

**STAFF SELECTION COMMISSION
SUB-INSPECTOR IN DELHI POLICE AND
CENTRAL ARMED POLICE FORCES EXAMINATION (PAPER-I)**

SOLVED PAPER

(27th June 2024: Shift-1)

Time Allotted- 2 hours

Max marks- 200

General Intelligence & Reasoning

- In a certain code language,
A + B means 'A is the Brother's Wife of B'
A - B means 'A is the Sister of B'
A × B means 'A is the Wife of B'
A ÷ B means 'A is the Daughter of B'
Based on the above, how is G related to Q if 'G + K - L ÷ M × Q'?

- Son's wife
- Sister
- Wife's Sister
- Daughter

- Which letter cluster will replace the question mark (?) to complete the given series?
HEWC, KIRI, ?, QQHU, TUCA

- NBTO
- NMMO
- PRZO
- JLSO

- In a code language, 'CUTE' is written as 'FQWA', and 'BLUE' is written as 'EHXA'. How will 'VOTE' be written in that language?

- YWAK
- YKAW
- YKWA
- AYWK

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

(Note: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 - Operations on 13 such as adding /deleting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

(12, 36, 6)
(18, 54, 9)

- (28, 86, 14)
- (26, 84, 14)
- (28, 84, 16)
- (28, 84, 14)

- Select the option that indicates the correct arrangement of the given words in the order in which they appear in an English dictionary.

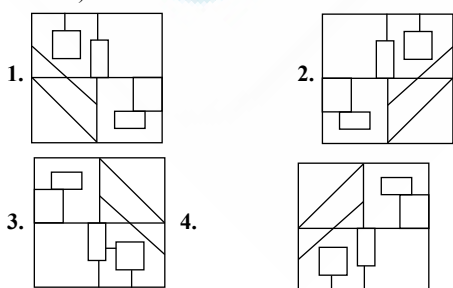
- Literacy
- Literature
- Litany
- Listen

- Lithograph
- 3,4,1,2,5
 - 4,3,1,2,5
 - 1,4,3,2,5
 - 4,1,3,5,2

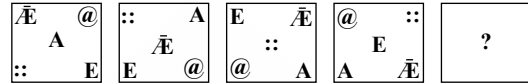
- Select the correct combination of mathematical signs to replace the * signs and balance the given equation.
13 * 7 * 12 * 4 * 15 * 65

- +, +, ÷, ×, =
- +, ÷, ×, +, =
- +, ×, ÷, ×, =
- , +, ÷, ×, =

- Select the option figure in which the given figure is embedded as its part (rotation is NOT allowed).



- Select the figure from among the given options that can logically replace the question mark (?) in the following series.



- What will come in place of the question mark (?) in the following equation if '+' and '×' are interchanged and '-' and '÷' are interchanged?

14 - 7 × 10 ÷ 1 + 7 = ?

- 26
- 77
- 45
- 5

- At a wedding reception, a man pointed towards the groom and claims the groom to be the brother of the son of his grandfather's son. Who is the groom to the man?

- Brother
- Brother-in-law
- Uncle
- Father

- 15 is related to 45 following a certain logic. Following the same logic, 25 is related to 125. Which of the following numbers is related to 80 using the same logic?

- 22
- 18
- 20
- 21

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

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 - Operations on 13 such as adding /deleting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(247, 349)
(261, 363)

- (282, 382)
- (294, 396)
- (265, 369)
- (253, 358)

- Select the correct combination of mathematical signs to replace the * signs and balance the given equation.

10 * 2 * 1 * 8 * 11 * 8

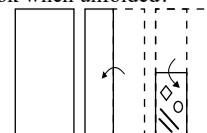
- ÷, -, ×, +, =
- +, -, ×, +, =
- ÷, -, ×, -, =
- ÷, -, -, +, =

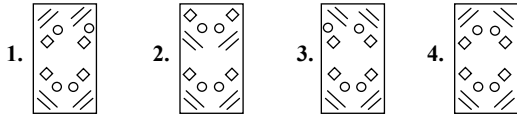
- Select the option that is related to the fifth letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster and the fourth letter-cluster is related to the third letter-cluster.

CARS : HFWX :: BOAT: GTFY :: FUSE : ?

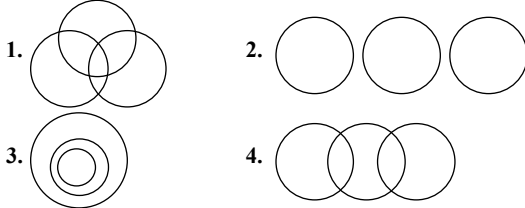
- LAXJ
- LAYK
- KZWI
- KZXJ

- The sequence of folding a paper and the manner in which the folded paper is cut as shown in the following figures. How would this paper look when unfolded?





16. Select the Venn diagram that best illustrates the relationship between the following classes.
Bananas, Apple, Grapes



17. In a code language, 'LAND' is written as 'IWKZ', and 'GOLD' is written as 'DKIZ'. How will 'TEAM' be written in that language?

1. QAXI 2. JXQB 3. XJQB 4. QXJB

18. In a code language, 'RACE' is written as 'VWGA', and 'BANK' is written as 'FWRG'. How will 'STEM' be written in that language?

1. WIIP 2. WPII 3. IIWP 4. WIPI

19. Which letter cluster can replace the question mark (?) to complete the given series?
FDKI, GCMG, ?, IAQC

1. HBPF 2. HBNF 3. HBOE 4. HBLE

20. Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster does not belong to that group?
(Note: The odd letter-cluster is not based on the number of consonants/vowels or their position in the letter-cluster.)

1. JGM 2. SPU 3. URX 4. PMS

21. In a code language, 'DINESH' is coded as 12-27-42-15-57-24 and 'VIRAT' is coded as 66-27-54-3-60. How will 'GAUTAM' be coded in the same language?

1. 29-9-55-47-8-28 2. 26-7-25-67-4-37
3. 24-7-61-34-5-31 4. 21-3-63-60-3-39

22. Select the set in which the numbers are related in the same way as are the numbers of the given sets.

(Note: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/deleting/multiplying, etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

- (9, 36, 12)
(12, 48, 16)

1. (21, 84, 24) 2. (21, 81, 28) 3. (21, 81, 24) 4. (21, 84, 28)

23. Which of the following numbers will replace the question mark (?) in the given series?
7, 16, 43, 124, 367, ?

1. 1086 2. 1066 3. 1076 4. 1096

24. Select the number that will replace the question mark (?) in the following number series.
1, 1, 2, 3, 5, 8, 13, ?

1. 20 2. 24 3. 21 4. 22

25. Select the number from among the given options that can replace the question mark (?) in the following series.
25, 40, 70, 115, 175, ?

1. 275 2. 225 3. 200 4. 250

26. 12 is related to 40 following a certain logic. Following the same logic, 9 is related to 31. To which of the following is 16 related using the same logic?

1. 51 2. 52 3. 63 4. 61

27. Which two signs should be interchanged to make the given equation correct?

$$10 \div 63 \times 7 + 90 - 80 = 100$$

1. - and \div 2. \times and \div 3. \times and - 4. + and -

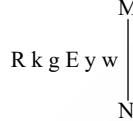
28. If + means \times , \times means \div , \div means +, what will come in place of the question mark (?) in the given equation?
 $22 \times 11 - 450 \div 50 + 500 = ?$

1. 550 2. 350 3. 650 4. 450

29. Which of the following terms will replace the question mark (?) in the given series?
CHO, DIP, EJQ, ?

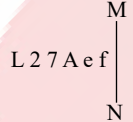
1. DIL 2. FKR 3. E JL 4. HMR

30. Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.



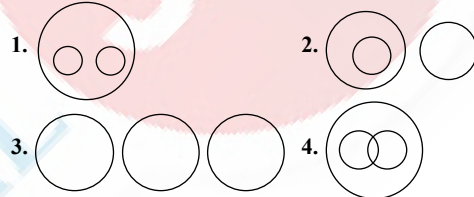
1. w y E g k R 2. y w E g k R
3. w y E g k R 4. w y E g k R

31. Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.



1. f e A 2 7 L 2. f e V 7 2 L
3. f e A 7 2 L 4. f e A 7 2 L

32. Select the Venn diagram that best illustrates the relationship between the following classes.
Potatoes, Vegetables, Grapes



33. Sally drives a mini school bus. She starts at the school gate and drives 7 km north for her first pick-up. She then turns right and drives 10 km picking up children along the way. She takes another right turn and drives 5 km. She then takes a final right to return to the school. How far would Sally need to drive to reach back to the school gate again?

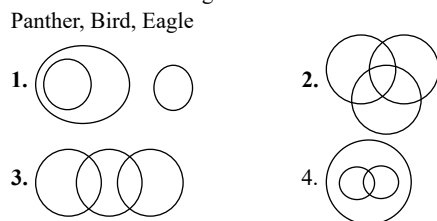
1. 12 km 2. 10 km 3. 22 km 4. 17 km

34. Six students - Aman, Bobby, Chintu, Gita, Pranay and Ram - are sitting around a circular table, facing the centre.

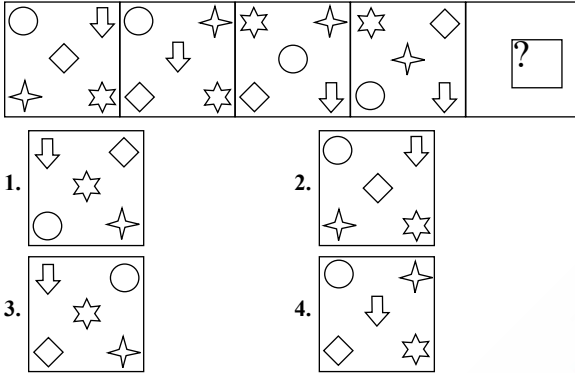
Ram is sitting second to the right of Gita.
Pranay is the immediate neighbour of Gita and Bobby.
Aman is sitting third to the right of Gita. Who among the following is the immediate neighbour of both Ram and Bobby?

1. Pranay 2. Aman 3. Gita 4. Chintu

35. Select the Venn diagram that best illustrates the relationship between the following classes.
Panther, Bird, Eagle

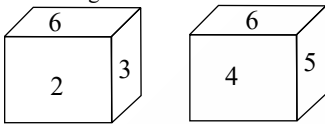


36. Select the option that is related to the fifth letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster and the fourth letter-cluster is related to the third letter-cluster.
 .ABUSE : ASUBE :: BEGIN : BIGEN :: OTHER : ?
 1. OTHRE 2. ORTHE 3. OHTER 4. OEHTR
37. Preeti starts from point A and drives 7 km towards South. From here, she takes a left turn and drives 9 km. She then takes a final left turn and drives 7 km to reach point B. How far should Preeti drive to reach point A from point B?
 1. 6 km 2. 8 km 3. 9 km 4. 7 km
38. Identify the option figure that when put in place of the question mark (?) will logically complete the series.



39. Select the correct combination of mathematical signs to sequentially place from left to right in the blanks below to balance the given equation.
 $6_2_0_8 = 20$
 1. +, ×, + 2. -, ×, + 3. ×, +, + 4. +, +, ×

40. Two different positions of the same dice are given below. Which is the number on the face opposite the face containing 1?

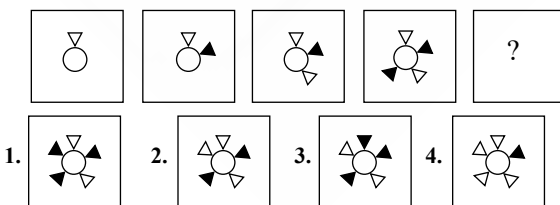


1. 2 2. 6 3. 3 4. 4

41. Select the option that represents the correct order of the given words as they would appear in an English dictionary.
 1. Consistence
 2. Conscience
 3. Conflagration
 4. Consequence
 5. Considerable
 6. Consignment
 1. 3, 4, 2, 5, 6, 1 2. 4, 3, 2, 5, 6, 1
 3. 3, 2, 4, 5, 6, 1 4. 4, 2, 3, 5, 1, 6

42. Which of the following numbers will replace the question marks (?) in the given series?
 1, 6, 15, 28, ?, ?, 91
 1. 42, 54 2. 44, 54 3. 45, 66 4. 40, 60

43. Identify the figure given in the options which when put in place of '?' will logically complete the series.



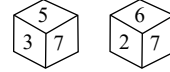
44. In a certain code language, 'FIND' is written as 'CLFB' and 'HOW' is written as 'VME'. How will 'WILL' be written in that language?

1. SJFK 2. SFJK 3. KJFS 4. KSFJ

45. Find the two signs to be interchanged for making the following equation correct.
 $2 + 10 \times 12 - 4 \div 24 = 8$

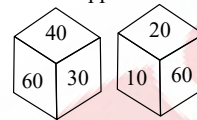
1. - and + 2. ÷ and + 3. × and ÷ 4. ÷ and -

46. A dice has numbers 2, 3, 5, 6, 7 and 8 on its sides. Two different positions of the same dice are shown below. Select the number that will be on the face opposite to the one having 8.



1. 7 2. 6 3. 2 4. 3

47. A dice has its faces marked by numbers 10, 20, 30, 40, 50 and 60. Two positions of the same dice are given below. Which face is opposite to face 50?

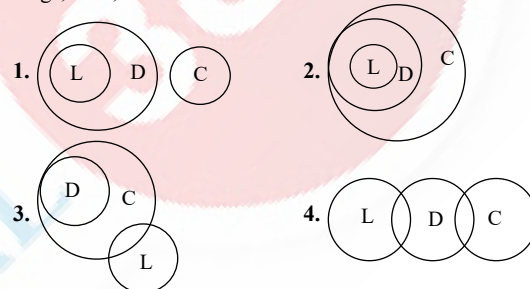


1. 30 2. 60 3. 40 4. 10

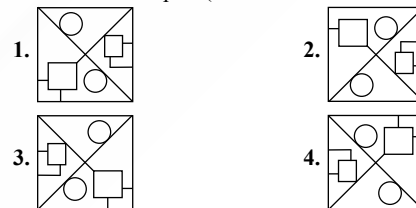
48. In a certain code language, 'DICE' is written as 'EKFI' and 'PLAN' is written as 'QNDR'. How will 'LUDO' be written in that language?

1. MWGS 2. MXES 3. NXES 4. NWES

49. Select the Venn diagram that best illustrates the relationship between the following classes.
 Dogs, Cats, Labradors



50. Select the option figure in which the given figure is embedded as its part (rotation is NOT allowed).



General Knowledge and General Awareness

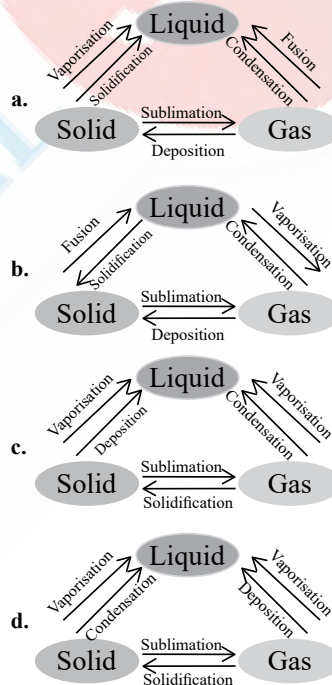
51. Which of the following is NOT a fundamental duty of an Indian citizen?

1. To uphold and protect the sovereignty, unity and integrity of India
 2. To safeguard public property and to abjure violence
 3. To vote in public elections
 4. To value and preserve the rich heritage of our composite culture

52. Under the Sukanya Samridhi Account Yojana, minimum how much money needs to be deposited in one financial year?

1. ₹150 2. ₹250 3. ₹200 4. ₹100

53. Ustad Asad Ali Khan was one of the masters of the _____.
1. Sarangi
 2. Mridangam
 3. Tanpura
 4. Rudra veena
54. What are the thin filamentous extensions that the motile bacterial cells have from their cell wall called?
1. Fimbriae
 2. Flagella
 3. Lamellae
 4. Bili
55. Which Article of the Indian Constitution pertains to the Fundamental Duties?
1. Article 53-A
 2. Article 52-A
 3. Article 50-A
 4. Article 51-A
56. In which year was 'Self Help Group – Bank Linkage Programme' (SHG-BLP) introduced in India?
1. 1992
 2. 1984
 3. 2000
 4. 1996
57. Vasco da Gama, who discovered the sea route from Europe to India, belonged to which nation?
1. England
 2. Portugal
 3. Spain
 4. Germany
58. In which Article does the Finance Commission of India find a mention?
1. Article 292
 2. Article 375
 3. Article 280
 4. Article 370
59. Dussehra is celebrated in _____ month of the Hindu calendar.
1. Asada
 2. Ashvina
 3. Kartika
 4. Chaitra
60. The Central Government launched the National Air Sports Policy in the year _____.
1. 2021
 2. 2020
 3. 2019
 4. 2022
61. Who among the following envoys was sent by Seleucus I to the court of Chandragupta Maurya?
1. Fa-Hien
 2. Al-Biruni
 3. Megasthenes
 4. Deimachus
62. Which of the following dances is NOT a part of the Odia culture?
1. Paika
 2. Gotipua
 3. Kathakali
 4. Dalkhai
63. What is the average elevation of the Eastern Ghats of India?
1. 400 metres
 2. 200 metres
 3. 600 metres
 4. 900 metres
64. The Commonwealth Fencing Championship 2022 was hosted by:
1. Canada
 2. India
 3. United Kingdom
 4. Australia
65. Who among the following was the pioneer of widow remarriages in Maharashtra and also started a girls' school in Poona along with his wife?
1. B.R. Ambedkar
 2. Gopal Hari Deshmukh Lokahitawadi
 3. Jyotirao Govindrao Phule
 4. Mahatma Gandhi
66. _____, a tribal dancer from the Baiga community, received the Padma Shri Award in 2022.
1. Shyamamani Devi
 2. Arjun Singh Dhurve
 3. S Balesh Bhajantri
 4. Lourembam Bino Devi
67. Select the name of the hydrocarbon with a structural formula $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$.
1. 2-Methylpentane
 2. n-Hexane
 3. 2,2-Dimethylbutane
 4. 3-methyl hexane
68. As per Article _____ of the Indian Constitution, the Council of Ministers are collectively responsible to the Lok Sabha.
1. 74(1)
 2. 72(1)
 3. 73(2)
 4. 75(3)
69. Which Article of the Indian Constitution mentions that, where the same person is appointed as the Governor of two or more states, the emoluments and allowances payable to him/her shall be allocated among those states?
1. Article 158
 2. Article 155
 3. Article 157
 4. Article 160
70. Which of the following programmes is NOT a part of the Tenth Five-Year Plan?
1. National Horticulture Mission
 2. Drought Prone Area Programme
 3. Micro Irrigation Programme
 4. Jute Technology Mission
71. Which phenomenon is opposite to solidification?
1. Condensation
 2. Fusion
 3. Vaporisation
 4. Sublimation
72. Which cycle consists of sedimentary and gaseous cycles?
1. Biogeogaseous cycle
 2. Biogeo cycle
 3. Biogeochemical cycle
 4. Biochemical cycle
73. Match the following dams with the rivers on which they are built.
- | | |
|--------------------------|----------------------|
| a. Hirakud Dam | (i) Chambal river |
| b. Nagarjuna Sagar Dam | (ii) Narmada river |
| c. Sardar Sarovar Dam | (iii) Krishna river |
| d. Tehri Dam | (iv) Mahanadi river |
| e. Rana Pratap Sagar Dam | (v) Bhagirathi river |
1. a-iv, b-iii, c-ii, d-v, e-i
 2. a-i, b-iii, c-ii, d-v, e-iv
 3. a-iv, b-iii, c-ii, d-i, e-v
 4. a-iii, b-iv, c-ii, d-v, e-i
74. Which of the following is NOT included in the Indian Food Guide Pyramid for healthy eating?
1. Pulses and legumes
 2. Alcoholic beverages
 3. Milk, meat and products
 4. Fats and sugar
75. The Shailendra kings who had close contacts with the Indian rulers were followers of which of the following religions?
1. Buddhism
 2. Jainism
 3. Shaivism
 4. Vaishnavism
76. Which of the following figures accurately depicts the inter-conversion of the three states of matter?



1. c
2. d
3. b
4. a

77. Kathasaritsagara, a literary work, was originally composed in which of the following languages?
1. Prakrit
 2. Sanskrit
 3. Pali
 4. Tamil
78. Which of the following is NOT one of the four primary explicit goals of five-year plans?

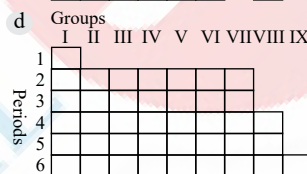
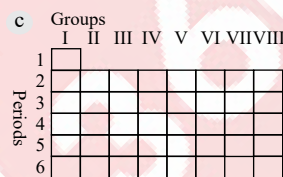
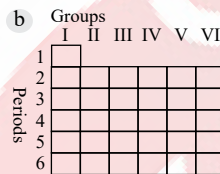
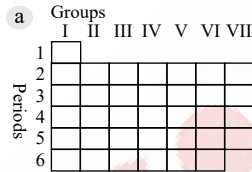
1. Equity 2. Education 3. Self-reliance 4. Growth
79. With regard to the component of population density, which state is the odd one out of the following?
 1. Tamil Nadu 2. Bihar
 3. Arunachal Pradesh 4. Uttar Pradesh
80. What are the two main parts corresponding to Lasya and Tandava elements in Manipuri dance?
 1. Bhangi and Stri 2. Varnam and Paran
 3. Vira and Toda 4. Jagoi and Cholom
81. Which of the following states has the lowest literacy rate as per Census of India 2011?
 1. Jharkhand 2. Bihar 3. Tamil Nadu 4. Odisha
82. Who among the following is the author of the book 'The Guide'?
 1. Rohinton Mistry 2. RK Narayan
 3. Vikram Chandra 4. Shashi Tharoor
83. Shyamamani Devi was awarded the Padma Shri in 2022 for her contributions to _____ music.
 1. Gujarati 2. Malayali 3. Tamil 4. Odishi
84. Which protein is found in grains?
 1. Gluten 2. Gum protein
 3. Arginine 4. Delta protein
85. Match the following movements with their respective founders:

a.	Faraizi Movement	I.	Sayyid Ahmad Barelvi
b.	Mohammedan Literary Society	II.	Sir Syed Ahmad Khan
c.	Indian Patriotic Association	III.	Nawab Abdul Latif
d.	Wahabi Movement	IV.	Haji Shariatullah

1. a - IV, b - III, c - II, d - I 2. a - III, b - IV, c - II, d - I
 3. a - II, b - I, c - IV, D - III 4. a - I, b - II, c - III, d - IV
86. According to Hindu calendar, Diwali falls in which of the following months?
 1. Ashwin 2. Magha 3. Chaitra 4. Kartika
87. Chitra Visweswaran is a famous dancer of which of the following dance genres?
 1. Sattriya 2. Kuchipudi
 3. Kathakali 4. Bharatnatyam
88. What is the total length of Golden Quadrilateral, built by the National Highways Authority of India(NHAI)?
 1. 5978 km 2. 4658 km 3. 5790 km 4. 5846 km
89. Which biosphere of Southern Andhra Pradesh is home to many endemic species including the famous Red Sanders and Slender Loris?
 1. Cold Desert 2. Pachmarhi
 3. Seshachalam 4. Agasthyamalai
90. In which of the following games is the term 'Dribbling' used?
 1. Basketball 2. Cricket 3. Baseball 4. Volleyball
91. What does M stand for in MUDRA yojana?
 1. Money 2. Major 3. Macro 4. Micro
92. Famous musician Bhupen Hazarika was awarded the 'Bharat Ratna' in which of the following years?
 1. 2017 2. 2019 3. 2011 4. 2015
93. Which of the following factors does NOT control the climate of a place?
 1. Ocean currents 2. Latitude
 3. Distance between two cities 4. Relief features
94. Biological Diversity Act 2002 was passed by the Government of India. It fulfilled ideals of which article of Directive

Principles of State Policy in the Constitution of India?

1. Article 49 2. Article 48A 3. Article 48 4. Article 47
95. Which of the following is NOT an example of inertia at rest?
 1. Falling down backward when a vehicle starts immediately
 2. Falling down of dust particle while dusting a cloth
 3. The detachment of leaves/fruits due to shaking
 4. The sudden application of brakes in a vehicle
96. Over 5,000 athletes were competed in _____ sports for 1,936 medals in the 5th edition of Khelo India Youth Games in 2023.
 1. 27 2. 26 3. 25 4. 24
97. Which of the following figures represents Mendeléeev's Periodic Table that was published in a German journal in 1872?



1. c 2. d 3. a 4. b
98. Which of the following mountain peaks is located in the Karakoram Range?
 1. Trishul 2. Nanda Devi 3. K2 4. Kamet
99. Identify the crop which is grown in Kharif cropping season in Northern States of India.
 1. Mustard 2. Rice 3. Gram 4. Barley
100. Which actor's autobiography is titled 'Bad Man'?
 1. Gulshan Grover 2. Amrith Puri
 3. Raza Murad 4. Ashish Vidyarthi

Quantitative Aptitude

101. Simplify the following expression.
 $3\frac{1}{5}$ of $2\frac{3}{4} \div \frac{11}{3} + \left(2\frac{1}{5} \div 1\frac{2}{5}\right)$ of $1\frac{3}{7} - 2\frac{1}{3}$
 1. $4\frac{1}{6}$ 2. $2\frac{1}{6}$ 3. $3\frac{1}{6}$ 4. $1\frac{1}{6}$
102. If $\cot \theta = \frac{28}{45}$, then find the value of $(\sin \theta - \cos \theta)$.
 1. $\frac{45}{28}$ 2. $\frac{7}{53}$ 3. $\frac{28}{53}$ 4. $\frac{17}{53}$
103. Two numbers are in the ratio of 3 : 7. If 11 is subtracted from

each, the ratio between the numbers becomes 7 : 20. Find the smaller number.

1. 39 2. 21 3. 36 4. 27

104. 57% of Ranita's weekly income is equal to 76% of Bhaskar's weekly income. If Ranita's weekly income was reduced by ₹400, while Bhaskar's weekly income did not change, the ratio of the weekly incomes of Ranita and Bhaskar, respectively, would have been 6 : 5. What is Bhaskar's weekly income (in ₹)?

1. 2800 2. 4000 3. 3000 4. 3200

105. Find the value of

$$\left[18 - 3 \times \left\{ 3 - 3 \times \left(3 \div \frac{1}{3} - 3 \right) + 3 \div \frac{1}{3} + 3 \right\} - 4 \times 2 \right]$$

1. 18 2. 19 3. 12 4. 15

106. The following table shows the classification of 100 students based on the marks obtained by them in Maths and Science in an examination.

Subjects	Marks out of 100				
	80 and above	60 and above	40 and above	20 and above	0 and above
Maths	12	35	80	94	100
Science	16	43	76	88	100
Average (Aggregate)	14	39	78	91	100

What is the difference between the number of students who passed with 60 as cut-off marks in Science and those who passed with 60 as cut-off marks in aggregate?

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

107. A hemispherical bowl is 88 cm round the brim. Assuming it to be full, how many person may be served from it in hemispherical glasses, 7 cm in diameter at the top? (Where $\pi = \frac{22}{7}$)

1. 74 2. 68 3. 64 4. 70

108. In an election between two candidates, one got 60% of the total valid votes. 25% of the votes were invalid. If the total number of votes was 15,000, then find the number of valid votes that the other candidate got.

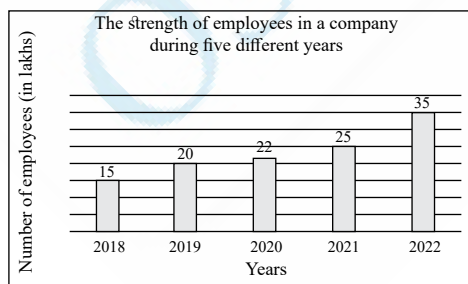
1. 5,550 2. 4,500 3. 6,750 4. 5,000

109. A person borrowed ₹ 1760 at 6% per annum and ₹ 2240 at 9% per annum at simple interest for the same period. He had to pay ₹ 1536 in all as interest. Find the time (in years).

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

110. Study the given graph and answer that question that follows.

The following bar graph shows the strength of employees (in lakhs) in a company during five different years.



What was the percentage increase in employees in 2022 over 2019?

1. 20% 2. 75% 3. 25% 4. 70%

111. If $\sec 6A = \operatorname{cosec} (A - 29^\circ)$, where $2A$ is an acute angle, then the measure of $\angle A = \underline{\hspace{1cm}}^\circ$.

1. 18 2. 17 3. 21 4. 19

112. A thief running at 7 km/h is chased by a policeman whose speed is 12 km/h. If the thief is 280 m ahead of the policeman, then the time required for the policeman to catch the thief will be:

1. $3\frac{9}{25}$ minutes 2. $3\frac{1}{25}$ minutes

3. $4\frac{9}{25}$ minutes 4. $3\frac{2}{25}$ minutes

113. The chord length of a chord made on an arc of a circle is equal to the radius of the circle. The length of the arc is _____ (in units), if the radius of the circle is 21 units. (Take $\pi = \frac{22}{7}$)

1. 20 2. 22 3. 24 4. 21

114. From an external point A , tangents AP and AQ are drawn to a circle with centre O . If $\angle APQ = 40^\circ$, then find $\angle POQ$.

1. 110° 2. 100° 3. 60° 4. 80°

115. A man wishes to cover 1 km distance in river water. In still water he takes 12 minutes to cover it, but in the flowing river he takes 13 minutes. The speed of the flowing water of the river is:

1. 25 km/h 2. $\frac{5}{13}$ km/h

3. 22 km/h 4. $\frac{7}{12}$ km/h

116. In $\triangle ABC$, AD is the internal bisector of $\angle A$, meeting the side BC at D . If $BD = 5$ cm, $BC = 7.5$ cm, then $AB : AC$ is:

1. 1 : 2 2. 1 : 3 3. 3 : 1 4. 2 : 1

117. A car covers 20 km in the first quarter of an hour, 25 km in the second quarter of that hour and 15 km in the third quarter. The average speed of the car (in km/h) over the entire journey is:

1. 70 2. 75 3. 80 4. 65

118. Ramanna purchased raw materials for a certain price to manufacture a product. However, owing to shortage of labour, 22.5% of the raw materials could not be utilised and got wasted. 80% of the cost of raw materials used was added as the cost of manufacturing. If Ramanna could sell his product at a price to earn an overall profit of 20% after offering a discount of 20%, how many times of the total cost of the raw materials purchased was the marked price of the product?

1. 2.44 times 2. 2.42 times 3. 2.43 times 4. 2.40 times

119. A shopkeeper offers 3 schemes of discounts to his customers. Which of the following schemes will fetch the minimum discount percentage?

A) Two successive discounts of 24% and 27%.

B) Buy 5 get three free.

C) Buy 6 and get 10.

1. A 2. C 3. Both A and C 4. B

120. A 12 litre solution of acid and water contains 30% acid. How much water (in litres) must be added to get a solution having 20% acid?

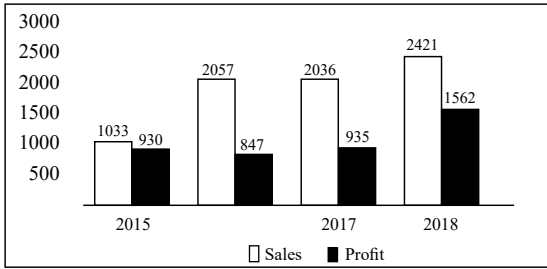
1. 6 2. 3 3. 5 4. 4

121. The fourth proportional to 4, a and 16a is 81. What is the value of a?

1. $\frac{13}{2}$ 2. $\frac{9}{2}$ 3. $\frac{11}{2}$ 4. $\frac{5}{2}$

122. Study the given bar-graph and answer the question that follows.

The bar-graph gives the sales and profit (both in ₹ cr.) of company Z across four years.



What was the approximate percentage profit margin on revenue of company Z in 2016?

1. 41.18% 2. 70% 3. 60% 4. 54.64%
123. The value of $52 - [18 \div 3 + 3 + (18 - 11) \text{ of } 4]$ is equal to:
1. 22 2. 18 3. 21 4. 15
124. The base of a parallelogram is twice its height. If the area of the parallelogram is 338 cm^2 , then find its height (in cm).
1. 13 2. 11 3. 14 4. 12
125. What is the total surface of a cone whose radius is $\frac{r}{4}$ and slant height is $4l$?
1. $8\pi r(1+r)$ 2. $\pi r \left(1 + \frac{r}{16}\right)$ 3. $\pi r \left(1 + \frac{r}{4}\right)$ 4. $4\pi r(1+r)$
126. The value of $35 - [28 - (60 \div 4 + 26 \div 13)]$ is equal to:
1. 27 2. 26 3. 24 4. 22
127. A can complete a piece of work alone in 200 days, while B can complete the same piece of work alone in 100 days. In every three-day cycle, both A and B work on day 1, only A works on day 2, and only B works on day 3. This cycle continues till the work is completed. How many days in all does it take the duo to complete the work?
1. $100\frac{1}{3}$ 2. $99\frac{2}{3}$ 3. $100\frac{1}{2}$ 4. 100
128. Study the given table and answer the question that follows.
The table shows the number of students studying in 6 different classes of 6 different schools.

School	V	VI	VII	VIII	IX	X
P	152	160	145	156	147	144
Q	148	166	150	155	157	143
R	161	152	140	145	143	165
S	159	142	149	140	142	168
T	147	144	158	163	154	150
U	150	160	162	160	161	140
Total	917	924	904	919	904	910

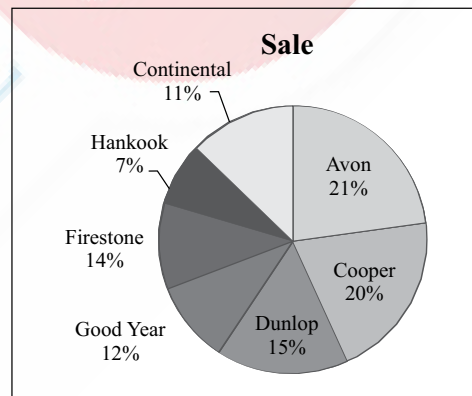
The number of students studying in class X from school P forms approximately what percentage of the total number of students studying in class X from all schools together?

1. 8% 2. 24% 3. 32% 4. 15.82%
129. Find the single discount rate percentage equivalent to the successive discounts of 10%, 20% and 20%.
1. 42.4% 2. 54.6% 3. 40% 4. 50%
130. Read the below data and answer the following question:

Partners	Persent % share
Singh	10
Pandey	5
Anil	15
Sunil	25
Varma	30
Rajesh	15

If the company has issued 8 lakhs between its 6 partners and if Varma offers to sell 10000 of his shares to Pandey, then how many shares will Pandey have?

1. 50000 2. 40000 3. 30000 4. 20000
131. In an election, 12% of the voters in the voter list did not cast their votes, whereas 84 voters cast their ballot papers blank. There were only two candidates: Ramagya and Shraavan. The winner, Ramagya, was supported by 54% of all the voters in the list. He got 1456 more votes than his rival, Shraavan. Find the total number of voters in the list.
1. 5690 2. 6670 3. 7860 4. 6860
132. How many metres of cloth will be required to make a conical tent, the radius of whose base is 21 metres and height is 28 metres. The width of the cloth is 5 metres. (Where $\pi = \frac{22}{7}$)
1. 470 2. 462 3. 456 4. 478
133. Find the value of $12 + 24 \div 2 - 7 \times 30 \div 6 + (5 + 4) \times 8 + 8 \div 8 - 8$.
1. 45 2. 85 3. 54 4. 58
134. The value of $3\frac{2}{3} \div 2\frac{1}{5} \times \frac{1}{4} \times \left(1 + \frac{3}{1 - \frac{2}{5}}\right)$ is :
1. $1\frac{3}{4}$ 2. $2\frac{1}{2}$ 3. $3\frac{1}{2}$ 4. $2\frac{1}{4}$
135. In $\triangle ABC$, P is a point on AB such that $PB : AP = 3 : 4$ and PQ is parallel to AC. If AR and QS are perpendicular to PC and $QS = 9 \text{ cm}$, what is the length (in cm) of AR?
1. 28 2. 35 3. 21 4. 14
136. The percentage distribution of the number of tires of different brands produced in a year by a certain factory is shown in the given pie chart. The total number of tires sold is 1350.



What is the difference between the average number of Avon and Firestone tires sold together and the average of Good year and Dunlop tires sold together?

1. 55 2. 46 3. 54 4. 45
137. If the sum of two numbers x and y is 12 and their product is 27, then find the sum of their cubes.
1. 657 2. 576 3. 765 4. 756
138. A sum of money at compound interest doubles itself in 4 years. In how many years does the sum become 8 times of itself at the same rate of interest?
1. 15 2. 12 3. 8 4. 10
139. The possible value of x satisfying $\frac{(143 \div 13 \times x - 3 \times 3)}{(6^2 - 7 \times 5 + x^2)} = 1$ is:
1. 1 2. 3 3. 2 4. 4

140. Simplify: $(1 + \tan^2 A) + \left(1 + \frac{1}{\tan^2 A}\right)$

1. $\frac{1}{\sin^2 A - \sin^4 A}$ 2. $\frac{1}{\sin^2 A - \cos^4 A}$
 3. $\frac{1}{\cos^2 A - \sin^4 A}$ 4. $\frac{1}{\cot^2 A - \tan^4 A}$

141. If $\tan(t) + \cot(t) = 1$, then one of the values of the expression $\frac{1}{\sin(t) + \cos(t)}$ is _____.

1. $\frac{1}{\sqrt{3}}$ 2. $\frac{2}{\sqrt{3}}$ 3. $\frac{\sqrt{3}}{2}$ 4. $\sqrt{3}$

142. A can do a work in 20 days and B in 30 days. If they work on it together for 2 days, then what is the fraction of the work that is left?

1. $\frac{5}{7}$ 2. $\frac{5}{8}$ 3. $\frac{5}{6}$ 4. $\frac{3}{5}$

143. Find the value of $24 \div (3 - 8 \times 3 + 27) + 3$.

1. $\frac{6}{5}$ 2. $\frac{1}{2}$ 3. 7 4. $\frac{3}{2}$

144. If the radius of a sphere is 2.1 cm, then the volume of sphere is equal to:

1. 36.088 cm³ 2. 36.808 cm³
 3. 38.808 cm³ 4. 38.088 cm³

145. Study the given table (pictograph) and answer the question that follows.

The table (pictograph) shows the number of scouts in a school.

Class/Number of Scouts	☺ = 15 scouts
IV	☺☺☺☺☺☺
V	☺☺
VI	☺☺☺☺☺☺☺☺
VII	☺☺☺☺
VIII	☺☺☺

What is the total number of scouts in classes VI to VIII?

1. 200 2. 320 3. 195 4. 225

146. The sum of two number x and y (where x is greater than y) is equal to four times of their difference. Find the value of

$$\frac{5xy}{3(x^2 - y^2)}$$

1. $\frac{25}{16}$ 2. 16 3. $\frac{3}{16}$ 4. 25

147. A train covers 60 km at a speed of 80 km/h, 100 km at a speed of 90 km/h, and another 140 km at a speed of 120 km/h. Find the average speed for the complete journey. (Round to the nearest integer.)

1. 99 km/h 2. 105 km/h 3. 90 km/h 4. 115 km/h

148. The cost price of 36 articles is the same as the selling price of N articles. If the profit is 20%, then the value of N is:

1. 25 2. 42 3. 40 4. 30

149. If $x + y + z = 1$, $xy + yz + zx = -1$ and $xyz = -1$, then $(x^3 + y^3 + z^3)$ is equal to _____.

1. 0 2. 1 3. 2 4. 3

150. Simplify the given expression.

$$25 \div 5 \times 7 \text{ of } (5 + 7) - 13 (6 \times 4)$$

1. 112 2. 108 3. 126 4. 138

English Comprehension

151. Select the word which means the same as the group of words underlined in the given sentence.

These glass windows are so old and one can't even see through them, they need to be replaced.

1. Black 2. Opaque
 3. Dirty 4. Transparent

152. Select the most appropriate meaning of the given idiom. By leaps and bounds

1. Slowly 2. Rapidly
 3. Unknowingly 4. Normally

153. Select the most appropriate ANTONYM of the highlighted word. The worker is known to **exert** himself a lot.

1. stress 2. crouch 3. relax 4. emerge

154. Select the option that can be used as a one-word substitute for the given group of words.

A professional rider in horse races

1. Batsman 2. Jockey 3. Stuntman 4. Southpaw

155. Select the most suitable expression that can substitute the underlined part of the sentence without any change in meaning.

Planning to go for a movie just before the final-year examination is nothing but skating on thin ice.

1. doing hard work 2. enjoying the moment
 3. going to hill stations 4. being in a risky situation

156. Select the INCORRECTLY spelt word.

1. Equally 2. Occured 3. Unwilling 4. Argument

157. Parts of the following sentence have been given as options. Select the option that contains an error.

We were grateful for a book they gave us.

1. grateful for 2. they gave us
 3. a book 4. We were

158. Select the most appropriate meaning of the given phrase.

Hit the sack

1. Cracking the exams 2. Making money quickly
 3. Going to sleep 4. Running on the beach

159. Parts of the following sentence have been given as options. Select the option that contains an error. Can we go visit a Statue of Liberty on our trip to the United States?

1. Can we go
 2. visit a Statue of Liberty

3. on our trip to
 4. the United States?

160. Select the option that can be used as a one-word substitute for the given group of words. A woman having more than one husband at the same time

1. Monogamy 2. Polymathy 3. Polyandry 4. Endogamy

161. Select the most appropriate option that can substitute the underlined segment in the given sentence. Shakespeare is great than any other English poet.

1. was great than 2. was greater than
 3. s greatest than 4. is greater than

162. Select the option that is similar in meaning to the underlined word in the following sentence.

A good critic should also be a person of great candour.

1. will 2. resolution 3. honesty 4. power

163. Select the most appropriate meaning of the given idiom. Yeoman's service

1. Fraudulent service
 2. Working under a cruel master
 3. Excellent work done
 4. A thankless and tedious job

164. Select the most appropriate option that can substitute the underlined segment in the given sentence.

- I prefer walking than riding.
1. walking with riding
 2. walking above riding
 3. walking from riding
 4. walking to riding
165. Select the word from the sentence below, which is an antonym for the word 'uniformity' A great variety of birds is found in the sanctuaries of India.
1. Great
 2. Sanctuaries
 3. Found
 4. Variety
166. Select the most appropriate idiom for the underlined part in the given sentence: Sohan was very much perplexed to find that his younger brother Mohan had taken poison.
1. At any rate
 2. At logger heads
 3. At his disposal
 4. At his wit's end
167. Select the sentence that uses the given idiom correctly. Skating on thin ice
1. He was on thin ice after making a controversial statement.
 2. They were on thin ice due to the icy conditions on the road.
 3. They were on thin ice when they skated on the frozen lake.
 4. She was on thin ice while trying to balance on a tightrope.
168. Select the option that can be used as a one-word substitute for the given group of words.
Attempting to impress by affecting greater importance or merit than is actually possessed
1. Airy
 2. Pretentious
 3. Glorious
 4. Imperious
169. Select the word which means the same as the group of words given.
A society or company provides these convenient features
1. Equipment
 2. Facilitate
 3. Amenities
 4. System
170. Identify the most appropriate meaning of the given idiom. Bread and butter
1. Comfortable living
 2. Means of livelihood
 3. Money making
 4. The breakfast
171. Select the most appropriate segment to substitute the underlined words in the given sentence.
Youth is the time when the seeds of character is sown.
1. the seeds of character had been sown
 2. the seeds of character were sown
 3. the seeds of character will have been sowing
 4. the seeds of character are sown
172. Select the most appropriate option to substitute the underlined segment in the given sentence.
An awkward neither grammatically accurate sentence is the result of centre implanting.
1. awkward unless grammatically
 2. awkward either grammatically
 3. awkward beyond grammatically
 4. awkward but grammatically
173. Select the most appropriate meaning of the given idiom. Be in seventh heaven
1. To be ignored
 2. To be in a state of extreme happiness
 3. To start performing better
 4. To avoid talking about what's important
174. Select the INCORRECTLY spelt word.
1. Dessert
 2. Journey
 3. Weekend
 4. Mountan
175. The following sentence has been divided into four segments. One of them contains an error. Select the segment that contains the error from the given options. I am understanding; / you like her/ because she has /a generous nature.
1. I am understanding;
 2. because she has
 3. a generous nature
 4. you like her
176. Select the most appropriate synonym of the given word. Reckon
1. Merit
 2. Imagine
 3. Assess
 4. Count
177. Identify the most appropriate antonym of the given word. Freezing
1. brisk
 2. tropical
 3. summery
 4. gnawing
178. Select the most appropriate ANTONYM of the given word from the following sentence.
Confusing
The stars twinkled in the dark sky, guiding travellers on their journey.
1. Travellers
 2. Twinkled
 3. Journey
 4. Guiding
179. Three segments of the following sentence have been underlined and given as options. One of them may contain an error. Select the option that contains the error. If you don't find any error, mark 'No error' as your answer.
Since, his son has not yet completed the age of eighteen, he was reluctant to fulfil his son's demand of getting a motorbike.
1. to fulfil his son's demand
 2. No error
 3. he was reluctant
 4. of getting a motorbike
180. Select the most appropriate segment to substitute the underlined words in the given sentence.
The referee declared that the participant who will score the highest points in the tally will take away the cash prize of ₹50 lakh.
1. who can score the highest point
 2. who could score the highest point
 3. who scores the highest point
 4. who scores the highest point
181. In the following sentence, four words are underlined, out of which one word is MISSPELT. Select the MISSPELT word.
The shedule followed by my sister ultimately leads to stress and other adverse effects.
1. adverse
 2. ultimately
 3. followed
 4. shedule
182. The following sentence has been divided into four segments. Identify the segment that has a grammatical error. When he resigned, / the company offered him / a huge sum of money but / he refused to agree to it.
1. the company offered him
 2. When he resigned,
 3. he refused to agree to it.
 4. a huge sum of money but
183. Select the INCORRECTLY spelt word.
1. ettiquete
 2. elopement
 3. occasion
 4. rationalisation
184. Select the most appropriate option that can substitute the underlined segment in the given sentence. My friends are on a trip to the world.
1. within the world
 2. around the world
 3. by the world
 4. in the world
185. Select the most appropriate ANTONYM of the underlined word in the given sentence. The speaker delivered a profound speech that left the audience deeply moved.
1. Deep
 2. Shallow
 3. Inventive
 4. Occult
186. Parts of the following sentence have been given as options. Select the option that contains a spelling error. Joe was so tired that he could scarcely stand.
1. scarcely stand
 2. so tired that
 3. he could
 4. Joe was
187. Select the most appropriate synonym of the underlined word in the following sentence. He behaved ruthlessly with his junior, to say the least.
1. Weirdly
 2. Politely
 3. Inhumanly
 4. Unexpectedly
188. The following sentence has been split into four segments. Identify the segment that contains a spelling error. The precarious case of juvenile / delinquency against him / was

dismissed by the / jury in the first hearing.

1. delinquency against him
2. jury in the first hearing.
3. The precarious case of juvenile
4. was dismissed by the

189. Select the most appropriate ANTONYM of the underlined word.

The repetitive and monotonous task of data entry made the work seem incredibly long and tedious.

1. Pious
2. Threatening
3. Interesting
4. Precarious

190. Select the most appropriate option that can substitute the underlined segment in the given sentence. The Government must strive to provide a/an fair and square deal to the citizen of its country.

1. violent and immoral
2. honest and straightforward
3. exclusive and unreal
4. forward and backward

Comprehension:

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

Superheroes are fictional characters with 1) _____ powers who use their powers to fight crime and protect the public. Some popular superheroes include Superman, Batman, Spider-Man and Wonder Woman. Superheroes often have backstories that 2) _____ how they have gained their powers, 3) _____ being born with special powers, being bitten by a radioactive spider or being exposed to cosmic radiation. They usually have a specific outfit or clothing that they wear to hide their identity and protect 4) _____ while fighting crime. Superheroes have been a staple of popular culture 5) _____ decades, appearing in comics, movies, television shows, and video games.

191. Select the most appropriate option to fill in blank no. 1.

1. pragmatic
2. extraordinary
3. familiar
4. hereditary

192. Select the most appropriate option to fill in blank no. 2.

1. had explain
2. explain

3. explaining
4. was explain

193. Select the most appropriate option to fill in blank no. 3.

1. instead
2. subsequently
3. such as
4. therefore

194. Select the most appropriate option to fill in blank no. 4.

1. himself
2. herself
3. ourselves
4. themselves

195. Select the most appropriate option to fill in blank no. 5.

1. on
2. under
3. for
4. above

196. Find out the correct antonym of the following word: realize

1. Comprehend
2. Misunderstand
3. Understand
4. Grasp

197. Which of the following statements is correct?

1. Novels, films and speeches of leaders celebrate the modernity of nations
2. History books should be read again and again because they celebrate ancient nations.
3. Only modern people can imagine the existence of ancient nations.
4. Ancient India is an ancient civilization but not an ancient nation.

198. Why does the author of the passage ask us to forget the history that we were taught at school?

1. because the history book taught us that there are no ancient nations in the world
2. because only the modern people can imagine that way
3. because the history book asks us to celebrate festivals which make us believe that our nation is modern
4. because the history book taught us that our nation is ancient

199. What does the expression "drill into your heads" mean?

1. threaten someone repeatedly drill machine
2. repeatedly question someone regarding a certain issue
3. make someone learn or understand something by repeating it
4. force someone to move his/her head in a particular direction

200. Find out the correct synonym of the following word: Obvious

1. doubtful
2. clear
3. dubious
4. ambiguous

Answer Key

1. (1)	2. (2)	3. (3)	4. (4)	5. (2)	6. (1)	7. (3)	8. (3)	9. (4)	10. (1)
11. (3)	12. (2)	13. (1)	14. (4)	15. (4)	16. (2)	17. (1)	18. (2)	19. (3)	20. (2)
21. (4)	22. (4)	23. (4)	24. (3)	25. (4)	26. (2)	27. (2)	28. (4)	29. (2)	30. (1)
31. (4)	32. (2)	33. (1)	34. (2)	35. (1)	36. (4)	37. (3)	38. (1)	39. (3)	40. (2)
41. (3)	42. (3)	43. (2)	44. (3)	45. (4)	46. (1)	47. (2)	48. (1)	49. (1)	50. (1)
51. (3)	52. (2)	53. (4)	54. (2)	55. (4)	56. (1)	57. (2)	58. (3)	59. (2)	60. (4)
61. (3)	62. (3)	63. (3)	64. (3)	65. (3)	66. (2)	67. (2)	68. (4)	69. (1)	70. (2)
71. (2)	72. (3)	73. (1)	74. (2)	75. (1)	76. (3)	77. (2)	78. (2)	79. (3)	80. (4)
81. (2)	82. (2)	83. (4)	84. (1)	85. (1)	86. (4)	87. (4)	88. (4)	89. (3)	90. (1)
91. (4)	92. (2)	93. (3)	94. (2)	95. (4)	96. (1)	97. (1)	98. (3)	99. (2)	100. (1)
101. (4)	102. (4)	103. (1)	104. (3)	105. (2)	106. (3)	107. (3)	108. (2)	109. (3)	110. (2)
111. (2)	112. (1)	113. (2)	114. (4)	115. (2)	116. (4)	117. (3)	118. (3)	119. (4)	120. (1)
121. (2)	122. (1)	123. (4)	124. (1)	125. (2)	126. (3)	127. (2)	128. (4)	129. (1)	130. (1)
131. (4)	132. (2)	133. (3)	134. (2)	135. (3)	136. (3)	137. (4)	138. (2)	139. (1)	140. (1)
141. (1)	142. (3)	143. (3)	144. (3)	145. (4)	146. (1)	147. (1)	148. (4)	149. (2)	150. (2)
151. (2)	152. (2)	153. (3)	154. (2)	155. (4)	156. (2)	157. (3)	158. (3)	159. (2)	160. (3)
161. (2)	162. (3)	163. (3)	164. (4)	165. (4)	166. (4)	167. (1)	168. (2)	169. (3)	170. (2)
171. (4)	172. (4)	173. (2)	174. (4)	175. (1)	176. (4)	177. (2)	178. (4)	179. (3)	180. (3)
181. (4)	182. (3)	183. (1)	184. (2)	185. (2)	186. (1)	187. (3)	188. (1)	189. (3)	190. (2)
191. (2)	192. (2)	193. (3)	194. (4)	195. (3)	196. (2)	197. (4)	198. (4)	199. (3)	200. (2)

Answers with Explanations

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

'+' represents Male
'-' represents Female



G - = K's Brother ----- K - ——— L
G is the son's wife of Q.

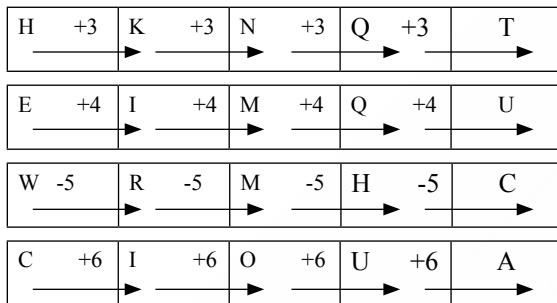
2. **Option (2) is correct.**

Table of Alphabetical series (point to remember)

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14

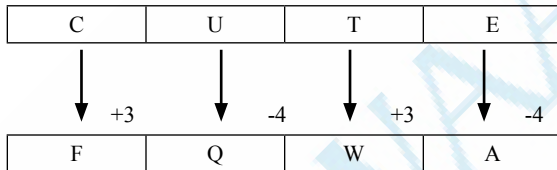
HEWC, KIRI, ?, QQHU, TUCA

Logic: -

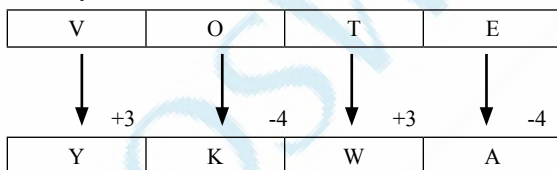


3. **Option (3) is correct.**

'CUTE' is written as 'FQWA'



Similarly,



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

(12, 36, 6)
(18, 54, 9)

Logic: -

$12 + 6 = 18 \times 2 = 36$
 $18 + 9 = 27 \times 2 = 54$
 $28 + 14 = 42 \times 2 = 84$

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

The required sequence is as follows: -

4- Listen

3- Litany

1- Literacy

2- Literature

5- Lithograph

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

$13 * 7 * 12 * 4 * 15 * 65$

Logic: -

Using BODMAS Rule

$13 + 7 + 12 \div 4 \times 15 = 65$

LHS:

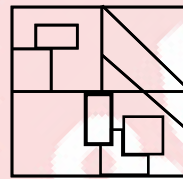
$13 + 7 + 3 \times 15$

$13 + 7 + 45 = 65 = \text{RHS}$

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



Logic: -

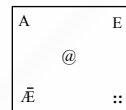


8. **Option (3) is correct.**



Logic: -

Follow the pattern and the symmetry. Hence, the next pattern will be



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

$14 - 7 \times 10 \div 1 + 7 = ?$

Logic: -

On interchanging

$14 \div 7 + 10 - 1 \times 7$

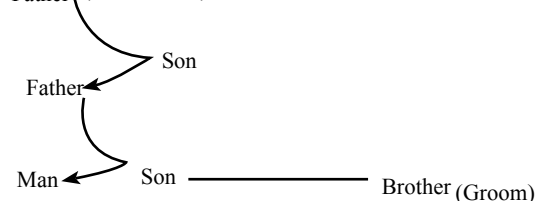
Using BODMAS Rule

$2 + 10 - 1 \times 7$

$2 + 10 - 7 = 5$

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

Father (Grandfather)



The groom is the brother of Man.

11. Option (3) is correct.

Logic: -
 $15 \times 3 = 45$
 And
 $25 \times 5 = 125$
 Similarly,
 $20 \times 4 = 80$

12. Option (2) is correct.

$247 + 102 = 349$
 $261 + 102 = 363$
 $294 + 102 = 396$
 Hence, (294,396) is the correct answer.

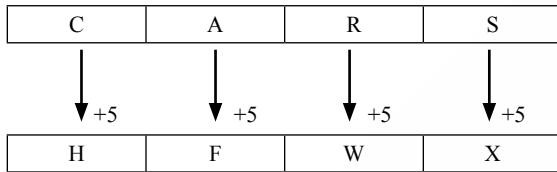
13. Option (1) is correct.

$10 * 2 * 1 * 8 * 11 * 8$
 Selecting combination of mathematical signs from option (1),
 $10 \div 2 - 1 \times 8 + 11 = 8$
 $LHS = 10 \div 2 - 1 \times 8 + 11$
 $= 5 - 1 \times 8 + 11$
 $= 5 - 8 + 11 = 8$

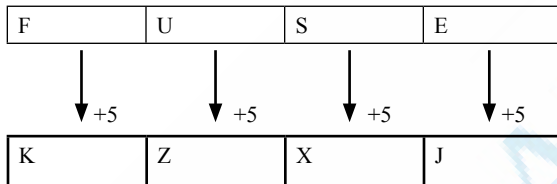
14. Option (4) is correct.

CARS : HFWX :: BOAT: GTFY :: FUSE : ?

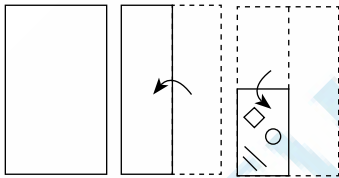
Logic: -



Similarly,

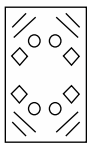


15. Option (4) is correct.



Logic: -

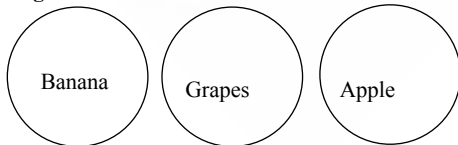
Follow the pattern and the symmetry. Hence,



16. Option (2) is correct.

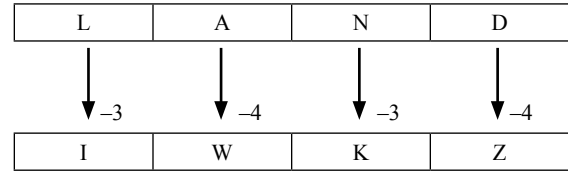
Bananas, Apple, Grapes

Logic: -



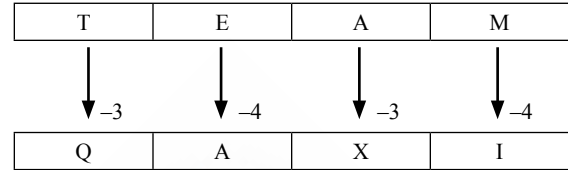
17. Option (1) is correct.

'LAND' is written as 'IWKZ'



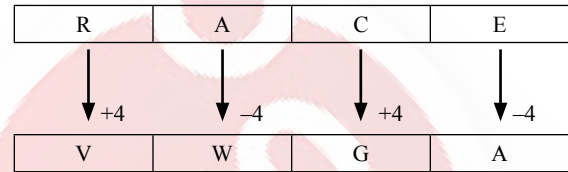
Similarly,

'TEAM' can be written as



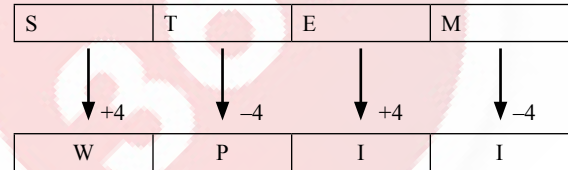
18. Option (2) is correct.

'RACE' is written as 'VWGA'



Similarly,

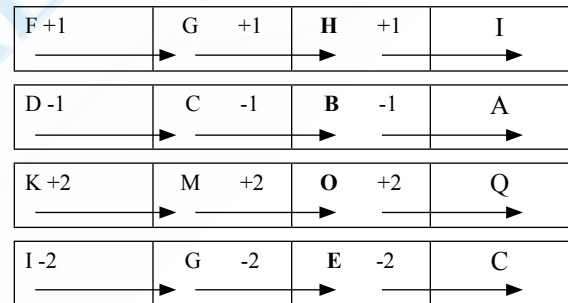
'STEM' can be written as



19. Option (3) is correct.

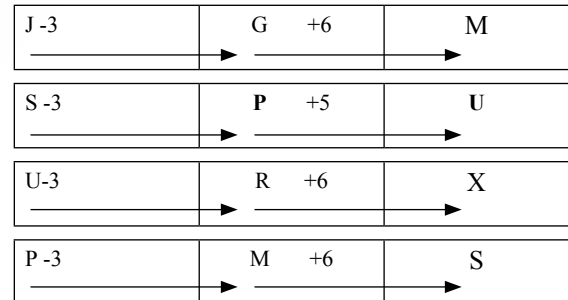
FDKI, GCMG, ?, IAQC

Logic: -



20. Option (2) is correct.

Logic: -



21. Option (4) is correct.

Table of Alphabetical series (point to remember)

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14

Logic: -

'DINESH' is coded as 12-27-42-15-57-24

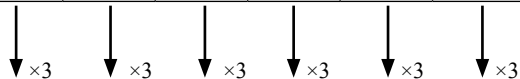
D	I	N	E	S	H
4	9	14	5	19	8



12	27	28	15	57	24
----	----	----	----	----	----

Similarly,

G	A	U	T	A	M
7	1	23	20	1	13



21	3	69	60	3	39
----	---	----	----	---	----

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

(9, 36, 12)
(12, 48, 16)

Logic: -

$9 \times 12 \div (12 - 9) = 36$

$12 \times 16 \div (16 - 12) = 48$

$21 \times 28 \div (28 - 21) = 84$

Hence, (21, 84, 28) is the correct answer.

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

7, 16, 43, 124, 367, ?

Logic: -

$7 \times 3 - 5 = 16$

$16 \times 3 - 5 = 43$

$43 \times 3 - 5 = 124$

$124 \times 3 - 5 = 367$

$367 \times 3 - 5 = 1096$

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

1, 1, 2, 3, 5, 8, 13, ?

Logic: -

$1 + 1 = 2$

$2 + 1 = 3$

$3 + 2 = 5$

$5 + 3 = 8$

$8 + 5 = 13$

$13 + 8 = 21$

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

25, 40, 70, 115, 175, ?

Logic: -

$25 + 15 = 40$

$40 + 30 = 70$

$70 + 45 = 115$

$115 + 60 = 175$

$175 + 75 = 250$

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

$12 \times 3 + 4 = 40$

$9 \times 3 + 4 = 31$

$16 \times 3 + 4 = 52$

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

$10 \div 63 \times 7 + 90 - 80 = 100$

Logic: -

Interchange \times and \div

Now, using the BODMAS rule,

$10 \times 63 \div 7 + 90 - 80 = 100$

LHS = $10 \times 63 \div 7 + 90 - 80 = 100$

= $10 \times 9 + 90 - 80 = 100$

= $90 + 90 = 180$

= $180 - 80 = 100 = \text{RHS}$

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

$22 \times 11 - 450 \div 50 + 500 = ?$

Logic: -

According to the question, rewriting the above equation:

$22 \div 11 \times 450 + 50 - 500$

Using BODMAS:

$2 \times 450 + 50 - 500$

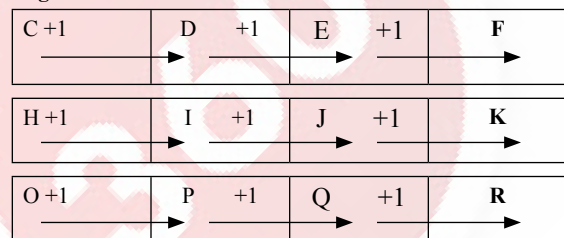
$900 + 50 - 500$

$950 - 500 = 450$

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

CHO, DIP, EJQ, ?

Logic: -



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

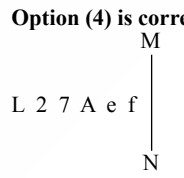


Logic: -

In the mirror image, the left becomes right, and the right becomes left. Hence,

w y E g k R

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

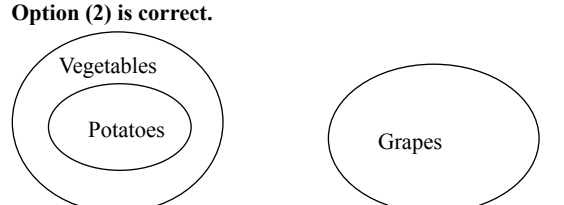


Logic: -

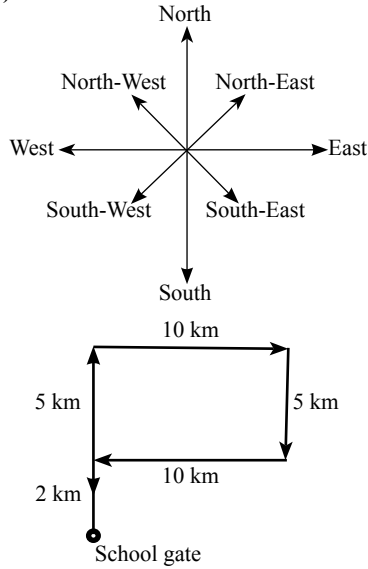
In the mirror image, the left becomes right, and the right becomes left. Hence,

f e A 7 2 L

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

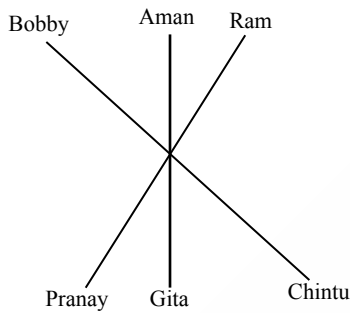


33. Option (1) is correct.



To reach the school gate, she should travel 10 km+2 km = 12 km

34. Option (2) is correct.

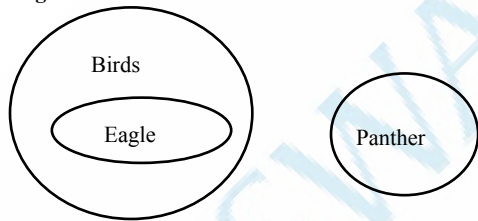


Aman is Ram and Bobby's immediate neighbour.

35. Option (1) is correct.

Panther, Bird, Eagle

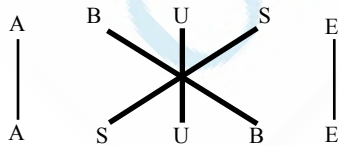
Logic: -



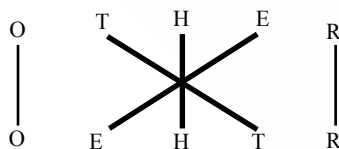
36. Option (4) is correct.

ABUSE : ASUBE :: BEGIN : BIGEN :: OTHER : ?

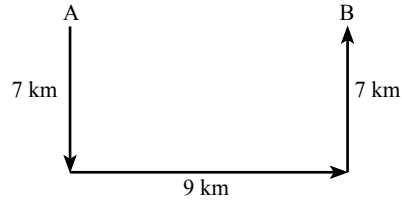
Logic: -



Similarly,

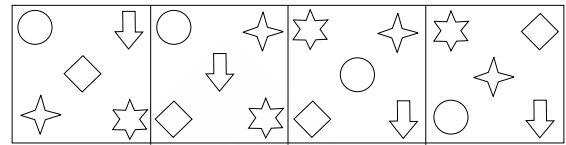


37. Option (3) is correct



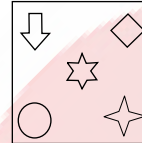
To reach point A from B, Preeti will drive 9 km.

38. Option (1) is correct.



Logic: -

Follow the pattern and the symmetry. Hence, the next pattern will be:



39. Option (3) is correct.

$$6 _ 2 _ 0 _ 8 = 20$$

Applying Mathematical signs from option (3):

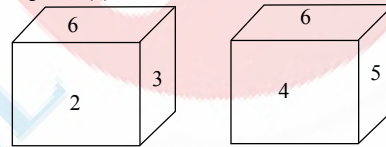
Logic: -

$$= 6 \times 2 + 0 + 8 = 20$$

$$\text{LHS} = 6 \times 2 + 0 + 8$$

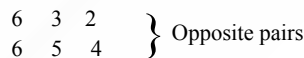
$$= 12 + 8 = 20 = \text{RHS}$$

40. Option (2) is correct.



Logic: -

Move clockwise from 6



Hence, 6 will be opposite to 1.

41. Option (3) is correct.

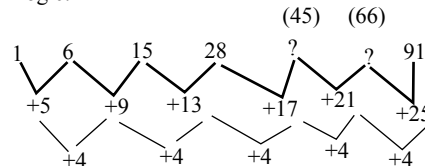
The required words are as follows: -

3. Conflagration
2. Conscience
4. Consequence
5. Considerable
6. Consignment
1. Consistence

42. Option (3) is correct.

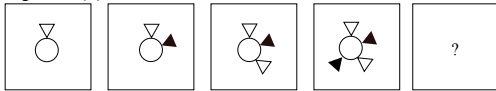
1, 6, 15, 28, ?, ?, 91

Logic: -



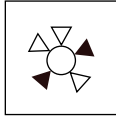
Hence, 45 and 66 are correct answers.

43. Option (2) is correct.



Logic: -

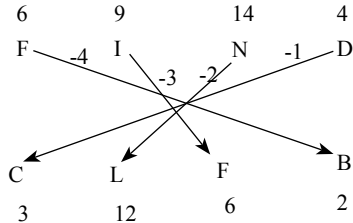
Follow the pattern and the symmetry. Hence, the next pattern will be:



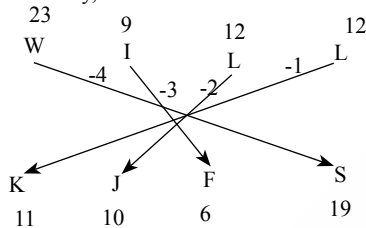
44. Option (3) is correct.

Logic: -

'FIND' is written as 'CLFB':



Similarly,



45. Option (4) is correct.

$$2 + 10 \times 12 - 4 \div 24 = 8$$

Applying Mathematical signs from option (4):

Logic:

Using BODMAS Rule:

$$2 + 10 \times 12 \div 4 - 24 = 8$$

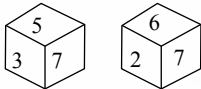
$$\text{LHS} = 2 + 10 \times 3 - 24$$

$$= 2 + 10 \times 3 - 24$$

$$= 2 + 30 - 24$$

$$= 8 = \text{RHS}$$

46. Option (1) is correct.



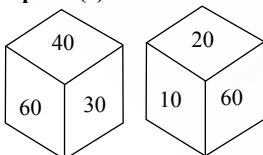
Logic: -

Move clockwise from the common face

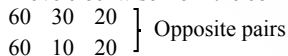


Hence, the face opposite to 8 will be 7.

47. Option (2) is correct.



Move clockwise from the common face

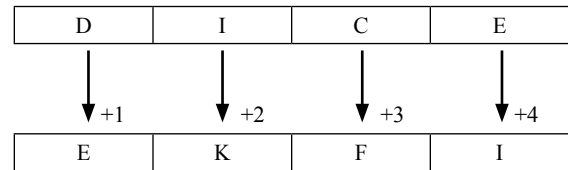


Hence, the face opposite to 50 is 60.

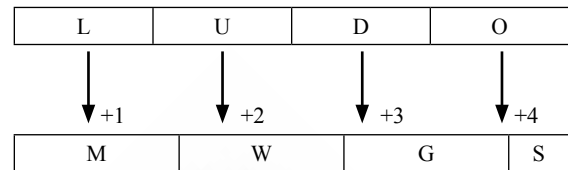
48. Option (1) is correct.

Logic: -

'DICE' is written as 'EKFI'



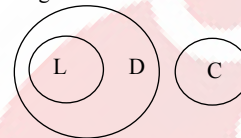
Similarly,



49. Option (1) is correct.

Dogs, Cats, Labradors

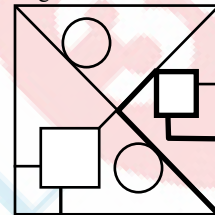
Logic: -



50. Option (1) is correct.



Logic: -



51. Option (3) is correct.

The Fundamental Duties of Indian citizens are enshrined in Article 51A of the Indian Constitution. These duties were added by the 42nd Amendment in 1976 and are intended to promote a sense of discipline and commitment among the citizens. "To vote in public elections" is not listed as a Fundamental Duty in the Indian Constitution. While voting is a significant right and a civic responsibility of every citizen, it is not mandated as a Fundamental Duty.

52. Option (2) is correct.

The Sukanya Samridhi Account Yojana (SSAY) is a savings scheme initiated by the Government of India, designed for parents of girl children. This scheme encourages parents to create a financial fund for their daughter's future education and marriage expenses. Under the Sukanya Samridhi Account Yojana (SSAY), the minimum amount that needs to be deposited in one financial year is ₹250.

53. Option (4) is correct.

Ustad Asad Ali Khan (1937-2011) was a highly esteemed Indian classical musician celebrated for his expertise in the Rudra veena, a rare and ancient string instrument. The Rudra veena, also referred to as being, is a large plucked instrument featured in Indian classical music, noted for its deep, resonant tones. This instrument holds significant historical and cultural importance within the Dhrupad tradition of Indian classical music.

54. Option (2) is correct.

The thin filamentous extensions that motile bacterial cells have from their cell wall are called flagella. Flagella are long, whip-like structures that protrude from the cell wall of motile bacteria. They are primarily responsible for locomotion, allowing bacteria to move towards favourable environments or away from harmful ones through a process called chemotaxis. Flagella rotate like propellers, driving the cell through its environment.

55. Option (4) is correct.

The Fundamental Duties were added to the Indian Constitution through the 42nd Amendment Act of 1976, following the recommendations of the Swaran Singh Committee. These duties are outlined in Part IVA of the Constitution, specifically under Article 51-A. They serve to remind citizens that along with enjoying fundamental rights, they also have responsibilities towards the nation.

56. Option (1) is correct.

The Self Help Group – Bank Linkage Programme (SHG-BLP) was initiated by the National Bank for Agriculture and Rural Development (NABARD) in 1992. This program aimed to improve the access of poor rural populations, particularly women, to the formal banking sector. It is one of the largest and most successful microfinance initiatives in the world.

57. Option (2) is correct.

Vasco da Gama, a Portuguese explorer, became the first European to reach India by sea on May 17, 1498, discovering a new all-sea route. This event marked a pivotal moment in history, as it opened up sea-based trade with India. European nations had been exploring the world since the early 15th century, with voyages funded by their rulers. The newfound access to India's cotton and spices significantly boosted the Portuguese economy.

58. Option (3) is correct.

The Finance Commission of India is outlined in Article 280 of the Indian Constitution. This article mandates the President of India to establish a Finance Commission. The primary role of the Finance Commission is to recommend how the net proceeds of taxes should be distributed between the Central and State governments and among the States themselves. Additionally, it addresses various aspects of financial relations between these two levels of government.

59. Option (2) is correct.

Dussehra, also known as Vijayadashami, is celebrated in the month of Ashvina of the Hindu calendar. This is the seventh month of the Hindu calendar, typically falling in September-October. Dussehra is celebrated during this month, usually on the 10th day of Ashvina.

60. Option (4) is correct.

The National Air Sports Policy was officially introduced in 2022. This policy seeks to promote and advance air sports in India by creating a structured framework and supporting infrastructure for activities such as para-gliding, skydiving, and gliding.

61. Option (3) is correct.

Megasthenes was a Greek ambassador sent by Seleucus I Nicator to the court of Chandragupta Maurya. He wrote a detailed account of Mauryan India in his book, 'Indica'.

62. Option (3) is correct.

Kathakali, a classical dance form from Kerala, is not part of Odia culture. Paika, a martial dance, Gotipua, performed by young boys dressed as girls, and Dalkhai, a traditional folk dance performed during festivals, are all integral to Odisha's cultural heritage. These dances reflect the region's rich artistic traditions and are performed during various cultural and religious occasions in Odisha.

63. Option (3) is correct.

The Eastern Ghats is a series of hills running parallel to the eastern coast of India. They have a lower elevation compared to the Western Ghats, with an average height of around 600 meters (approximately 2,000 feet) above sea level.

64. Option (3) is correct.

The Commonwealth Fencing Championship 2022 was hosted by the United Kingdom. The inaugural Commonwealth Games were held in Hamilton, Ontario, Canada, while the 2022 Commonwealth Games took place in Birmingham, United Kingdom. The 2026 edition is set to be hosted in Victoria, Australia. This marked the third time England has hosted the Commonwealth Games. India also had the honour of hosting the event in 2010.

65. Option (3) is correct.

Jyotirao Govindrao Phule was a prominent social reformer in Maharashtra. Along with his wife, Savitribai Phule, he established the first girls' school in Poona (now Pune). He was deeply committed to the upliftment of women and worked vigorously for the promotion of widow remarriage and the education of girls. His efforts were crucial in advancing social reforms in 19th-century Maharashtra.

66. Option (2) is correct.

Arjun Singh Dhurve is a distinguished tribal dancer from the Baiga community, recognised for his significant contributions to the preservation and promotion of Baiga dance forms. He was honoured with the Padma Shri Award in 2022 for his outstanding work in the field of tribal arts.

67. Option (2) is correct.

The structural formula $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$ represents a straight-chain hydrocarbon with six carbon atoms, which is known as n-Hexane. "n" stands for normal, indicating a straight-chain configuration.

68. Option (4) is correct.

As per Article 75(3) of the Indian Constitution, the Council of Ministers is collectively responsible to the Lok Sabha, meaning that the entire Council must maintain the confidence of the Lok Sabha to remain in office.

69. Option (1) is correct.

Article 158 states that when a person is appointed as the Governor of two or more states, the emoluments and allowances payable to the Governor shall be allocated among the states as determined by the President.

70. Option (2) is correct.

The programme that is NOT a part of the Tenth Five-Year Plan is the Drought Prone Area Programme. This programme was initiated during the Seventh Five-Year Plan, not the Tenth Five-Year Plan. It aimed to address issues related to drought in specific areas.

71. Option (2) is correct.

Fusion, also known as melting, is the process in which a solid turns into a liquid when heat is applied. This is the direct opposite of solidification (or freezing), where a liquid turns into a solid as it cools down. Therefore, fusion and solidification are reverse processes of each other.

72. Option (3) is correct.

The biogeochemical cycle is a natural cycle that includes both gaseous and sedimentary cycles. It's a slow-moving pool of nutrients that moves through both biotic and abiotic components of an ecosystem. The cycle picks up elements from the abiotic components and incorporates them into living cells.

73. **Option (1) is correct.**
 Hirakud Dam - Mahanadi River
 Nagarjuna Sagar Dam - Krishna River
 Sardar Sarovar Dam - Narmada River
 Tehri Dam - Bhagirathi River
 Rana Pratap Sagar Dam - Chambal River
74. **Option (2) is correct.**
 The Indian Food Guide Pyramid includes pulses and legumes for protein and fibre, milk, meat, and their products for essential nutrients. It also incorporates fats and sugars, though they should be consumed in moderation. Alcoholic beverages are excluded from the pyramid due to their lack of nutritional benefits and potential negative health effects.
75. **Option (1) is correct.**
 The Shailendra kings, who had close contact with Indian rulers, were followers of Buddhism. The Shailendra dynasty, which ruled parts of Java and Sumatra from the 8th to the 9th century, was known for its strong patronage of Buddhism. They built significant Buddhist monuments, including the famous Borobudur temple in Java. Their close contacts with Indian rulers, who were often Buddhists, reinforced their own Buddhist affiliations.
76. **Option (3) is correct.**
 Figure "B" accurately depicts the inter-conversion of the three states of matter.
77. **Option (2) is correct.**
 The "Kathasaritsagara," meaning "Ocean of the Streams of Stories," is a renowned ancient Indian anthology of tales. Originally composed in Sanskrit, this significant work is attributed to the poet Somadeva. It stands out as an important piece of classical Indian literature, offering a rich tapestry of stories that capture the cultural and moral essence of its era.
78. **Option (2) is correct.**
 Education is indeed a crucial aspect of development but is usually considered a means to achieve broader goals rather than a primary goal in itself within the framework of the five-year plans. The five-year plans tend to focus more directly on economic growth, self-reliance, and equity, with education being integrated into these goals as part of a broader strategy.
79. **Option (3) is correct.**
 Among the states listed, Arunachal Pradesh (17) stands out as the odd one due to its significantly lower population density. While Bihar (1106), Uttar Pradesh (828), and Tamil Nadu (555) are known for their high population densities, with large populations concentrated in relatively small areas, Arunachal Pradesh has a much lower population density. This is primarily because, of its extensive mountainous and forested terrain, which limits population distribution compared to the other states.
80. **Option (4) is correct.**
 The two main parts corresponding to Lasya and Tandava elements in Manipuri dance are Jagoi and Cholom. Jagoi represents the Lasya aspect, which is characterised by graceful, delicate movements and is often performed by female dancers. Cholom represents the Tandava aspect, which involves vigorous, energetic movements and is typically performed by male dancers.
81. **Option (2) is correct.**
 According to the Census of India 2011, Bihar had the lowest literacy rate among the states listed.
 Bihar's literacy rate was approximately 63.8%.
 Jharkhand had a higher literacy rate at around 67.8%.
 Odisha had a literacy rate of about 73.5%, which was higher than both Bihar and Jharkhand.
- Tamil Nadu had the highest literacy rate among these states, at approximately 80.3%.
82. **Option (2) is correct.**
 R.K. Narayan wrote 'The Guide', which was first published in 1958. The novel is one of his most celebrated works and explores themes of morality, spirituality, and transformation in the life of its protagonist.
83. **Option (4) is correct.**
 Shyamamani Devi is a renowned exponent of Odishi music, a classical music tradition from Odisha. Her significant contributions to this genre were recognized with the Padma Shri award in 2022.
84. **Option (1) is correct.**
 Gluten is a group of proteins found in wheat, barley, and rye. It is responsible for the elasticity and texture of the dough, making it essential in baking and other grain-based products.
85. **Option (1) is correct.**
 Faraizi Movement – Haji Shariatullah
 Mohammedan Literary Society – Nawab Abdul Latif
 Indian Patriotic Association – Sir Syed Ahmad Khan
 Wahabi Movement – Sayyid Ahmad Bareilvi
86. **Option (4) is correct.**
 Diwali is celebrated on the last day of the dark fortnight (Amavasya) of the Hindu month of Kartika. Amavasya, or the new moon night, signifies the end of the dark phase of the lunar cycle and the start of the bright phase.
87. **Option (4) is correct.**
 Chitra Visweswaran is acclaimed for her expertise in Bharatnatyam, a classical dance form originating from Tamil Nadu, India. She is widely recognised for her significant contributions and performances in this traditional dance genre.
88. **Option (4) is correct.**
 The Golden Quadrilateral is a major road development project in India that connects four major cities: Delhi, Mumbai, Chennai, and Kolkata. The project, aimed at improving road connectivity and facilitating economic growth, covers a total length of approximately 5,846 kilometres.
89. **Option (3) is correct.**
 Seshachalam Hills, located in the southern part of Andhra Pradesh, is renowned for its rich biodiversity and unique flora and fauna. This biosphere is known for its habitat of endemic species like the Red Sanders (a valuable tree species) and the Slender Loris (a small primate).
90. **Option (1) is correct.**
 The term 'Dribbling' is used in the game of Basketball. Dribbling refers to the technique of bouncing the ball continuously while moving around the court. It is a fundamental skill in basketball used to advance the ball, evade defenders, and create scoring opportunities.
91. **Option (4) is correct.**
 In the MUDRA Yojana, M stands for Micro. MUDRA stands for Micro Units Development and Refinance Agency. The scheme is aimed at providing financial support to micro and small enterprises, especially those in the unorganized sector. Micro refers to the focus on very small businesses and enterprises, which are the primary beneficiaries of this initiative.
92. **Option (2) is correct.**
 The renowned Assamese musician, singer, and composer Bhupen Hazarika was honoured with the Bharat Ratna posthumously in 2019. This highest civilian award in India is given for exceptional contributions in the fields of art, literature, science, and public service.

93. Option (3) is correct.

The climate of a place is influenced by several factors, but the distance between two cities does not directly control it. Key factors that impact climate include ocean currents, which affect temperature and precipitation patterns; latitude, which determines the amount of solar energy received and thus influences temperature; and relief features, which can alter local climate by affecting wind patterns and precipitation. While the distance between cities might affect local weather variations, it is not a primary determinant of climate.

94. Option (2) is correct.

Article 48A directs the State to protect and improve the environment and to safeguard forests and wildlife. The Biological Diversity Act aims to protect biological diversity and ensure its sustainable use, aligning with the goals outlined in Article 48A.

95. Option (4) is correct.

The sudden application of brakes in a vehicle is not an example of inertia at rest. Inertia at rest refers to an object's tendency to remain stationary unless acted upon by an external force. Examples of this include falling backwards when a vehicle accelerates suddenly, as the body resists the change in motion; dust particles falling off when dusting a cloth, as they resist the change from being at rest; and leaves or fruits detaching when a plant is shaken, as they resist the motion. In contrast, braking involves inertia of motion, where the vehicle's occupants resist the sudden deceleration.

96. Option (1) is correct.

The Khelo India Youth Games is a major sports event in India aimed at promoting sports among the youth. The 5th edition, held in 2023, featured a diverse range of sports to encourage widespread participation. 27 sports were included in the competition, where athletes from various regions competed for a total of 1,936 medals.

97. Option (1) is correct.

Mendeleev's periodic table, first published in a German journal in 1872, represents a significant milestone in the field of chemistry. Mendeleev's Periodic Table, published in 1872, was a pioneering work that organised elements based on their atomic masses and revealed the periodic nature of elemental properties. It significantly contributed to the development of chemistry by predicting undiscovered elements and establishing a systematic framework for studying chemical elements.

98. Option (3) is correct.

The mountain peak located in the Karakoram Range is K2. K2, also known as Mount Godwin-Austen, is the second-highest mountain in the world and is situated in the Karakoram Range. The Karakoram Range spans the borders between Pakistan, India, and China, and K2 is one of its most prominent peaks.

99. Option (2) is correct.

The Kharif season begins with the onset of the monsoon around June-July and continues until the end of the monsoon around September-October. During this period, Kharif crops are planted at the start of the rains and harvested by the end of the rainy season. These crops thrive in the warm temperatures and abundant water provided by the monsoon. Rice, in particular, requires substantial water and warmth, making it well-suited for the Kharif season. It is sown at the start of the monsoon and harvested towards the end of the Kharif period.

100. Option (1) is correct.

The actor whose autobiography is titled 'Bad Man' is Gulshan Grover. Gulshan Grover is an Indian actor renowned for his extensive work in Bollywood and various regional films. He gained prominence for his role as a villain in numerous movies

and became one of the most recognizable antagonists in Indian cinema.

101. Option (4) is correct.

$$\text{Value of } 3\frac{1}{5} \text{ of } 2\frac{3}{4} \div \frac{11}{3} + \left(2\frac{1}{5} + 1\frac{2}{5} \text{ of } 1\frac{3}{7} - 2\frac{1}{3}\right),$$

Using BODMAS rule

$$= 3\frac{1}{5} \text{ of } 2\frac{3}{4} \div \frac{11}{3} + \left(2\frac{1}{5} + \frac{2}{5} \text{ of } \frac{10}{7} - 2\frac{1}{3}\right)$$

$$= \frac{16}{5} \text{ of } \frac{11}{4} \div \frac{11}{3} + \left(\frac{11}{5} + 2 - \frac{7}{3}\right)$$

$$= \frac{16}{5} \text{ of } \frac{11}{4} \div \frac{11}{3} + \left(\frac{11}{10} - \frac{7}{3}\right)$$

$$= \frac{16}{5} \text{ of } \frac{11}{4} \div \frac{11}{3} - \frac{37}{30}$$

$$= \frac{44}{5} \div \frac{11}{3} - \frac{37}{30}$$

$$= \frac{12}{5} - \frac{37}{30}$$

$$= \frac{35}{30} = \frac{7}{6} = 1\frac{1}{6}$$

102. Option (4) is correct.

$$\text{Given, } \cot \theta = \frac{28}{45}$$

$$\text{Using, } \cot \theta = \frac{\text{Base}}{\text{Perpendicular}}$$

$$\text{So, Hypotenuse} = \sqrt{\text{Base}^2 + \text{Perpendicular}^2} = \sqrt{45^2 + 28^2}$$

$$= \sqrt{2025 + 784} = \sqrt{2809} = 53$$

$$\text{So, value of } \sin \theta - \cos \theta = \frac{45}{53} - \frac{28}{53} = \frac{17}{53}$$

103. Option (1) is correct.

Let the numbers are $3x$ and $7x$.

According to the question,

$$\Rightarrow \frac{3x-11}{7x-11} = \frac{7}{20}$$

$$\Rightarrow 60x - 220 = 49x - 77$$

$$\Rightarrow 11x = 143$$

$$\Rightarrow x = 13$$

So, the smaller number = $3 \times 13 = 39$

104. Option (3) is correct.

Let the weekly salaries of Ranita and Bhaskar are Rs. R and B respectively.

$$\text{According to the question, } \frac{57}{100} \times R = \frac{76}{100} \times B$$

$$\Rightarrow \frac{R}{B} = \frac{4}{3} \Rightarrow R = \frac{4}{3}B$$

$$\text{And also given that, } \frac{R-400}{B} = \frac{6}{5}$$

$$\Rightarrow \frac{4}{3}B - 400 = \frac{6}{5}B$$

$$\Rightarrow \frac{2}{15}B = 400$$

$$\Rightarrow B = 3000$$

So, salary of Bhaskar = Rs. 3000

105. Option (2) is correct.

$$\text{Value of } \left[18 - 3 \times \left\{3 - 3 \times \left(3 + \frac{1}{3} - 3\right) + 3 \div \frac{1}{3} + 3\right\} - 4 \times 2\right]$$

$$\begin{aligned}
 &= \left[18 - 3 \times \left\{ 3 - 3 \times (9 - 3) + 3 + \frac{1}{3} + 3 \right\} - 4 \times 2 \right] \\
 &= \left[18 - 3 \times \left\{ 3 - 3 \times 6 + 3 + \frac{1}{3} + 3 \right\} - 4 \times 2 \right] \\
 &= [18 - 3 \times \{3 - 3 \times 6 + 9 + 3\} - 4 \times 2] \\
 &= [18 - 3 \times \{3 - 18 + 9 + 3\} - 4 \times 2] \\
 &= [18 - 3 \times \{-3\} - 4 \times 2] \\
 &= [18 + 9 - 8] \\
 &= 19
 \end{aligned}$$

106. Option (3) is correct.

The difference between the number of students who passed with 60 as cut-off marks in Science and those who passed with 60 as cut-off marks in aggregate = $43 - 39 = 4$

107. Option (3) is correct.

Given that the circumference of bowl = 88 cm

$$\Rightarrow 2\pi r = 88$$

$$\Rightarrow r = 88 \times \frac{7}{22} \times \frac{1}{2}$$

$$\Rightarrow r = 14 \text{ cm}$$

So, the volume of the hemispherical bowl = $\frac{2}{3}\pi r^3$

$$= \frac{2}{3} \times \frac{22}{7} \times 14 \times 14 \times 14 = \frac{17248}{3} \text{ cm}^3$$

The volume of hemisphere glass = $\frac{2}{3}\pi r^3$

$$= \frac{2}{3} \times \frac{22}{7} \times \frac{7}{2} \times \frac{7}{2} \times \frac{7}{2} = \frac{539}{6} \text{ cm}^3$$

$$\text{So, number of persons to be served} = \left(\frac{\frac{17248}{3}}{\frac{539}{6}} \right) = 64$$

108. Option (2) is correct.

Total number of votes = 15000

$$\text{So, the number of valid votes} = 15000 \times \frac{75}{100} = 11250$$

Now, the number of valid votes that the other candidate got

$$= 11250 \times \frac{100 - 60}{100} = 4500$$

109. Option (3) is correct.

Let the time for which the money borrowed = t years

$$\text{Using, SI} = \frac{PRT}{100}$$

$$\text{According to the question, } \frac{1760 \times 6 \times t}{100} + \frac{2240 \times 9 \times t}{100} = 1536$$

$$\Rightarrow 10560t + 20160t = 153600$$

$$\Rightarrow t = 5 \text{ years}$$

110. Option (2) is correct.

The percentage increase in employees in the year 2022 over

$$2019 = \frac{35 - 20}{20} \times 100 = 75\%$$

111. Option (2) is correct.

$$\text{Given, } \sec 6A = \operatorname{cosec} (A - 29^\circ)$$

$$\Rightarrow \sec 6A = \sec (90 - (A - 29^\circ))$$

$$\Rightarrow 6A = 119 - A$$

$$\Rightarrow A = 17$$

112. Option (1) is correct.

The distance between police and thief = 280 m

$$\text{Relative speed} = 12 - 7 = 5 \text{ km/h} = \frac{5}{18} \text{ m/s} = \frac{25}{18} \text{ m/s}$$

$$\text{So, required time} = \frac{280}{\frac{25}{18}} = \frac{1008}{5} \text{ sec} = \frac{1008}{5 \times 60} \text{ min} = 3 \frac{9}{25} \text{ min}$$

113. Option (2) is correct.

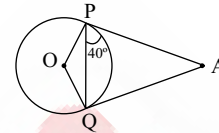
We know that If a chord of a circle is equal to the radius of the circle, then the angle subtended by the chord at a point on the minor arc is 150° and also at a point on the major arc is 30° .

So, the angle subtended by the chord at centre = $2 \times 30 = 60^\circ$

$$\text{Hence, the length of the arc} = \frac{60}{360} \times 2 \times \pi \times r$$

$$= \frac{60}{360} \times 2 \times \frac{22}{7} \times 21 = 22$$

114. Option (4) is correct.



We know, $AP = AQ$

In $\triangle APQ$, $\angle APQ = \angle AQP = 40^\circ$

(tangent drawn from an external point to a circle is always equal in length.)

$$\therefore \angle PAQ = 180 - (40 + 40) = 100^\circ$$

(since $AP = AQ$, therefore using equal sides have equal angles.)

We also have, $\angle OPQ = \angle OQA = 90^\circ$

$\therefore \square OPAQ$,

(The tangent at any point of a circle is perpendicular to the radius through the point of contact.)

$$\begin{aligned} \angle POQ &= 360^\circ - [90 + 90 + 100] \\ &= 80^\circ \end{aligned}$$

115. Option (2) is correct.

Given distance = 1 km

$$\text{And time taken} = 12 \text{ min} = \frac{12}{60} = \frac{1}{5} \text{ hr}$$

$$\text{So, the speed of man in still water} = \frac{1}{\frac{1}{5}} = 5$$

Let the speed of the stream = x km/hr

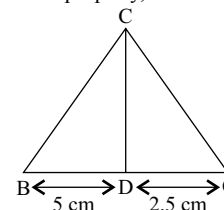
$$\text{According to the question, } \frac{13}{60} = \frac{1}{5 - x}$$

$$\Rightarrow 65 - 13x = 60$$

$$\Rightarrow x = \frac{5}{13} \text{ km/hr}$$

116. Option (4) is correct.

Using angle bisector property,



$$\frac{AB}{AC} = \frac{BD}{DC}$$

$$= \frac{5}{2.5} = \frac{2}{1}$$

$$\therefore AB : AC = 2 : 1$$

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

$$\text{Using, average speed} = \frac{\text{total distance}}{\text{total time}} = \frac{20 + 25 + 15}{\frac{1}{4} + \frac{1}{4} + \frac{1}{4}} = 80$$

$$= \frac{\pi r}{4} \left(\frac{r}{4} + 4l \right)$$

$$= \pi r \left(\frac{r}{16} + l \right)$$

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

Let the total cost = x
 Total cost of utilized raw material = $0.775x$
 According to the question, the cost of manufacturing =
 Now, total cost = $x + 0.62x = 1.62x$
 So, the selling price = $\frac{120}{100} \times 1.62x = 1.944x$
 Now the marked price = $\frac{100}{80} \times 1.944x = 2.43x$

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

Overall discount percentage according to option (A)
 $= 24 + 27 - \frac{24 \times 27}{100} = 44.52\%$
 Overall discount percentage according to option (B)
 $= \frac{3}{8} \times 100 = 37.5\%$
 Overall discount percentage according to option (C)
 $= \frac{4}{10} \times 100 = 40\%$
 Hence, option (B) has the minimum discount percentage.

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

The quantity of acid in the given solution = $\frac{30}{100} \times 12 = 3.6 \text{ l}$
 And the quantity of water = $12 - 3.6 = 8.4 \text{ l}$
 Let, the water added to make it 80% in the solution be $x \text{ l}$.
 According to the question, $\frac{3.6}{8.4 + x} = \frac{1}{4}$
 $\Rightarrow 8.4 + x = 14.4$
 $\Rightarrow x = 14.4 - 8.4 = 6$

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

According to the question, $\frac{4}{a} = \frac{16a}{81}$
 $\Rightarrow a = \frac{9}{2}$

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

The percentage profit margin on revenue of company Z in
 $2016 = \frac{847}{2057} \times 100 = 41.18\%$

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

Value of $52 - [18 \div 3 + 3 + (18 - 11) \text{ of } 4]$,
 $= 52 - [18 \div 3 + 3 + 7 \text{ of } 4]$
 $= 52 - [18 \div 3 + 3 + 28]$
 $= 52 - [6 + 3 + 28]$
 $= 52 - 37$
 $= 15$

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

Let the height of the parallelogram = $x \text{ cm}$
 So, the length of the parallelogram = $2x \text{ cm}$
 Using, area of parallelogram = base \times height
 $\Rightarrow 338 = 2x \times x$
 $\Rightarrow x = 13$
 So, the height of the parallelogram = 13 cm

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

Using the total surface area of the cone = $\pi r (r + l)$

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

Value of $35 - [28 - (60 \div 4 + 26 \div 13)]$,
 $= 35 - [28 - (15 + 2)]$
 $= 35 - [28 - 17]$
 $= 35 - 11$
 $= 24$

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

Time taken by A alone = 200 days
 Time taken by B alone = 100 days
 Let total work = LCM (200, 100) = 200 units
 So, efficiency of A = 1 unit/day
 And efficiency of B = 2 unit/day
 Work done in every 3 days cycle = $(1+2) + 1 + 2 = 6$ unit
 So, work done in 33 cycles of 3 days = 6 = 198 units
 Next day, time taken by A and B together = $\frac{2}{3}$ days
 So, the total number of days = $33 \times 3 + \frac{2}{3} = 99\frac{2}{3}$ days

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

Required percentage = $\frac{144}{910} \times 100 = 15.82\%$

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

Equivalent discount percentage for two successive discounts
 of 20% and 20% = $20 + 20 - \frac{20 \times 20}{100} = 36\%$
 Now total discount percentage for two successive discounts of
 10% and 36% = $\frac{10 \times 36}{100} = 42.4\%$

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

In starting, shares of Pandey = $800000 \times \frac{5}{100} = 40000$
 According to the question, after offering 10000 shares by
 Varma,
 Total shares of Pandey = $40000 + 10000 = 50000$

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

Let the total number of votes = y
 Let the number of votes the loser got in the election = x
 So, the number of votes the winner got = $x + 1456$
 According to the question, $2x + 1456 + 84 = \frac{88}{100}y$
 $\Rightarrow x + 770 = \frac{22}{50}y$ (1)

Also, $x + 1456 = \frac{54}{100}y$

$\Rightarrow x = \frac{27}{50}y - 1456$ (2)

By (1) and (2),
 $Y = 6860$

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

Slant length of cone = $\sqrt{21^2 + 28^2} = \sqrt{441 + 784} = 35 \text{ m}$

Curved surface area of cone = $\pi r l = \frac{22}{7} \times 21 \times 35 = 2310 \text{ m}^2$

Let the required length of cloth = x m
 According to the question, $5 \times x = 2310$
 $\Rightarrow x = 462$ m

133. Option (3) is correct.

$$\begin{aligned} \text{Value of } & 12 + 24 \div 2 - 7 \times 30 \div 6 + (5 + 4) \times 8 + 8 \div 8 - 8, \\ & = 12 + 12 - 7 \times 5 + 9 \times 8 + 1 - 8 \\ & = 12 + 12 - 35 + 72 + 1 - 8 \\ & = 54 \end{aligned}$$

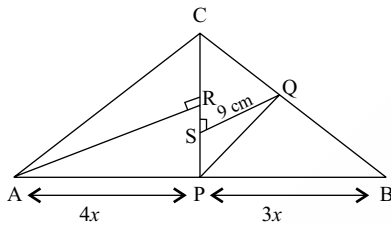
134. Option (2) is correct.

$$\text{Value of } 3\frac{2}{3} \div 2\frac{1}{5} \times \frac{1}{4} \times \left(1 + \frac{3}{1 - \frac{2}{5}} \right)$$

Using BODMAS rule

$$\begin{aligned} & = \frac{11}{3} \div \frac{11}{5} \times \frac{1}{4} \times (1 + 5) \\ & = \frac{5}{3} \times \frac{1}{4} \times 6 \\ & = 2\frac{1}{2} \end{aligned}$$

135. Option (3) is correct.



$\triangle BPQ \sim \triangle BAC$,

$$\frac{PQ}{AC} = \frac{BP}{BA}$$

$$\Rightarrow \frac{PQ}{AC} = \frac{3x}{4x + 3x} = \frac{3}{7}$$

Now $\triangle RAC \sim \triangle PSQ$

$$\frac{AR}{QS} = \frac{AC}{PQ}$$

$$\Rightarrow \frac{AR}{9} = \frac{7}{3}$$

$$\therefore AR = 21$$

136. Option (3) is correct.

The average number of Avon and fire stone tires sold together

$$= \frac{21 + 14}{100} \times \frac{1350}{2} = 236.25$$

The average number of Good Year and fire Dunlop tires sold together

$$= \frac{15 + 12}{100} \times \frac{1350}{2} = 182.25$$

$$\text{So, required difference} = 236.25 - 182.25 = 54$$

137. Option (4) is correct.

Given, $x + y = 12$

And $xy = 27$

Using, $(x - y)^2 = (x + y)^2 - 4xy$

$$\Rightarrow (x - y)^2 = 12^2 - 36$$

$$\Rightarrow x - y = 6$$

By (1) and (2),

$$x = 9 \text{ and } y = 3$$

$$\text{So, } x^3 + y^3 = 9^3 + 3^3 = 729 + 27 = 756$$

138. Option (2) is correct.

We know that the amount increases following G.P. when compounding.

Here the common ratio is 2.

Given that the amount doubles itself in 4 years.

So, the required time for becoming it 8 times = $3 \times 4 = 12$ years

139. Option (1) is correct.

$$\text{Given, } \frac{143 \div 13 \times x - 3 \times 3}{6^2 - 7 \times 5 + x^2} = 1$$

$$\Rightarrow 143 \div 13 \times x - 3 \times 3 = 62 - 7 \times 5 + x^2$$

$$\Rightarrow 11 \times x - 9 = 36 - 35 + x^2$$

$$\Rightarrow 11x - 9 = 1 + x^2$$

$$\Rightarrow x^2 - 11x + 10 = 0$$

$$\Rightarrow x^2 - 10x - x + 10 = 0$$

$$\Rightarrow (x - 10)(x - 1) = 0$$

$$\Rightarrow x = 10 \text{ and } x = 1$$

140. Option (1) is correct.

$$\text{Value of } (1 + \tan^2 A) + \left(1 + \frac{1}{\tan^2 A} \right)$$

$$\Rightarrow \left(1 + \frac{\sin^2 A}{\cos^2 A} \right) + \left(1 + \frac{\cos^2 A}{\sin^2 A} \right)$$

$$\Rightarrow \frac{\sin^2 A + \cos^2 A}{\cos^2 A} + \frac{\sin^2 A + \cos^2 A}{\sin^2 A}$$

$$\Rightarrow \frac{1}{1 - \sin^2 A} + \frac{1}{\sin^2 A}$$

$$\Rightarrow \frac{1}{\sin^2 A - \sin^4 A}$$

141. Option (1) is correct.

Given that, $\tan(t) + \cot(t) = 1$

$$\Rightarrow \frac{\sin t}{\cos t} + \frac{\cos t}{\sin t} = 1$$

$$\Rightarrow \sin^2 t + \cos^2 t = \sin t \cdot \cos t$$

$$\Rightarrow \sin t \cdot \cos t = 1$$

$$\text{Now, } (\sin t + \cos t)^2 = \sin^2 t + \cos^2 t + 2 \sin t \cdot \cos t$$

$$\Rightarrow (\sin t + \cos t)^2 = (1 + 2 \times 1) = 3$$

$$\Rightarrow \sin t + \cos t = \sqrt{3}$$

$$\text{So, } \frac{1}{\sin t + \cos t} = \frac{1}{\sqrt{3}}$$

142. Option (3) is correct.

Given that,

Time taken by A alone to finish the work = 20 days

Time taken by B alone to finish the work = 30 days

Let the total work = LCM (20, 30) = 60 unit

$$\text{Efficiency of A} = \frac{60}{20} = 3$$

$$\text{Efficiency of B} = \frac{60}{30} = 2$$

Two days work by both of them = $(2 + 3) \times 2 = 10$ unit

$$\text{Fraction of work left} = \frac{60 - 10}{60} = \frac{5}{6}$$

143. Option (3) is correct.

$$\text{Value of, } 24 \div (3 - 8 \times 3 + 27) + 3,$$

$$= 24 \div (3 - 24 + 27) + 3$$

$$= 24 \div 6 + 3$$

$$= 4 + 3$$

$$= 7$$

144. Option (3) is correct.

The radius of the sphere = 2.1 cm

$$\begin{aligned}\text{So, the volume of the sphere} &= \frac{4}{3} \times \pi \times r^3 \\ &= \frac{4}{3} \times \frac{22}{7} \times 2.1 \times 2.1 \times 2.1 = 38.808 \text{ cm}^3\end{aligned}$$

145. Option (4) is correct.

$$\begin{aligned}\text{Total number of scouts in classes VI to VIII} &= (8 + 4 + 3) \\ &= 225\end{aligned}$$

146. Option (1) is correct.

According to the question, $x + y = 4(x - y)$

$$\Rightarrow 3x = 5y \Rightarrow x = \frac{5}{3}y$$

$$\begin{aligned}\text{So, the value of } \frac{5xy}{3(x^2 - y^2)} &= \frac{5 \times \frac{5}{3}y \times y}{3\left(\left(\frac{5}{3}y\right)^2 - y^2\right)} \\ &= \frac{25}{25 - 9} = \frac{25}{16}\end{aligned}$$

147. Option (1) is correct.

$$\begin{aligned}\text{Using, average speed} &= \frac{\text{Total distance}}{\text{Total time}} \\ &= \frac{60 + 100 + 140}{\frac{60}{80} + \frac{100}{90} + \frac{140}{120}} = \frac{300}{\frac{3}{4} + \frac{10}{9} + \frac{7}{6}} \\ &= \frac{300 \times 36}{27 + 40 + 42} \approx 99 \text{ km/h}\end{aligned}$$

148. Option (4) is correct.

Given that, $36 \times \text{C.P.} = \text{N} \times \text{S.P.}$

$$\Rightarrow \frac{\text{C.P.}}{\text{S.P.}} = \frac{\text{N}}{36} \quad (1)$$

Also given that there is a profit of 20%.

$$\text{So, } \text{C.P.} \times \frac{120}{100} = \text{S.P.}$$

$$\Rightarrow \frac{\text{C.P.}}{\text{S.P.}} = \frac{5}{6} \quad (2)$$

$$\text{By equation (1) and (2), } \frac{5}{6} = \frac{\text{N}}{36}$$

$$\Rightarrow \text{N} = 30$$

149. Option (2) is correct.

Given that,

$$x + y + z = 1$$

$$xy + yz + zx = -1$$

$$xyz = -1$$

Using,

$$\begin{aligned}x^3 + y^3 + z^3 &= (x + y + z)(x^2 + y^2 + z^2 - xy - yz - zx) + 3xyz \\ &= (x + y + z)((x + y + z)^2 - 3(xy + yz + zx)) + 3xyz \\ &= (1)(1 + 3) + 3(-1) = 1\end{aligned}$$

150. Option (2) is correct.

Value of $25 \div 5 \times 7$ of $(5 + 7) - 13 (6 \times 4)$

$$= 25 \div 5 \times 84 - 312$$

$$= 5 \times 84 - 312$$

$$= 420 - 312$$

$$= 108$$

151. Option (2) is correct.

As per the question, the term opaque means not able to be seen through or not transparent. Plastic, wood, stone, and ceramic are common examples of Opaque materials. The other option,

'Transparent' is the antonym of the word 'opaque'. While 'black' is a colour, not a describing word for the glass windows.

152. Option (2) is correct.

According to the question, 'By leaps and bounds' is an idiom meaning 'with startlingly rapid progress', that is to say, 'rapidly'. For example: The newly established company started reaping profits after the sales soared high in their second year, and in this way, it progressed by leaps and bounds and earned its reputation globally.

153. Option (3) is correct.

In the given sentence, "The worker is known to exert himself a lot", the term 'Exert' means to use power or the ability to make something happen. Therefore, the sentence suggests that the worker is known to stress himself a lot. So the most suitable antonym for the context is 'relax'.

154. Option (2) is correct.

As per the question stated, a Jockey is a person who rides in horse races, especially as a profession. While a Stuntman is a man who performs stunts, especially instead of an actor in a film or television programme. The term Southpaw refers to a left-hander.

155. Option (4) is correct.

As per the given sentence, "Planning to go for a movie just before the final-year examination is nothing but being in a risky situation", here, the idiom 'skating on thin ice' means doing something risky which may have serious or unpleasant consequences. The idea of going for a movie before one's final exams is likely to be a risky prospect.

156. Option (2) is correct.

The incorrectly spelt word is: Occured; it must be written as 'occurred' meaning happened.

157. Option (3) is correct.

The correct sentence will be: We were grateful for the book they gave us. The incorrect part is 'a book' which will be replaced by 'the book'. When referring to a specific book about which the listener is presumed to already know, then one must say "the book"; here the book that was given to the speaker and 'them' are specified, so 'the' is chosen over 'a'.

158. Option (3) is correct.

The phrase 'hit the sack' implies going to bed. This has nothing to do with Cracking the exams or making money quickly or running on the beach. For example: After a long day at work, followed by a strenuous workout at the gym; I rushed back home and preferred to hit the sack.

159. Option (2) is correct.

The correct sentence will be: Can we go visit a Statue of Liberty on our trip to the United States? The part 'visit a Statue of Liberty' will be replaced by 'visit the Statue of Liberty' because the definite article is used to refer to a specific object that the readers are aware of. The Statue of Liberty is only on the Earth and hence, it is unique, and by the standard rules of grammar, for any unique item 'the' article is used.

160. Option (3) is correct.

As per the question, the term Monogamy refers to the practice of marrying or state of being married to one person at a time. Another term, Polymathy means learning in many fields or having deep encyclopedic knowledge. While polyandry is a form of polygamy in which a woman has two or more husbands at the same time. Endogamy is marriage within a specific group as required by custom or law.

161. Option (2) is correct.

The correct sentence will be: Shakespeare "was greater than" any other English poet. The phrase 'is great than' will

be replaced by 'was greater than' because the sentence is in comparative form, thus indicating that Shakespeare is superior to any other English poets in terms of greatness. The use of 'than' emphasizes the comparison between two entities.

162. Option (3) is correct.

As per the statement, "A good critic should also be a person of great candour", the term Candour means the quality of being open, honest, and sincere in speech or expression. A critic can fulfil his criterion of analyzing the merits of literary or artistic works only when he is honest, and sincere in his judgment. Thus, honesty is the correct synonym.

163. Option (3) is correct.

As per the given idiom, Yeoman's service refers to very good, hard, and valuable work that someone does especially to support a cause, to help a team, etc. All options, except (3) give a negative interpretation to the idiom, hence they are incorrect.

164. Option (4) is correct.

The correct sentence will be : I prefer walking to riding. The part 'walking than riding' is incorrect and will be substituted by 'walking to riding'. The verb 'prefer' takes the preposition 'to' after it, not 'than'.

165. Option (4) is correct.

As per the given statement, "A great variety of birds is found in the sanctuaries of India", the word 'uniformity' means the quality or fact of being the same, or of not changing or being different in any way. For example: I was stunned by the uniformity of size and colour of the peaches on the tree. Thus, the antonym of the given word from the sentence above is 'variety'.

166. Option (4) is correct.

As per the statement given in the sentence, "Sohan was very much perplexed to find that his younger brother Mohan had taken poison", the most appropriate idiom for "very much perplexed" will be in option (4). 'At logger heads' means in violent dispute or disagreement. 'At his disposal' is available for someone to use; while, 'at his wit's end' means to be so worried, confused, or annoyed that you do not know what to do next which means being perplexed.

167. Option (1) is correct.

The idiom 'skating on thin ice' implies to be doing something that is dangerous or involves risks. Thus, the correct sentence reflecting the implication of the given idiom is: He was on thin ice after making a controversial statement. This justifies the sticky and risky situation the person is in after having said something controversial. Other options simply play around with the variations of ice.

168. Option (3) is correct.

One-word substitution for the sentence, "Attempting to impress by affecting greater importance or merit than is actually possessed" is in option (2). Airy is 'not treating something as serious; casual'. Pretentious means 'showy implies an imposing or striking appearance but usually suggests cheapness or poor taste'. Glorious means 'wonderful; completely enjoyable'. Imperious is and domineering.'

169. Option (3) is correct.

As per the question, the correct answer is amenities as they are convenient features or services provided by a society or company to enhance comfort and convenience, such as parks, gyms, or pools. The other options are inappropriate because Equipment refers to tools or machinery, Facilitate is a verb meaning to make something easier, and System refers to a set of connected parts forming a complex whole, which does not specifically imply convenient features.

170. Option (2) is correct.

The idiom 'Bread and butter' means a person's livelihood or

main source of income. Example: These daily wage earners slog laboriously to get their bread and butter.

171. Option (4) is correct.

The correct sentence will be Youth is the time when the seeds of character are sown. The part 'the seeds of character is sown' is incorrect and must be replaced by 'the seeds of character are sown'. The error relates to the concept of subject-verb agreement. The subject of the verb in context is 'seeds' (plural); therefore, the verb will be plural (are).

172. Option (4) is correct.

The correct sentence will be: An awkward but grammatically accurate sentence is the result of centre implanting. The phrase 'awkward but grammatically' will replace 'awkward neither grammatically'. The sentence posits two contradictory words: awkward (difficult), yet accurate (a positive adjective); the essence is best captured by the use of the conjunction 'but'.

173. Option (2) is correct.

As per the idiom 'Be in seventh heaven, means 'a state of complete happiness'. For example: I was in seventh heaven when my father broke the news of our new addition in our family- Jojo, the pup, our bundle of joy.

174. Option (4) is correct.

The incorrectly spelt word is 'Mountan'. It will be correctly written as 'Mountain'.

175. Option (1) is correct.

The correct sentence will be: I understand you like her because she has a generous nature. The part 'I am understanding' will be replaced by 'I understand'. In English, "understanding" is not typically used in the continuous tense. Instead, we use "understand" in the simple present tense to indicate comprehension or knowledge.

176. Option (4) is correct.

According to the word provided, reckon means to think or suppose (something establish by calculation. Thus, the synonym is 'count'.

177. Option (2) is correct.

As per the term provided in the question, Freezing refers to the process in which the state of matter changes from liquid to solid as the temperature becomes lower. While 'tropic' describes to the characteristic of a region or climate that is frost-free.

178. Option (4) is correct.

According to the given sentence, "The stars twinkled in the dark sky, guiding travellers on their journey", the term, "Confusing" means mixing up someone's mind or ideas, or making something difficult to understand. Therefore, the antonym of the given word is 'guiding', which means making something move in the direction in that you want it to go.

179. Option (3) is correct.

The correct sentence will be: Since his son has not yet completed the age of eighteen, he is reluctant to fulfil his son's demand of getting a motorbike. The part 'he is reluctant' will be replaced by 'he was reluctant'. The sentence contains a tense inconsistency, wherein the first clause starts in the present tense 'has not yet completed'; therefore, to maintain uniformity, the second clause will align with the same tense.

180. Option (3) is correct.

The correct sentence will be : The referee declared that the participant who scores the highest points in the tally will take away the cash prize of ₹50 lakh. The part 'who will score the highest points' will be replaced by 'who scores the highest points'. This is the most appropriate option because it indicates a general truth or fact, and as per English usage, simple present tense is used to express a general truth or fact.

181. Option (4) is correct.

The misspelt word in 'The shedule followed by my sister ultimately leads to stress and other adverse effects' is shedule. The word 'shedule' will be spelt as 'schedule'.

182. Option (3) is correct.

The correct sentence will be : When he resigned, the company offered him a huge sum of money but he refused to agree to it. The part 'he refused to agree to it' will be replaced by 'he refused to accept it'. As per standard English usage, 'accept' a huge sum of money is appropriate rather than 'agree to' a huge sum of money. "Agree" means to give consent or approval to something.

183. Option (1) is correct.

The incorrectly spelt word is 'ettiquete', and this must be spelt as 'etiquette', meaning a code of conduct reflecting social norms and expectations about how to behave in social situations.

184. Option (2) is correct.

The correct sentence will be: My friends are on a trip to the world. The part 'to the world' will be replaced by 'around the world'. The phrase "around the world" encompasses all parts or regions of the world. It implies something that spans across various countries or continents.

185. Option (2) is correct.

As per the given sentence, "The speaker delivered a profound speech that left the audience deeply moved", the word 'profound' means showing a clear and deep understanding of serious matter. Therefore, the antonym is 'shallow' (of little depth).

186. Option (1) is correct.

In the sentence, 'Joe was so tired that he could scarcely stand', 'scarcely' is incorrectly spelt, it must be written as 'scarcely' (barely).

187. Option (3) is correct.

In the given sentence, "He behaved ruthlessly with his junior, to say the least", the word 'ruthlessly' implies 'in a hard and cruel way; in a determined way, without caring'. In other words, 'inhumanly' is the most appropriate synonym.

188. Option (1) is correct.

In the given sentence, 'deliquency' is spelt incorrectly, it must be written as 'delinquency', implying 'minor crime, especially that committed by young people.' Thus, the part 'deliquency against him' contains the error.

189. Option (3) is correct.

In the sentence, 'The repetitive and monotonous task of data entry made the work seem incredibly long and tedious', the word 'monotonous' means dull, boring. The idea of the task being 'repetitive' implies it was dull; thus, the antonym is interesting.

190. Option (2) is correct.

The correct sentence will be: The Government must strive to provide honest and straightforward deal to the citizen of its country. The part 'a/an fair and square deal' will be substituted by 'honest and straightforward'. The phrase 'fair and square deal' means 'to win honestly and without cheating.'

191. Option (2) is correct.

The correct sentence will be: Superheroes are fictional characters with extraordinary powers who use their powers to fight crime and protect the public. It is asserted in the passage that Superheroes are fictional born with special powers, and these are astonishing in nature.

192. Option (2) is correct.

The correct sentence will be: Some popular superheroes include Superman, Batman, Spider-Man and Wonder Woman. Superheroes often have backstories that explain how they have gained their powers... (1) is incorrect as 'had explain' does not conform to the standard English usage. Option (3) does not have the auxiliary verb; while option (4) is incorrect as per

standard English usage.

193. Option (3) is correct.

The correct sentence will be: Superheroes often have backstories that explain how they have gained their powers or they are being born with special powers, such as being bitten by a radioactive spider or being exposed to cosmic radiation. The sentence establishes how superheroes have backstories that elucidate how they have gained their powers by being born with special powers, and this theory is exemplified in events like the superheroes being bitten by a radioactive spider or being exposed to cosmic radiation. Therefore, 'such' as' is the most appropriate conjunction to link the examples to the related concept.

194. Option (4) is correct.

The correct sentence will be: They usually have a specific outfit or clothing that they wear to hide their identity and protect themselves while fighting crime. The most suitable pronoun applicable to the blank must be in alignment with the noun/antecedent; here, the noun is 'superheroes'/'they' (a plural verb), so 'themselves' suits the requirement of the blank perfectly.

195. Option (3) is correct.

Superheroes have been a staple of popular culture for decades, appearing in comics, movies, television shows, and video games. 'For' refers to periods (decades). Other prepositions in the options refer to locations, hence they are incorrect.

196. Option (2) is correct.

In the part, 'To realize this truth', the writer wants the readers to understand the truth - There are no ancient nations anywhere in the world. Thus, the antonym of the given word is 'misunderstand'.

197. Option (4) is correct.

It is nowhere stated that 'Novels, films and speeches of leaders celebrate the modernity of nations'. Statement (2) is incorrect that History books should be read again and again because they celebrate ancient nations, as the writer is against the concept of a nation being deemed as ancient. Option (3) is incorrect that only modern people can imagine the existence of ancient nations, in fact, modern people believe that no nation on earth is ancient. The 'ancientness' of a nation does not lie in its existence, but it refers to its civilization, as reiterated in 'Ancient Greece, ancient Egypt, ancient India - all of them may have had great civilizations'. Thus, it is definitely true that Ancient India is an ancient civilization but not an ancient nation.

198. Option (4) is correct.

The author clarifies that 'There are no ancient nations anywhere in the world. All nations are modern.' But this perception is distorted in history as it drilled into your heads from the time you were children, and constantly renewed by national festivals and ceremonies, the speeches of your leaders, and novels, films, and television serials, that make it seem obvious to an individual that their nation is ancient.' Thus, to refute this logic, the passage asks us to forget the history that we were taught at school because the history book taught that our nation is ancient.

199. Option (3) is correct.

The concept of 'drill' envisages making someone practice a skill by repeating the same thing several times. In the given context, the writer wants to drive down his rationale to the readers, and it is feasible only when people forget what has been taught to them in history books. Therefore, the expression "drill into your heads" means to make someone learn or understand something by repeating it.

200. Option (2) is correct.

The word 'obvious' implies 'easily perceived or understood; clear, self-evident, or apparent.' All of the words in options (1), (3) and (4) are antonyms of 'obvious'. therefore, the correct synonym is 'clear'.