STAFF SELECTION COMMISSION

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

SOLVED PAPER

(14th December 2020: Shift-2)

Time Allotted- 1 hours **Max marks-** 180

Important Instructions:-

- This paper contains 90 questions which are divided into 3 sections.
  - General Knowledge & General Awareness 50 questions
  - General Intelligence & Reasoning contains 25 questions
  - Elementary Mathematics contains 15 questions
  - Computer proficiency section is not asked in the current exam pattern so this section is removed from the question paper.
- There will be 2 marks for each correct answer and also there will be negative marking of 0.5 marks for each wrong answer.
- Each question is compulsory to attempt and there will be no negative marking for unattempted questions.

General Knowledge or Current Affairs

1. Who among the following is the author of the book 'Figuring: The Joy of Numbers'?
1. Salman Rushdie **2.** Shakuntala Devi
3. Ruskin Bond **4.** Jhumpa Lahiri

2. Who among the following was a revolutionary from West Bengal who was only 18, when he was hanged at the Muzaffarpur Jail by the British?
1. Sukhdev Thapar
2. Jogesh Chandra Chatterjee
3. Prafulla Chaki
4. Khudiram Bose

3. Which treaty between the British and the Burmese led to the annexation of Assam by the British in the year 1826?
1. Treaty of Yandaboo **2.** Treaty of Salbai
3. Treaty of Titalia **4.** Treaty of Sugauli

4. Who among the following is the author of the book 'The Legend of Lakshmi Prasad'?
1. Sudha Murty **2.** Twinkle Khanna
3. Kiran Desai **4.** Arundhati Roy

5. Which of the following herbs grows from the stem?
1. Mint **2.** Cilantro **3.** Dill **4.** Parsley

6. Which country has been selected to host the FIFA World Cup, 2022?
1. Lebanon **2.** China **3.** Norway **4.** Qatar

7. Which Indian contemporary artist among the following has won the Joan Miro Prize for 2019?
1. Sheela Gowda **2.** Nalini Malani
3. Anjolie Ela Menon **4.** Gargi Raina

8. In which year did Alfonso de Albuquerque capture Goa, with the help of some locals?
1. 1523 **2.** 1510 **3.** 1531 **4.** 1502

9. In which year did the Indian stock market Index, the SENSEX, cross the 5000 point mark for the first time?
1. 1993 **2.** 1999 **3.** 1991 **4.** 1996

10. Who among the following gave most of his preaching at 'Gridhrakuta'?
1. Gautama Buddha **2.** Vardhaman Mahavira
3. Guru Nanak Dev **4.** Ramakrishna Paramhansa

11. Which Article of the Constitution of India prescribes Hindi as written in Devanagari script as the official language of the government along with English?
1. 321 **2.** 343 **3.** 335 **4.** 351

12. Which year's Citizenship Amendment Act was amended in 2019?
1. 1957 **2.** 1960 **3.** 1947 **4.** 1955

13. What is the amount of cash incentive provided to pregnant women and lactating mothers under the Pradhan Mantri Matru Vandana Yojana – PMMVY?
1. ₹5,000 **2.** ₹2,000 **3.** ₹3,000 **4.** ₹7,000

14. Which of the following is a protection component that limits the amount of current flowing through the circuit and establishes a certain amount of voltage?
1. Fuse **2.** Switch
3. Earthing wire **4.** Voltmeter

15. Which of the following states has the highest population growth rate as per Government of India Report 2011-2019?
1. Punjab **2.** Maharashtra
3. Gujarat **4.** Bihar

16. In which state is the 'Sonepur Cattle Fair' a well-known cultural event?
1. Gujarat **2.** Rajasthan **3.** Bihar **4.** Punjab

17. Which of the following states became the first to regulate the cultivation of crops by telling farmers what to grow as part of its pilot project?
1. Telangana **2.** Punjab **3.** Kerala **4.** Bihar

18. In which year was the Battle of Aliwal fought?
1. 1878 **2.** 1863 **3.** 1852 **4.** 1846

19. Where will you find the 'Uparkot Buddhist Caves'?
1. Kochi **2.** Bhopal **3.** Dehradun **4.** Junagadh

20. In which year did the Constituent Assembly set up a Drafting Committee under the Chairmanship of Dr. BR Ambedkar to prepare a Draft Constitution for India?
1. 1948 **2.** 1946 **3.** 1949 **4.** 1947

21. In which year did the first Amendment of the Constitution take place?
1. 1960 **2.** 1947 **3.** 1951 **4.** 1953

22. Under the minimum support price (MSP) the minimum guaranteed prices are fixed to set a floor below which market prices cannot fall. In case no one buys it, the _____ will buy the stock at this minimum guaranteed prices.
1. zilla parishad **2.** gram panchayat
3. government **4.** sarpanch

23. To which state does the traditional 'Tapu Dance' belong?
1. Arunachal Pradesh **2.** Uttarakhand
3. Nagaland **4.** Madhya Pradesh

24. Which doctor of Indian origin was awarded UK's Royal Academy of Engineering President's Special Awards for Pandemic Service in August 2020?
1. Chaand Nagpaul **2.** Kailash Chand
3. Ravi Solanki **4.** Kamlesh Khunti

25. The Insolvency and Bankruptcy Code (Amendment) Ordinance, 2020 amends the Insolvency and Bankruptcy Code, _____.
1. 2017 **2.** 2016 **3.** 2015 **4.** 2014

26. What is the global rank of India in terms of the number of new firms created globally as per Economic Survey 2020?
1. Fourth **2.** Third **3.** Second **4.** First

27. After the Constitution of India came into force in 1950 the Constituent Assembly ceased to exist, transforming itself into the _____ till 1952.
1. Supreme Court of India
2. Finance Commission of India
3. Provisional Parliament of India
4. Election Commission of India

28. Which kitchen product will help to neutralise a bee sting?
1. Salt **2.** Lemon juice
3. Baking soda **4.** Pepper

29. Which of the following famous Indian cricket players retired from international cricket in August 2020?
1. Suresh Raina **2.** Rohit Sharma
3. Hardik Pandya **4.** Virat Kohli

30. 'Uruka' is a traditional festival of the state of _____.
1. Tamil Nadu **2.** Sikkim **3.** Kerala **4.** Assam

31. The Indian Union Budget 2020 announced that the Deposit Insurance and Credit Guarantee Corporation (DICGC) has been permitted to increase deposit insurance coverage to ₹5 lakh per depositor from _____ previously.
1. ₹2 lakh **2.** ₹50 thousand
3. ₹1 lakh **4.** ₹3 lakh

32. Which of the following festivals was inscribed on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity in the year 2008?
1. Janmasthami **2.** Urs
3. Muharram **4.** Ramlila

33. What is the name of the project undertaken by National Institute of Ocean Technology (NIOT) to send men in deep sea in a submersible vehicle to carry out underwater studies?
1. Samudrayaan **2.** Neernidhiyaan
3. Sagaryaan **4.** Jaladhiyaan

34. Which of the following is the focal area of the PM-AASHA scheme, launched in 2018?
1. To provide better insurance coverage for agricultural crops and thereby mitigate risk.
2. It focuses on enhancing water use efficiency through expansion of cultivable area under assured irrigation.
3. Direct payment of the difference between the MSP and the selling/modal price is made to pre-registered farmers selling his produce in the notified market yard through a transparent auction process.
4. To increase the production of rice, wheat, pulses and coarse cereals.

35. Which of the following forts served as a prison for Empress Razia Sultana after she was defeated by her rebellious general, Malik Ikhtiar-ud-din Altunia?
1. Qila Mubarak **2.** Gobindgarh
3. Shahpur Kandi **4.** Anandpur Sahib

36. In which states of India will you find Siang and Lohit rivers?
1. Uttarakhand and Uttar Pradesh
2. Arunachal Pradesh and Assam
3. Sikkim and West Bengal
4. Himachal Pradesh and Punjab

37. Which Article of the Constitution of India vests the power to form new States in the Parliament?
1. Article 2 **2.** Article 1 **3.** Article 4 **4.** Article 3

38. In which sporting event were three sporty robots, collectively known as the 'smart triplets', representing the UNESCO World Heritage sites of Hangzhou in eastern China, unveiled as the official mascots?
1. 2021 Tokyo Summer Olympics
2. 2022 IAAF World Championships
3. 2021 CONCACAF Gold Cup
4. 2022 Asian Games

39. Which of the following states is among the top four states in GSDP in India?
1. Rajasthan **2.** Karnataka **3.** Kerala **4.** Punjab

40. The Ningthouja Dynasty ruled the erstwhile princely state of _____.
1. Chhattisgarh **2.** Manipur **3.** Orissa **4.** Sikkim

41. Philosopher, Jiddu Krishnamurti and spiritual guru, Sathya Sai Baba are among the wellknown personalities from the state of _____.
1. Kerala **2.** Andhra Pradesh
3. Karnataka **4.** Tamil Nadu

42. In which state will you find the Jama Masjid, Our Lady of the Immaculate Conception Church and the Mahalaxmi Temple situated on the same road – Dr. Dada Vaidya Road?
1. Karnataka **2.** Bihar **3.** Kerala **4.** Goa

43. Who among the following was a renowned poet of Tamil Nadu who championed the cause of women's liberation?
1. Veera Mangai Velunachiyar **2.** Puli Thevar
3. Dheeran Chinnamalai **4.** Subramania Bharathi

44. Which Indian player among the following has been named as one of the ambassadors of 'I am badminton' awareness campaign by the Badminton World Federation (BWF)?
1. Ashwini Ponnappa **2.** PV Sindhu
3. Saina Nehwal **4.** Tanvi Lad

45. In which year did Government of India launch Total Sanitation Campaign (TSC) to accelerate sanitation coverage throughout the country, particularly in rural areas?
1. 1994 **2.** 2014 **3.** 1999 **4.** 2007

46. What is the absolute increase in the minimum support price of maize from 2019-2020 to 2020-2021?
1. ₹210 **2.** ₹90 **3.** ₹110 **4.** ₹170

47. Which of the following is NOT a nocturnal animal?
1. Bat **2.** Rabbit **3.** Mouse **4.** Cockroach

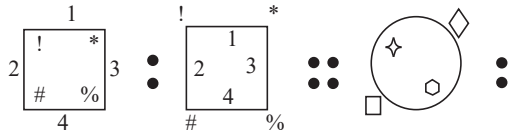
48. In which state will you find the hill station 'Araku'?
1. Andhra Pradesh **2.** Uttar Pradesh
3. Himachal Pradesh **4.** Madhya Pradesh

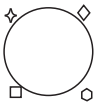
49. 'Bobbili Veena' is a well-known musical instrument from the state of _____.
1. Madhya Pradesh **2.** Uttar Pradesh
3. Himachal Pradesh **4.** Andhra Pradesh

50. Which type of soil is NOT suitable for rice cultivation?
1. Arid soil **2.** Riverine alluvial soil
3. Saline soil **4.** Clayey loam soil

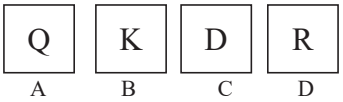
Reasoning

51. Select the option that is related to the third figure in the same way as the second figure is related to the first figure.



1.  **2.**  **3.**  **4.** 

52. Three of the given four figures are similar in a certain manner while one is different. Pick the odd one out.



1. C **2.** B **3.** D **4.** A

53. Select the figure that will come next in the following figure series.

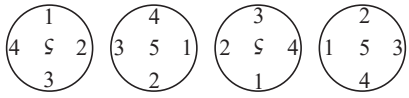
1.  **2.**  **3.**  **4.** 

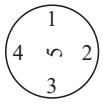
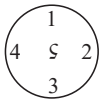
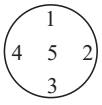
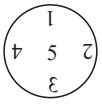
54. Which number will replace the question mark (?) in the following series?

8, 4, 12, 16, 16, 28, 20, 40, 24, ?

1. 55 **2.** 60 **3.** 58 **4.** 52

55. Select the figure that will come next in the following figure series.



1.  **2.**  **3.**  **4.** 

56. Select the number-pair in which the two numbers are related in the same way as are the two numbers of the following number-pair.

4 : 12

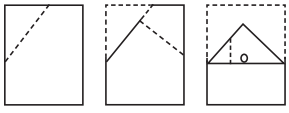
1. 11 : 34 **2.** 2 : 8 **3.** 3 : 15 **4.** 10 : 90

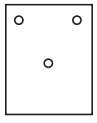
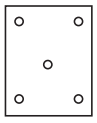
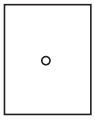
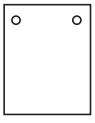
57. Which number will replace the question mark (?) in the following series?

2, 4, 8, 3, 6, 11, 4, 8, 14, 5, ?, 17

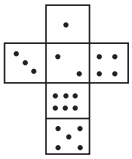
1. 14 **2.** 10 **3.** 11 **4.** 12

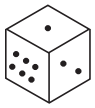
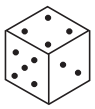
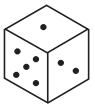
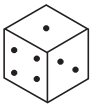
58. A paper is folded and cut as shown in the following figures. How will it appear when unfolded?



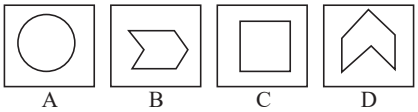
1.  **2.**  **3.**  **4.** 

59. Which among the following options is a correct possibility if the given figure is folded to form a dice?



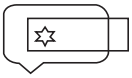
1.  **2.**  **3.**  **4.** 

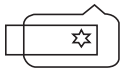
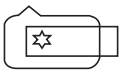
60. Three of the given four figures are similar in a certain manner while one is different. Pick the odd one out.



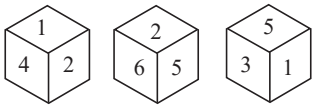
1. B **2.** A **3.** C **4.** D

61. Select the correct mirror image of the given figure when the mirror is placed to the right side of the figure.



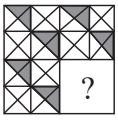
1.  **2.**  **3.**  **4.** 

62. Three different positions of the same dice are shown. Which number would appear on the face opposite to the face having '6'?



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

63. Select the option figure that can replace the question mark (?) in the given figure to complete the pattern.



1.  **2.**  **3.**  **4.** 

64. 'Set-top box' is related to 'Television' in the same way as 'Modem' is related to '_____'.

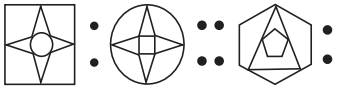
1. Broadband **2.** Office **3.** Computer **4.** Workplace

65. Select the set in which the numbers are related in the same way as are the numbers of the following set.

(4, 20, 80)

1. (8, 40, 320) **2.** (11, 55, 656)
3. (10, 110, 168) **4.** (3, 15, 50)

66. Select the option that is related to the third figure in the same way as the second figure is related to the first figure.

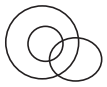
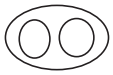
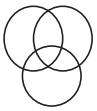


1.  **2.** **3.** **4.**

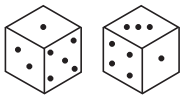
67. Two trains are running with speeds in the ratio of 4 : 5. If the first train covers 150 km in 2.5 hours, how much time would the second train take to cover the same distance?

1. 2 hours **2.** 3.5 hours **3.** 3 hours **4.** 1.5 hours

68. Which of the following Venn diagrams best represents the classes given below?
Furniture, Chair, Table

1.  **2.**  **3.**  **4.** 

69. Two different positions of the same dice are shown. How many dots would appear on the face opposite to the face having one dot?



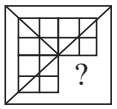
1. 4 **2.** 6 **3.** 3 **4.** 2

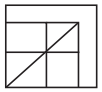
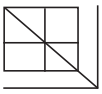
70. Select the figure from the options in which the given figure is embedded.

1.  **2.**  **3.**  **4.** 

71. In a code language, DRIVE is written as WIREV. How will MOBILE be written in that language?
1. ANJOPQ **2.** NLYROV **3.** NKSYRV **4.** NLZSUO

72. Select the option figure that can replace the question mark (?) in the given figure to complete the pattern.

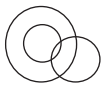
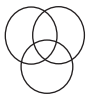
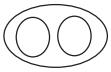


1.  **2.**  **3.**  **4.** 

73. Which two signs should be interchanged in the following equation to make it correct?
$14 \div 7 \times 5 - 3 + 2 = 1$
1. – and ÷ **2.** – and + **3.** × and + **4.** × and –

74. Three of the following four words are alike in a certain way and one is different. Select the odd one.
1. Goggles **2.** Spectacles
3. Bifocals **4.** Optical Reader

75. Which of the following Venn diagram best represents the classes given below?
Biology, Zoology, Zoography

1.  **2.**  **3.**  **4.** 

Numerical Ability

76. The inner circumference of a circular track is 1408 m and the track is 7 m wide. The cost of levelling the track at ₹6 per m2 is: (Take $\pi = \frac{22}{7}$)
1. ₹59,880 **2.** ₹60,000 **3.** ₹60,060 **4.** ₹57,600

77. The income of A is 80% more than the income of B. If A's income is decreased by 20% and B's income is increased by 60%, then which of the following is true:
1. B's income is more than A's income by $11\frac{1}{9}\%$.
2. A's income is less than B's income by $11\frac{1}{9}\%$.
3. B's income is 16% more than A's income.
4. A's income is equal to B's income.

78. Two whole numbers differ by 1495. When the larger number is divided by the smaller, the quotient is 8 and the remainder is 25. The sum of the two numbers is:
1. 1810 **2.** 1915 **3.** 1831 **4.** 1705

79. A certain sum amounts to ₹10,257 in $3\frac{1}{2}$ years and to ₹11,310 in 5 years, at the same rate per cent per annum at simple interest. What is the simple interest on a sum of ₹8,400 for $4\frac{2}{3}$ years at the same rate of interest?
1. ₹3,136 **2.** ₹3,332 **3.** ₹3,920 **4.** ₹3,528

80. A solid metallic cuboid of dimensions 32 cm × 36 cm × 44 cm is melted and solid balls, each of radius 12 cm, are made from this material. The number of balls will be: (Take $\pi = \frac{22}{7}$)
1. 11 **2.** 9 **3.** 14 **4.** 7

81. The average of 16 numbers is 68.5. If two numbers 54 and 37 are replaced by 45 and 73 and one more number x is excluded, then the average of the numbers decreases by 1.5. The value of x is:
1. 111 **2.** 109 **3.** 118 **4.** 120

82. The market price of an article is ₹640. A trader earns 20% profit when he sells it at a discount of 40% on its market price. The cost price of the article is:
1. ₹360 **2.** ₹320 **3.** ₹330 **4.** ₹350

83. Pipes A and B can fill a tank in 20 hours and 30 hours, respectively, whereas pipe C alone can empty the full tank in 10 hours, Pipes A and B are opened together for $3\frac{1}{2}$ hours and then closed. If pipe C is opened, it will empty the tank is:
1. 2 hours 15 minutes **2.** 2 hours
3. 2 hours 55 minutes **4.** 2 hours 45 minutes

84. The ratio of the speed of a boat (in still water) and the current is 36 : 5. The boat goes downstream for $5\frac{1}{6}$ hours and then starts coming back. How much time (in hours) will it take to reach the starting point?
1. $6\frac{5}{6}$ **2.** $7\frac{1}{6}$ **3.** $7\frac{1}{3}$ **4.** $6\frac{1}{2}$

85. A sum of ₹10,240 amounts to ₹14,848 in 3 years at simple interest at a certain rate percent per annum. The same sum will amount of ₹x in $1\frac{1}{4}$ years at the same rate, if the interest is compounded five-monthly. The value of x is:
1. 12,342.50 **2.** 12,282.50 **3.** 12,242 **4.** 12,182

86. A shopkeeper sold an article at a profit of 13%. Had he sold it for ₹86.40 more, he would have gained k%. The cost price of the article is ₹720. What is the value of k?
1. 25 **2.** 24 **3.** 20 **4.** 18

87. Let x be the greatest number which when divides 988, 1637 and 2345, the remainder in each case is the same. The remainder is:
1. 49 **2.** 44 **3.** 54 **4.** 39

88. Rina's expenditure is 300% more than her savings. If her income increases by 30% and savings increase by 20%, then by what percentage does her expenditure increase?
1. 30 **2.** 32.5 **3.** 36 **4.** 37.5

89. When x is subtracted from each of 43, 38, 11 and 10, the numbers so obtained in this order, are in proportion. What is the mean proportional between $(5x + 1)$ and $(7x + 4)$?
1. 28 **2.** 15 **3.** 20 **4.** 12

90. The value of
$\left(\frac{2}{3} \div \frac{3}{4} \text{ of } \frac{5}{6}\right) \div \left(\frac{2}{3} \div \frac{3}{4} \times \frac{5}{6}\right) - \frac{5}{6} - \frac{11}{25} \times (0.\overline{49} \div 0.5\overline{4})$ is:
1. $\frac{151}{150}$ **2.** $\frac{31}{150}$ **3.** $\frac{37}{30}$ **4.** $\frac{53}{30}$

Answer Key

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

Answers with Explanations

1. Option (2) is correct.
"Figuring: The Joy of Numbers" was written by Shakuntala Devi, renowned as the "Human Computer," an Indian author and mathematical prodigy known for her extraordinary skills in mental calculations.

2. Option (4) is correct.
Khudiram Bose was a revolutionary from West Bengal who played a significant role in the Indian independence movement. He was only 18 years old when he was hanged at Muzaffarpur Jail by the British.

3. Option (1) is correct.
In 1826, the British took control of Assam because of the Treaty of Yandaboo. This agreement was made between the British East India Company and the Burmese after the First Anglo-Burmese War (1824-1826). The treaty, signed in Yandabo, ended the war and led to Assam becoming a part of British India under British rule.

4. Option (2) is correct.
Twinkle Khanna is the author of the book "The Legend of Lakshmi Prasad".

5. Option (1) is correct.
Mint is an herb that primarily grows from the stem. Mint plants have a spreading growth habit, and they produce new shoots and roots along the stem. This characteristic allows mint to propagate easily, and it is known for its aromatic leaves.

6. Option (4) is correct.
Qatar hosted the 2022 FIFA World Cup, which took place from November 20 to December 18, 2022. This was the first time the tournament was held in the Middle East and the most geographically compact since 1930. Canada, Mexico, and the United States will host the 2026 FIFA World Cup.

7. Option (2) is correct.
The recipient of the Joan Miro Prize for 2019 was the Indian contemporary artist, Nalini Malani.

8. Option (2) is Correct.
In 1510, Alfonso de Albuquerque took control of Goa with the assistance of locals, marking a crucial moment in Portugal's expansion into India.

9. Option (2) is correct.
In 1999, the SENSEX, India's stock market index, surpassed 5000 points for the first time, signalling the robust performance and growth of the Indian stock market at that time.

10. Option (1) is correct.
Gautama Buddha gave most of his preaching at 'Gridhrakuta'. The Vulture Peak, also known as Gridhrakuta, was the Buddha's favourite retreat in Rajagaha (now Rajgir). It was the setting for many of his discourses. The Buddha also preached his first sermon at the Deer Park in Sarnath. The Buddhist scripture Dhammacakkappavattana Sutta is considered by Buddhists to be a record of this sermon.

11. Option (2) is correct.
Article 343 of the Indian Constitution recognizes Hindi in Devanagari script as the Official Language of the Union Article 343 or 343 (1) refers to Hindi as the official language of the Government of India and the script used for it is the Devanagari script. Devanagari's script is based on the ancient Brahmi script.

12. Option (4) is correct.
The Citizenship Amendment Act passed in 2019, introduced a new legislative framework and was not an amendment to an existing act. It marked a significant amendment to the Citizenship Act of 1955.

13. Option (1) is correct.
Under the Pradhan Mantri Matru Vandana Yojana (PMMVY), pregnant women and lactating mothers receive a cash incentive of ₹ 5,000. This scheme aims to provide financial assistance to pregnant and lactating women for their nutrition and health needs during the motherhood period.

14. Option (1) is correct.
The protection component that limits the amount of current flowing through the circuit and establishes a certain amount of voltage is a fuse. A fuse melts and breaks the circuit when the current exceeds a predetermined safe limit, protecting other components from damage.

15. Option (4) is correct.
As per the Government of India Report from 2011 to 2019, Bihar exhibits the highest population growth rate among the options listed. Population growth rate signifies the percentage increase in population during a defined time frame.

16. Option (3) is correct.
The 'Sonepur Cattle Fair' is a renowned cultural event held in the state of Bihar. This fair, also known as Harihar Kshetra Mela, attracts visitors with its diverse range of activities, including the sale of cattle, cultural performances, and various stalls.

17. Option (1) is correct.
Telangana became the first state to regulate the cultivation of crops by instructing farmers on what to grow as part of its pilot project. This initiative aimed to enhance agricultural productivity and optimize resource utilization in the state.

18. Option (4) is correct.
The Battle of Aliwal occurred in 1846 during the Anglo-Sikh War, marking a significant conflict between the British East India Company and the Sikh Empire.

19. Option (4) is correct.
The Uparkot Buddhist Caves, situated in Junagadh, Gujarat, India, have historical and archaeological importance as a Buddhist site.

20. Option (4) is correct.
The Constituent Assembly set up a Drafting Committee on August 29, 1947, under the chairmanship of Dr. B.R. Ambedkar. The committee's task was to prepare a draft of the new Constitution for India. The committee's work took two years, eleven months, and seventeen days.

21. Option (3) is correct.
The first Amendment of the Constitution took place in the year 1951. This amendment introduced several changes to the Constitution, including modifications to certain fundamental rights and provisions related to land reform.

22. Option (3) is correct.
Minimum Support Price (MSP) ensures farmers get a fair price for their crops. It sets a minimum guaranteed price to prevent market prices from dropping too low. If nobody buys the crops, the government steps in to buy them at this assured minimum price.

23. Option (1) is correct.
The Tapu dance is a traditional war dance performed by men of the Adi tribe in Arunachal Pradesh. It takes place during the Aran festival, marking the start of the shifting cultivation season. The dance represents bravery and strength, and dancers wear unique costumes with feathers and animal horns.

24. Option (3) is correct.
Ravi Solanki a doctor of Indian origin was awarded the UK's Royal Academy of Engineering President's Special Awards for Pandemic Service in August 2020.

25. Option (2) is correct.
The changes made by the Insolvency and Bankruptcy Code (Amendment) Ordinance, 2020, amend the Insolvency and Bankruptcy Code of 2016. The ordinance introduces changes and updates to the existing framework of insolvency and bankruptcy laws in India, aiming to enhance the effectiveness of the resolution process for stressed assets and financial distress.

26. Option (2) is correct.
As per the Economic Survey 2020, India ranked third globally in terms of the number of new firms created.

27. Option (3) is correct.
After the Constitution of India was enacted in 1950, the Constituent Assembly transformed into the Provisional Parliament of India, which functioned until 1952. During this transitional period, the Provisional Parliament acted as the legislative body until the first general elections in 1952. Subsequently, it was replaced by the first elected Parliament of India.

28. Option (3) is correct.
Baking soda can help neutralize a bee sting. Applying a paste made from baking soda and water to the affected area can alleviate pain and reduce swelling caused by a bee sting. Baking soda's alkaline properties work to counteract the acidic venom from the sting.

29. Option (1) is correct.
In August 2020, Suresh Raina, a renowned left-handed batsman in Indian cricket, announced his retirement from international cricket. His departure signified the conclusion of a remarkable career, where he played a vital role in the success of the Indian team, especially in limited-overs formats.

30. Option (4) is correct.
'Uruka' is a traditional festival in Assam, also known as Bhogali Bihu. Celebrated with enthusiasm, it signifies the harvest season. During 'Uruka,' people come together, enjoy feasts, and strengthen community ties, playing a crucial role in Assamese culture.

31. Option (3) is correct.
In the 2020 Indian Union Budget, it was declared that the Deposit Insurance and Credit Guarantee Corporation (DICGC) can now provide increased deposit insurance coverage, raising it to ₹ 5 lakh per depositor from the earlier ₹ 1 lakh. This change is designed to improve the safeguarding of depositors' funds in the event of a bank facing failure or financial difficulties.

32. Option (4) is correct.
'Ramlila,' a traditional performance art form depicting the epic story of Lord Rama, was added to the UNESCO Representative List of the Intangible Cultural Heritage of Humanity in 2008. This cultural practice involves enacting plays during the festival of Navaratri, signifying cultural and religious importance in India. UNESCO acknowledged its valuable contribution to the intangible cultural heritage.

33. Option (1) is correct.
The National Institute of Ocean Technology (NIOT) project to send men in a submersible vehicle for underwater studies is called 'Samudrayaan.' This initiative aims to explore the depths of the ocean and conduct scientific research in deep-sea environments.

34. Option (3) is correct.
The focal area of the PM-AASHA scheme, launched in 2018, is "Direct payment of the difference between the MSP and the selling/modal price is made to pre-registered farmers selling their produce in the notified market yard through a transparent auction process.

35. Option (1) is correct.
After being defeated by her rebellious general, Malik Ikhtiar-ud-din Altunia, Empress Razia Sultana was imprisoned at Qila Mubarak.

36. Option (2) is correct.
The Siang and Lohit rivers are mainly situated in Arunachal Pradesh and Assam, serving as important tributaries to the Brahmaputra River. They flow through the northeastern states of India.

37. Option (4) is correct.
Article 3 of the Indian Constitution gives the Parliament the authority to establish new states, modify boundaries, or change the names of existing states by enacting laws.

38. Option (4) is correct.
The 'smart triplets,' three athletic robots representing Hangzhou's UNESCO World Heritage sites in eastern China, were revealed as the official mascots for the 2022 Asian Games.

39. Option (2) is correct.
Karnataka is one of the top four states in India for GSDP (Gross State Domestic Product). Karnataka is one of the states with the highest economic growth in India. In 2021-2022, the state's GSDP was expected to grow by 9.5%. In 2022-2023, Karnataka's GSDP was expected to be around $ 240 billion.

40. Option (2) is correct.
The Ningthouja Dynasty ruled the princely state of Manipur. The dynasty is also known as the Mangang dynasty and is

made up of the descendants of Manipur's kings. The word "Ningthouja" literally means "progeny of King".

41. Option (2) is correct.
Jiddu Krishnamurti and Sathya Sai Baba hail from Andhra Pradesh. Krishnamurti was a philosopher, and Sathya Sai Baba was a spiritual guru, both contributing significantly to their respective fields.

42. Option (4) is correct.
Jama Masjid, Our Lady of the Immaculate Conception Church, and Mahalaxmi Temple stand along Dr Dada Vaidya Road in Goa. This road is renowned for its collection of religious landmarks, showcasing the cultural richness and diversity of the region.

43. Option (4) is correct.
Subramania Bharathi, a celebrated poet from Tamil Nadu, actively advocated for women's liberation. As a prolific writer, poet, and nationalist, he used his influential literary works to address a range of social issues, with a special focus on women's rights.

44. Option (2) is correct.
PV Sindhu is one of the ambassadors for the 'I am Badminton' awareness campaign as designated by the Badminton World Federation (BWF).

45. Option (3) is correct.
The Government of India launched the Total Sanitation Campaign (TSC) in the year 1999 to accelerate sanitation coverage across the country, with a particular focus on rural areas.

46. Option (2) is correct.
The absolute increase in the minimum support price (MSP) of maize from 2019-2020 to 2020-2021 is `90.

47. Option (2) is correct.
The rabbit is the one among the options that is not nocturnal. Rabbits are crepuscular, which means they are most active during dawn and dusk, rather than exclusively at night (nocturnal) or during the day (diurnal).

48. Option (1) is correct.
Araku, a charming hill station renowned for its scenic landscapes and coffee plantations, is situated in the state of Andhra Pradesh, drawing tourists with its natural beauty.

49. Option (4) is correct.
The Bobbili Veena is a well-known musical instrument from the state of Andhra Pradesh. It is a stringed instrument used in the Carnatic classical music style. The Veena is named after Bobbili, a town in the Vizianagaram district of Andhra Pradesh.

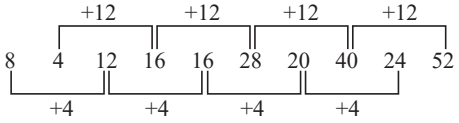
50. Option (1) is correct.
Arid soil is unsuitable for rice cultivation due to insufficient moisture and fertility. Successful rice cultivation requires well-drained and fertile soils like riverine alluvial soil or clayey loam soil, providing optimal conditions for the growth of rice crops.

51. Option (3) is correct.
As per the pattern followed and the symmetry, the given image is related to the following figure:

52. Option (2) is correct.
The odd figure is option B as its alphabet is placed slightly above than the other figures.

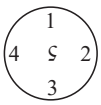
53. Option (1) is correct.
As per the pattern followed and the symmetry, the required answer figure is as follows:

54. Option (4) is correct.
Given series 8, 4, 12, 16, 16, 28, 20, 4, 24, ?
The patten followed here is:



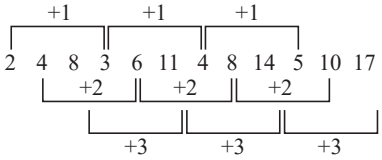
Hence, 52 is the correct answer.

55. Option (2) is correct.
In the given figure series, each number is moving one step forward in clock-wise direction and the number in the middle is flipping upside down n each alternate figure.
Hence, the required answer figure is:



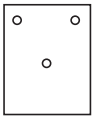
56. Option (4) is correct.
Given set: 4 : 12.
The pattern followed here is:
$(1^{st}\ term)^2 - 1^{st}\ term = 2^{nd}\ term.$
So,
$(4)^2 - 4$
$16 - 4 = 12$
Similarly, upon checking option (4), we get:
$(10)^2 - 10$
$100 - 10 = 90$
Hence, 10 : 90 is the correct answer.

57. Option (3) is correct.
Given series: 2, 4, 8, 3, 6, 11, 4, 8, 14, 5, ?, 17
The patten followed here is:



Hence, 10 is the correct answer

58. Option (1) is correct.
After uploading the paper, it will appear as follows:-



59. Option (4) is correct.
In the given figure, following numbers will be opposite pairs:
1 —— 6
2 —— 5
3 —— 4
Which is possible only in figure option (4).

60. Option (2) is correct.
Out of the given four figures, figure A of circle is the only which doesn't have any corner.
Hence, A is the correct answer.

61. Option (2) is correct.
In a mirror image, left becomes right and right becomes left.
Hence, the required mirror image is:

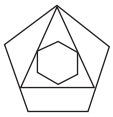
62. Option (1) is correct.
According to the given dice figures, 5 is common between fig. 2 and fig. 3.
Clockwise arrangement in fig. 2 stating from 5 – 6 – 2
Clockwise arrangement in fig.3 starting from five: 5 – 1 – 3.
So, 1 is opposite to 6 and 2 is opposite to 3.
Hence, 1 is opposite to 6.

63. Option (4) is correct.
As per the pattern followed and the symmetry, the required image is:

64. Option (3) is correct.
In the given analogy, a set-top device catches signals which are displayed on a television.
Similarly, Modern is a device which gets signals which are converted and displayed on a computer.

65. Option (1) is correct.
Given set : (4, 2, 80)
The patten followed here is:
1st term 5 = 2nd term;
1st term × 2nd term = 3rd term.
So,
4 × 5 = 20;
4 × 2 = 80
Similarly, upon checking option (1), we get:
8 × 5 = 40;
8 × 40 = 320
Hence, (8, 40, 320) is the correct answer.

66. Option (2) is correct.
In the given image analogy, the shape in the middle and outside are getting changed and the shape in between both of them remains the same. So, in the answer figure, triangle will remain the same.
Hence, the correct answer figure is:



67. Option (1) is correct.
Let the speed of both the trains be $4x$ and $5x$.
Distance covered by 1st train = 150 km.
Time taken = 2.5 hours

$\Rightarrow$ Speed = $\frac{\text{Distance}}{\text{Time}} = \frac{150}{2.5} = 60$ km/h

$\Rightarrow 4x = 60$

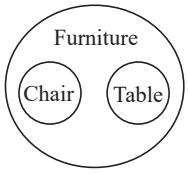
$\Rightarrow x = 15$

So, the speed of 2nd train = $5x = 5 \times 15 = 75$ km/h.

$\therefore$ Time taken by 2nd term = $\frac{\text{Distance}}{\text{Speed}}$

$\Rightarrow \frac{150}{75} = 2$ hours.

68. Option (2) is correct.
Given classes : Furniture, Chair, Table.
Here, chair and table are types of furniture.
So, the Venn diagram which best suits here is:



69. Option (2) is correct.
According to both the positions of the dice,
1 is common, which means the numbers which are adjacent to 1 is 2, 3, 4, 5.
Hence, 6 will be opposite to 1.

70. Option (1) is correct.
The given figure is embedded in option figure(1) as highlighted below:

71. Option (2) is correct.
Given that: DIVE is written as WIREV
The pattern followed here is:

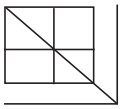
D	R	I	V	E
opposite	opposite	opposite	opposite	opposite
W	I	R	E	V

Similarly, for MOBILE

M	O	B	I	L	E
opposite	opposite	opposite	opposite	opposite	opposite
N	L	Y	R	O	V

Hence, NLYRON is the correct answer.

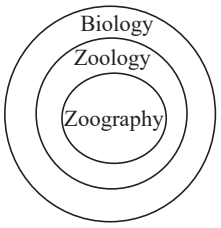
72. Option (4) is correct.
According to the pattern followed and the symmetry, the required answer figure is:



73. Option (3) is correct.
Given option: $14 \div 7 \times 5 - 3 + 2 = 1$
Upon checking option (3), and interchanging × and +,
We get:
$14 \div 7 + 5 - 3 \times 2 = 1$
$\Rightarrow 2 + 5 - 3 \times 2 = 1$
$\Rightarrow 2 + 5 - 6 = 1$
$\Rightarrow 7 - 6 = 1$
$\Rightarrow 1 = 1$
LHS = RHS.
Hence, × and + is the correct answer.

74. Option (4) is correct.
In the given four options, Goggles, spectacles and bifocals are alike as they can be won by a person. But, an optical reader is a device related to computer which scams and translates images or Bar codes into digital readable information.
Hence, optical reader is the odd one out.

75. Option (3) is correct.
Given classes : Biology, Zoology, Zoography
Here, Zoology is a branch of Biology and Zoography is a part of Zoology. So, the best suited Venn diagram is:



76. Option (3) is correct.
Given that,
Inner circumference of the circle = 1408 m
Let the radius of inner circular = r
Using, circumference = $2\pi r$

$\Rightarrow 1408 = 2 \times \frac{22}{7} \times r$

$\Rightarrow r = 224$ m

So, area of inner circle = $\pi r^2 = \frac{22}{7} \times 224 \times 224 = 157696$ m^2

Radius of outer circle = 224 + 7 = 231 m^2

Area of outer circle = $\frac{22}{7} \times 231 \times 231$

So, area of circular path = 167706 – 157696 = 10010 m^2
Hence, required cost = 10010 × 6 = 60060

77. Option (1) is correct.
Let the income of B = 100
So, income of A = 180
According to the question,

New value of A = $180 \times \frac{80}{100} = 144$

And new value of B = 160

So, B's income is more than A's income = $\frac{160-144}{144}\times 100$

$= 11\frac{1}{9}\%$

Hence, option (1) is correct.

78. Option (2) is correct.

Let the larger number is x and smaller number is y.

According to the question,

$x - y = 1495$ ...(1)

and $8y + 25 = x$ ...(2)

From eq. (1) and (2),

$8y + 25 = 1495 + y$

$\Rightarrow y = 210$

And $x = 1705$

So, required sum = 1705 + 210 = 1915

79. Option (4) is correct.

Given that, a certain sum amounts to ₹10,257 in $3\frac{1}{2}$ years and to ₹11,310 in 5 years.

So, interest earned in $1\frac{1}{2}$ years = 11310 – 10257 = 1053

Hence, one year interest = $\frac{1053\times 2}{3}$ = ₹702

Principal amount = 11310 – 5 × 702 = ₹7800

Using, SI = $\frac{P\times R\times T}{100}$

$\Rightarrow 702 = \frac{7800\times R\times 1}{100}$

$\Rightarrow R = 9\%$

So, required SI = $\frac{8400\times 14\times 9}{100\times 3}$ = ₹3528

80. Option (4) is correct.

According to the question,

Volume of solid metallic cuboid = 32 × 36 × 44 = 50688 cm^3

Volume of each ball = $\frac{4}{3}\pi r^3 = \frac{4}{3}\times\frac{22}{7}\times 12\times 12\times 12$

$= \frac{50688}{7}$ cm^3

So, required number of balls = $\frac{50688}{\frac{50688}{7}} = 7$

81. Option (3) is correct.

Given that the average of 16 numbers = 68.5

So, total of these 16 numbers = 68.5×16=1096

According to the question,

New average = $\frac{1096-54-37+45+73-x}{15}$ = 68.5 – 1.5

$\Rightarrow 1123 - x = 1005$

$\Rightarrow x = 118$

82. Option (2) is correct.

Given that,

Market price of the article = ₹640

Let the cost price = ₹x

According to the question,

$640\times\frac{60}{100} = x\times\frac{120}{100}$

$\Rightarrow x = 320$

Hence, the cost price = ₹320

83. Option (3) is correct.

Given that,

Pipe A can fill a tank in = 20 hours

Pipe B can fill the tank in = 30 hours

Pipe C can empty the tank in = 10 hours

Let the capacity of the tank = LCM (20, 30, 10) = 60 l

So, efficiency of pipe A = $\frac{60}{20}$ = 3 *l/h*

and efficiency of pipe B = $\frac{60}{30}$ = 2 *l/h*

and efficiency of pipe C = $-\frac{60}{10}$ = –6 *l/h*

According to the question,

Water filled by pipe A and B in $3\frac{1}{2}$ hour = $\frac{7}{2}\times(3+2) = \frac{35}{2}l$

So, time taken by C to empty it = $\frac{\frac{35}{2}}{6} = \frac{35}{12}h$ or 2 h 55 m

84. Option (1) is correct.

Let the speeds of boat and current are 36x and 5x respectively.

So, downstream speed = 36x + 5x = 41x

And upstream speed = 36x – 5x = 31x

So, downstream speed : upstream speed = 41 : 31

We have, for constant distance, speed $\propto \frac{1}{T}$

So, ratio of times taken in downstream to upstream = 31 : 41

Let times taken in downstream and upstream are 31y and 41y respectively.

According to the question,

$31y = \frac{31}{6}$

$\Rightarrow y = \frac{1}{6}$

Now, times taken in upstream = $41\times\frac{1}{6} = 6\frac{5}{6}$ h

85. Option (2) is correct.

According to the question,

SI in 3 years = 14848 – 10240 = ₹4608

Using, SI = $\frac{P\times R\times T}{100}$

$\Rightarrow 4608 = \frac{10240\times R\times 3}{100}$

$\Rightarrow R = 15\%$

According to the question,

Using, A = $P\left(1+\frac{R}{100}\right)^n$

$\Rightarrow x = 10240\left(1+\frac{25}{100\times 4}\right)^3$

$\Rightarrow x$ = ₹12282.50

86. Option (1) is correct.

Given that the cost price of article = ₹720

Selling price of article = $720\times\frac{113}{100}$

According to the question,

$720\times\frac{100+k}{100}$ = 813.6 + 86.4

$\Rightarrow \frac{100+k}{100} = \frac{900}{720}$

$\Rightarrow k = 25$

87. Option (2) is correct.

Differences between the numbers,

1637 – 988 = 649

2345 – 1637 = 708

2345 – 988 = 1357

So, required number = HCF (649, 708,1357)

= HCF (59 × 11, 59 × 12, 59 × 13)

= 59

Required remainder = Remainder of $\frac{988}{59}$ = 44

88. Option (2) is correct.

Let Reena's savings = 100

and Reena's expenditure = 400

So, Reena's income = 400 + 100 = 500

Now her new income = $500 \times \frac{130}{100}$ = 650

And savings = 120

So, expenditure = 650 – 120 = 530

Hence, percentage increase in expenditure = $\frac{500-400}{400} \times 100$

= 32.5%

89. Option (3) is correct.

Given numbers are 43, 38, 11 and 10.

According to the question,

$\Rightarrow \frac{43-x}{38-x} = \frac{(11-x)}{10-x}$

$\Rightarrow 430 - 10x - 43x + x^2 = 418 - 11x - 38x + x^2$

$\Rightarrow 430 - 53x = 418 - 49x$

$\Rightarrow x = 3$

So, new numbers are (5 × 3 + 1 = 16) and (7 × 3 + 4 = 25).

Now mean proportion = $\sqrt{16 \times 25}$ = 20

90. Option (2) is correct.

The value of

$\left(\frac{2}{3} \div \frac{3}{4} \text{ of } \frac{5}{6}\right) \div \left(\frac{2}{3} \div \frac{3}{4} \times \frac{5}{6}\right) - \frac{5}{6} - \frac{11}{25} \times \left(0.\overline{49}0 \div .5\overline{4}\right)$,

$= \left(\frac{2}{3} \div \frac{15}{24}\right) \div \left(\frac{2}{3} \times \frac{4}{3} \times \frac{5}{6}\right) - \frac{5}{6} - \frac{11}{25} \times \left(\frac{49}{99} \times \frac{90}{49}\right)$

$= \frac{16}{15} \div \frac{20}{27} - \frac{5}{6} - \frac{2}{5}$

$= \frac{36}{25} - \frac{37}{30}$

$= \frac{31}{150}$