STAFF SELECTION COMMISSION

COMBINED HIGHER SECONDARY LEVEL (TIER-I)

SOLVED PAPER

(12ᵗʰ October 2020: Shift-1)

Time Allotted- 1 hour   **Max marks-** 200

Important Instructions:-
⇨ This paper contains 100 questions which are divided into 4 sections and each section contains 25 questions.
  ✓ English Language (Basic Knowledge)
  ✓ General Intelligence
  ✓ Quantitative Aptitude (Basic Arithmetic Skill)
  ✓ General Awareness
⇨ There will be 2 marks for each correct answer and also there will be negative marking of 0.50 marks for each wrong answer.
⇨ Each question is compulsory to attempt and there will be no negative marking for unattempted questions.

English Language

1. Select the wrongly spelt word.
   1. Awfully   **2.** Unruly   **3.** Unduly   **4.** Faithfully
2. Select the correct passive form of the given sentence.
   The police beat a number of protestors last night.
   1. A number of protestors were being beaten by the police last night.
   2. A number of protestors had been beaten by the police last night.
   3. A number of protestors has been beaten by the police the night before.
   4. A number of protestors were beaten by the police the night before.
3. Select the most appropriate synonym of the given word.
   ASSERTION
   1. Rejection   **2.** Continuation
   3. Discussion   **4.** Declaration
4. Select the most appropriate meaning of the given idiom.
   Up in arms
   1. Throw up arms in joy   **2.** Divide into armed groups
   3. Give up fighting and surrender **4.** Angry about something

Comprehension:
In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.
Smartphones have become an essential part of our lives and their (1)_____ usage is now impacting human behaviour. We need to (2)_____ think about digital detox! Yes, the concept of disconnecting with (3)_____ virtual world is not just a fad. It's the need of the hour today. The Global Brand Director of the smartphone Vivo in his speech nudged all smartphone users (4)_____ a step backward and think. He said, "Let's (5)_____ our mobiles and pledge to be closer and nearer to our loved ones."

5. Select the most appropriate option for blank number 1.
   1. exceeding   **2.** excessive
   3. exceedingly   **4.** exceed
6. Select the most appropriate option for blank number 2.
   1. series   **2.** seriousness
   3. seriously   **4.** serious
7. Select the most appropriate option for blank number 3.
   1. the   **2.** a   **3.** any   **4.** many
8. Select the most appropriate option for blank number 4.
   1. to take   **2.** to taking   **3.** taken   **4.** takes
9. Select the most appropriate option for blank number 5.
   1. switch off   **2.** switch in   **3.** switch over **4.** switch up

10. In the given sentence identify the segment which contains the grammatical error. When I met Akbar Padamsee, one of a pioneers of Indian art, he was 87 but still alert and active.
    1. but still alert and active   **2.** When I met
    3. he was 87   **4.** one of a pioneers of Indian art
11. Select the most appropriate ANTONYM of the given word.
    SURVEILLANCE
    1. Neglect   **2.** Vigilance   **3.** Attack   **4.** Endurance
12. Select the most appropriate ANTONYM of the given word.
    DEMOLISH
    1. Obstruct   **2.** Abolish   **3.** Cherish   **4.** Construct
13. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No improvement'.
    Lenovo has launched ThinkPad XI Fold, the world's first foldable laptop which is claimed to be so durable as its other devices.
    1. No improvement   **2.** to be most durable as
    3. to be very durable as   **4.** to be as durable as
14. Select the most appropriate meaning of the given idiom.
    Stir up a hornet's nest
    1. Call for dialogue   **2.** Lead a revolt
    3. Provoke trouble   **4.** Destroy a nest
15. Select the correct indirect form of the given sentence.
    "Do you attend the film festival at Goa every year?" he asked.
    1. He asked me if I attended the film festival at Goa every year.
    2. He is asking me if I attended the film festival at Goa every year.
    3. He had asked me if I was attending the film festival at Goa every year.
    4. He asks me if I attend the film festival at Goa every year.
16. Given below are four jumbled sentences. Select the option that gives their correct order.
    A. The most well-known among them is the Purple Frog needing immediate protection.
    B. The Secret Life of Frogs is the first ever film on the Amphibians of India.
    C. The film has been shot extensively in the Western Ghats.
    D. It showcases unique species of frogs which are critically endangered.
    1. DCBA   **2.** BCDA   **3.** BCAD   **4.** CBDA
17. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No improvement'.
    It is reported that everyday India witnessing the death of over 2000 babies aged less than one year.

1. India will be witness the death
2. No improvement
3. India witnesses the death
4. India witness the death

18. Given below are four jumbled sentences. Select the option that gives their correct order.
   A. This test is conducted on the fully automated Driving Test Track designed by Maruti Suzuki.
   B. Each of these specific skills are to be tested and need to be completed successfully in under seven minutes by the candidate.
   C. It is a fully-automated track having six segments to test specific driving skills.
   D. The Regional Transport Offices of Delhi have recently introduced the new driving test.
   1. BADC   **2.** DBAC   **3.** DACB   **4.** ADBC

19. Select the most appropriate synonym of the given word.
   GUILE
   1. Intuition   **2.** Deceit   **3.** Surfeit   **4.** Sincerity

20. Select the word which means the same as the group of words given.
   That which is no longer useful
   1. Redundant   **2.** Abundant   **3.** Reluctant   **4.** Dominant

21. Select the most appropriate word to fill in the blank in the given sentence.
   Padamse worked like a mathematician and was a true _____ who experimented with numerous mediums.
   1. adversary   **2.** literary   **3.** voluntary   **4.** visionary

22. Select the most appropriate word to fill in the blank in the given sentence.
   If the video clip of the murder had not been shared on social media, the world would likely have remained _____ of the tragedy.
   1. renowned   **2.** recognised
   3. unaware   **4.** unconfirmed

23. Select the wrongly spelt word.
   1. Popularly   **2.** Beggarly   **3.** Jocularly   **4.** Sincearly

24. In the given sentence identify the segment which contains the grammatical error.
   Your skill lie in cheering up people who are stressed out, wound up or generally just annoyed.
   1. who are stressed out, wound up
   2. in cheering up people
   3. Your skill lie
   4. or generally just annoyed

25. Select the word which means the same as the group of words given.
   Something that is genuine
   1. Majestic   **2.** Unreal   **3.** Authentic   **4.** Academic

General Intelligence

26. In a certain code language, N is coded as 30 and COT is coded as 78. How will PET be coded as in that language?
   1. 41   **2.** 100   **3.** 70   **4.** 84

27. John used to buy petrol at the rate of ₹ 80 per litre till last month. Now he buys it at the rate of ₹ 85 per litre. By what percentage did the petrol price increase as compared to last month?
   1. 6.25 %   **2.** 8.35 %   **3.** 5.5 %   **4.** 10 %

28. Three different positions of the same dice are shown. Select the number that will be on the face opposite to the face 1.


   1. 5   **2.** 3   **3.** 6   **4.** 4

29. Arrange the following words in a logical and meaningful order.
   1. Flat   **2.** Street
   3. Room   **4.** Apartment
   5. City
   1. 3, 5, 1, 4, 2   **2.** 5, 4, 3, 2, 1
   3. 3, 1, 4, 2, 5   **4.** 3, 4, 1, 2, 5

30. How many triangles are there in the following figure?
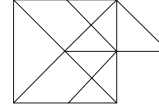
   1. 22   **2.** 18   **3.** 21   **4.** 20

31. In a certain code language, 'BROWSE' is written as 'GUYQTD'. How will 'AMALGAM' be written as in that language?
   1. CONCICO   **2.** OCINCOC
   3. DPMDGCP   **4.** PMDGCPD

32. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appear to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.
   Statements:
   1. All beans are meat.   **2.** All breads are meat.
   Conclusions:
   I. Some beans are breads.
   II. Some breads are beans.
   1. Both conclusions I and II follows.
   2. Neither conclusion I nor II follows.
   3. Either conclusion I or II follows
   4. Only conclusion I follows.

33. Select the option that is related to the third word in the same way as the second word is related to the first word.
   Work : Joule :: Area : ?
   1. Radian   **2.** Perimeter   **3.** Length   **4.** Hectare

34. Four words have been given, out of which three are alike in some manner and one is different. Select the odd out
   1. Chirp   **2.** Bleat   **3.** Frisk   **4.** Neigh

35. Select the option in which the given figure is embedded.

   (Rotation of the figure is not allowed)
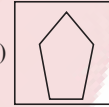
   1.   **2.**   **3.**   **4.**

36. Four letter-clusters have been given out of which three are alike in some manner, while one is different, Choose the odd one.
   1. LNP   **2.** DFH   **3.** FHJ   **4.** TVW

37. Select the option in which the numbers share the relationship as that shared by the given number pair.
   1. 9 : 87   **2.** 15 : 210   **3.** 13 : 170   **4.** 12 : 121

38. Select the Venn diagram that best represents the relationship between the following classes.
   Reptile, Mammal, Lizard
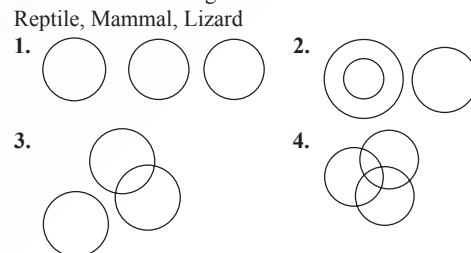
39. Select the correct combination of mathematical sign to replace 'A' sequentially from left to right and balance the following equation.
   26 A 2 A 3 A 3 A 13
   1. ÷, ×, =, ×   **2.** ×, ÷, +, =   **3.** ÷, ×, =, –   **4.** ×, =, –, ÷

40. Select the option that is related to the third letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster.
   GOAT : DQYW :: TRES : ?
   1. HUMO   **2.** PSBU   **3.** RSDW   **4.** QTCV

41. Select the option in which the numbers are related in the same way as are the numbers in the given set.
   (3, 68, 5)
   1. (2, 72, 10)   **2.** (4, 64, 5)   **3.** (5, 95, 8)   **4.** (2,10, 1)

42. Select the option in which the words are related in the same way as are the word in the given set.
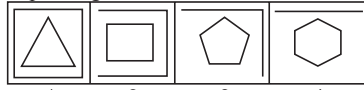
Cow : Milk

1. Bird : Fly   2. Hen : Egg
3. Eagle : Swoop   4. Goat : Bleat

43. Select the combination of letters that when sequentially placed from left to right in the blanks of the given letter series will be complete the series.

aba_ccdab_b_ _dababc_ _

1. bacacd   2. abdccd   3. bacccd   4. cacccd

44. Select the option figure that will come next in the following series.

45. Disha's salary is ₹ 3,000 more than Pratima's salary. The ratio of Disha's to Pratima's salary is 17:15, respectively. What is the salary of Pratima?

1. ₹ 22,500   2. ₹ 26,750   3. ₹ 25,500   4. ₹ 27,250

46. Four letter-cluster have been given, out of which three are alike in some manner and one is different. Select the odd letter-cluster.

1. ADZW   2. NOML   3. EGVT   4. TUGD

47. The sequence of folding a paper and manner in which the folded paper has been cut is shown in the following figures. How would this paper look when unfolded?
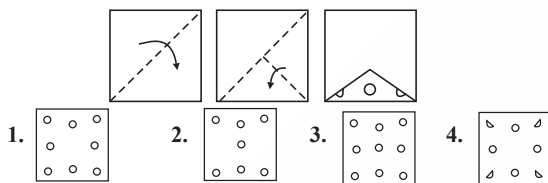
48. Select the correct mirror image of the given figure.

MIRROR
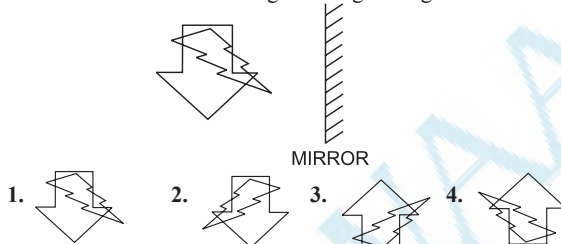
49. Select the option in which the numbers are related in the same way as are the numbers in the given set.

(7, 15, 31)

1. (6, 13, 21)   2. (5, 625, 6)
3. (3, 7, 15)   4. (2, 17, 14)

50. Four numbers have been given, out of which three are alike in some manner and one is different. Select the number that is different from the rest.

1. 255   2. 212   3. 268   4. 124

Quantitative Aptitude

51. What is the value of the following?

$- 15 + 90 \div [89 - \{9 \times 8 + (33 - 3 \times 7)\}]$

1. 5   2. 2   3. 3   4. 4

52. Richa travels from A to B at the speed of 15 km/h, from B to C at 20 km/h, and from C to D at 30 km/h. If AB = BC = CD, then find the Richa's average speed.

1. 18 km/h   2. 17 km/h   3. 20 km/h   4. 19 km/h

53. Ram sold a motorcycle for ₹ 70000 at 25% profit. For what price should he sell a motorcycle to gain 30% profit?

1. ₹ 72,700   2. ₹ 72,900   3. ₹ 72,800   4. ₹ 72,600

54. The following graph gives the annual percent profit earned by a company during the period 1996-2001.

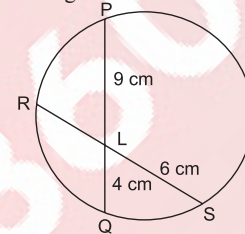Study the graph carefully and answer the question that follow.

$$\% \text{ profit} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$

Years
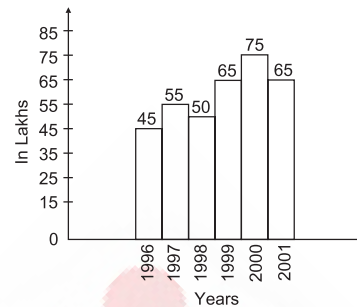
The period in which the profit of the company has increased fasted is :
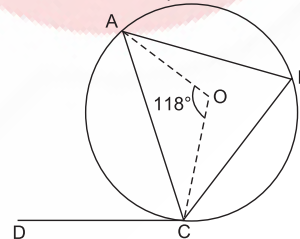
1. 1998 - 1999   2. 2000 - 2001
3. 1997 - 1998   4. 1996 - 1997

55. In the given figure, chords PQ and RS intersect each other at point L. Find the length of RL.

1. 3 cm   2. 6 cm   3. 8 cm   4. 2 cm

56. In the given figure, BC is a chord and CD is a tangent through the point C. If ∠AOC = 118°, then find the ∠ACD.

1. 59°   2. 65°   3. 56°   4. 63°

57. M is the circumcentre of ∆ABC with circumradius 15 cm. Let BC = 24 cm and ML is perpendicular to BC. Then the length of ML is :

1. 9 cm   2. 12 cm   3. 8 cm   4. 10 cm

58. The average age of 25 men is 28 years. 5 new men of an average age of 25 years joined them. Find the average age of all the men together.

1. 27.5 years   2. 29.5 years
3. 26.5 years   4. 28.5 years

59. Which of the following option is completely divisible by 11

1. 809781   2. 107611   3. 116571   4. 963391

60. If $a + b + c = 2$, $\frac{1}{a} + \frac{1}{b} + \frac{1}{c} = 0$, $ac = \frac{4}{b}$ and $a^3 + b^3 + c^3 = 28$, find the value of $a^2 + b^2 + c^2$.
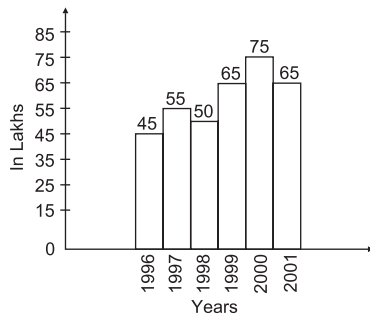
1. 8   2. 6   3. 10   4. 12

61. If $x - 2y = 3$ and $xy = 5$, find the value of $x^2 - 4y^2$.

1. 22   2. 20   3. 23   4. 21

62. The following graph given the annual percent profit earned by a company during the period 1996-2001.

Study the graph carefully and answer the questions that follow.

$$\% \text{ profit } = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$

The expenditure of the company during the year 1996 was ₹ 30 crores. The income of the company in that year was (in crores ₹):

1. 43.5   **2.** 45   **3.** 44.5   **4.** 44

63. ₹ 6,300 is divided between X,Y, Z, such that X:Y = 7 : 5 and Y : Z = 4 : 3. Find the share of Y.
1. ₹1,800   **2.** ₹2,000   **3.** ₹2,200   **4.** ₹2,400

64. If $\dfrac{\cos\theta + \sin\theta}{\cos\theta - \sin\theta} = 8$, then the value of cot θ is equal to:

1. $\dfrac{6}{5}$ **2.** $\dfrac{9}{7}$ **3.** $\dfrac{7}{6}$ **4.** $\dfrac{8}{7}$

65. List the price of a bike is 15% more than it's cost price. It is sold at a discount of 20%. Find the dealer's loss or profit percentage.
1. Profit 8%   **2.** Profit 9%   **3.** Loss 9%   **4.** Loss 8%

66. Kavita's attendance in her school for the academic session 2018-2019 was 216 days. On computing her attendance, it was observed that her attendance was 90%, The total working days of the school were:
1. 194   **2.** 250   **3.** 240   **4.** 195

67. If $\cos (x - y) = \dfrac{\sqrt{3}}{2}$ and $\sin(x + y) = \dfrac{1}{2}$, then the value of x

$(0 < x < 90)$ is:
1. 60°   **2.** 15°   **3.** 45°   **4.** 30°

68. The least value of $8 \csc^2\theta + 25 \sin^2\theta$ is :
1. $40\sqrt{2}$ **2.** $30\sqrt{2}$ **3.** $10\sqrt{2}$ **4.** $20\sqrt{2}$

69. In ΔXYZ, L and M are the middle points of the sides XY and XZ, respectively. R is a point on the segment LM, such that LR: RM = 1 : 2. If LR = 3 cm, then YZ is equal to :
1. 16 cm   **2.** 18 cm   **3.** 19 cm   **4.** 17 cm

70. The given graph shows the pass percentage of students taught by six teachers of a school in the Senior Secondary Board exam.

Performance of students of 6 Teachers of a School (pass percent)
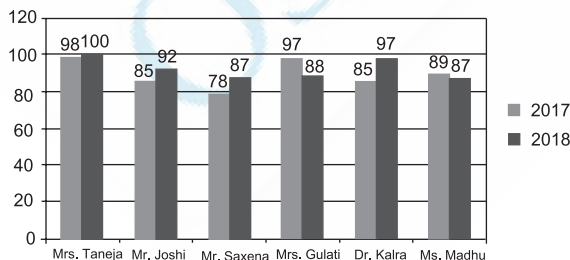
Identify the teacher whose students have shown the maximum improvement.
1. Mr. Joshi   **2.** Mr. Saxena
3. Mrs. Taneja   **4.** Dr. Kalra

71. The diagonal of rectangle is 15 cm and length is 12 cm. Find the area of the rectangle.
1. 114 cm²   **2.** 108 cm²   **3.** 116 cm²   **4.** 112 cm²

72. In how many years shall ₹3,500 invested at the rate of 10% simple interest per annum, amount to ₹ 4,500?

1. $2\dfrac{5}{7}$ years   **2.** $2\dfrac{3}{7}$ years

3. $2\dfrac{4}{7}$ years   **4.** $2\dfrac{6}{7}$ years

73. If cot A = k, then sin A is equal to :
(presume that A is an acute angle)

1. $\dfrac{1}{\sqrt{1 + k^2}}$ **2.** $\dfrac{1}{k}$

3. $\dfrac{k^2}{\sqrt{1 + k^2}}$ **4.** $-\dfrac{1}{k}$

74. The following graph represents the annual percentage profit earned by a company during the period 1996 - 2001. Study the graph carefully and answer the questions that follow.

$$\% \text{ profit } = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$
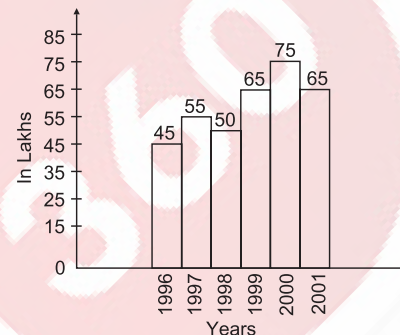
The profit earned by the company is maximum in the year :
1. 1999   **2.** 1996   **3.** 2001   **4.** 2000

75. 15 men can complete a task in 10 days. In how many days can 20 men complete the same task?
1. 8.5 days   **2.** 7.5 days   **3.** 5.5 days   **4.** 6.5 days

General Awareness

76. On 2nd December 2019, who became the first female pilot of the Indian Navy?
1. Shivangi   **2.** Punita Arora
3. Bhawana Kanth   **4.** Sarla Thakral

77. 'Saga Dawa' is one of the biggest Buddhist festivals. In which one of the following states is it celebrated?
1. Jharkhand   **2.** Sikkim   **3.** Odisha   **4.** Kerala

78. Which of the following Bollywood veterans was chosen for the 66th Dadasaheb Phalke Award for 2018?
1. Ashutosh Rana   **2.** Shatrughan Sinha
3. Amitabh Bachchan   **4.** Nana Patekar

79. Which is the second largest river basin in India that covers 10% of the country's area?
1. Mahanadi   **2.** Krishna   **3.** Narmada   **4.** Godavari

80. Who founded the Indian Statistical Institute (ISI) in Calcutta?
1. Prasanta Chandra Mahalanobis **2.** Subhendu Sekhar Bose
3. JM Sengupta   **4.** RN Mookerjee

81. The Atrial wall of the human heart secretes a very important peptide hormone. What is the name of that hormone?
1. GIP   **2.** ANF   **3.** ADH   **4.** CCK

82. How many times did Pankaj Advani win the 'IBSF World Billiards Championship'?
1. 20   **2.** 22   **3.** 24   **4.** 21

83. Which article of the Constitution of India mentions that the Lok Sabha must have a Speaker and a Deputy Speaker?
1. Article 93   **2.** Article 97
3. Article 85   **4.** Article 100

84. With which of the following sports is Bhamidipati Sai Praneeth associated?
1. Cricket   **2.** Tennis
3. Badminton   **4.** Hockey

85. In which process is a protective zinc coating applied on iron to prevent it from rusting?
1. Galvanisation   **2.** Annealing
3. Smelting   **4.** Welding

86. Who became the first player in history to win the 'Sir Garfield Sobers Trophy' for 'ICC Cricketer of the Year'?
1 Sachin Tendulkar   **2.** Virat Kohli
3. Ravichandran Ashwin   **4.** Mahendra Singh Dhoni

87. What is the range of the intensity scale used in measuring earthquakes?
1. 1 to 7   **2.** 1 to 12   **3.** 1 to 15   **4.** 1 to 5

88. In the context of the mesosphere, which of the following statements is NOT correct?
1. It is directly above the stratosphere.
2. Meteorites burn up in this layer on entering from the space.
3. It is the third layer of the atmosphere.
4. In this layer temperature rises very rapidly with increasing height.

89. Which Indian actress was chosen for the '2020 Crystal Award' given by the World Economic Forum for spreading awareness about mental health?
1. Vidya Balan   **2.** Kangana Ranaut
3. Deepika Padukone   **4.** Priyanka Chopra

90. Which forest is also referred to as 'Monsoon Forests'?
1. Tropical Deciduous Forests   **2.** Tropical Evergreen Forests
3. Mangrove Forests   **4.** Montane Forests

91. What disease is caused by insulin deficiency?
1. Scleroderma   **2.** Multiple Sclerosis
3. Diabetes mellitus   **4.** Rheumatoid arthritis (RA)

92. In a computer, which unit is responsible for processing data and is also called the electronic brain of the computer?
1. RAM   **2.** Keyboard
3. Central Processing Unit (CPU) **4.** Hard Disk

93. Who was best known for hoisting the Indian National Congress flag at the Gowalia.
Tank maidan in Bombay during the Quit India Movement?
1. Aruna Asaf Ali   **2.** Lakshmi Sahgal
3. Kanaklata Barua   **4.** Bhikaiji Rustom Cama

94. Which of the following is INCORRECTLY paired?
1. Pedology – Phyto geography
2. Hydrology – Oceanography
3. Anthropology – Cultural geography
4. Demography – Population geography

95. 'Aatish-i-Chinar' (Flames of Chinar) is the autobiography of which politician?
1. APJ Abdul Kalam
2. Benazir Bhutto
3. M Hidyatullah
4. Sheikh Muhammad Abdullah

96. According to the Economist Intelligence Unit (EIU), what is India's rank in the 2019 worldwide Index of Cancer Preparedness (ICP)?
1. 15   **2.** 10   **3.** 28   **4.** 19

97. Who introduced the 'Doctrine of Lapse'?
1. Lord Wellesley   **2.** Lord Lytton
3. Lord Dalhousie   **4.** Lord Canning

98. On which day is Constitution Day celebrated every year in India?
1. 30 November   **2.** 15 October
3. 26 November   **4.** 2 October

99. In which year were the 'Kalbelia' folk songs and dances of Rajasthan included in UNESCO's representative list of Intangible Cultural Heritage?
1. 2012   **2.** 2010   **3.** 2017   **4.** 2015

100. Which of the following companies was chosen for the UN Global Climate Action Award in the 'Carbon Neutral Now' category in September 2019?
1. Reliance Health   **2.** Infosys
3. Wipro   **4.** Organic India

Answer Key

1.	(4)	2.	(4)	3.	(4)	4.	(4)	5.	(3)	6.	(3)	7.	(1)	8.	(1)	9.	(1)	10.	(4)
11.	(1)	12.	(4)	13.	(4)	14.	(3)	15.	(4)	16.	(2)	17.	(3)	18.	(3)	19.	(2)	20.	(1)
21.	(4)	22.	(3)	23.	(4)	24.	(3)	25.	(3)	26.	(4)	27.	(1)	28.	(3)	29.	(3)	30.	(4)
31.	(2)	32.	(2)	33.	(4)	34.	(3)	35.	(3)	36.	(4)	37.	(4)	38.	(2)	39.	(1)	40.	(4)
41.	(4)	42.	(2)	43.	(3)	44.	(1)	45.	(1)	46.	(4)	47.	(1)	48.	(2)	49.	(3)	50.	(1)
51.	(3)	52.	(3)	53.	(3)	54.	(1)	55.	(2)	56.	(1)	57.	(1)	58.	(1)	59.	(4)	60.	(1)
61.	(4)	62.	(1)	63.	(2)	64.	(2)	65.	(4)	66.	(3)	67.	(4)	68.	(4)	69.	(2)	70.	(4)
71.	(2)	72.	(4)	73.	(1)	74.	(4)	75.	(2)	76.	(1)	77.	(2)	78.	(3)	79.	(4)	80.	(1)
81.	(2)	82.	(2)	83.	(1)	84.	(3)	85.	(1)	86.	(2)	87.	(2)	88.	(4)	89.	(3)	90.	(1)
91.	(3)	92.	(3)	93.	(1)	94.	(1)	95.	(4)	96.	(4)	97.	(3)	98.	(3)	99.	(2)	100.	(2)

Answers with Explanations

1. Option (4) is correct.

The correct spelling is: FAITHFULLY. The meaning of 'faithfully' is 'devotedly', 'loyally' etc.

2. Option (4) is correct.

The given sentence is: The police beat a number of protestors last night.

The sentence is in the past tense form. The subject in the sentence is singular, the verb is in the past form and the object is in the plural form 'a number of protestors', and the adverb is 'last night'. When we convert an active sentence into passive form, the object of the active form will become the subject in the passive. The subject in the passive form is 'a number of protestors' which is in the plural form. and hence we use the be verb 'were'. The past participle form of the verb 'beaten' should be used and the connector 'by' ought to be used.

3. Option (4) is correct.

'Rejection' means 'refusal' or, 'denial'. 'Continuation' means 'persistence'. 'Discussion' means 'conversation'. So, 'declaration' is the meaning of 'assertion'.

4. Option (4) is correct.

If people are up in arms about something, they are very angry about it and are protesting strongly against it.

5. Option (3) is correct.

Excessive means extreme, or, unnecessary. Exceeding is a gerund means better than. Exceed is a verb that means better than. Exceedingly is an adverb that means extremely.

6. Option (3) is correct.

The word that comes after the blank is 'think' which is a verb. The word 'series' in the option is completely irrelevant. 'Seriousness' is a noun and 'serious' is an adjective. We use only an adverb before a noun and hence, seriously is the right answer.

7. Option (1) is correct.

The determiner 'many' means a large number of.The determiner 'the' is used for denoting one or more people or things already mentioned or assumed to be of common knowledge. The determiner 'any' is used to refer to one or some of a thing or a number of things, no matter how much or how many. The determiner 'a' is used when referring to someone or something for the first time in a text or conversation.

8. Option (1) is correct.

'To taking' is incorrect as infinitives will not get conjugated with -ed, or -ing. 'Takes' is a third-person singular verb and hence, it is wrong. 'To take' is correct as the infinitive 'to take' acts as the object and 'taken' is wrong as it is the past participle form. The answer is 'to take'.

9. Option (1) is correct.

'Switch' is a device that we use to operate some machines. 'Switch in', 'switch up', or 'switch over' will be inappropriate in this context. 'Switch off' is the right word here as the writer insists is to turn off the mobile.

10. Option (4) is correct.

The error is found in part 2. The phrase must be 'one of the pioneers' and not 'one of a pioneers'. When we use the phrase 'one of', we must use the article 'the' instead of 'a'.

11. Option (1) is correct.

The meaning of 'vigilance' is 'being cautious and attentive'. The meaning of 'attack' is 'outbreaking something' and 'endurance' means 'tolerance or patience'. 'Surveillance' means 'supervising' or 'following something'. The opposite of 'surveillance' is 'neglect'.

12. Option (4) is correct.

The meaning of the word 'demolish' is 'to destroy or break up something'. The meaning of 'obstruct' is 'hinder or block'. 'Abolish' means 'eradicate' something. 'Cherish' means 'relish or appreciate' something. The first three options are not the opposite of 'demolish' and the answer is 'construct'.

13. Option (4) is correct.

So+ adjective+ as can be used only with negatives. Most is not used with comparative adjective. It is not used only with superlative adjectives. Eg: The most durable and not the most durable as….

We will not use very with comparatives; we use it with super-latives. We use as + adjectives/adverbs +a s in comparative forms and hence the answer is 'to be as durable as'.

14. Option (3) is correct.

'Stir up a hornet's nest' means to do something which causes a lot of controversy or produces a situation which is extremely difficult to deal with. All the other options are incorrect. The right option according to the meaning of the idiom is 'provoke trouble'.

15. Option (4) is correct.

The exercise to be converted is: "Do you attend the film festival at Goa every year?" he asked. Here, the reporting verb 'asked' is in the past form. So the reporting verb must be converted into the past. Since the exercise is a close-ended/ yes/no question, we need to use the connector 'if'. Do will become did. Did +attend =attended. So, the answer is he asked me if I attended the film festival at Goa every year.

16. Option (2) is correct.

Option B gives general information about the film, introducing the film. So, it must be the first one. Option C refers back to the film giving additional information about the film. So, C is the second sentence. D gives further information about the film in addition to the information given in C. So, D is the third sentence. The pronoun 'them refers to the 'unique species of frogs' mentioned in option D and hence, option A follows option D. Hence, the right order is BCDA.

17. Option (3) is correct.

In the first part of the sentence, we come across the adverb 'every day' which shows the regularity of the action. When we speak about a regular or habitual action, we must use the simple present form of the verb. And in part 2 of the sentence, it is mentioned 'India witnessing' which is wrong as the part misses the 'be verb-is'. So, it must be 'India witnesses the death…".

18. Option (3) is correct.

Sentence D gives information about the regional transport offices of Delhi being an independent sentence and so, it will be the no 1 . Option A talks about the driving test mentioned in Option D and hence option A becomes the next sentence. The pronoun 'it' in option C refers to the 'driving test track' mentioned in option A and hence C is the next sentence. The phrase 'these specific skills' in option B refers back to the 'driving skills mentioned in option C and hence B is the final sentence. So, the option is DACB.

19. Option (2) is correct.

The synonym of the word 'guile' is deceit. The synonym of the word 'intuition' is 'perception'. The synonym of the word 'surfeit' is 'excess'. The synonym of 'sincerity' is 'genuineness'. So, the answer is deceit.

20. Option (1) is correct.

The meaning of redundant is exceeding what is necessary or normal. Abundant means something that is plentiful. Reluctant is unwilling and unenthused. Dominant means overriding. So the right answer is redundant.

21. Option (4) is correct.

Adversary means a challenger, an enemy, or an opponent. Literary means someone or something concerned with literature. Voluntary means proceeding from the will or from one's own choice or consent. Visionary is a person who is having great plans for future. So, the right answer is visionary as the other options are irrelevant to the concept and context.

22. Option (3) is correct.

Renowned means famous, well-known, or celebrated. Recognized means accepting that something is true and important. Unaware means not knowing about or not noticing somebody/something. Unconfirmed means something is not verified and proven. Unaware is the right option and all the other options are wrong as they do not fit into the context.

23. Option (4) is correct.

The right spelling is sincerely and the meaning of the word is openly, frankly, and honestly. All the other words are spelled rightly.

24. Option (3) is correct.

The given sentence is in the present tense form and the subject 'skill' is singular; hence the verb lie will get conjugated with -s. Your skills lies… So, the first part of the sentence is wrong.

25. Option (3) is correct.

Majestic means very royal and regal. Unreal means imaginary and untrue. Authentic means something that is genuine. Academic means connected with education. So, authentic is the right answer.

26. Option (4) is correct.

Given, N is coded as 30:

The alphabetic number of N is 14;

$$14 \times 2 + 2 = 30$$

and COT is coded as 78:

The alphabetic number for C is 3, for O is 15 and for T is 20;

$$(3 + 15 + 20) \times 2 + 2$$
$$38 \times 2 + 2$$
$$76 + 2 = 78$$

Similarly, the code for PET:

The alphabetic number for P is 16, for E is 5, and for T is 20;

$$(16 + 5 + 20) \times 2 + 2$$
$$41 \times 2 + 2$$
$$82 + 2 = 84$$

Therefore, the code for PET is 84.

27. Option (1) is correct.

According to the given question, John used to buy petrol at the rate of ₹80 per litre till last month.

Now, he buys it at the rate of ₹85 per litre.

Therefore, increase in percentage

$$= \frac{(85 - 80)}{80} \times 100 = \frac{5}{80} \times 100$$

$$= 0.0625 \times 100 = 6.25\%$$

So, the petrol price increases as compared to last month is 6.25%. Hence, option (1) is the correct answer.

28. Option (3) is correct.

Since 3, 2, 5 are adjacent to 1 therefore, they cannot be opposite to 1.

Number 6 that will be on the face opposite to the face showing the number 1.

29. Option (3) is correct.

According to the given question, the logical and meaningful order is as follows:

3	1	4	2	5
Room	Flat	Apartment	Street	Town

30. Option (4) is correct.
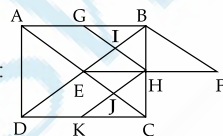
The given figure is labeled as:

Δ ABE, Δ AED, Δ DEC, Δ BEH, Δ BEF, Δ ABD, Δ BDC, Δ ABC, Δ ADC, Δ EIH, Δ EJH, Δ KJC, Δ HJC, Δ BIH, Δ GIB, Δ HKC, Δ BHF, Δ GBH, Δ HEC, Δ BEC

So, there are total 20 triangles in the given figure.

31. Option (2) is correct.

Given, BROWSE is written as GUYQTD;

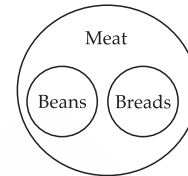B R O W S E → G U Y Q T D, each +2
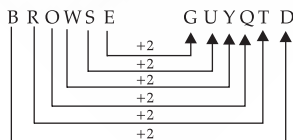
Similarly, the code for AMALGAM is OCINCOC.

A M A L G A M → O C I N C O C, each +2
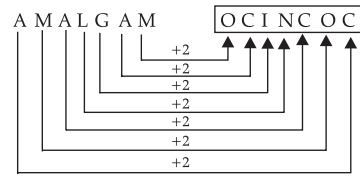
32. Option (2) is correct.

The venn diagram of the given condition is as represented as:

Meat
Beans   Breads

From conclusion I: some beans are breads, this is possible but not definite.

From conclusion II: some breads are beans, this is also possible but not definite.

Therefore, neither conclusion I nor II follows the given condition.

33. Option (4) is correct.

As we know that joule is the unit of work. Similarly, hectare is the unit of area.

34. Option (3) is correct.

We know that the sound of bleat is for sheep, chirp is for birds, and neigh is for horses, but frisk is for playing and jumping. So, frisk is odd one out.
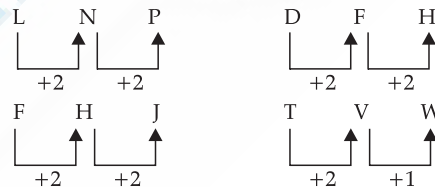
35. Option (3) is correct.

It can be seen that in the option (3) the given image is embedded which is highlighted below.

36. Option (4) is correct.

From the given options;

L   N   P   D   F   H
  +2   +2   +2   +2

F   H   J   T   V   W
  +2   +2   +2   +1

Hence except for option (4), all others follow the same pattern.

37. Option (4) is correct.

Given that: 8 : 49

The pattern followed here is:

8 − 1 = 7; 7 × 7 = 49

From option (1): 9 : 87

9 − 1 = 8; 8 × 8 = 64 is not equal to 87

From option (2): 15 : 210

15 − 1 = 14; 14 × 14 = 196 is not equal to 210

From option (3): 13 : 170

13 − 1 = 12; 12 × 12 = 144 is not equal to 170
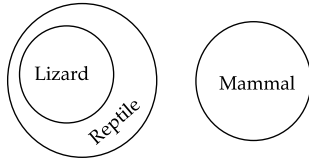
And from option (4): 12 : 121

12 − 1 = 11; 11 × 11 = 121 is equal to 121

38. Option (2) is correct.

The venn diagram of the given classes is as represented as:

As we know that lizard is a reptile, and mammals are represented separately.

39. Option (1) is correct.

Give expression: 26 A 2 A 3 A 3 A 13

From option (1): $26 \div 2 \times 3 = 3 \times 13$

$$13 \times 3 = 3 \times 13$$
$$39 = 39$$

40. Option (4) is correct.

Given that: GOAT : DQYW

Similarly,

41. Option (4) is correct.

The pattern of 3, 68, 5 is as follows:

$$(3 \times 3 + 5 \times 5) \times 2$$
$$(9 + 25) \times 2$$
$$34 \times 2 = 68$$

From option (1):

$$(2, 72, 10)$$
$$(2 \times 2 + 10 \times 10) \times 2$$
$$(4 + 100) \times 2$$

$104 \times 2 = 208$ is not equal to 72

From option (2):

$$(4, 64, 5)$$
$$(4 \times 4 + 5 \times 5) \times 2$$
$$(16 + 25) \times 2$$

$41 \times 2 = 82$ is not equal to 64

From option (3):

$$(5, 95, 8)$$
$$(5 \times 5 + 8 \times 8) \times 2$$
$$(25 + 64) \times 2$$

$89 \times 2 = 178$ is not equal to 95

And from option (4):

$$(2, 10, 1)$$
$$(2 \times 2 + 1 \times 1) \times 2$$
$$(4 + 1) \times 2$$

$5 \times 2 = 10$ is equal to 10

42. Option (2) is correct.

As we know that milk is obtained from a cow. Similarly, eggs are obtained from hens.

43. Option (3) is correct.

The pattern is as follows:

a b a b c c d	a b a b c c d	a b a b c c d
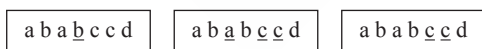
44. Option (1) is correct.

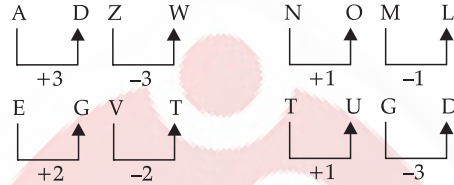The pattern of the figure series is as follows:
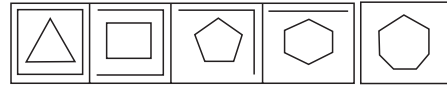
The outer lines are decreasing by one while the inner lines are increasing by one.

45. Option (1) is correct.

According to the given question, Disha's salary is 17 A and Pratima's salary is 15 A.

Now, $17 A - 15 A = 3000$

$$2 A = 3000, A = 1500$$

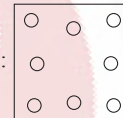So,   Pratima's salary $= 15 \times 1500 = $ Rs. 22,500

46. Option (4) is correct.

Except for option (4), all others follow the same pattern.
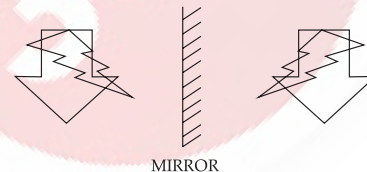

47. Option (1) is correct.

After unfolding the paper it is shown as:

48. Option (2) is correct.

The mirror image of the given figure is as follows:

MIRROR

49. Option (3) is correct.

The pattern of the given set is as follows:

$$(7, 15, 31)$$
$$(7 \times 2) + 1 = 15, (15 \times 2) + 1 = 31$$

From option (1):

$$(6, 13, 21)$$
$$(6 \times 2) + 1 = 13, (13 \times 2) + 1 = 27$$

Here, 27 is not equal to 21.

From option (2):

$$(5, 625, 6)$$
$$(5 \times 2) + 1 = 11, (11 \times 2) + 1 = 23$$

Here, 11 is not equal to 625 and 23 is not equal to 6.

From option (3):

$$(3, 7, 15)$$
$$(3 \times 2) + 1 = 7, (7 \times 2) + 1 = 15$$

Therefore, option (3) follows the same pattern.

50. Option (1) is correct.

Except for option (1), all other numbers are completely divisible by 4.

51. Option (3) is correct.

Value of given expression

$$= -15 + 90 \div [89 - \{9 \times 8 + (33 - 3 \times 7)\}]$$
$$= -15 + 90 \div [89 - \{72 + 12\}]$$
$$= -15 + 90 \div [89 - 84]$$
$$= -15 + 90 \div 5 = -15 + 18 = 3$$

52. Option (3) is correct.

Let distance AB = BC = CD = x km

$\therefore$ Time = $\dfrac{\text{Distance}}{\text{Speed}}$

And average speed = $\dfrac{\text{Total Distance}}{\text{Total time}}$

$= \dfrac{x+x+x}{\dfrac{x}{15}+\dfrac{x}{20}+\dfrac{x}{30}}$ $= \dfrac{3x}{\dfrac{4x+3x+2x}{60}} = \dfrac{3x\times60}{9x} = 20$

km/h

53. Option (3) is correct.

C.P. $= \dfrac{\text{S.P.}\times100}{100+\text{profit\%}} = \dfrac{70000\times100}{100+25}$

$= \dfrac{70000\times100}{125} = 56000$

S.P. = C.P. $\times \dfrac{(100+\text{profit\%})}{100}$

$= 56000\left(\dfrac{100+30}{100}\right) = ₹\,72800$

54. Option (1) is correct.

Profit increased in period 1996-1997 = 55 – 45 = 10
Profit increased in period 1998-1999 = 65 – 50 = 15
Profit Increased In period 1999-2000 = 75 – 65 = 10
$\therefore$ In period 1998 - 1999 profit Increased faster.

55. Option (2) is correct.

We know that If two chords intersect within a circle then the product of the lengths of the line segments on each chord are equal.

$\therefore$ PL × LQ = RL × LS
9 × 4 = RL × 6

$\therefore$ RL $= \dfrac{9\times4}{6} = 6$ cm

56. Option (1) is correct.

We know that measure of angles subtended to any point on the circumference of circle is half the angle subtended at the center by the same arc,
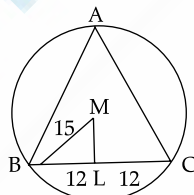
$\therefore \angle ABC = \dfrac{1}{2}\,\angle AUC = \dfrac{1}{2}\times118° = 59°$

Since, angles in alternate segments are equal.
$\therefore \angle ACD = \angle ABC = 59°$

57. Option (1) is correct.

$ML^2 + BL^2 = BM^2$
$ML^2 = BM^2 - BL^2$
$= 15^2 - 12^2$
$= (15-12)(15+12)$
$= 3 \times 27$
MD $= \sqrt{3\times3\times9} = 9$ cm

58. Option (1) is correct.

Combined mean $= \dfrac{n_1\overline{x_1}+n_2\overline{x_2}}{n_1+n_2}$

$= \dfrac{25\times28+5\times25}{25+5} = \dfrac{825}{30}$

$= 27.5$ years.

59. Option (4) is correct.

1. 809781: (8 + 9 + 8) – (0 + 7 + 1) = 17 is not divisible by 11.
2. 107611 : (1 + 7 + 1) – (0 + 6 + 1) = 2 is not divisible by 11.
3. 116571: (1 + 6 + 7) – (1 + 5 + 1) = 7 is not divisible by 11.
4. 963391 = (9 + 3 + 9) – (6 + 3 + 1) = 11 is divisible by 11.

60. Option (1) is correct.

$\therefore \quad a+b+c = 2,\ \dfrac{1}{a}+\dfrac{1}{b}+c = 0,\ ac = \dfrac{4}{b} \Rightarrow abc = 4$

and $\quad a^3+b^3+c^3 = 28$

$\Rightarrow \dfrac{ab+bc+ca}{abc} = 0$

$\Rightarrow \quad ab+bc+ca = 0$

$\therefore \quad a^3+b^3+c^3 - 3abc = (a+b+c)(a^2+b^2+c^2-ab-bc-ca)$

$28 - 3(4) = 2(a^2+b^2+c^2-0)$

$\Rightarrow \quad 28 - 12 = 2(a^2+b^2+c^2)$

$\Rightarrow \quad 16 = 2(a^2+b^2+c^2)$

$\Rightarrow \quad a^2+b^2+c^2 = \dfrac{16}{2} = 8$

61. Option (4) is correct.

$\because \quad (a+b) = (a-b)^2 + 4ab$

$\therefore \quad (x+2y)^2 = (x-2y)^2 + 4.x.2y = (3)^2 + 8(5) = 49$

$x + 2y = \sqrt{49} = 7$

Now, $\quad x^2 - 4y^2 = (x+2y)(x-2y)$

$= 7\times3 = 21$

62. Option (1) is correct.

$\therefore$ Profit % $= \dfrac{\text{Income}-\text{Expenditure}}{\text{Expenditure}}\times100$

For year 1996, $\quad 45 = \dfrac{\text{Income}-30}{30}\times100$

$\dfrac{45\times3}{10} = \text{Income} - 30$

$13.5 = \text{Income} - 30$

$\therefore \quad \text{Income} = 13.5 + 30 = 43.5$

63. Option (2) is correct.

$\therefore \dfrac{X}{Y} = \dfrac{7\times4}{5\times4} = \dfrac{28}{20}$

$\dfrac{Y}{Z} = \dfrac{4\times5}{3\times5} = \dfrac{20}{15}$

$\therefore \quad X : Y : Z = 28 : 20 : 15$

Share of Y $= \dfrac{20}{28+20+15}\times6300 = \dfrac{20}{63}\times6300 = 2000$

64. Option (2) is correct.

$\dfrac{\cos\theta+\sin\theta}{\cos\theta-\sin\theta} = \dfrac{8}{1}$

Applying C & D,

$\dfrac{2\cos\theta}{2\sin\theta} = \dfrac{8+1}{8-1} \Rightarrow \cot\theta = \dfrac{9}{7}$

65. Option (4) is correct.

Let cost price of a bike be ₹ 100

$\therefore \quad$ List price $= 100\left(1+\dfrac{15}{100}\right) = 115$

$$\text{S.P.} = 115\left(1 - \frac{20}{100}\right) = 92$$

$$\therefore \qquad \text{Loss} = 100 - 92 = 8$$

$$\text{Loss\%} = \frac{8}{100} \times 100 = 8\% .$$

66. Option (3) is correct.

Since attendance of Kavita's was 216 days which is 90% of total working days.

$$\therefore \quad x \times \frac{90}{100} = 216$$

$$\therefore \quad x = \frac{216 \times 100}{90} = 240$$

$\therefore$ Total working days = 240 days

67. Option (4) is correct.

$$\because \qquad \cos(x - 4) = \frac{\sqrt{3}}{2} = \cos 30^\circ \qquad (\because 0 < \theta < 90^\circ)$$

$$\because \qquad x - y = 30^\circ \qquad \qquad \dots(i)$$

$$\sin(x + y) = \frac{1}{2} = \sin 30^\circ$$

$$x + y = 30^\circ \qquad \qquad \dots(ii)$$

Adding (i) and (ii)

$$x + y = 30^\circ$$
$$x - y = 30^\circ$$
$$2x = 60^\circ \Rightarrow x = 30^\circ$$

68. Option (4) is correct.

Given that: $8\csc^2\theta + 25\sin^2\theta$

The minimum value of "$a\csc^2\theta + b\sin^2\theta$" is given by $2\sqrt{ab}$.

Minimum Value of $8\csc 2\theta + 25\sin 2\theta = 2\sqrt{(8 \times 25)}$.

$$\Rightarrow 2\sqrt{200}$$

$$\Rightarrow 2\sqrt{(100 \times 2)}$$

$$\Rightarrow 2 \times 10\sqrt{2}$$

$$\Rightarrow 20\sqrt{2}$$

69. Option (2) is correct.

$$\therefore \quad \frac{LR}{RM} = \frac{1}{2}$$

$$\therefore \quad \frac{LR}{LR + RM} = \frac{1}{1 + 2}$$

$$\Rightarrow \frac{3}{LM} = \frac{1}{3} \Rightarrow LM = 9 \text{ cm}$$

Since, L and M are mid point of XY and XZ therefore LM ||

YZ and LM = $\frac{1}{2}$ YZ

$\therefore$ YZ = 2 LM = 2 × 9 = 18 cm

70. Option (4) is correct.

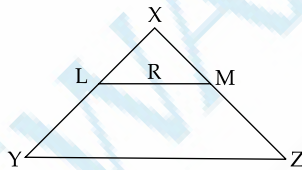Improvement by Mrs. Taneja = 100 – 98 = 2
Improvement by Mr. Joshi = 92 – 85 = 7
Improvement by Mr. Saxena = 87 – 78 = 9
Improvement by Mrs. Gulati = 88 – 97 = –9
Improvement by Dr. Kalra = 97 – 85 = 12
Improvement by Ms Madhu = 87 – 89 = –2
So, maximum improvement by Dr. Kalra.

71. Option (2) is correct.

We know that

$$(\text{Diagonal})^2 = l^2 + b^2$$

$$\Rightarrow \qquad (15)^2 = (12)^2 + b^2$$

$$\Rightarrow \qquad b^2 = 15^2 - 12^2 = (15+12)(15-12)$$

$$\Rightarrow \qquad b^2 = 27 \times 3 \Rightarrow b = 9 \text{ cm.}$$

$$\therefore \qquad \text{Area} = l \times b = 12 \times 9 = 108 \text{ cm}^2$$

72. Option (4) is correct.

Simple Interest = 4500 – 3500 = 1000

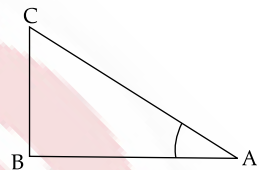$$\because \qquad \text{S. I.} = \frac{P \times R \times T}{100}$$

$$1000 = \frac{3500 \times 10 \times T}{100}$$

$$T = \frac{1000}{35 \times 10} = \frac{20}{7} = 2\frac{6}{7} \text{ years}$$

73. Option (1) is correct.

$$\because \qquad \cot A = \frac{k}{1} = \frac{b}{p} = \frac{AB}{BC}$$

$$AB = k \text{ and } BC = 1$$

Now, $AC = \sqrt{AB^2 + BC^2} = \sqrt{1 + k^2}$

$$\therefore \quad \sin A = \frac{P}{H} = \frac{BC}{AC} = \frac{1}{\sqrt{1 + k^2}}$$

74. Option (4) is correct.

From figure, it is clear that in year 2000 profit was maximum.

75. Option (2) is correct.

$\because$ 15 men can complete a task in 10 days.

$\therefore$ 1 man can complete a task in 10 × 15.

$\therefore$ 20 men can complete a task in $\frac{10 \times 15}{20}$ = 7.5 days

76. Option (1) is correct.

Sub Lieutenant Shivangi was born in Muzaffarpur, Bihar, on March 15, 1995. On December 2, 2019, she became the first Indian naval pilot. Sub-Lieutenant Shivangi had finished his operational training in Kochi. She was chosen for the Indian Navy as part of the 27 NOC course at the Indian Naval Academy, Ezhimala, under the Short Service Commission. She enrolled in two six-month courses, the first of which was a naval orientation course at the Indian Naval Academy. Second, she trained at the Air Force Academy on the Pilates PC - 7 MK II aircraft. At the Indian Naval Air Squadron 550, she learned to fly the Dornier aircraft.

77. Option (2) is correct.

The Saga Dawa festival commemorates Gautam Buddha's birth, enlightenment, and attainment of Nirvana. The festival is held on the full moon day of the Buddhist calendar's fourth month. It is mostly celebrated across Gangtok's streets, with the parade beginning at Tsuk La Khang Monastery. Since 1950, the festival has been held.

78. Option (3) is correct.

The Dada Saheb Phalke Award is India's highest cinema award. The award recognises individuals who have made outstanding contributions to the growth and development of Indian cinema. The first award was given in 1969. Devika Rani was the first recipient of this award. In Mumbai, Maharashtra, the Dadasaheb Phalke International Film Festival Awards 2020 were announced. For the film "Super 30," Hrithik

Roshan won Best Actor. Amitabh Bachhan has been named the recipient of the 66th Dadasaheb Phalke Award for 2018.

79. Option (4) is correct.

Godavari is India's second largest river basin, covering 10% of the country's land area. Triambakeshwar, Maharashtra, is the river's headwaters. It runs through Maharashtra, Telangana, Andhra Pradesh, Chattisgarh, and Odisha states. The river empties into the Bay of Bengal. After the Ganga, the Godavari is India's second-longest river. The river is 1,465 kilometres long.

80. Option (1) is correct.

The Indian Statistical Institute is a research university that is open to the public. "Unity in Diversity" is the institute's motto. This institute's headquarters are in Bonhooghly (Baranagar), Kolkata, West Bengal. It operates four satellite offices in Delhi, Bengal, Chennai, and Giridih. ISI's primary activities include statistical research and training, theoretical statistics development, and application. ISI is part of the government of India's Ministry of Statistics and Programme Implementation. Professor P.C. Mahalanobis founded the institute in Kolkata on December 17, 1931, and it was designated as an Institution of National Importance by an act of the Indian Parliament in 1959.

81. Option (2) is correct.

ANP (Atrioventricular Natriuretic Peptide) is also known as ANF (Atrioventricular Natriuretic Factor). It is a hormone that is secreted by the atria of the heart. ANP works by increasing renal sodium excretion to reduce the volume of expanded extracellular fluid (EEF). ANP is produced and secreted by cardiac muscle cells in the atria of the heart. These cells contain volume receptors, which respond to increased stretching of the arterial wall caused by increased atrial blood volume. De Bold discovered the natriuretic factor in 1981.

82. Option (2) is correct.

Pankaj Advani is a former professional snooker player and an Indian professional player of English billiards. He is the only player in history to have won world titles in every format of both billiards and snooker. Pankaj is one of the youngest Indians to have received the Rajiv Gandhi Khel Ratna award, as well as the Arjuna, Padma Shri, and, most recently, the Padma Bhushan awards. Pankaj Advani won the 'IBSF World Billiards Championship 22 times.

83. Option (1) is correct.

The Speaker and Deputy Speaker are elected in accordance with Article 93 of the Constitution. The Lok Sabha is India's bicameral parliament's lower house. The Lok Sabha is a temporary house that the President can dissolve earlier on the advice of the Council of Ministers. The Constitution provides for a maximum House strength of 550, which is made up of up to 530 members elected to represent the states and up to 20 members elected to represent the Union Territories. It is also known as the "People's House". The Lok Sabha was established on April 17, 1952. This house has a 5-year term limit.

84. Option (3) is correct.

B. Sai Praneet was born in Hyderabad on August 10, 1992. After Prakash Padukone, he is the first Indian male badminton player to win a bronze medal at the BWF World Championship. In 2019, Sai Praneeth received the Arjun Award. He is currently training at the Gopichand Badminton Academy in Hyderabad.

85. Option (1) is correct.

Galvanization is the process of coating steel or iron with zinc. This is done to protect steel and iron from the rusting process. Hot-dip galvanization is the most common method of galvanization. Parts are immersed in a bath of molten hot zinc in this method. Annealing is a heat treatment process that is commonly used to increase ductility and decrease hardness in a material. Smelting is a type of extractive metallurgy used to extract metal from its ore. Welding is a fabrication process in which two or more parts are fused together using heat, pressure, or both to form a join as the parts cool.

86. Option (2) is correct.

Virat Kohli, the captain of Team India, made history by becoming the first player in history to win the Sir Garfield Sobers Trophy for ICC Cricketer of the Year. Kohli was also named ICC Men's Test Player of the Year and ICC ODI Player of the Year, according to the ICC. Kohli was also named captain of the ICC's Test and ODI teams in 2018 for his outstanding performance in international cricket. The victory of India in the Under-19 World Cup was voted the Fans' Moment of the Year. Kohli was unanimously chosen for the Sobers award by the 36-member voting panel. He also finished the year ranked first in both the Test and ODI rankings.

87. Option (2) is correct.

Giuseppe Mercalli created the Mercalli scale. The scale runs from 1 to 12. Earthquakes are also known as quakes, tremors, or temblors. Seismic waves are caused by the phenomenon of shaking of the earth's surface. Seismic waves are those that travel through the layers of the earth. Earthquakes, volcanic eruptions, magma moments, landslides, and man-made explosions all cause these waves. The earthquake generates various types of seismic waves, including P waves, S waves, and surface waves. Seismic activity is also increasing as a result of global warming.

88. Option (4) is correct.

The mesosphere rises above the stratosphere to a height of about 80 kilometres. It is the atmosphere's coldest layer. The stratosphere is directly above the mesosphere. The stratosphere and mesosphere are referred to collectively as the "Middle atmosphere." Temperature decreases with increasing height in the mesosphere due to decreased solar heating and increased cooling from CO_2 radiative emission.

89. Option (3) is correct.

The opening session of the WEF Annual Meeting 2020 will take place on January 20, 2020, in Davos-Klosters, Switzerland. Deepika Padukone is the winner of the "Global Crystal Award" for 2020. Theodore Gates Xing Jin Lynette Wallworth is a woman. The award is given to recognise exceptional artists' long-term contributions to society. Deepika Padukone established the "Live Love Laugh" foundation. The foundation's mission is to reduce stigma and raise awareness about mental health. Our mental health is as vital as our physical health.

90. Option (1) is correct.

Monsoon Forest is another name for Tropical Deciduous Forest. Tropical deciduous forests can be found in the equatorial belt between the tropics of Cancer and Capricorn, as well as in the humid subtropics. Trees with broad leaves that shed only once a year can be found in tropical deciduous forests. The rainfall in this forest ranges from 70 to 200 cm. There are two kinds of deciduous forests: moist deciduous forests and dry deciduous forests.

91. Option (3) is correct.

Insulin is classified as a Peptide hormone. It is made by beta cells in the pancreatic islets. The hormone is recognised as the body's primary anabolic hormone. It is in charge of regulating carbohydrate, fat, and protein metabolism. Diabetes mellitus is a metabolic disorder characterised by high blood sugar levels. Insulin transports sugar from blood cells to other cells, where it is used as energy. A diabetic patient either does not produce enough insulin or cannot effectively use the insulin that is produced.

92. Option (3) is correct.

CPU is an abbreviation for the central processing unit. The central processor or main processor is another name for the CPU. It is capable of performing arithmetic, logic, controlling, and input/output operations. The CPU is a piece of hardware that is in charge of carrying out computer programme functions.

93. Option (1) is correct.

Aruna Asaf Ali was a political activist who was a part of the Indian Independence movement. During the Quit India Movement, she was known for hoisting the Indian flag at Mumbai's Gowalia Tank Maidan. She also became "Delhi's first mayor" in 1958. Aruna Asaf Ali is commonly referred to as the "Grand Old Lady" of the Independence Movement. Gowalia Tank Maidan is in the heart of Mumbai. In this garden, Mahatma Gandhi delivered his famous "Quit India" speech. Mahatma Gandhi's ideas and beliefs had a significant impact on her. She had gone on a hunger strike in Tihar Jail in 1932 to protest the mistreatment of political prisoners.

94. Option (1) is correct.

Demography is the study of human populations, including their size, composition, and spatial distribution, as well as the process by which populations change. Hydrology is a branch of science that studies water. The study of the ocean is known as oceanology. "The science of humanity" is anthropology. Through analyses of cultural processes, cultural landscapes, and cultural identities, cultural geography seeks to make sense of people and the places they inhabit. Phytogeography is the study of the distribution of plants or taxonomic groups of plants, with the goal of explaining plant ranges in terms of origin, dispersal, and evolution. Pedology studies the origins of soil as well as its morphology and then classifies it.

95. Option (4) is correct.

Sheikh Muhammad Abdullah's autobiography is titled 'Aatish-i-Chinar' (Flames of Chinar). He is also known as 'Sher-e-Kashmir'. Sheikh Abdullah, who founded the National Conference, served as Prime Minister three times during his lifetime. Abdullah was sentenced to three years in prison for launching the Quit Kashmir movement in opposition to Maharaja Hari Singh. Sheikh Abdullah was arrested in the 'Kashmir conspiracy case' in 1953 after being accused of conspiring against the state. He was a Kashmiri politician who was active in Jammu and Kashmir politics.

96. Option (4) is correct.

The 2019 Index of Cancer Preparedness (ICP) published by the Economist Intelligence Unit (EIU) ranks India 19th out of 28 countries, with a score of 64.9. The index was topped by Australia, followed by the Netherlands and Germany. The ICP looks at cancer preparedness from three perspectives: policy and planning, care delivery, and health systems and governance. It was released as part of the report titled "Cancer preparedness around the world: National readiness for a global epidemic" prepared by EIU.

97. Option (3) is correct.

From 1848 to 1856, Lord Dalhousie was Governor-General of India. He established the Doctrine of Lapse. In 1853, he introduced passenger trains on railways, in 1852, the electric telegraph, and in 1854, uniform postage. All three were described as "three great engines of social improvement" by him. He has begun engineering school in Roorkee. Shimla became his summer residence. He is the founder of the "Public Works Department" or " PWD" in India. He has also held the positions of "Governor General of Canada" and "Commander-in-Chief" in India.

98. Option (3) is correct.

Samvidhan Diwas, or National Law Day, is another name for Constitution Day. On November 19, 2015, the Government of India issued a gazette notification designating November 26 as Constitution Day. This day commemorates the adoption of India's constitution in 1950. On this day, constitutional-related activities are held in schools, equality is demanded, and a special parliamentary session is held. The constitution was adopted on November 26, 1949, and went into effect on January 26, 1950.

99. Option (2) is correct.

The Kalbelia dance is an Indian folk dance from the state of Rajasthan. It is also known as the 'Sapera Dance' or the 'Snake Charmer Dance'. It is primarily performed by the 'Kalbelia' tribe of Rajasthan. It was added to UNESCO's representative list of Humanity's Intangible Cultural Heritage in 2010.

100. Option (2) is correct.

In September 2019, Infosys was selected for the UN Global Climate Action Award in the 'Carbon Neutral Now' category. This award was given to the company because it was the only Indian corporation to receive recognition for its efforts to combat climate change. UN Secretary-General Antonio Guterres convened the UN Climate Summit in New York. The award will be given to Infosys at the United Nations Climate Change Conference (COP25) in Santiago, Chile.

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