CONSTABLE (GD) IN CAPFS, SSF, ASSAM RIFLES & NCB

SOLVED PAPER

(7th December 2017: Shift-3)

Time Allotted- 1.5 hours　　　　　　　　　　　　　　　　　　　　　**Max marks-** 100
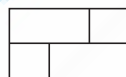
Important Instructions:-

- This paper contains 94 questions which are divided into 3 sections.
  - General Intelligence & Reasoning contains 35 questions
  - General Knowledge & General Awareness contains 50 questions
  - Elementary Mathematics contains 9 questions
  - Computer proficiency section is not asked in the current exam pattern so this section is removed from the question paper.
- There will be 1 mark for each correct answer and also there will be negative marking of 0.25 marks for each wrong answer.
- Each question is compulsory to attempt and there will be no negative marking for unattempted questions.
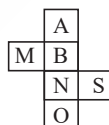
General Intelligence & Reasoning

1. In the following question, select the related word from the given alternatives.
House : Brick :: Book : ?
1. Paper　　**2.** Letter　　**3.** Binding　　**4.** Cover

2. In the following question, select the related letters from the given alternatives.
HEALS : NLGSY :: FREAK : ?
1. KQHYL　　**2.** LYKHQ　　**3.** AZLYK　　**4.** KZAYL

3. In the following question, select the related number from the given alternatives.
49 : 98 :: 33 : ?
1. 39　　**2.** 52　　**3.** 47　　**4.** 66

4. In the following question, select the odd word from the given alternatives.
1. Yellow　　**2.** Red　　**3.** Blue　　**4.** Rainbow

5. In the following question, select the odd letters from the given alternatives.
1. FKPU　　**2.** CHMR　　**3.** LQVB　　**4.** DINS

6. In the following question, select the odd number pair from the given alternatives.
1. 65 – 78　　**2.** 11 – 24　　**3.** 19 – 34　　**4.** 53 – 66

7. In the following question, select the odd number pair from the given alternatives.
1. 13 – 171　　**2.** 11 – 123　　**3.** 5 – 27　　**4.** 7 – 53

8. How many triangles are there in the given figure?

1. 4　　**2.** 5　　**3.** 6　　**4.** 7

9. How many rectangles are there in the given figure?

1. 5　　**2.** 6　　**3.** 7　　**4.** 8

10. In the given figure, what will come opposite to face containing 'N'?

1. B　　**2.** A　　**3.** M　　**4.** S

11. 3 equidistant cuts are made on each axis of a large cube. After cutting how many small cubes are obtained?
1. 125　　**2.** 27　　**3.** 64　　**4.** 216

12. From the given answer figures, select the one in which the question figure is hidden/embedded.

13. Which answer figure will complete the pattern in the question figure?

14. If a mirror is placed on the line AB, then which of the answer figures is the right mirror image of the given figure?

15. In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives.

7	3	2	49
6	5	1	36
3	7	4	?

1. 81　　**2.** 87　　**3.** 89　　**4.** 93

16. Arrange the given words in the sequence in which they occur in the dictionary.
1. Rain　　**2.** Range　　**3.** Right　　**4.** Rest
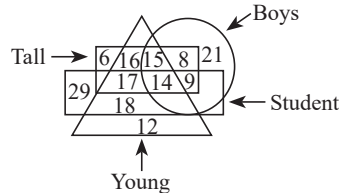**5.** Round
1. 12435　　**2.** 21435　　**3.** 12345　　**4.** 21453

17. Identify the diagram that best represents the relationship among the given classes.
Cup, Plate, Utensils

18. In the given figure, how many boys are both tall and young?

1. 15   **2.** 29   **3.** 31   **4.** 30

19. In the following question below are given some statements followed by some conclusions. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.

    Statements:
    I. Some red are fans.
    II. All fans are vehicles.

    Conclusions:
    I. Some vehicles are red.
    II. Some vehicles are fans.

    1. Only conclusion (I) follows.
    2. Only conclusion (II) follows.
    3. Both conclusion follow.
    4. Neither conclusion (I) nor conclusion (II) follows.

20. In the following question below are given some statements followed by some conclusions. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.

    Statements:
    I. All yellow are red.
    II. Some yellow are white.

    Conclusions:
    I. All red are white.
    II. Some white are yellow.
    III. Some red are yellow.

    1. Only conclusion (I) follows.
    2. Only conclusion (II) follows.
    3. Only conclusion (II) and (III) follows.
    4. Neither conclusion follows.

21. A is the brother of P, P is the mother of Q, Q is the son of F. How is F related to A?
    1. Brother-in-law   **2.** Son
    3. Father   **4.** Nephew

22. Pointing towards a man in the photograph, Raju said, "He is my daughtar's father's son." How is Raju related to that man?
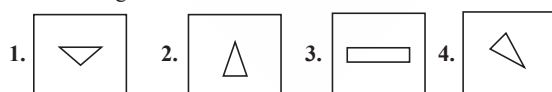   **1.** Nephew   **2.** Son-in-law   **3.** Father   **4.** Son

23. If $a : b = 3 : 2$ then what is $(3a + 4b) : (5a - b)$?
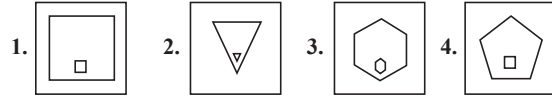   **1.** 17 : 13   **2.** 15 : 13   **3.** 11 : 9   **4.** 13 : 11

24. A and B alone can do a work in 40 days and 60 days respectively. They started together, but B leaves the work after 15 days and A completes the remaining work alone. In how many days was the work completed?
    1. 30   **2.** 45   **3.** 42   **4.** 36
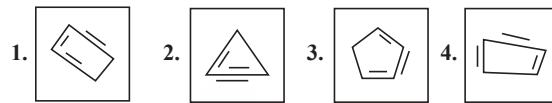
25. In the given question, there are four figures given out of which three are similar in some manner and one is not like the others. Select the figure which is odd one out.

26. In the given question, there are four figures given out of which three are similar in some manner and one is not like the others. Select the figure which is odd one out.

27. In the given question, there are four figures given out of which three are similar in some manner and one is not like the others, Select the figure which is odd one out.

28. In the following question, select the missing number from the given series.
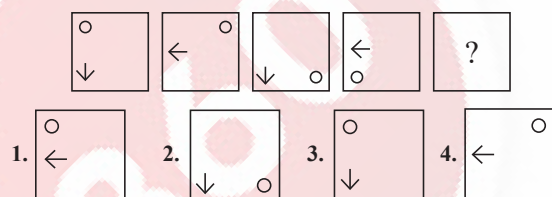   5, 11, 6, 12, 7, 13, ?
    1. 9   **2.** 8   **3.** 5   **4.** 11

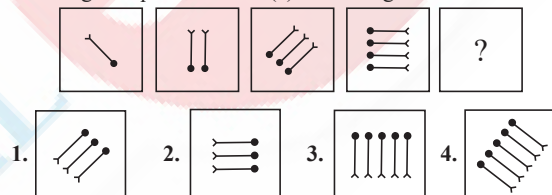29. In the following question, select the missing number from the given series.
    4, 5, 9, 14, 23, ?
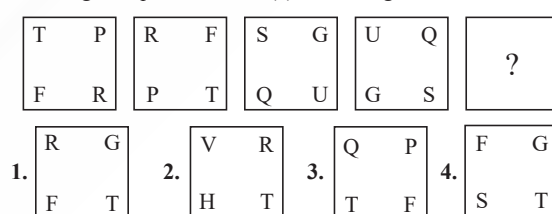   **1.** 33   **2.** 37   **3.** 42   **4.** 39

30. In the following question, select the figure which can be placed at the sign of question mark (?) from the given alternatives.

31. In the following question, select the figure which can be placed at the sign of question mark (?) from the given alternatives.

32. In the following question, select the figure which can be placed at the sign of question mark (?) from the given alternatives.

33. In a certain code language, **"FAIR"** is written as **"34"** and **"TALK"** is written as **"44"**. How is **"FIRE"** written in that code language?
    1. 38   **2.** 40   **3.** 36   **4.** 42

34. In a certain code language, **"FRINGE"** is written as **"HTKRKI"**. How is **"WRIGHT"** written in that code language?
    1. WTLKKY   **2.** XSLKLY   **3.** YTKKLX   **4.** TKKLXY

35. In a certain code language, **"MARIGOLD"** is written as **"EMPHJSBN"**. How is **"STAGWOOD"** written in that code language?
    1. DRPXGHBU   **2.** EQQYGAUS
    3. DOOXHASU   **4.** EPPXHBUT

General Knowledge & General Awareness

36. Which of the following option is NOT true for unorganised sector?
1. No provision for overtime work
2. There is a provision for paid leaves
3. Insecure employment
4. Largely outside the control of government

37. Which organisation formulates Fiscal Policy in India?
1. Ministry of Finance
2. NITI Aayog
3. Reserve Bank of India
4. State Bank of India

38. Which among the following is NOT a function of Reserve Bank of India?
1. Monetary management
2. Government debt management
3. Foreign exchange management
4. Accepting deposits from customers

39. In which year Economic liberalisation took place in India?
1. 1985   2. 1989   3. 1991   4. 1993

40. Territory which is under the immediate political control of another state is called as _____.
1. Community   2. Colony   3. District   4. Province

41. In a/an _____, each adult citizen must have one vote and each vote must have one value.
1. Autocracy   2. Democracy 3. Plutocracy 4. Theocracy

42. Provision of Admission or Establishment of new state is given in which article of Indian Constitution?
1. Article 1   2. Article 2   3. Article 3   4. Article 4

43. Which of the following is a fundamental duty under Indian Constitution?
1. To have equality before law
2. Not to promote untouchability
3. Not to use titles
4. To defend country and render National services when required

44. Which was the most important Mahajanpada among the 16 known Mahajanpadas?
1. Magadha   2. Kosala   3. Vatsa   4. Anga

45. In which historical text of India silver coins are mentioned as **"rupyarupa"**.
1. Upanishads   2. Puranas
3. Arthashastra   4. Bhagavad Gita

46. Who among the following lead to march to break the salt law in India?
1. Lala Lajpat Rai   2. Sarojini Naidu
3. Bhagat Singh   4. Mahatma Gandhi

47. Who became the major spokesperson of Muslim league after 1934?
1. Mahatma Gandhi   2. Maulana Azad
3. Badshah Khan   4. Mohammad Ali Jinnah

48. Which Varna was at the fourth place among the four known Varnas?
1. Shudra   2. Kshatriya   3. Brahmin   4. Vaishya

49. Who was the founder of Satyashodhak Samaj?
1. Lala Lajpat Rai   2. Mahatma Gandhi
3. Jyotirao Phule   4. Raja Ram Mohan Roy

50. What is the total approximate length (in km) of the coastline of India including Andaman & Nicobar and Lakshadweep?
1. 7800   2. 9328   3. 9658   4. 7516

51. In which direction India is NOT bounded by the young fold mountains?
1. West   2. North-West 3. North   4. North-East

52. Beyond the Dihang gorge, the Himalayas bend towards South and makes the eastern boundary of India which is known as _____.
1. Shiwaliks   2. Pir Panjal   3. Himachal   4. Purvanchal

53. The entire northern plains of India are made of which type of soil?
1. Alluvial Soils   2. Black Soil
3. Laterite Soil   4. Arid Soil

54. Which of the following is NOT among the six major controls of climate of any place?
1. Distance from sea   2. Human influence
3. Latitude   4. Ocean currents

55. How many National Waterways are there in India?
1. 100   2. 111   3. 311   4. 401

56. Magnetic materials are the materials which _____.
1. Always get attracted towards a magnet
2. Never get attracted towards a magnet
3. Always move away from a magnet
4. No option is correct

57. What are the images formed by a plane mirror which could NOT be obtained on a screen called?
1. Real   2. Virtual   3. Imaginary   4. Duplicate

58. Which among the following is NOT an example of capillary action?
1. Upward movement of water in a straw
2. Tears moving through tear duct
3. Formation of soap bubbles
4. Absorption of ink by blotting paper

59. What is the network of air tubes for gas exchange in insects called?
1. Trachea   2. Spiracles   3. Bronchi   4. Tubes

60. By which process the water evaporates though the stomata present on the surface of the leaves?
1. Photosynthesis   2. Transpiration
3. Transportation   4. Evaporation

61. Which among the following is an electronegative element?
1. Lithium   2. Sodium
3. Magnesium   4. Fluorine

62. In which type of chemical reaction a more reactive metal can replace a less reactive metal?
1. Displacement   2. Neutralization
3. Decomposition   4. Redox

63. Polythene and PVC are some of the examples of _____.
1. Thermosetting plastic   2. Thermoplastics
3. Acrylic   4. No option is correct

64. Which chemical is used in refrigerator, air conditioners **(AC)** and aerosol sprays that form air pollutants?
1. Sulphur dioxide   2. Nitrogen dioxide
3. Chlorofluorocarbon   4. Methane

65. What is the tendency of biological systems to resist change in internal environment called?
1. Isobarism   2. Ammensalism
3. Homeostasis   4. Symbiosis

66. Union Ministry of Human Resource Development announced which scheme on the 51st International Literacy Day in September 2017?
1. Saakshar Bharat   2. School Prakash
3. School Chalo Abhiyan   4. Siksha ka Adhikaar

67. In which state the Union Ministry of Petroleum and Natural Gas has launched the 'Pradhan Mantri LPG Panchayat Yojana'?
1. Gujarat   2. West Bengal
3. Haryana   4. Chhattisgarh

68. Researchers from University of British Columbia in Canada have developed _____ fibre-reinforced concrete.
  1. fire proof   2. earthquake proof
  3. flood proof   4. snow resistant

69. Which is the first country to give citizenship to a Robot named Sophia?
  1. Saudi Arabia   2. North Korea
  3. Iran   4. Japan

70. Where was the final match of 2017 Women's Hockey Asia?
  1. Kakamighara, Japan   2. Kuala Lumpur, Malaysia
  3. Guangzhou, China   4. New Delhi, India

71. Who is the winner of 2017 US Open Tennis Championship in women's singles category?
  1. Sloane Stephens   2. Martina Hingis
  3. Chan Yung-jan   4. Venus Williams

72. Which neighbouring country of India hosted the 14th SAARCLAW Conference in October 2017?
  1. Nepal   2. Bangladesh   3. Maldives   4. Sri Lanka

73. With its which neighbouring country India established direct air freight corridor in June 2017?
  1. Afghanistan 2. Bhutan   3. Nepal   4. China

74. Who has been chosen for Indira Gandhi Prize for Peace, Disarmament and Development for the year 2017?
  1. Sheikh Hasina   2. Angela Merkel
  3. Dr. Manmohan Singh   4. Hamid Karzai

75. What is the name of the village set up by International Society for Krishna Consciousness which has won 'Green Platinum Award'?
  1. Govardhan Eco Village   2. Gopinath Eco Village
  3. Kalyani Village   4. Sajan Nature Village

76. India's first mega coastal economic zone (CEZ) will be set up in which state?
  1. Kerala   2. Tamil Nadu
  3. Andhra Pradesh   4. Maharashtra

77. In October 2017, the goods and service tax network has released an offline facility to allow tax payers to finalise which among the following forms?
  1. GSTR-1   2. GSTR-2   3. GSTR-3   4. GSTR-3B

78. With which country, India has signed a letter of Intent on September 28, 2017 to extend bilateral cooperation within health sector?
  1. Denmark   2. Norway   3. Sweden   4. Romania

79. On October 17, 2017 India signed a Memorandum of Cooperation with Japan on _____.
  1. Solar Alliance Framework
  2. Technical Intern Training Program
  3. Disaster Response tools
  4. Eradication of Poverty

80. Which Indian state planted 6 crores saplings in 12 hours in July, 2017 in an attempt to full fill Paris agreement promise?
  1. Kerala   2. Madhya Pradesh
  3. West Bengal   4. Jharkhand

81. On November 1, 2017 the Government of Odisha imposed a ban of how many months on sea fishing activity to protect endangered Olive Ridley sea turtles?
  1. 3   2. 5   3. 7   4. 10

82. World's oldest man Yisrael Kristal died at the age of 113. He was resident of which country?
  1. Israel   2. Japan   3. Indonesia   4. Yemen

83. Who is the Handicap International's first-ever goodwill ambassador?
  1. Ronaldo   2. Lionel Messi
  3. Neymar   4. David Beckham

84. Which place is the first in the world to be served by drones for commercial delivery?
  1. Berlin, Germany   2. Lyon, France
  3. Reykjavik, Iceland   4. Copenhagen, Denmark

85. In which city of India, the Philippines based International Rice Research Institute will be setting up a regional centre?
  1. Wardha   2. Patna   3. Ghazipur   4. Varanasi

Elementary Mathematics

86. How many composite numbers are there from 1 to 11?
  1. 3   2. 4   3. 5   4. 6

87. What is the value of $2^2 - 1^2 + 4^2 - 3^2 + 8^2 - 7^2$?
  1. 20   2. 22   3. 25   4. 27

88. Which of the following statement(s) is/are true?
  I. $\frac{2}{7} > \frac{3}{4} > \frac{1}{2}$
  II. $\frac{5}{6} > \frac{2}{3} > \frac{3}{5}$
  1. Only I   2. Only II
  3. Both I and II   4. Neither I nor II

89. For what value of M, 34M is divisible by 7?
  1. 3   2. 2   3. 1   4. 4

90. What is the value of $\frac{3 \times 7 + 4 \div 2}{8 \div 2 \times 3 + 5}$?
  1. $\frac{23}{12}$ 2. $\frac{27}{13}$ 3. $\frac{23}{17}$ 4. $\frac{25}{7}$

91. A is 7 times of B. B is how much percent less than A?
  1. 85.71   2. 75.12   3. 87.29   4. 82.52

92. The ratio of three numbers is 4 : 3 : 7 and sum of their square is 6. What is the value of the largest of the three numbers?
  1. 21   2. 28   3. 14   4. 17

93. Average age of a group of 16 boys is 21 years. Two boys with ages 15 years and 18 years left the group. One boy with age 24 years joined the group. What is the new average age (in years) of the group?
  1. 21.2   2. 21.8   3. 21.4   4. 21.6

94. A sum of money triples itself in 6 years at compound interest. In how many years will it become 81 times of itself?
  1. 24 years   2. 15 years
  3. 20 years   4. 18 years

Answer Key

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

Answers with Explanations

1.   **Option (1) is correct.**

Given that: House : Brick :: Book : ?

In the given analogy, have is mode up of Bricks, similarly, a book is mode up of papers. Hence, paper is the correct answer.

2.   **Option (2) is correct.**

Given that: HEALS : NLGSY

The pattern followed here is:

$$\begin{matrix} H & E & A & L & S \\ +6 & +7 & +6 & +7 & +6 \\ N & L & G & S & Y \end{matrix}$$

Similarly, for FREAK

$$\begin{matrix} F & R & E & A & K \\ +6 & +7 & +6 & +7 & +6 \\ L & Y & K & H & Q \end{matrix}$$

Hence, LYKHQ is the correct answer.

3.   **Option (4) is correct.**

Given that: 49 : 98

Here, 1st term is multiplied by 2 to obtain the 2nd term.

So,

$49 \times 2 = 98$

Similarly,

$33 \times 2 = 66$

Hence, 66 is the correct answer.

4.   **Option (4) is correct.**

In the given option, 1st, 2nd and 3rd are types of colors whereas, option (4) i.e Rainbow is a mixture of seven colors all together.

5.   **Option (3) is correct.**

The pattern followed here is:

Option 1) $F \xrightarrow{+5} K \xrightarrow{+5} P \xrightarrow{+5} U$

Option 2) $C \xrightarrow{+5} H \xrightarrow{+5} M \xrightarrow{+5} R$

Option 3) $L \xrightarrow{+5} Q \xrightarrow{+5} V \xrightarrow{+6} B$

Option 4) $D \xrightarrow{+5} I \xrightarrow{+5} N \xrightarrow{+5} S$

Hence, LQVB is the odd one out

6.   **Option (3) is correct.**

The pattern followed here is

1st term + 13 = 2nd term

So,

Option-1) $65 + 13 = 78$

Option-2) $11 + 13 = 24$

Option-3) $19 + 13 = 32 \neq 34$

Option-4) $53 + 13 = 66$

Hence, 19 – 34 is the odd one out.

7.   **Option (4) is correct.**

The pattern followed here is:

$(1^{st}$ term $)^2 + 2 = 2^{nd}$ term

So,

Option-1) $(13)^2 + 2$

$= 169 + 2 = 171$

Option-2) $(11)^2 + 2$

$= 121 + 2 = 123$

Option-3) $(5)^2 + 2$

$= 25 + 2 = 27$

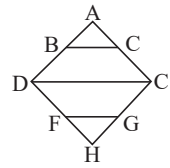Option-4) $(7)^2 + 2$

$= 49 + 2 = 51 \neq 53$

Hence, 7 – 53 is the odd one out.

8.   **Option (1) is correct.**

Given figure:

Triangles formed are: ABC, ADE, DEH, FGH

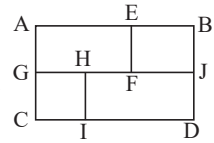Total no. of triangles are 4.

9.   **Option (3) is correct.**

Given figure:

Rectangle formed are:
ABDC, AEFG, ABJG, EBJF, GHIC, GJDC, HJDI

Total no. of rectangle are 7.

10.   **Option (2) is correct.**

According to the given figure, following opposite pairs can be formed:

A — N

B — O

M — S

Hence, A will come opposite to N.

11.   **Option (3) is correct.**

Given that : 3 equidistant cuts are mode on each axis of a large cube.
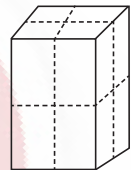
Number of cubes formed = (Number of cuts on each axis + 1)³
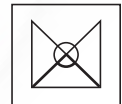
$\Rightarrow (3+1)^3$
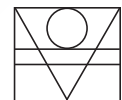
$= (4)^3$

$= 64$

Hence, 64 is the correct answer.

12.   **Option (3) is correct.**

The given figure is embedded in option (3) as highlighted below:

13.   **Option (2) is correct.**

The following figure will complete the series:

14.   **Option (4) is correct.**

In a mirror image, left becomes right and right becomes left.

Hence, the required answer image is:

15.   **Option (2) is correct.**

The pattern followed here is:

Row-wise:

$(1^{st}$ term $\times 2^{nd}$ term $\times 3^{rd}$ term) + 1st term = 4th term.

So,

Row-1

$(7 \times 3 \times 2) + 7$

$= 42 + 7 = 49$

Row-2

$(6 \times 5 \times 1) + 6$

$= 30 + 6 = 36$

Row-3

$(3 \times 7 \times 24) + 3$
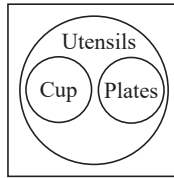
$= 84 + 3 = 87$

Hence, 87 is the correct answer.

16.   **Option (1) is correct.**

1. Rain	2. Range	4. Rest	3. Right	5. Round

Hence, 1, 2, 4, 3, 5 is the correct answer.

17. Option (1) is correct.
Given classes : Cup, Plate, Utensils.
The diagram that best illustrates the relationship between the given classes is:
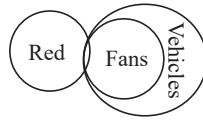
18. Option (2) is correct.
Number of boys who are both tall and young = 15 + 14 = 29.

19. Option (3) is correct.
According to the given statements, following Venn diagram can be made:
Conclusion-I) Some vehicles are red - True.
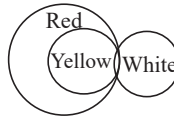**Conclusion-II)** Some vehicles are fans - True.
Hence, both conclusions follows.

20. Option (3) is correct.
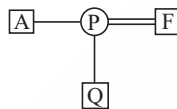According to the given statements, following Venn diagram can be made:
Conclusion-I) All red are white - False.
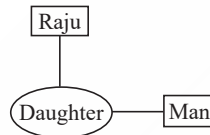**Conclusion-II)** Some whites are yellow - True.
Conclusion-III) Some red are yellow - True.
Hence, only conclusions II and III follows.

21. Option (1) is correct.
According to the question, following family tree can be made:
Hence, F is the brother-in-law of A.

22. Option (3) is correct.
According to the question, following family tree can be made:
Hence, Raju is the father of that man.

23. Option (1) is correct.
Let $a = 3$ and $b = 2$
Given equation:
$(3a + 4b) : (5a - b)$
$\Rightarrow (3 \times 3 + 4 \times 2) : (5 \times 3 - 2)$
$\Rightarrow (9 + 8) : (15 - 2)$
$\Rightarrow 17 : 13$
Hence, 17 is the correct answer.

24. Option (1) is correct.
A can do a work in 40 days
B can do a work in 60 days
Total work = LCM of 40 and 60 = 120

A's efficiency = $\dfrac{120}{40} = 3$

B's efficiency = $\dfrac{120}{60} = 2$

Work done by both A and B together for 15 days = 15 (A + B)
= 15 (3 + 2)
= 15 × 5 = 75
Remaining work = 120 – 75 = 45
Now, B leaves the wok and A will do it alone
$\Rightarrow \dfrac{45}{3} = 15$

Hence, total time taken for completion of work = 15 +15 = 30 days.

25. Option (3) is correct.
In the given options, there is a triangle in between all of them except option (3). It has a rectangle.
Hence, it is the odd one out.

26. Option (4) is correct.
In the given options, there are 2 shapes inside and both are same. One is a big shape and other one is small.
Option (1) contains 2 rectangles.
Option (2) contains 2 triangles.
Option (3) contains 2 hexagons.
Whereas option (4) contains one rectangle and one hexagon.
Hence, it is the odd one out.

27. Option (4) is correct.
In the given options, there are 3 small straight lines. Two of them are inside the shape and one is outside. But in option (4) two straight lines are outside the shape and one is inside.
Hence, it is the odd one out.

28. Option (2) is correct.
Given series : 5, 11, 6, 12, 7, 13, ?
The pattern followed here is:
Hence, 8 is the correct answer.

29. Option (2) is correct.
Given series: 4, 5, 9, 14, 23, ?
The pattern followed here is:
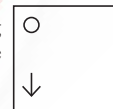1st term + 2nd term = 3rd term.
4 + 5 = 9
5 + 9 = 14
9 + 14 = 23
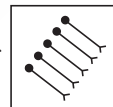14 + 23 = 37
Hence, 37 is the correct answer.

30. Option (3) is correct.
In the given figure series, the arrow is switching to two positions only and the circle is moving one step clock-wise directions.
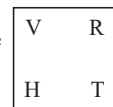Hence, the required answer figure is:

31. Option (4) is correct.
In the given figure series, the number of lines are increasing by 1 and all of them are shifting half step in clock-wise direction. Hence, the required answer figure is:

32. Option (2) is correct.
According to the pattern followed and the symmetry, the required figure is:

33. Option (1) is correct.
Given that : FAIR is written as 34
The positional values of the alphabets are added to get the resultant number.
So,
F + A + I + R
= 6 + 1 + 9 + 18
= 34
Similarly, for Fire
F + I + R + E
= 6 + 9 + 18 + 5
= 38
Hence, 38 is the correct answer.

34. Option (2) is correct.
Given that; FRINGE is written as HTKKI
The pattern followed here is;

Similarly, for WRIGHT

W	R	I	G	H	T
+2	+2	+2	+4	+4	+4
Y	T	K	K	L	X

Hence, YTKKLX is the correct answer.

35. Option (4) is correct.

Given that: MARIGOLD is written as EMPHJSBN

The pattern followed here is:

The word is written in reverse order and then 1 is added to each alphabet.

So, for MARIGOLD

Reverse order is – DLOGIRAM

D	L	O	G	I	R	A	M
+1	+1	+1	+1	+1	+1	+1	+1
E	M	P	H	J	S	B	M

Similarly, for STAGWOOD

Reverse order is – DOOWGATS

D	O	O	W	G	A	T	S
+1	+1	+1	+1	+1	+1	+1	+1
E	P	P	X	H	B	U	T

Hence, EPPXHBUT is the correct answer.

36. Option (2) is correct.

In the unorganized sector, particularly in informal employment arrangements, the provision for paid leaves is lacking. Workers in this sector generally do not have access to benefits like paid vacation or sick leave, rendering this statement incorrect.

37. Option (1) is correct.

The Ministry of Finance in India formulates the Fiscal Policy, overseeing the nation's financial management, taxation, public spending, and strategies for economic stability, growth, and development.

38. Option (4) is correct.

Accepting deposits from customers is NOT a function of the Reserve Bank of India (RBI). The RBI primarily focuses on functions such as monetary management, government debt management, and foreign exchange management to regulate the country's monetary and financial system

39. Option (3) is correct.

Economic liberalization in India occurred in 1991, involving reforms to open up the economy, reduce government control, promote private investment, and integrate with the global economy. These measures were initiated in response to a balance of payments crisis and included industrial delicensing, trade liberalization, and fiscal reforms

40. Option (2) is correct.

A 'colony' refers to a territory under the direct political control of another state. These regions are typically governed by a foreign power or a sovereign state, often for strategic or economic purposes.

41. Option (2) is correct.

In a democracy, each adult citizen must have one vote, and each vote must have one value. This principle is fundamental to democratic systems, where political decisions are made through majority rule, ensuring that every citizen has an equal voice and representation in the governing process.

42. Option (2) is correct.

Article 2 of the Indian Constitution gives the Parliament the power to admit or establish new states into the Union. The Parliament can also set the terms and conditions for these new states. Article 3 empowers the Indian parliament to form a new state by separation of territory from any state, or by uniting two or more states or parts of states.

43. Option (4) is correct.

Article 51A(g) of the Indian Constitution outlines the fundamental duty of citizens to defend the country and render national services when required. These duties serve as moral obligations, emphasizing the importance of upholding the integrity, sovereignty, and unity of the nation.

44. Option (1) is correct.

Among the 16 known Mahajanapadas, Magadha was considered the most important. It emerged as a powerful kingdom in ancient India due to its strategic location and strong leadership.

45. Option (3) is correct.

In the historical text 'Arthashastra', silver coins are referred to as 'rupyarupa'. This ancient Indian treatise, attributed to Chanakya (Kautilya), offers detailed insights into governance, economics, and administration in ancient India, including the significance of silver coins within the economic system.

46. Option (4) is correct.

Mahatma Gandhi led the march to break the salt law in India. Known as the Salt March or Dandi March, it was a nonviolent protest against the British salt monopoly, symbolizing defiance against unjust colonial laws.

47. Option (4) is correct.

After 1934, Mohammad Ali Jinnah rose as the principal spokesperson of the Muslim League. He played a pivotal role in championing Muslim rights and ultimately spearheaded the call for a separate Muslim state, leading to the formation of Pakistan in 1947.

48. Option (1) is correct.

In the traditional caste system of Hindu society, the Shudra Varna occupied the fourth place among the four known Varnas.

49. Option (3) is correct.

Jyotirao Phule founded the Satyashodhak Samaj in 1873. This social reform movement targeted the caste system, advocating for education for all and the rights of marginalized groups, especially lower castes and women.

50. Option (4) is correct.

The total approximate length of the coastline of India, including Andaman & Nicobar and Lakshadweep, is around 7,516 kilometres.

51. Option (1) is correct.

India is NOT bounded by Young Fold mountains in the west. India is bounded by the Young Fold Mountains in the northwest, north and northeast. South of about 22° north latitude, it begins to taper, and extends towards the Indian Ocean, dividing it into two seas, the Arabian Sea on the west and the Bay of Bengal on the east.

52. Option (4) is correct.

Beyond the Dihang Gorge, the Himalayas bend towards the south and form the eastern boundary of India, which is known as the Purvanchal range.

53. Option (1) is correct.

The entire northern plains of India are primarily made up of alluvial soils. These soils owe their origin to the gradual deposition of sediments transported by rivers such as the Ganges, Brahmaputra, and their tributaries over an extensive period of time.

54. Option (2) is correct.

'Human influence' is not typically regarded as one of the six major controls of climate for any location. The primary

factors affecting climate include proximity to the sea, latitude, ocean currents, altitude, topography, and prevailing winds.

55.   Option (2) is correct.
India boasts a total of 111 National Waterways. These water routes are vital for inland transportation, serving as crucial channels for trade and commerce between various regions within the country.

56.   Option (1) is correct.
Magnetic materials are those that consistently exhibit attraction to magnets. This phenomenon arises from the alignment of their magnetic domains when subjected to a magnetic field.

57.   Option (2) is correct.
The images formed by a plane mirror that cannot be obtained on a screen are called 'virtual' images.

58.   Option (3) is correct.
The formation of soap bubbles does not involve capillary action. Capillary action is the movement of a liquid along the surface of a solid, driven by the combination of adhesive and cohesive forces. In contrast, soap bubbles form due to surface tension and the arrangement of soap molecules at the air-water interface, which is distinct from capillary action.

59.   Option (1) is correct.
The network of air tubes for gas exchange in insects is called the 'trachea'. These tubes are part of the insect respiratory system and are responsible for delivering oxygen directly to the insect's tissues.

60.   Option (2) is correct.
Transpiration is the process by which water evaporates through the stomata located on the surface of leaves. Stomata are small pores mainly situated on the underside of leaves, facilitating the exchange of gases, including water vapour, between the plant and the atmosphere.

61.   Option (4) is correct.
Fluorine is an electronegative element. It has a high tendency to attract electrons towards itself when forming chemical bonds

62.   Option (1) is correct.
In a displacement reaction, a more reactive metal can replace a less reactive metal in a compound by reacting with it, resulting in the displacement of the less reactive metal from its compound.

63.   Option (2) is correct.
Polythene and PVC belong to the category of thermoplastics, which are characterized by their ability to be melted and reshaped several times upon heating. This property makes them versatile and adaptable for a wide range of applications.

64.   Option (3) is correct.
The chemical used in refrigerators, air conditioners (AC), and aerosol sprays that can form air pollutants is chlorofluorocarbon (CFC).

65.   Option (3) is correct.
The tendency of biological systems to resist changes in their internal environment is called homeostasis. Homeostasis is crucial for maintaining stable conditions within organisms, allowing them to function effectively despite fluctuations in external factors.

66.   Option (1) is correct.
On the 51st International Literacy Day in September 2017, the Indian government introduced the "Saakshar Bharat" scheme. This program is designed to help adults and young people in rural areas improve their reading, writing, and math skills. The goal is to give them a better education and understanding to improve their lives and communities.

67.   Option (1) is correct.
In Gujarat state, the Union Ministry of Petroleum and Natural Gas has launched the 'Pradhan Mantri LPG Panchayat Yojana.

68.   Option (2) is correct.
Researchers from the University of British Columbia in Canada have developed earthquake-proof fibre-reinforced concrete.

69.   Option (1) is correct.
Saudi Arabia made history by granting citizenship to a robot named Sophia. This groundbreaking decision ignited debates about the legal status and rights of artificial intelligence, as Sophia was officially recognized as a citizen during the 2017 Future Investment Initiative conference in Riyadh.

70.   Option (1) is correct.
The final match of the 2017 Women's Hockey Asia Cup was held in Kakamighara, Japan. This tournament, which took place from October 28 to November 5, 2017, saw teams from across Asia competing for the championship title.

71.   Option (1) is correct.
The winner of the 2017 US Open Tennis Championship in the women's singles category was Sloane Stephens.

72.   Option (4) is correct.
The 14th SAARCLAW Conference in October 2017 was held in Sri Lanka, which is a neighbouring country of India. SAARCLAW, which stands for the South Asian Association for Regional Cooperation in Law, convened to promote legal collaboration and the sharing of insights among member nations within the South Asian region.

73.   Option (1) is correct.
In June 2017, India inaugurated a direct air freight corridor with Afghanistan. His initiative aimed to enhance trade and economic ties between the two countries by facilitating the transportation of goods through air routes, bypassing intermediary transit points and reducing logistical barriers.

74.   Option (3) is correct.
Dr. Manmohan Singh was awarded the esteemed Indira Gandhi Prize for Peace, Disarmament, and Development in 2017. This recognition lauded Dr Singh's outstanding leadership and his significant contributions across diverse domains such as economics, diplomacy, and public service.

75.   Option (1) is correct.
The village set up by the International Society for Krishna Consciousness (ISKCON) that has won the 'Green Platinum Award' is "Govardhan Eco Village".

76.   Option (4) is correct.
The inaugural mega Coastal Economic Zone (CEZ) in India will be situated in Maharashtra. The objective is to stimulate economic endeavours along the coast, foster industrial expansion, allure investments, and generate job prospects within the area.

77.   Option (4) is correct.
In October 2017, the GSTN introduced a tool that allows taxpayers to finish the GSTR-3B form offline. This form is important because it helps taxpayers summarize what they sold and bought, and how much tax they owe, for a certain period under the GST system.

78.   Option (2) is correct.
India signed a Letter of Intent with Norway on September 28, 2017, to extend bilateral cooperation within the health sector.

79. Option (2) is correct.

On October 17, 2017, India signed a Memorandum of Cooperation with Japan on the "Technical Intern Training Program".

80. Option (2) is correct.

In July 2017, Madhya Pradesh, an Indian state, undertook a monumental effort by planting 6 crore saplings within a span of 12 hours. This initiative was in alignment with the commitments made under the Paris Agreement and sought to bolster green cover, mitigate climate change impacts, and foster environmental sustainability.

81. Option (3) is correct.

On November 1, 2017, the Government of Odisha implemented a ban on sea fishing activity for a duration of 7 months to safeguard the endangered Olive Ridley Sea turtles.

82. Option (1) is correct.

Yisrael Kristal, the world's oldest man who passed away at the age of 113, was a resident of Israel.

83. Option (3) is correct.

The first-ever goodwill ambassador for Handicap International is Neymar. He was appointed in August 2017 and used his platform to raise awareness about disability rights and the organization's work.

84. Option (3) is correct.

The first place in the world to be served by drones for commercial delivery is Reykjavik, Iceland.

85. Option (4) is correct.

The International Rice Research Institute (IRRI) has already established a regional centre in India, called the IRRI South Asia Regional Centre (ISARC), located in Varanasi, Uttar Pradesh.

86. Option (3) is correct.

Composite number: composite numbers are numbers that have more than two factors.

There are 5 composite numbers between 1 to 11. *i.e.* 4, 6, 8, 9, 10.

87. Option (3) is correct.

The value of $2^2 - 1^2 + 4^2 - 3^2 + 8^2 - 7^2$

$= 4 - 1 + 16 - 9 + 64 - 49$

$= 84 - 59$

$= 25$

88. Option (2) is correct.

Values of, $\frac{2}{7} = 0.28$, $\frac{3}{4} = 0.75$, $\frac{1}{2} = 0.5$

So, $\frac{3}{4} > \frac{1}{2} > \frac{2}{7}$

Values of $\frac{5}{6} = 0.83$, $\frac{2}{3} = 0.66$, $\frac{3}{5} = 0.6$

So, $\frac{5}{6} > \frac{2}{3} > \frac{3}{5}$

Hence, only II is correct.

89. Option (1) is correct.

We know, 343 is divisible by 7.

So, value of M = 3

90. Option (3) is correct.

The value of, $\dfrac{3 \times 7 + 4 \div 2}{8 \div 2 \times 3 + 5}$

$= \dfrac{3 \times 7 + 2}{4 \times 3 + 5}$

$= \dfrac{21 + 2}{12 + 5}$

$= \dfrac{23}{17}$

91. Option (1) is correct.

Let B = x

The A = $7x$

Required percentage = $\dfrac{7x - x}{7x} \times 100 = 85.71\%$

92. Option (1) is correct.

Let the numbers are $4x$, $3x$ and $7x$ respectively.

According to the question, $(4x)^2 + (3x)^2 + (7x)^2 = 666$

$\Rightarrow 16x^2 + 9x^2 + 49x^2 = 666$

$\Rightarrow 74x^2 = 666$

$\Rightarrow x = 3$

So, the largest number = $7 \times 3 = 21$

93. Option (2) is correct.

According to the question,

Total age of 16 boys = $16 \times 21 = 336$ years

Total age of the boys when 2 boys left the group and 1 boy joined = $336 - 15 - 18 + 24 = 327$

Hence, their average age = $\dfrac{327}{15} = 21.8$ years

94. Option (1) is correct.

In compound interest, money increases as per the geometric progression in constant duration.

Let the principal P invested.

So, P ----------3P ------------9P --------------27P ------------81P

     6 years   6 years   6 years   6 years

So, total required time = 24 years