human-caused, or related to forces beyond human control; consumption patterns, and thereby use of natural resources and emissions of greenhouse gases; and willingness to take actions to abate environmental degradation.

A new study published in the Journal of Religion and Demography investigates the link between environmental challenges and religion. The work builds on a growing body of research carried out at the Center for International Earth Science Information Network and the Columbia Aging Center. It looks at the environment-religion relationship by analyzing religious affiliation together with a variety of environment and climate change-related indicators at the country level. The researchers responsible for the study also conducted exploratory and descriptive statistical analyses to better understand the associations among religion on one hand, and economic development, greenhouse gas emissions and exposure to environmental stressors on the other.

Basically, they found that nations whose inhabitants are less religious tend to use more resources and produce more emissions; yet, they are also better prepared to deal with resulting environmental challenges, because they are wealthier. On the other hand, nations whose populations are more religious tend to use fewer resources; yet at the same time, they have less capacity to meet environmental challenges, and are subject to more adverse outcomes, in part due to their high levels of poverty and continuing population growth.

The study argues that it is important to consider the religious dimension when discussing who wins and who loses amid environmental degradation, resource shortages and global warming. To address issues of environmental justice, we need to identify groups that are disproportionately causing environmental risks, and those who are disproportionately exposed. A key aim xof the study is to assess the religious composition of those subject to environmental changes, and how gaining an understanding can help to craft environmental policies that are more effective in fighting climate change. This aspect is especially relevant in the poorest nations of the world, where close to 100 percent of the population ascribes to a religion, and where religion plays a very important role in providing basic services and social cohesion.

Further, the study looks into the role of religion in shaping human behavior. Religious change can affect social cohesion, consumption trends and willingness to pay for climate-change mitigation or adaptation initiatives. Our findings indicate that religious affiliation relates to greenhouse gas emissions, energy use and gross domestic product on a global scale. Countries with more emissions and greater GDP tend to be less religious, have less population growth and to be better prepared for environmental challenges. Conversely, countries with a greater proportion of religiously affiliated people tend to have younger populations, higher environmental risks, lower GDP and lower preparedness levels.

19. According to the passage, which of the following aspects of lifestyle affect(s) the environment?
1. consumption patterns
2. age of retirement
3. use of contraceptives
(A) Only 2   **(B)** Only 3
(C) Only 1 and 2   **(D)** Only 2 and 3
(E) Only 1 and 3

20. Researchers responsible for the study published in the Journal of Religion and Demography conducted exploratory and descriptive statistical analyses of the associations between religion _____.
(A) environmental literacy
(B) economic development
(C) greenhouse gas emissions
(D) Both (B) and (C)
(E) (A), (B) and (C)

21. Nations whose inhabitants are more religious are subject to more adverse outcomes resulting from environmental challenges. Which of the following can be cited as a reason for the same?
1. unsustainable use of resources
2. high levels of poverty
3. population growth
(A) Only 2　　　　　**(B)** Only 1 and 2
(C) Only 2 and 3　　**(D)** Only 1 and 3
(E) All 1, 2 and 3

22. According to the passage, what do we need to do to address issues of environmental justice?
(A) ban the use of plastic
(B) replace fossil fuels with renewable sources of energy
(C) identify groups that are disproportionately causing environmental risks
(D) minimising use water by industries for processing by reusing and recycling it
(E) All of the above

23. Which of the following is NOT true of countries where a major section of the population is religious?
(A) they have younger populations
(B) they show less population growth
(C) they have lower preparedness levels
(D) they face higher environmental risks
(E) they have lower GDP

24. Which of the following words is the closest in meaning to the word '**abate**' as used in the passage?
(A) entrench　　　**(B)** reproach
(C) bemuse　　　**(D)** summon
(E) mitigate

25. Which of the following is the closest in meaning to the word '**cohesion**' as used in the passage?
(A) unity　　　　**(B)** apprehension
(C) prudence　　**(D)** condolence
(E) legitimacy

Direction (26-30): In the question below, a sentence is given, four words have been highlighted in bold, one of which might be grammatically or contextually inappropriate. From the given options, choose the one that provides the correct replacement for the incorrect word.

26. Ever since chemists began to **manufacture** substances that nature never **tainted**, the **problem** of water purification has become **complex**.
(A) manufacture – forgo　**(B)** tainted – invented
(C) problem – jinx　　　　**(D)** complex – facile
(E) None of the above

27. Pidgins are languages that are not **acquired** as mother tongues but are **used** for a **restricted** set of **communication** functions.
(A) acquired – obtained
(B) used – adopted
(C) restricted – casual
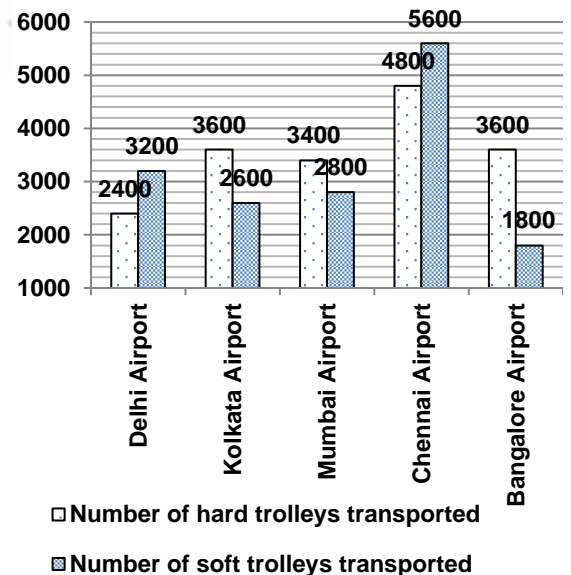**(D)** communication – communicative

(E) None of the above

28. Some people **rely** on music to get them through the morning **commute**, while some turn up a favourite playlist to **stay pumped** during a workout.
(A) rely – confide　　**(B)** commute – realm
(C) stay – crave　　　**(D)** pumped – lulled
(E) None of the above

29. The funding **contrasts** in international markets could **impact** both the **availability** and cost of foreign **funding** for banks and corporates.
(A) contrasts – constraints **(B)** impact – nudge
(C) availability – credibility **(D)** funding – hunting
(E) None of the above

30. Today, India **looks** to be on the **coarse** to **join** the **league** of developed nations.
(A) looks -- grudges　**(B)** coarse - course
(C) join -- inherit　　　**(D)** league – coterie
(E) None of the above

Quantitative Aptitude

निर्देश (31-35): नीचे दी गयी जानकारी के आधार पर प्रश्नों के उत्तर दें।

निम्नलिखित बार ग्राफ पांच अलग-अलग हवाई अड्डों दिल्ली एयरपोर्ट, कोलकाता एयरपोर्ट, मुंबई एयरपोर्ट, चेन्नई एयरपोर्ट और बैंगलोर एयरपोर्ट से इंडिगो द्वारा एक विशेष दिन में परिवहन की जाने वाली सॉफ्ट और हार्ड ट्रॉलियों की संख्या को दर्शाता है।
परिवहन की जाने वाली ट्रॉली की कुल संख्या = परिवहन की जाने वाली सॉफ्ट और हार्ड ट्रॉली की संख्या का योग।

□ **Number of hard trolleys transported**

▨ **Number of soft trolleys transported**

31. यदि इंडिगो परिवहन शुल्क के रूप में प्रत्येक हार्ड ट्रॉली के लिए ₹10 और प्रत्येक सॉफ्ट ट्रॉली के लिए ₹5 चार्ज करती है, तो इंडिगो द्वारा चेन्नई एयरपोर्ट से सभी ट्रॉलियों के परिवहन द्वारा उत्पन्न कुल राजस्व ज्ञात कीजिए।
(A) ₹76000　　　　　**(B)** ₹78000
(C) ₹82000　　　　　**(D)** ₹70000
(E) ₹84000

32. कोलकाता और मुंबई एयरपोर्ट से परिवहन की जाने वाली हार्ड ट्रॉलियों की कुल संख्या और दिल्ली और बंगलौर

एयरपोर्ट से परिवहन की जाने वाली सॉफ्ट ट्रॉलियों की कुल संख्या का अनुपात कितना है?

(A) 6:5   **(B)** 7:5

(C) 3:2   **(D)** 4:3

(E) इनमें से कोई नहीं

33. यदि ट्रॉलियों की कुल संख्या का आधा, जिन्हें दिल्ली एयरपोर्ट से ले जाया जाना था, कुछ लॉजिस्टिक समस्या के कारण कोलकाता एयरपोर्ट के लिए भेजा गया था, तो अब कोलकाता एयरपोर्ट से परिवहन की जाने वाली ट्रॉलियों की कुल संख्या ज्ञात कीजिए।

(A) 8000   **(B)** 6800

(C) 8800   **(D)** 9000

(E) 9200

34. मुंबई और चेन्नई एयरपोर्ट से परिवहन की जाने वाली ट्रॉलियों की औसत संख्या कितनी है?
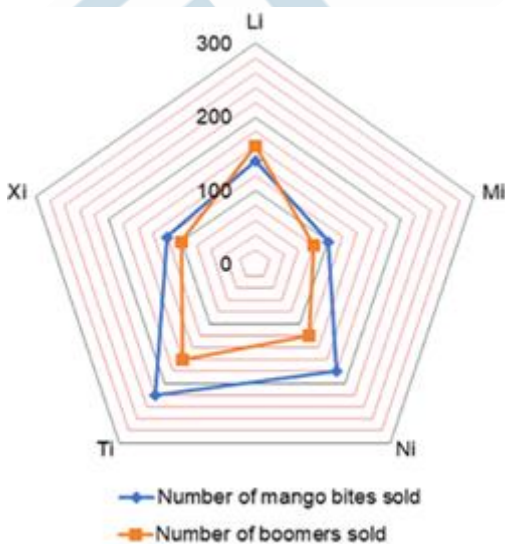
(A) 8300   **(B)** 8500

(C) 7800   **(D)** 9200

(E) 8100

35. यदि पटना एयरपोर्ट से परिवहन की जाने वाली हार्ड ट्रॉली की संख्या बैंगलोर एयरपोर्ट से परिवहन की जाने वाली कुल ट्रॉलियों की संख्या का (2/5) है, तो पटना एयरपोर्ट से परिवहन की जाने वाली हार्ड ट्रॉलियों की संख्या ज्ञात कीजिए।

(A) 2280   **(B)** 2400

(C) 1940   **(D)** 2480

(E) 2160

निर्देश (36-40): नीचे दी गयी जानकारी के आधार पर प्रश्नों के उत्तर दें।

निम्नलिखित राडार चार्ट 5 अलग-अलग दुकानदारों 'Li', 'Mi', 'Ni', 'Ti' और 'Xi' द्वारा बेची गयी दो प्रकार की कैंडी यानी मैंगो बाइट और बूमर की संख्या को दर्शाता है।

36. 'Ti' द्वारा बेचे गए मैंगो बाइट की संख्या, 'Ni' द्वारा बेचे गए बूमर की संख्या का कितना प्रतिशत (अनुमानित मान) है?

(A) 183.33%   **(B)** 167.33%

(C) 195.67%   **(D)** 146.33%

(E) 189.67%

37. सभी पांच दुकानदारों द्वारा बेचे गए मैंगो बाइट की औसत संख्या कितनी है?

(A) 149   **(B)** 167

(C) 152   **(D)** 150

(E) 158

38. यदि 'Li' ने प्रत्येक बूमर को ₹2 में बेचा, तो 'Li' द्वारा बूमर बेचने से प्राप्त कुल राजस्व ज्ञात कीजिए।

(A) ₹300   **(B)** ₹230

(C) ₹360   **(D)** ₹340

(E) ₹320

39. यदि मैंगो बाइट से भरे एक कंटेनर में 20 मैंगो बाइट होती हैं, तो इसमें 'Ni' द्वारा बेचे गए मैंगो बाइट वाले कंटेनरों की कुल संख्या ज्ञात करें।

(A) 9   **(B)** 7

(C) 8   **(D)** 6

(E) 11

40. यदि एक अन्य दुकानदार अर्थात 'Yi' ने 'Xi' से 20% अधिक कैंडी बेची, तो 'Yi' द्वारा बेची गयी कैंडीज की संख्या ज्ञात कीजिए।
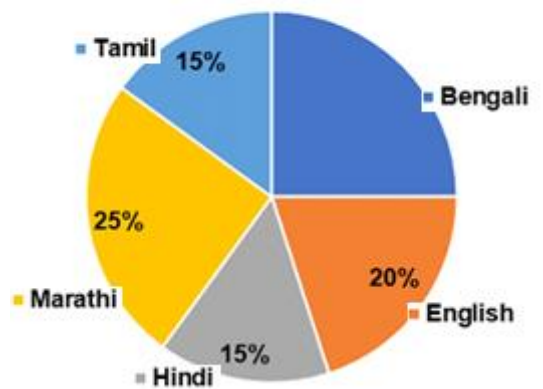
(A) 242   **(B)** 258

(C) 264   **(D)** 248

(E) 254

निर्देश (41-45): नीचे दी गयी जानकारी के आधार पर प्रश्नों के उत्तर दें।

निम्नलिखित पाई चार्ट एक छात्र द्वारा सभी पांच भाषा के पेपरों में प्राप्त कुल अंकों में से पांच अलग-अलग भाषाओं के पेपर में प्राप्त अंकों के वितरण को प्रतिशत माप में दर्शाता है।

नोट: छात्र द्वारा मराठी में प्राप्त अंक 500 हैं।

41. यदि छात्र द्वारा तेलुगु में प्राप्त अंक उसके द्वारा तमिल में प्राप्त अंकों का 120% है, तो उसके द्वारा बंगाली और तेलुगु में प्राप्त औसत अंक ज्ञात कीजिए।

(A) 410   **(B)** 460
(C) 430   **(D)** 420
(E) 440

42. यदि छात्रों ने अंग्रेजी भाषा में समान भाषा के पेपर के लिए अधिकतम अंकों में से 80% अंक प्राप्त किए हैं, तो अंग्रेजी भाषा के पेपर के लिए अधिकतम अंक ज्ञात करें।
(A) 600   **(B)** 450
(C) 520   **(D)** 500
(E) 480

43. यदि छात्र ने प्राप्त वास्तविक अंकों की तुलना में अंग्रेजी और हिंदी में प्रत्येक में 25% अधिक अंक प्राप्त किए थे और तमिल और मराठी में प्रत्येक में 20% कम अंक प्राप्त किए थे, तो इन चार विषयों में उसके द्वारा प्राप्त कुल अंक कितने होंगे।
(A) 1515   **(B)** 1445
(C) 1565   **(D)** 1535
(E) 1485

44. यदि प्रत्येक भाषा के पेपर के लिए अधिकतम अंक 700 थे, तो उस भाषा के पेपर की संख्या ज्ञात कीजिए जिसमें छात्र द्वारा प्राप्त अंक 55% से अधिक हैं।
(A) 4   **(B)** 3
(C) 2   **(D)** 5
(E) 1

45. छात्र द्वारा अंग्रेजी भाषा के पेपर में प्राप्त अंक उसके द्वारा मराठी भाषा के पेपर में प्राप्त अंकों से कितने प्रतिशत अधिक या कम है?
(A) 20% अधिक   **(B)** 30% कम
(C) 40% अधिक   **(D)** 20% कम
(E) 10% कम

निर्देश (46-48): प्रश्न में दो समीकरण I और II दिए गए हैं। आपको x और y के बीच सही संबंध स्थापित करने के लिए दोनों समीकरणों को हल करना है और सही विकल्प चुनना है।

46.   **I.** $3x^2 – 27 = 0$ **II.** $2y^2 = \sqrt{(21 + 43)}$
(A) x > y   **(B)** x < y
(C) x = y या संबंध स्थापित नहीं किया जा सकता
(D) x ≥ y   **(E)** x ≤ y

47.   **I.** 2x + 3y = 13   **II.** 3x + 2y = 12
(A) x > y   **(B)** x < y
(C) x = y या संबंध स्थापित नहीं किया जा सकता
(D) x ≥ y   **(E)** x ≤ y

48.   **I.** $x^2 + 22x + 96 = 0$ **II.** $y^2 + y – 90 = 0$
(A) x > y   **(B)** x < y
(C) x = y या संबंध स्थापित नहीं किया जा सकता
(D) x ≥ y   **(E)** x ≤ y

निर्देश (49-53): निम्नलिखित संख्याएँ एक श्रृंखला बनाती हैं। विषम का चुनाव करें?

49.   32, 16, 24, 60, 220, 945

(A) 945   **(B)** 60
(C) 220   **(D)** 32
(E) 24

50.   14, 26, 50, 84, 134, 194
(A) 84   **(B)** 194
(C) 50   **(D)** 14
(E) 134

51.   11, 15, 24, 49, 98, 221
(A) 11   **(B)** 49
(C) 98   **(D)** 221
(E) 24

52.   12, 20, -7, 57, -65, 148
(A) 20   **(B)** -65
(C) -7   **(D)** 148
(E) 12

53.   1, 5, 11, 20, 29, 41
(A) 41   **(B)** 11
(C) 20   **(D)** 29
(E) 5

निर्देश (54-58): निम्नलिखित प्रश्न में प्रश्न चिह्न (?) के स्थान पर क्या अनुमानित मान आएगा? (नोट: आपको सटीक मान की गणना करने की आवश्यकता नहीं है।)

54.   40.09% of 840.02 + 502.96 – 24.09 × 13.98 =?
(A) 503   **(B)** 412
(C) 594   **(D)** 313
(E) 712

55.   654.08 + 18.13 × 15.11 – 363.91 ÷ 13.89 = ?
(A) 239   **(B)** 684
(C) 898   **(D)** 526
(E) 345

56.   564.08 + 933.13 – 845.91 + 634.21 – 302.98 =?
(A) 526   **(B)** 718
(C) 842   **(D)** 501
(E) 982

57.   ? = $\sqrt{\{1024.13 ÷ 3.87 + (12.01)1.99\}} × 14.12$
(A) 70   **(B)** 140
(C) 510   **(D)** 280
(E) 350

58.   ? = $72.5 ÷ {}^{2.97}\sqrt{515.22} + 89.98 – 24.12$
(A) -36   **(B)** 24
(C) 75   **(D)** 121
(E) 164

59. श्रेया ने ₹1600 का सामान खरीदने के बाद कैश काउंटर में एक ₹2000 का भुगतान किया और खजांची ने कुछ ₹10, कुछ ₹20 और कुछ ₹100 नोट उसे क्रमश: 2:4:1 के

अनुपात में लौटा दिए। कैशियर द्वारा उसे लौटाए गये ₹20 के नोट की संख्या ज्ञात करें?
- (A) 8
- (B) 6
- (C) 5
- (D) 4
- (E) 7

60. जब विपुल की वर्तमान आयु में से 12 वर्ष घटाया जाता है और प्राप्त परिणाम को 3 से विभाजित किया जाता है, तो उसके भतीजे की वर्तमान आयु प्राप्त होती है। यदि उसके भतीजे की वर्तमान आयु विपुल के पुत्र की वर्तमान आयु से 4 वर्ष कम है जो 16 वर्ष का है, तो विपुल की वर्तमान आयु ज्ञात कीजिए।
- (A) 36 वर्ष
- (B) 54 वर्ष
- (C) 48 वर्ष
- (D) 33 वर्ष
- (E) 51 वर्ष

61. वस्तु 'A' और 'B' के क्रय मूल्य का अनुपात क्रमशः 9:5 है। दुकानदार ने वस्तु 'A' को उसके क्रय मूल्य से 60% अधिक अंकित किया और 50% की छूट देकर उसे बेच दिया और वस्तु 'B' को 40% के लाभ पर बेच दिया। उनके विक्रय मूल्य का अनुपात ज्ञात कीजिए।
- (A) 31:32
- (B) 36:35
- (C) 33:32
- (D) 29:28
- (E) इनमें से कोई नहीं

62. राजन ने ₹4800 दो भागों में 5:3 के अनुपात में विभाजित किया। उसने 8 वर्षों के लिए 15% प्रति वर्ष साधारण ब्याज की दर से छोटे हिस्से का निवेश किया और शेष राशि को दो वर्ष के लिए 50% प्रतिवर्ष वार्षिक देय चक्रवृद्धि ब्याज पर निवेश किया। राजन द्वारा अर्जित कुल ब्याज ज्ञात कीजिए।
- (A) ₹5910
- (B) ₹6100
- (C) ₹4840
- (D) ₹5720
- (E) इनमें से कोई नहीं

63. 684 मिली मिश्रण में दूध और पानी क्रमशः 12:7 के अनुपात में है। यदि इसमें 'x' मिली पानी और 'x + 44' मिली दूध मिला दिया जाए तो परिणामी मिश्रण में दूध और पानी का अनुपात क्रमशः 9:5 हो जाता है। 'x' का मान ज्ञात करें।
- (A) 18
- (B) 38
- (C) 48
- (D) 28
- (E) 8

64. एक बैग में रेड, ग्रीन और ब्लू गेंदें की संख्या क्रमशः 'x + 1', 'x' और 'x + 3' है। यदि एक के बाद एक और बिना प्रतिस्थापन के एक रेड और एक ग्रीन गेंद निकालने की प्रायिकता (1/6) है, तो एक ग्रीन गेंद निकालने की प्रायिकता ज्ञात कीजिए।
- (A) 0.2
- (B) 0.375
- (C) 0.4
- (D) 0.25
- (E) तय नहीं किया जा सकता

65. 44 सेमी × 36 सेमी आयाम की एक आयताकार शीट को एक खोखला बेलन बनाने के लिए इसकी लंबाई के साथ मोड़ा जाता है। बेलन का आयतन ज्ञात कीजिए।

- (A) 5524 सेमी³
- (B) 5554 सेमी³
- (C) 5544 सेमी³
- (D) 5564 सेमी³
- (E) इनमें से कोई नहीं

Reasoning Aptitude

निर्देश (66-70): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

11 व्यक्ति P, Q, R, S, T, U, V, W, X, Y और Z एक पंक्ति में उत्तर दिशा की ओर मुख करके बैठे हैं। साथ बैठे प्रत्येक व्यक्ति के बीच की दूरी समान है। लगातार अक्षर से शुरू होने वाले नाम वाले कोई भी दो व्यक्ति एक दूसरे के बगल में नहीं बैठे हैं।
R और S के बीच दो व्यक्ति बैठे हैं। Y, P के बाएं से तीसरे स्थान पर बैठा है लेकिन किसी भी अंतिम छोर पर नहीं बैठा है। Y और R के बीच चार व्यक्ति बैठे हैं। X पंक्ति के ठीक बीच में बैठा है। Q, U के तत्काल बाएं बैठा है और U अंतिम छोर पर नहीं बैठा है। Z, W के बाएं से दूसरे स्थान पर बैठा है।

66. निम्नलिखित में से कौन अंतिम दाएं छोर पर बैठा है?
- (A) P
- (B) T
- (C) W
- (D) Z
- (E) S

67. V और T के बीच कितने व्यक्ति बैठे हैं?
- (A) एक
- (B) पाँच
- (C) तीन
- (D) छः
- (E) चार

68. निम्नलिखित में से कौन P के बाएं से दूसरे स्थान पर बैठा है?
- (A) Q
- (B) Y
- (C) X
- (D) R
- (E) Z

69. R के तत्काल बाएं कौन बैठा है?
- (A) P
- (B) S
- (C) W
- (D) Z
- (E) X

70. S के दाएं कितने व्यक्ति बैठे हैं?
- (A) दो
- (B) एक
- (C) तीन
- (D) पाँच
- (E) चार

निर्देश (71-75): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

नौ व्यक्ति P, Q, R, S, T, U, V, W और X नौ मंजिला इमारत में रहते हैं जहाँ भूतल को 1 और भूतल के ऊपर के तल को 2 है और इसी तरह आगे भी अंकित किया गया है। साथ ही, प्रत्येक को अलग-अलग कार पसंद हैं।
अल्ट्रोज पसंद करने वाला व्यक्ति Q से चार मंजिल ऊपर रहता है, लेकिन उनमें से कोई भी विषम संख्या से अंकित मंजिल पर नहीं रहता है। Q और X के बीच केवल एक

व्यक्ति रहता है और X को वरना पसंद है। ब्रीजा पसंद करने वाला व्यक्ति दूसरी मंजिल पर रहता है। X और V के बीच तीन से अधिक व्यक्ति रहते हैं। V और R के बीच केवल एक व्यक्ति रहता है और R को क्रूज पसंद है। T, R के नीचे एक विषम संख्या से अंकित मंजिल पर रहता है। T और P के बीच मंजिलों की संख्या T और Q के बीच मंजिलों की संख्या के समान है। S एक सम संख्या से अंकित मंजिल पर रहता है। W U के ऊपर रहता है। आठवीं मंजिल पर रहने वाले व्यक्ति को स्विफ्ट पसंद हैं।

71. सबसे ऊपरी मंजिल पर कौन रहता है?
(A) स्विफ्ट को पसंद करने वाला व्यक्ति
(B) P
(C) ब्रीजा को पसंद करने वाला व्यक्ति
(D) V
(E) उपरोक्त में से कोई नहीं

72. वरना पसंद करने वाले व्यक्ति के तत्काल नीचे कौन रहता है?
(A) W   **(B)** P
(C) R   **(D)** T
(E) इनमे से कोई भी नहीं

73. X जिस मंजिल पर रहता है, उससे दो मंजिल ऊपर कौन रहता है?
(A) V
(B) अल्ट्रोज पसंद करने वाला व्यक्ति
(C) P
(D) वरना पसंद करने वाला व्यक्ति
(E) उपरोक्त में से कोई नहीं

74. निम्न में से T किस मंजिल पर रहता है?
(A) चौथी   **(B)** तीसरी
(C) पांचवीं   **(D)** छठी
(E) उपरोक्त में से कोई नहीं

75. निम्नलिखित में से चार किसी न किसी रूप में एक दूसरे से संबंधित हैं और इस प्रकार एक समूह बनाते हैं। वह चुनें जो उस समूह से संबंधित नहीं है।
(A) V   **(B)** R
(C) T   **(D)** W
(E) S

निर्देश (76-80): दिए गए जानकारी के आधार पर सवालों के उत्तर दें।

सात छात्र P, Q, R, S, T, U और V की परीक्षा सोमवार से रविवार तक एक सप्ताह में अलग-अलग दिनों पर हैं पर जरुरी नहीं कि इसी क्रम में हों। इनमे से प्रत्येक का पद अलग-अलग है अर्थात हेड गर्ल, हेड बॉय, गेम्स कप्तान, हाउस कप्तान, मोनिटर, प्रीफेक्ट और रेगुलेटर जहाँ हेड गर्ल उच्चतम पद है और हेड बॉय दूसरा उच्चतम पद है और इसी तरह।
T की परीक्षा शनिवार को नहीं है। P, जो एक प्रीफेक्ट है, की परीक्षा T के तत्काल बाद है। T की परीक्षा V से तीन दिन बाद है और V एक हाउस कप्तान है। हेड बॉय की परीक्षा रविवार को नहीं है। U की परीक्षा S के तत्काल बाद

है। हेड बॉय की परीक्षा Q के तत्काल बाद है। R का पद T से उच्च है। R की परीक्षा Q के बाद नहीं है। ना ही Q ना ही S रेगुलेटर है।

76. निम्नलिखित में से कौन एक रेगुलेटर है?
(A) S
(B) वह व्यक्ति, जिसकी परीक्षा बुधवार को है
(C) वह व्यक्ति, जिसकी परीक्षा मंगलवार को है
(D) U
(E) Q

77. कितने व्यक्तियों की परीक्षा P से पहले है?
(A) चार   **(B)** तीन
(C) एक   **(D)** दो
(E) पांच

78. कितने व्यक्तियों का पद Q से बेहतर है?
(A) दो   **(B)** चार
(C) एक   **(D)** तीन
(E) निर्धारित नहीं किया जा सकता

79. R एक _____ है।
(A) हाउस कप्तान   **(B)** प्रीफेक्ट
(C) मोनिटर   **(D)** हेड गर्ल
(E) हेड बॉय

80. U की परीक्षा _____ को है।
(A) शनिवार   **(B)** रविवार
(C) शुक्रवार   **(D)** बुधवार
(E) सोमवार

निर्देश (81-85): दिए गए जानकारी के आधार पर सवालों के उत्तर दें।

कुछ संख्या में व्यक्ति एक त्रिकोणाकार मेज़ पर इस तरह बैठे है कि तीन व्यक्ति मेज़ के कोने पर बैठे हैं और शेष व्यक्ति मेज़ के भुजा पर बैठे हैं। सभी का मुख केंद्र से बाहर की ओर है। मेज़ के प्रत्येक भुजा पर अधिकतम दो व्यक्ति बैठे हैं।
वह व्यक्ति, जो W के तत्काल दाएँ ओर बैठा है, मेज़ के कोने पर बैठा है। P, जो कोने पर बैठा है, R के दाएँ से तीसरे स्थान पर बैठा है। केवल एक व्यक्ति R और V के बीच बैठे है और V, P के बगल में नहीं है। S, Q के बाएं से तीसरे स्थान पर बैठा है। T और U तत्काल पड़ोसी है और मेज़ के समान भुजा पर बैठे हैं। W, V के तत्काल बाएं ओर और U के दाएं से चौथे स्थान पर बैठा है।

81. मेज़ पर कितने व्यक्ति बैठे हैं?
(A) नौ   **(B)** सात
(C) आठ   **(D)** या आठ या नौ
(E) या सात या नौ

82. S के बाएं से दूसरे स्थान पर कौन बैठा है?
(A) P   **(B)** U
(C) R   **(D)** T
(E) इनमे से कोई नहीं

83. R के तत्काल दाएँ ओर कौन बैठा है?
(A) T   (B) U
(C) Q   (D) W
(E) इनमे से कोई नहीं

84. S के समान भुजा पर कौन बैठा है?
(A) W   (B) R
(C) V   (D) या तो R या V
(E) T

85. निम्नलिखित में से कौन सा कथन सत्य है?
I. R और V कोने पर बैठे हैं।
II. W और P एक दूसरे के आसन्न बैठे हैं
III. Q और V तत्काल पड़ोसी है
(A) केवल I   (B) केवल II
(C) केवल I और II   (D) केवल III
(E) केवल I और III

निर्देश (86-87): दिए गए नंबरों के समूह के आधार पर प्रश्नों के उत्तर दें।

436   254   617   783   943
ध्यान दें: पहले, दूसरे और तीसरे अंक बाएं छोर से लिए गए हैं।

86. यदि संख्या के सभी अंकों को संख्याओं के भीतर आरोही क्रम में पुनर्व्यवस्थित किया जाता है, तो निम्नलिखित में से कौन सबसे छोटी संख्या का दूसरे अंक और सबसे बड़ी संख्या के तीसरे अंक का योग होगा?
(A) 11   (B) 12
(C) 17   (D) 13
(E) इनमे से कोई भी नहीं

87. यदि प्रत्येक संख्या में, पहले और तीसरे अंक को आपस में बदल दिया जाता है, तो निम्नलिखित में से कौन-सी संख्या सबसे बड़ी संख्या के पहले अंक और दूसरी सबसे छोटी संख्या के अंतिम अंक के बीच का अंतर होगा?
(A) 1   (B) 0
(C) 3   (D) 2
(E) इनमे से कोई भी नहीं

88. अर्थपूर्ण शब्द "INCREMENT" में अक्षरों के कितने जोड़े हैं, जिनमें से प्रत्येक के बीच उतने ही अक्षर हैं जितने कि अंग्रेजी वर्णमाला श्रृंखला में हैं?
(A) एक   (B) दो
(C) तीन   (D) चार
(E) चार से अधिक

निर्देश (89-90): प्रश्न में तीन कथन और उसके बाद दो निष्कर्ष I. और II दिए गए हैं। आपको दिए गए तीन कथनों को सत्य मानना है, भले ही वे सामान्य रूप से ज्ञात तथ्यों से भिन्न दिखाई देते हों और फिर तय करें कि दिए गए निष्कर्षों में से कौन-सा निष्कर्ष सामान्य रूप से ज्ञात तथ्यों की अवहेलना करते हुए तीन कथनों का तार्किक रूप से अनुसरण करता है।

89. **कथन:** केवल कुछ किंग क्रीन है।
कोई थ्रोन क्रीन नहीं है।
सभी क्रीन स्मॉल है।
निष्कर्ष: I. कुछ थ्रोन किंग है।
II. सभी स्मॉल के किंग होने की संभावना है।
(A) केवल निष्कर्ष I. अनुसरण करता है
(B) निष्कर्ष I और II दोनों अनुसरण करते हैं
(C) न तो निष्कर्ष I और न ही II अनुसरण करता है
(D) केवल निष्कर्ष II अनुसरण करता है
(E) या तो निष्कर्ष I या II अनुसरण करता है

90. **कथन:** अधिकतर सभी कैबेज ब्रिंजल है।
कुछ ब्रिंजल अनियन है।
कोई अनियन चिल्ली नहीं है।
निष्कर्ष: I. कुछ चिल्ली के कैबेज होने की संभावना है।
II. कोई चिल्ली ब्रिंजल नहीं है।
(A) केवल निष्कर्ष I. अनुसरण करता है
(B) निष्कर्ष I और II दोनों अनुसरण करते हैं
(C) न तो निष्कर्ष I और न ही II अनुसरण करता है
(D) केवल निष्कर्ष II अनुसरण करता है
(E) या तो निष्कर्ष I या II अनुसरण करता है

91. दिए गए समीकरण में निम्नलिखित से किस प्रतिक को प्रश्न चिन्ह (?) से प्रतिस्थापित करना चाहिए ताकि समीकरण 'M ≤ V' निश्चित रूप से सत्य हो?
V ≥ L < C; M ≤ R (?) L; M > K
(A) >   (B) ≤
(C) ≥   (D) <
(E) इनमे से कोई नहीं

92. दिए गए समीकरण में निम्नलिखित में से किस प्रतिक को (1) और (2) को प्रतिस्थापित करना चाहिए ताकि समीकरण 'K > M' और 'R ≥ G' निश्चित रूप से सत्य हो?
K (1) R; M ≤ R ≥ D; M ≥ U (2) G
(A) ≥, >   (B) <, ≥
(C) >, ≤   (D) >, ≥
(E) इनमे से कोई नहीं

निर्देश (93-94): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

A&B का अर्थ है 'A B की पत्नी है'
A#B का अर्थ है 'A B का पिता है'
A*B का अर्थ है 'A B का भाई है'
A+B का अर्थ है 'A B की बेटी है'
A?B का अर्थ है 'A B का पति है'

93. यदि 'P#R&Y#T?S' सत्य है तो S R से कैसे संबंधित है?
(A) माता   (B) साला/जीजा/देवर
(C) ससुर   (D) बहू
(E) बहन

94. यदि 'X*C&L*M+H' सत्य है तो M, X से कैसे संबंधित है?
(A) पति   (B) भाभी/साली/ननद
(C) भाई   (D) पिता
(E) साला/जीजा/देवर

95. प्रश्न में तीन कथन और उसके बाद दो निष्कर्ष I और II दिए गए हैं। आपको दिए गए तीन कथनों को सत्य मानना है,

भले ही वे सामान्य रूप से ज्ञात तथ्यों से अलग दिखाई देते हों और फिर तय करें कि दिए गए निष्कर्षों में से कौन-सा निष्कर्ष सामान्य रूप से ज्ञात तथ्यों की अवहेलना करता है और तीन कथनों का तार्किक रूप से अनुसरण करता है।

कथन: केवल कुछ टोस्ट ब्रेड है।
कोई ब्रेड मिल्क नहीं है।
सभी मिल्क जैम है।

निष्कर्ष: I. कुछ टोस्ट मिल्क नहीं है।
II. सभी टोस्ट कभी भी जैम नहीं हो सकते हैं।

(A) केवल निष्कर्ष I अनुसरण करता है
(B) निष्कर्ष I और II दोनों अनुसरण करते हैं
(C) न तो निष्कर्ष I और न ही II अनुसरण करते हैं
(D) केवल निष्कर्ष II अनुसरण करता है
(E) या तो निष्कर्ष I या II अनुसरण करता है

निर्देश (96-100): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

22 से कम व्यक्ति एक वृत्ताकार मेज पर केंद्र की ओर मुख करके बैठे हैं।
E, C का तत्काल पड़ोसी नहीं है। Q, A के दाएं से तीसरे स्थान पर बैठा है। Q और C के बीच पांच व्यक्ति (या तो बाएं या दाएं से) बैठे हैं। C और D के बीच तीन व्यक्ति (या तो बाएं या दाएं से) बैठे हैं। F, C के बाएं से दूसरे स्थान पर बैठा है। Q के दाएँ से गिनते हुए E, Q और D के ठीक बीच में बैठा है। E, Q के दाएं से पांचवें स्थान पर बैठा है। D और G के बीच चार व्यक्ति बैठे हैं। Q, H के बाएं से दूसरे स्थान पर बैठा है। H और Z के बीच चार व्यक्ति बैठे हैं।

96. निम्नलिखित में से कौन Z के दाएं से पांचवें स्थान पर बैठा है?

(A) H   **(B)** E
(C) D   **(D)** F
(E) अज्ञात

97. वृत्ताकार मेज पर कितने व्यक्ति बैठे हैं?
(A) 18   **(B)** 19
(C) 20   **(D)** 12
(E) 21

98. निम्नलिखित में से कौन G के बाएं से तीसरे स्थान पर बैठा है?
(A) D   **(B)** F
(C) C   **(D)** Q
(E) तय नहीं किया जा सकता

99. F के बाएं से गिनने पर F और Q के बीच कितने व्यक्ति बैठे हैं?
(A) 11   **(B)** 09
(C) 07   **(D)** 08
(E) 13

100. A के दाएं ओर गिनने पर A और E के बीच बैठे व्यक्तियों की संख्या __ और __ के बीच बैठे लोगों की संख्या के बराबर है।
(A) H और F, जब F के बाई ओर से गिना जाता है।
(B) H और C, जब H के बाई ओर से गिना जाता है।
(C) Q और D, जब D के दाएं से गिना जाता है।
(D) D और G, जब G के बाएं से गिना जाता है।
(E) उपरोक्त में से कोई नहीं

Space for rough work

English Language

1. **Answer: (B)**
We need a past form verb to fill the blank. INDUCTED (admitted (someone) formally to a post or organization) will fit here as the sentence tells how in February, the Kerala police formally admitted a robot for police work. Thus, (b) is the right answer.
Ceased (verb) - came or brought to an end. Discharged (verb) - dismissed. Amalgamated (verb) - merged. Heaped (verb) - piled up.

2. **Answer: (C)**
We need a verb to modify the noun EXAMPLES. SYMBOLISE (express or represent) will fit here as the sentence tells us how all the previously mentioned examples denote the advent of AI in our everyday lives. Thus, (c) is the right answer.
Refrain (verb) - stop oneself from doing something. Persuade (verb) - induce (someone) to do something through reasoning or argument. Adopt (verb) - choose to take up, follow, or use. Supersede (verb) - take the place of (a person or thing previously in authority or use); supplant.

3. **Answer: (A)**
We need an adjective to get modified by the adverb MOST. DISRUPTIVE (innovative or groundbreaking) will fit here as the sentence tells us how the potential of AI systems to learn from experience and to perform autonomously for humans makes it the most innovative and self-transformative technology of the 21st century. Thus, (a) is the right answer.
Pursued (verb) - seek to attain or accomplish (a goal) over a long period. Daunting (adj) - seeming difficult to deal with in prospect; intimidating. Alarming (adj) - worrying or disturbing. Cinched (verb) - make certain of.

4. **Answer: (D)**
We need a verb to modify the adverb PROPERLY. REGULATED (control or maintain the rate or speed of (a machine or process) so that it operates properly) will fit here as the sentence tells us how AI is destined to have unmanageable implications if it is not controlled properly. Thus, (d) is the right answer.
Curbed (verb) - restrain or keep in check. Planned (verb) - design or make a plan of (something to be made or built). Exalted (verb) - raise to a higher rank or position. Advanced (verb) - make or cause to make progress.

5. **Answer: (B)**
We need a past form verb to modify the noun COURTS. CONFRONTED (challenged) will fit here as the sentence tells us how the previously mentioned questions have already challenged the courts of the U.S and Germany. Thus, (b) is the right answer.
Evaded (verb) - escaped or avoided (someone or something), especially by guile or trickery. Dodged (verb) - avoided (someone or something) by a sudden quick movement. Countered (verb) - spoken or acted in opposition to. Eschewed (verb) - deliberately avoided using; abstained from.

6. **Answer: (B)**
We need a continuous form verb here to link the two clauses. GATHERING and COLLECTING mean accumulating, and will fit here as the sentence tells us how the researchers spent months accumulating plant specimens. Thus, (b) is the right answer.
Committing - dedicating. Recollecting - remembering.

7. **Answer: (E)**
We need a noun here to be modified by the definite article THE. All the three words mean a large, chaotic noise, and will fit here as the sentence tells us how the chaotic noise caused by the birds filled her ears. Thus, (e) is the right answer.

8. **Answer: (A)**
We need a past participle form verb to fit in the passive voice construction HAD + TO + BE + VERB. DEFERRED and POSTPONED means delayed and will fit here as the sentence tells us how many restoration projects were delayed. Thus, (a) is the right answer.
Referred - cited. Hindered - prevented.

9. **Answer: (E)**
The sentence is grammatically correct and free of error. Thus, (e) is the right answer.

10. **Answer: (C)**
In C, replace the second form verb DID with DONE as the passive voice construction IS + VERB will take the past participle form of the verb. Thus, (c) is the right answer.

11. **Answer: (D)**
In D, replace the preposition OFF with FOR as the phrasal verb ACCOUNT FOR means to take something into consideration. Thus, (d) is the right answer.

12. **Answer: (D)**
In D, replace the adjective SERIOUS with the adverb SERIOUSLY as it is being used to modify the verb TAKING. Thus, (d) is the right answer.

13. **Answer: (E)**
The sentence is grammatically correct and free of error. Thus, (e) is the right answer.

14. **Answer: (B)**
The sentence tells us how resilience (the ability to recover quickly from difficulties) is important not only when there is a major disruption, but also in everyday life as we navigate (find our way through) personal and professional disappointments (setbacks or failures). UPHOLSTER (to provide furniture with soft padded covering) is not apt in this context and should be replaced with UPHEAVAL (sudden or violent change affecting people's lives). Thus, (b) is the right answer.

15. **Answer: (C)**
The sentence tells us how the dust storms on Mars are capable (have the ability) of blanketing (covering) the whole planet and lasting (continuing) for months. ATTIRE (clothes) will not fit here and should be replaced with ENTIRE (complete or whole). Thus, (c) is the right answer.

16. **Answer: (A)**
The sentence tells us how anyone who claims to live a perfect life is perhaps mentioning the fact that amidst (in the middle of) all the imperfections (flaws), he has found the golden mean of navigating (crossing) all of it with grace and dignity. RECURRING (occurring repeatedly) will not fit here and should be replaced with REFERRING (talking about something). Thus, (a) is the right answer.

17. **Answer: (B)**
The sentence tells us how the school children are enthusiastically waiting for the summer holidays. Both the phrases in 1 and 2 can replace the highlighted portion to convey the requisite meaning. Thus, (b) is the right answer.
3 is incorrect because 'looking to forgo' means 'looking to refrain from something' which is contextually irrelevant. The highlighted phrase is incorrect as the adverb EAGERLY should replace the adjective EAGER.

18. **Answer: (D)**
The sentence tells us how the little boy wanted to take cover of the bush so that no one sees him. Both the phrases in 2 and 3 can replace the highlighted portion to convey the requisite meaning. Thus, (d) is the right answer.

1 is incorrect as the plural verb BECOME will not agree with the singular subject BOY. The highlighted phrase is incorrect as the modal verb 'SHOULD' should be replaced with the modal verb 'COULD' as the sentence talks about something that can happen and not something that ought to happen or must happen.

19.   **Answer: (E)**
1 and 3 are correct. According to the passage, both consumption patterns and use of contraceptives affect the environment. Refer to the lines: "These include childbearing decisions, the use of contraceptives and resulting effects on population growth; risk behaviors and use of health services, which affect life expectancy; whether people see climatic change as human-caused, or related to forces beyond human control; consumption patterns, and thereby use of natural resources and emissions of greenhouse gases; and willingness to take actions to abate environmental degradation." Thus, (e) is the right answer. 2 is incorrect, The passage does not talk about the effect of one's age of retirement on the environment.

20.   **Answer: (D)**
Both B and C are correct. Researchers involved in the said study conducted exploratory and descriptive statistical analyses of the associations of religion with economic development and greenhouse gas emissions. Refer to the lines: "A new study published in the Journal of Religion and Demography investigates the link between environmental challenges and religion. . . The researchers responsible for the study also conducted exploratory and descriptive statistical analyses to better understand the associations among religion on one hand, and economic development, greenhouse gas emissions and exposure to environmental stressors on the other." Thus, (d) is the right answer.
(a) is incorrect. The researchers did not conduct a statistical study of the association between religion and environmental literacy.

21.   **Answer: (C)**
2 and 3 are correct. Refer to the line: "On the other hand, nations whose populations are more religious tend to use fewer resources; yet at the same time, they have less capacity to meet environmental challenges, and are subject to more adverse outcomes, in part due to their high levels of poverty and continuing population growth." Thus, (c) is the right answer.
1 is incorrect. According to the line quoted above, nations whose populations are more religious tend to use fewer resources.

22.   **Answer: (C)**
The passage tells us that in order to address issues of environmental justice, we need to identify groups that are disproportionately causing environmental risks. Refer to the line: "To address issues of environmental justice, we need to identify groups that are disproportionately causing environmental risks, and those who are disproportionately exposed." Thus, (c) is the right answer.
The other options are incorrect as the passage does not suggest those steps for addressing issues of environmental justice.

23.   **Answer: (B)**
Refer to the lines: "Countries with more emissions and greater GDP tend to be less religious, have less population growth and to be better prepared for environmental challenges. Conversely, countries with a greater proportion of religiously affiliated people tend to have younger populations, higher environmental risks, lower GDP and lower preparedness levels." It is clear from the lines quoted above that countries where a major section of the population is religious do not show less population growth. Thus, (b) is the right answer. All the other options hold true of such countries.

24.   **Answer: (E)**
ABATE has been used in the passage to talk about actions that can diminish the effects of environmental degradation. MITIGATE is the closest in meaning to the word as used in the passage. Thus, (e) is the right answer.
ENTRENCH - establish
REPROACH - rebuke or scold someone
BEMUSE puzzle or confuse
SUMMON - call for or send for someone

25.   **Answer: (A)**
COHESION has been used in the passage to talk about social bonds or solidarity. UNITY is the closest in meaning to the word as used in the passage. Thus, (a) is the right answer.
APPREHENSION - anxiety or fear that something bad or unpleasant will happen
PRUDENCE cautiousness
CONDOLENCE sympathy or solace
LEGITIMACY - conformity to rules

26.   **Answer: (B)**
The sentence tells that right from the time when chemists started to manufacture (produce) substances that nature never created, the problem (issue) of water purification has become complex (complicated). TAINTED (polluted) is inappropriate in this context, and should be replaced with INVENTED (created). Thus, (b) is the right answer.
Forgo – go without (something desirable). Jinx – curse. Facile – easy.

27.   **Answer: (D)**
The sentence tells us how pidgins are languages that are not acquired (inherited) as mother tongues rather used (applied) for a restricted (limited) set of communicative functions. The use of the noun COMMUNICATION (transmission) is inappropriate in this context, and should be replaced with the adjective COMMUNICATIVE (relating to the conveyance or exchange of information) as it is being used to modify the noun FUNCTIONS. Thus, (d) is the right answer.
Obtained – procured. Adopted – acquired. Casual – relaxed and unconcerned.

28.   **Answer: (E)**
The sentence tells us how some people rely (depend) on music that helps them in their morning commute (a regular journey to and from one's place of work), while some use it to stay (be) pumped (excited) during a workout. All the words are grammatically and contextually correct. Thus, (e) is the right answer.
Confide – reveal. Realm – domain. Crave – feel a powerful desire for (something). Lulled – calmed.

29.   **Answer: (A)**
The sentence tells us how the funding restrictions in the international market could impact (affect) both the availability (the quality of being able to be used or obtained) and cost of foreign funding (the action or practice of providing funding) for banks and corporates. CONTRASTS (dissimilarities) is inappropriate in this context, and should be replaced with CONSTRAINTS (restrictions). Thus, (a) is the right answer.
Nudge – poke. Credibility – trustworthiness. Hunting – chasing.

30.   **Answer: (B)**
The sentence tells us how India, today, looks (appears) to be on the path to join (meet) the league (alliance) of the developed nations. COARSE (rough)

is inappropriate in this context, and should be replaced with COURSE (path). Thus, (b) is the right answer.

Grudges – a persistent feeling of ill will or resentment resulting from a past insult or injury. Inherit – acquire. Coterie – a small group of people with shared interests or tastes.

Quantitative Aptitude

Directions (31-35):

एयरपोर्ट	परिवहन की गई हार्ड ट्रॉलियों की संख्या	परिवहन की गई सॉफ्ट ट्रॉलियों की संख्या
दिल्ली एयरपोर्ट	2400	3200
कोलकाता एयरपोर्ट	3600	2600
मुंबई एयरपोर्ट	3400	2800
चेन्नई एयरपोर्ट	4800	5600
बैंगलोर एयरपोर्ट	3600	1800

31. **Answer: (A)**
वांछित राजस्व उत्पन्न= 10 × 4800 + 5 × 5600 = ₹76000

32. **Answer: (B)**
आवश्यक अनुपात = (3600 + 3400):(3200 + 1800) = 7:5

33. **Answer: (D)**
ट्रॉलियों की आवश्यक संख्या = 3600 + 2600 + (2400 + 3200)/2 = 9000

34. **Answer: (A)**
आवश्यक औसत = (3400 + 4800 + 2800 + 5600)/2 = 8300

35. **Answer: (E)**
पटना एयरपोर्ट से परिवहन की गई हार्ड ट्रॉलियों की कुल संख्या = 2/5 × (3600 + 1800) = 2160

निर्देश (36-40):

दुकानदार	बेचे गए मैंगो बाइट की संख्या	बेचे गए बूमर की संख्या
Li	140	160
Mi	100	80
Ni	180	120
Ti	220	160
Xi	120	100

36. **Answer: (A)**
आवश्यक प्रतिशत = (220/120) × 100 = 183.33%

37. **Answer: (C)**
आवश्यक औसत = (140 + 100 + 180 + 220 + 120)/5 = 152

38. **Answer: (E)**
आवश्यक राजस्व = 160 × 2 = ₹320

39. **Answer: (A)**
बेचे गए कंटेनरों की संख्या = 180/20 = 9

40. **Answer: (C)**

'Yi' द्वारा बेची गई कैंडी की संख्या =1.2 × (120 + 100) = 264

निर्देश (41-45):
सभी पांच भाषा के पेपरों में प्राप्त कुल अंकों में से बंगाली में प्राप्त अंकों का प्रतिशत =100 - 20 - 15 - 25 - 15 = 25%
माना सभी पांच अंकों में प्राप्त कुल अंक 'x' हैं
अत: 0.25 × x = 500
या, x = 500/0.25 = 2000

भाषा	प्राप्त अंकों
बंगाली	2000 × 0.25 = 500
अंग्रेज़ी	2000 × 0.20 = 400
हिन्दी	2000 × 0.15 = 300
मराठी	500
तामिल	2000 × 0.15 = 300

41. **Answer: (C)**
तेलुगु में उसके द्वारा प्राप्त अंक = 1.20 × 300 = 360
आवश्यक औसत = (360 + 500)/2 = 430

42. **Answer: (D)**
अंग्रेजी भाषा के पेपर के लिए अधिकतम अंक = 400 × (100/80) = 500

43. **Answer: (A)**
वांछित अंक = (400 + 300) × 1.25 + (500 + 300) × 0.8 = 700 × 1.25 + 800 × 0.8 = 875 + 640 = 1515

44. **Answer: (B)**
55% से अधिक प्राप्त करने के लिए, छात्र को 385 (700 × 0.55) से अधिक अंक प्राप्त करने होंगे।
तालिका से, हम यह निष्कर्ष निकाल सकते हैं कि उन्होंने केवल 3 भाषा के पेपर यानी बंगाली, अंग्रेजी और मराठी में 385 से अधिक अंक प्राप्त किए।

45. **Answer: (D)**
आवश्यक प्रतिशत = {(500 - 400)/500} × 100 = 20% कम

46. **Answer: (C)**
I से :
$3x^2 – 27 = 0$
$x^2 = 9$
$x = ±3$
II से:
$2y^2 = \sqrt{(21 + 43)}$
$2y^2 = 8$
$y^2 = 4$
$y = ±2$

x	संबंध	y
3	>	2
3	>	-2
-3	<	2
-3	<	-2

इसलिए, x और y के बीच संबंध स्थापित नहीं किया जा सकता है।

47. **Answer: (B)**
I से:
$2x + 3y = 13$
$6x + 9y = 39$ ----(i)
II से:

$3x + 2y = 12$

$6x + 4y = 24$ ----(ii)

समीकरण (ii) को समीकरण (i) से घटाने पर हमें प्राप्त होता है

$5y = 15$

$y = 3$

और, $x = 2$

x	संबंध	y
2	<	3

अतः, $x < y$

48.   **Answer: (C)**

I से:

$x^2 + 22x + 96 = 0$

$x^2 + 16x + 6x + 96 = 0$

$x(x + 16) + 6(x + 16) = 0$

$(x + 16)(x + 6) = 0$

$x = -16, -6$

II से:

$y^2 + y - 90 = 0$

$y^2 + 10y - 9y - 90 = 0$

$y(y + 10) - 9(y + 10) = 0$

$(y + 10)(y - 9) = 0$

$y = -10, 9$

X	संबंध	Y
-16	<	-10
-16	<	9
-6	>	-10
-6	<	9

अतः x और y के बीच कोई संबंध स्थापित नहीं किया जा सकता है।

49.   **Answer: (C)**

$32 \times (1/2) = 16$

$16 \times (3/2) = 24$

$24 \times (5/2) = 60$

$60 \times (7/2) = 210$

$210 \times (9/2) = 945$

इसलिए 220 के स्थान पर 210 आना चाहिए।

50.   **Answer: (A)**

$14 + (6 \times 2) = 26$

$26 + (6 \times 4) = 50$

$50 + (6 \times 6) = 86$

$86 + (6 \times 8) = 134$

$134 + (6 \times 10) = 194$

इसलिए 84 के स्थान पर 86 आना चाहिए।

51.   **Answer: (D)**

निम्नलिखित श्रृंखला इस पैटर्न का अनुसरण करती है :

+ संख्या2 से शुरू होने वाली लगातार अभाज्य संख्याओं का वर्ग

$11 + 2^2 = 15$

$15 + 3^2 = 24$

$24 + 5^2 = 49$

$49 + 7^2 = 98$

$98 + 11^2 = 219$

इसलिए 221 के स्थान पर 219 आना चाहिए।

52.   **Answer: (B)**

$12 + 2^3 = 20$

$20 - 3^3 = -7$

$-7 + 4^3 = 57$

$57 - 5^3 = -68$

$-68 + 6^3 = 148$

अतः -65 के स्थान पर -68 आना चाहिए।

53.   **Answer: (C)**

$1 \times 2 - 1 = 1$

$2 \times 3 - 1 = 5$

$3 \times 4 - 1 = 11$

$4 \times 5 - 1 = 19$

$5 \times 6 - 1 = 29$

$6 \times 7 - 1 = 41$

अतः 20 के स्थान पर 19 आना चाहिए।

54.   **Answer: (A)**

40.09% of 840.02 + 502.96 – 24.09 × 13.98 =?

40% of 840 + 503 – 24 × 14 ~ ?

336 + 503 – 336 ~ ?

503 ~ ?

55.   **Answer: (C)**

654.08 + 18.13 × 15.11 – 363.91 ÷ 13.89 = ?

654 + 18 × 15 – 364 ÷ 14 ~ ?

654 + 270 – 26 ~ ?

898 ~ ?

56.   **Answer: (E)**

564.08 + 933.13 – 845.91 + 634.21 – 302.98 =?

564 + 933 – 846 + 634 – 303 ~ ?

982 ~ ?

57.   **Answer: (D)**

$? = \sqrt{1024.13 \div 3.87 + (12.01)1.99} \times 14.12$

$? \sim \sqrt{1024 \div 4 + 122} \times 14$

$? \sim \sqrt{(256 + 144)} \times 14$

$? \sim \sqrt{400} \times 14$

$? \sim 280$

58.   **Answer: (C)**

$? = 72.5 \div {}^{2.97}\sqrt{515.22} + 89.98 - 24.12$

$? \sim 72 \div {}^{3}\sqrt{512} + 90 - 24$

$? \sim 72 \div 8 + 90 - 24$

$? \sim 99 - 24$

$? \sim 75$

59.   **Answer: (A)**

माना कैशियर द्वारा लौटाए गए ₹10 के नोट, ₹20 के नोट और ₹100 के नोटों की संख्या क्रमशः '2x', '4x' और 'x' है।

प्रश्न के अनुसार,

$2x \times 10 + 4x \times 20 + x \times 100 = 2000 - 1600$

या, $20x + 80x + 100x = 400$

या, $200x = 400$

या, $x = 2$

कैशियर द्वारा लौटाए गए ₹20 के नोटों की संख्या $= 8$

60.   **Answer: (C)**

माना विपुल की वर्तमान आयु 'x' वर्ष है

उसके भतीजे की वर्तमान आयु $= 16 - 4 = 12$ वर्ष

इसलिए,

$\{(x - 12)/3\} = 12$

या, $x - 12 = 36$

या, $x = 48$

अतः विपुल की वर्तमान आयु = 48 वर्ष

61.   **Answer: (B)**
माना वस्तु 'A' और 'B' का क्रय मूल्य क्रमशः ₹'9x' और ₹'5x' है।
वस्तु 'A' का विक्रय मूल्य = $0.50 \times 1.60 \times 9x$ = ₹7.2x
वस्तु 'B' का विक्रय मूल्य = $1.40 \times 5x = 7x$
आवश्यक अनुपात = 7.2x:7x = 72:70 = 36:35

62.   **Answer: (A)**
साधारण ब्याज पर निवेश की गई राशि = $4800 \times (3/8)$ = ₹1800
प्राप्त साधारण ब्याज = $(1800 \times 0.15 \times 8)$ = ₹2160
शेष राशि पर प्राप्त ब्याज = $(4800 - 1800)\{(1 + 50/100)^2 - 1\}$ = 6750 – 3000 = ₹3750
प्राप्त कुल ब्याज = 3750 + 2160 = ₹5910

63.   **Answer: (D)**
684 मिली मिश्रण में दूध की मात्रा = $684 \times (12/19)$ = 432 मिली
684 मिली मिश्रण में पानी की मात्रा = 684 - 432 = 252 मिली
प्रश्न के अनुसार;
$(432 + x + 44)/(252 + x) = 9/5$
या, 2380 + 5x = 2268 + 9x
या, 4x = 112
या, x = 28

64.   **Answer: (D)**
बैग में गेंदों की कुल संख्या = x + 1 + x + x + 3 = 3x + 4
ATQ;
$\{^xC_1 \times {}^{(x+1)}C_1\}/{}^{(3x+4)}C_2 = 1/6$
या, $\{2 \times x(x + 1)\}/\{(3x + 4)(3x + 3)\} = 1/6$
या, $4x(x + 1) = (3x + 4)(x + 1)$
या, 4x = 3x + 4
या, x = 4
ग्रीन गेंदों की संख्या = 4
गेंदों की कुल संख्या = $3 \times 4 + 4 = 16$
वांछित संभावना = 4/16 = 1/4 = 0.25

65.   **Answer: (C)**
माना बेलन के आधार की त्रिज्या 'r' सेमी है
और, बेलन की ऊँचाई 'h' सेमी है
चूँकि, शीट को उसकी लंबाई के अनुदिश मोड़ा जाता है।
अतः शीट की लंबाई = बेलन के आधार की परिधि
या, $2\pi r = 44$
या, r = 7 सेमी
बेलन की ऊँचाई = आयत की चौड़ाई = 36 सेमी
वांछित मात्रा = $\pi r^2 h = (22/7) \times 7 \times 7 \times 36$
= 5544 सेमी^{3}

Quantitative Aptitude

निर्देश (66-70):

T/V	Y	Q	U	P	X	R	V/T	Z	S	W

66.   **Answer: (C)**
W अंतिम दायें छोर पर बैठा है।

67.   **Answer: (D)**
V और T के मध्य छह व्यक्ति बैठे हैं।

68.   **Answer: (A)**
Q, P के बायें से दूसरे स्थान पर बैठा है।

69.   **Answer: (E)**
X, R के ठीक बायें बैठा है।

70.   **Answer: (B)**
एक व्यक्ति S के दायें बैठा है।

निर्देश (71-75): अंतिम व्यवस्था इस प्रकार है:

| मंजिल	व्यक्ति	कार
9	V	_____
8	P	स्विफ्ट
7	R	क्रूज
6	S	अल्ट्रोज
5	T	_____
4	X	वरना
3	W	_____
2	Q	ब्रीजा
1	U	_____

71.   **Answer: (D)**
V सबसे ऊपरी मंजिल पर रहता है।

72.   **Answer: (A)**
W, वरना के रहने वाले तल के ठीक नीचे रहता है।

73.   **Answer: (B)**
वह व्यक्ति जिसे अल्ट्रोज पसंद है, उस तल से दो मंजिल ऊपर रहता है जिस पर X रहता है।

74.   **Answer: (C)**
T 5वें तल पर रहता है।

75.   **Answer: (E)**
S को छोड़कर सभी विषम संख्या वाले तलों पर रहते हैं।

निर्देश (76-80):

दिन	व्यक्तियों	पदों
सोमवार	V	हाउस कप्तान
मंगलवार	R	हेड गर्ल
बुधवार	Q	गेम्स कप्तान/मोनिटर
गुरूवार	T	हेड बॉय
शुक्रवार	P	प्रीफेक्ट
शनिवार	S	मोनिटर/ गेम्स कप्तान
रविवार	U	रेगुलेटर

76.   **Answer: (D)**
U रेगुलेटर है।

77.   **Answer: (A)**
P से पहले चार व्यक्तियों की परीक्षा है।

78.   **Answer: (E)**
या तो दो या चार व्यक्तियों के पास Q से बेहतर पद है।

79.   **Answer: (D)**
R एक हेड गर्ल है।

80.   **Answer: (B)**
U की परीक्षा रविवार को है।

निर्देश (81-85): अंतिम व्यवस्था इस प्रकार है:
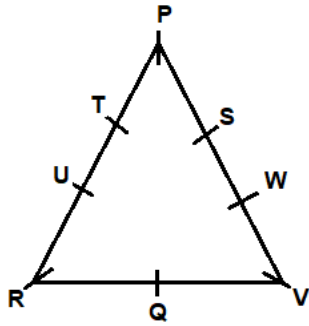
81. **Answer: (C)**
मेज के चारों ओर आठ व्यक्ति बैठे हैं।

82. **Answer: (D)**
T, S के बायें से दूसरे स्थान पर बैठा है।

83. **Answer: (B)**
U, R के ठीक दायें बैठा है।

84. **Answer: (A)**
W, S के समान भुजा में बैठा है।

85. **Answer: (E)**
व्यवस्था के अनुसार कथन I और III दोनों सही हैं।
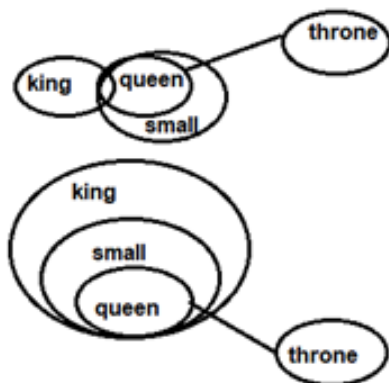
निर्देश (86-87):
दिए गए नंबर:

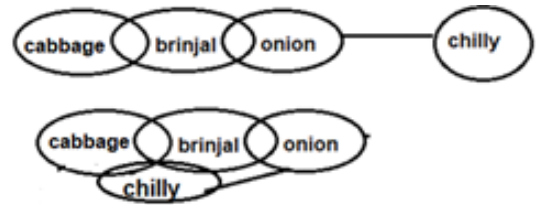436   254   617   783   943

पुनर्व्यवस्था के बाद, हम प्राप्त करते हैं,

346   245   167   378   349

86. **Answer: (E)**
तो, योग 14 (8 + 6) है

87. **Answer: (B)**
तो, अंतर है (7 – 7) = 0

88. **Answer: (C)**
दिए गए शब्द INCREMENT यानी CE, EI और NR में केवल 3 ऐसे जोड़े हैं।

89. **Answer: (D)**
कथनों से निम्नलिखित आरेख बनाया जा सकता है:

उपरोक्त आकृति से यह स्पष्ट है कि सभी स्मॉल किंग हो सकते हैं और थ्रोन और किंग के बीच कोई सीधा संबंध नहीं दिया गया है, इसलिए निष्कर्ष II निम्नानुसार है।

90. **Answer: (A)**
उपरोक्त कथनों से निम्नलिखित आरेख बनाया जा सकता है।

कुछ चिल्ली कैबेज हो सकती है इसलिए निष्कर्ष I अनुसरण करता है।

91. **Answer: (B)**
V ≥ L < C; M ≤ R (?) L; M > K
मिलाने पर, K < M ≤ R (?) L ≤ V
दी गई असमानता में विकल्प (a) के चिन्हों को बदलने पर, K < M ≤ R > L ≤ V, यह दी गई शर्त को पूरा नहीं करता है।
दी गई असमानता में विकल्प (b) के चिन्हों को बदलने पर, K < M ≤ R ≤ L ≤ V, यह दी गई शर्त को पूरा करता है।
दी गई असमानता में विकल्प (c) के चिन्हों को बदलने पर, K < M ≤ R ≥ L ≤ V, यह दी गई शर्त को पूरा नहीं करता है।
दी गई असमानता में विकल्प (d) के चिन्हों को बदलने पर, K < M ≤ R < L ≤ V, यह दी गई शर्त को पूरा नहीं करता है।

92. **Answer: (D)**
K (1) R; M ≤ R ≥ D; M ≥ U (2) G
मिलाने पर, K (1) R ≥ M ≥ U (2) G
दी गई असमानता में विकल्प (a) के चिन्हों को बदलने पर, K ≥ R ≥ M ≥ U > G, यह दी गई शर्त को पूरा नहीं करता है।
दी गई असमानता में विकल्प (b) के चिन्हों को प्रतिस्थापित करने पर, K < R ≥ M ≥ U ≥ G, यह दी गई शर्त को पूरा नहीं करता है।
दी गई असमानता में विकल्प (c) के चिन्हों को प्रतिस्थापित करने पर, K > R ≥ M ≥ U ≤ G, यह दी गई शर्त को पूरा नहीं करता है।
दी गई असमानता में विकल्प (d) के चिन्हों को प्रतिस्थापित करने पर, K > R ≥ M ≥ U ≥ G, यह दी गई शर्त को पूरा करता है।

93. **Answer: (D)**
P#R&Y#T?S को डिकोड किया जाता है क्योंकि P, R का पिता है, Y की पत्नी है, T का पिता है, S का पति है।
वंश - वृक्ष:

तो, S, R की बहू है।

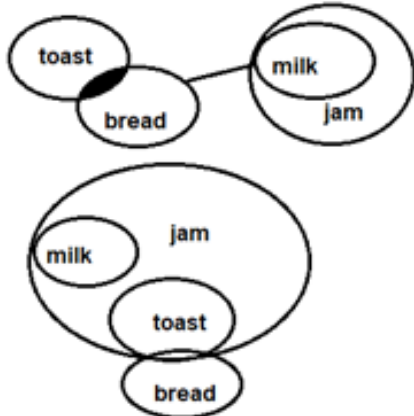**94.** **Answer: (B)**
X*C&L*M+H को डिकोड किया जाता है क्योंकि X, C का भाई है, L की पत्नी है, M का भाई है, H की बेटी है।
वंश - वृक्ष:

$$H(-/+)$$
$$|$$
$$M(-) \xrightarrow{\text{sister of}} L(+) \xrightarrow{\text{husband of}} C(-) \xrightarrow{\text{sister of}} X(+)$$
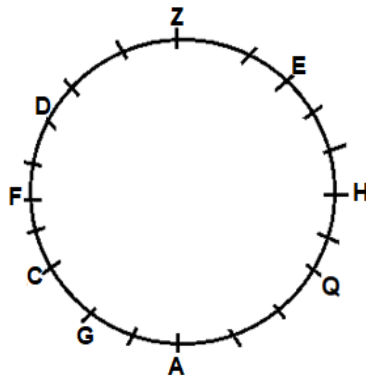
तो, M, X की सिस्टर-इन-लॉ है।

95.   **Answer: (A)**
निम्नलिखित कथनों से आकृतियाँ बनाई जा सकती हैं:

उपरोक्त आकृति से यह स्पष्ट है कि सभी टोस्ट जैम हो सकते हैं, इसलिए निष्कर्ष II अनुसरण नहीं करता है। केवल निष्कर्ष I अनुसरण करता है।

Direction (96-100):

96.   **Answer: (D)**
F, Z के दायें से पांचवें स्थान पर बैठा है।

97.   **Answer: (C)**
वृत्ताकार मेज के चारों ओर 20 व्यक्ति बैठते हैं।

98.   **Answer: (B)**
F, G के बायें से तीसरे स्थान पर बैठा है।

99.   **Answer: (A)**
F के बायें से गिनने पर F और Q के मध्य 11 व्यक्ति बैठे हैं।

100.   **Answer: (B)**
A के दायें से गिनने पर A और E के बीच में 7 लोग बैठते हैं, जो H और C के बीच बैठे लोगों की संख्या के बराबर है।

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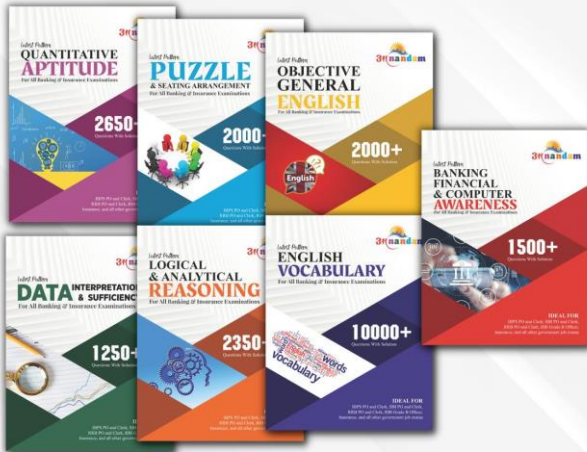
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