

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

SOLVED PAPER

(10th November 2022: Shift-2)

Time Allotted- 2 hours

Max marks- 200

General Intelligence and Reasoning

1. Six students are sitting around a circular table facing the centre. Sonal is sitting second to the right of Lavanya. Rana is sitting second to the right of Sonal. Karishma is sitting third to the right of Rana. Mary is an immediate neighbour of both Rana and Sonal. Who is sitting immediate right of Kumari?

1. Mary 2. Karishma 3. Rana 4. Lavanya

2. From its nest, a bird flew 25 m towards the north-east. It then took a right turn and flew 7 m. Again, it took a right turn and flew 75 m. In which direction is the bird now from its nest?

1. North-East 2. East
 3. South-West 4. North-West

3. Which of the following numbers will replace the question mark (?) in the given series?

13, 26, 23, 115, 108, ?

1. 1118 2. 1818 3. 1881 4. 1188

4. Select the option that represents the correct order of the given words as they would appear in an English dictionary.

1. Tattoo 2. Tatters 3. Tatting 4. Tattle
 5. Taut

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

5. 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 /subtracting /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.)

(16, 22, 28)

(14, 19, 23)

1. (12, 18, 25) 2. (13, 21, 27) 3. (15, 26, 31) 4. (17, 24, 41)

6. Two statements are given followed by Three conclusions numbered I, II and III. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

Statements:

All bags are pens All pencils are pens Conclusions:

I. Some pens are bags.

II. All bags are pencils.

III. Some pens are pencils

1. Both conclusions II and III follow.

2. Conclusions I, II and III follow.

3. Both conclusions I and II follow.

4. Both conclusions I and III follow.

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

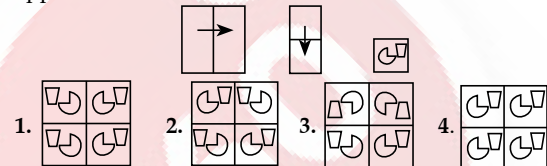
(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and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

(2, 28, 4)

(3, 22, 2)

1. (6, 29, 3) 2. (1, 10, 5) 3. (7, 32, 2) 4. (4, 31, 3)

8. A paper is folded and cut as shown below. How will it appear when folded?



9. Three Statements are given followed by four conclusions numbered 1, 2, 3, and 4. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically does NOT follow(s) from the statements.

Statements:

All K are S.

No S is a B.

Some B are T.

Conclusions:

(1) No K are B.

(2) Some T are not S.

(3) Some T are B.

(4) All B being K is a possibility.

1. Only 2 does not follow. 2. Only 1 does not follow.

3. Only 3 does not follow. 4. Only 4 does not follow.

10. 'B & D' means 'B is the brother of D'.

'B × D' means 'B is the mother of D'.

'B # D' means 'B is the wife of D'.

'B \$ D' means 'B is the son of D'.

'B @ D' means 'B is the mother of D'.

How is B related to G in the following expression? A × B # F \$ C @ E # G

1. Wife's brother's wife 2. Sibling

3. Aunt

4. Mother

11. 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 /subtracting /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.)

(7, 12, 25)

(6, 9, 21)

1. (9, 13, 24) 2. (5, 8, 19) 3. (8, 14, 24) 4. (4, 11, 20)

12. Which option represents the correct order of the given words as they would appear in the English dictionary?

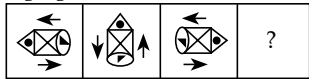
1. Pelvic 2. Pentagon 3. Permanent 4. Persistent
5. Perceive

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

13. There are six children playing ludo, namely 1, 2, 3, 4, 5, and 6. 1 and 5 are brothers. 6 is the sister of 5. 3 is the only son of 1's father's brother. 2 and 4 are the daughters of the only brother of 3's father. How is 4 related to 1?

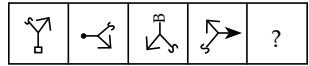
1. Sister 2. Uncle 3. Niece 4. Cousin

14. Select the figure that will replace the question mark (?) in the following figure series.



1. 2. 3. 4.

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



1. 2. 3. 4.

16. Seven people, A, B, C, D, E, F and G, are sitting in a straight row facing the north. Only two people sit to the left of C. Only two people sit between A and B. B sits to the left of

A. E is an immediate neighbour of A to the right. Only one person sits to the right of D. F is not an immediate neighbour of B. Who sits at the centre?

1. C 2. E 3. D 4. A

17. 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 /subtracting /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.)

(14, 25, 38)

(8, 19, 32)

1. (24, 35, 46) 2. (6, 17, 30) 3. (15, 28, 41) 4. (13, 26, 37)

18. Based on the position in the English alphabetical order, three of the following letter-clusters are alike in some manner and one is different. Select the odd letter-cluster.

1. BEIL 2. LOSV 3. FIMP 4. JMPT

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



1. 2. 3. 4.

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



1. 2. 3. 4.

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



1. 2. 3. 4.

22. Select the number from among the given options that can replace the question mark (?) in the following series. 39, 53, ?, 108, 149, 199

1. 81 2. 72 3. 79 4. 76

23. Two statements are given followed by Three conclusions numbered I, II and III. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

Statements:

All drums are bells.

All whistles are bells.

Conclusions:

I. Some drums are whistles.

II. Some bells are drums.

III. Some bells are whistles.

1. Both conclusions II and III follow.

2. Conclusions I, II and III follow.

3. Both conclusions I and II follow.

4. Both conclusions I and III follow.

24. Select the combination of letters that when sequentially placed in the blanks of the given series, will complete the series.

L _ _ LM _ L _ L _ ML

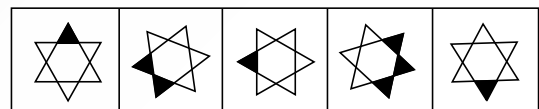
1. MLLML 2. LMMMML 3. MMLLL 4. LMLLLM

25. If + means -, × means +, - means ÷, ÷ means ×, what will come in place of the question mark (?)?

$89 \times 36 - 9 + 2 \div 11 = ?$

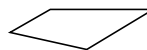
1. 71 2. 79 3. 83 4. 92

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



1. 2. 3. 4.

27. Select the option figure in which the given is embedded (rotation is NOT allowed).

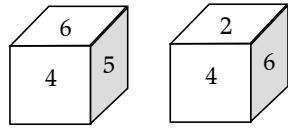


1. 2. 3. 4.

28. In a certain code language, 'VACCINE' is written as 'WCFGNTL' and 'SYRINGE' is written as 'TAUMSML'. How will 'NEEDLE' be written in that language?

1. OGHHRK 2. OFHHQK 3. OGHJQK 4. OGHHQK

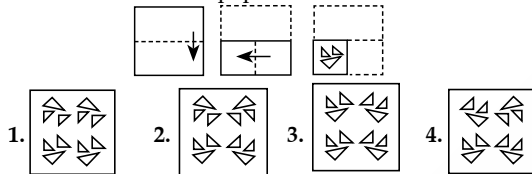
29. Two different positions of the same dice are shown, the six faces of which are numbered from 1 to 6. Select the number that will be on the face opposite to the one showing '2'.



1. 3 2. 1 3. 6 4. 5
30. Which of the following numbers will replace the question mark (?) in the given series?
55, 75, 100, 135, 190, ?

1. 280 2. 285 3. 295 4. 290
31. In a certain code language, 'JACCUZI' is written as 'KZDBVYJ' and 'QUIZZER' is written as 'RTJYADS'. How will 'BUZZWIG' be written in that language?

1. ZVAAXJK 2. CTAYXHH 3. ZTAXJHH 4. DVBYIJJ
32. The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown below. Choose the figure that would most closely resemble the unfolded form of the paper.



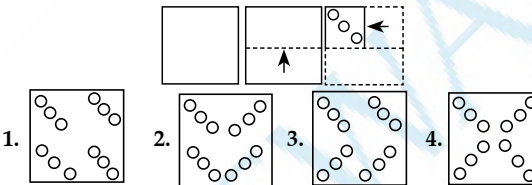
33. If P denotes '×', Q denotes '÷', R denotes '+', S denotes '-', then what will come in place of '?' in the following equation?
115 Q 23 R $\sqrt[3]{64}$ S 3 P 9 R 44 = ?

1. 26 2. 24 3. 32 4. 28

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

- 355 * (12 * 3) * 289 * (186 * 6) * 71
1. +, ×, =, +, ÷, + 2. ÷, -, =, ÷, ×, -
3. ×, +, -, =, ÷, + 4. ×, =, -, +, ÷, +

35. A paper is folded and cut as shown. How will it appear when unfolded?



36. Which letter-cluster will replace the question mark (?) to complete the given series?
PORK, NQPM, LSNO, JULQ, ?

1. HXJS 2. HXKS 3. HWJS 4. HWKR

37. Two statements are given followed by two conclusions numbered I and II. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

Statements:

Some sixes are sevens.
No seven is an eight.

Conclusions:

- I. All eights are sixes. II. No eight is a six.

1. Neither conclusion I nor II follows
2. Only conclusion II follows.

3. Both conclusions I and II follow.

4. Only conclusion I follows.

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

$$12 + 156 \div 13 \times 6 - 100 = 50$$

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

39. In a code language, 'you can start' is written as 'sent room dark', 'can you read' is written as 'room sent less', and 'you are good' is written as 'tyre room spin'. What is the code for the word 'can' in this language?

1. Room 2. Sent 3. Spin 4. Dark

40. Reema starts from her house and cycles 4 km towards the west and then turns right and cycles 6 km. She again turns right and cycles for X km to reach her school. Point A is to the south of her school and also 2 km to the west of her house. What is the value of X?

1. 6 km 2. 8 km 3. 2 km 4. 4 km

41. Select the word-pair in which the two words are related in the same way as are the two words in the given pair.

Lion : Forest

1. Bee : Honey 2. Shark : Ocean
3. Flower : Honey 4. Sorrow : Love

42. If - means +, × means ÷, ÷ means -, + means ×, what will come in place of the question mark(?)?

$$32 + 36 \times 4 - 21 \div 56 = ?$$

1. 283 2. 253 3. 276 4. 323

43. If A denotes '+', B denotes '×', C denotes '-', D denotes '÷', then what will come in place of '?' in the following equation?

$$48 D 12 A (\sqrt{36} B 3) C 19 A 24 = ?$$

1. 31 2. 27 3. 35 4. 22

44. Which of the following numbers will replace the question mark (?) in the given series?

$$101, 182, 118, 167, ?$$

1. 131 2. 156 3. 128 4. 142

45. Select the option that represents the letters that, when sequentially placed from left to right in the blanks, will complete the letter series.

_ S J _ P S _ _ P _ J A _ S _ A

1. P A J S A P J 2. P A J A S P J
3. P A S A S P J 4. P A A J S P A

46. 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.

LIST: JNGKQURV :: MOAN: KOMQYCLP :: PLUM: ?

1. NRJNKOSW 2. NRJNSWKO
3. NRSWKOJN 4. NRSWJNKO

47. Which letter-cluster will replace the question mark (?) to complete the given series?

RSBG, NPEL, ?, FJKM, BGNO

1. JMHL 2. JNHK 3. JMHK 4. JMKG

48. Three of the following four letter-clusters are alike in a certain way and one is different. Pick the odd one out.

1. PVK 2. OUL 3. QUK 4. MSN

49. In a code language, 'TRUCKS' is written as 'GIFXPH' and 'WASTE' is written as 'DZHGV'. How will 'FANTASY' be written in that language?

1. UZGMZHB 2. UZMGZHB
3. UZMGHQB 4. UZMGZHB

50. If A denotes '+', B denotes '×', C denotes '-', and D denotes '÷', then what will be the value of the following expression?

$$456 C 236 D 2 A 14 B 1$$

1. 352 2. 234 3. 353 4. 453

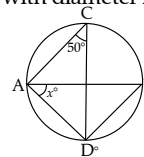
General Knowledge and General Awareness

51. Capital adequacy ratio for a NBFC – MFI is ____.
- 15% of the aggregate deposits
 - 8% of the aggregate deposits
 - 15% of the aggregate risk weighted assets
 - 11% of the aggregate risk weighted assets
52. Which folk dance represents a mock fight between Goddess Durga and Mahishasura?
- Bhangra
 - Raslila
 - Kalbela
 - Dandiya Raas
53. In which of the following Articles, is it mentioned that Directive Principles are NOT justiciable?
- Article 37
 - Article 40
 - Article 38
 - Article 39
54. Which among the following Universities is founded by Pandit Madan Mohan Malaviya?
- Delhi University
 - Punjab University
 - Sambalpur University
 - Banaras Hindu University
55. Who is the author of 'The Inheritance of Loss'?
- Arundhati Roy
 - Kiran Desai
 - Chetan Bhagat
 - Jhumpa Lahiri
56. The autobiography of Nirad C Chaudhari is ____.
- The Autobiography of an Unknown Indian
 - Matters of Discretion
 - The Race of My Life
 - An Autobiography of a Yogi
57. Which of the following dance forms is influenced by Bihu dance?
- Sattriya
 - Manipuri
 - Kathak
 - Kuchipudi
58. Which of the following element has atomic number 87?
- Francium
 - Caesium
 - Lithium
 - Rubidium
59. The famous musician, Appa Jalgaonkar is associated with which musical instrument?
- Harmonium
 - Tabla
 - Sarod
 - Violin
60. High growth rate with use of modern technology and self-reliance of the economy could be achieved only if:
- benefits of economic prosperity reach the poor people
 - benefits of economic prosperity reach the rich people
 - the economy participates in international trade
 - it is a capitalist economy
61. Which of the following is a severe form of malnutrition that commonly affects infants and toddlers, most often around the age of weaning through age 5?
- Bacterial meningitis
 - Diarrhoea
 - Pneumonia
 - Kwashiorkor
62. The lead chromate which is toxic and carcinogenic, is used for the adulteration of ____ powder.
- chili
 - garlic
 - turmeric
 - ginger
63. In 1856, Governor-General ____ decided that Bahadur Shah Zafar would be the last Mughal king and after his death none of his descendants would be recognised as kings – they would just be called princes.
- Canning
 - Cornwallis
 - Hastings
 - Munro
64. The Fundamental Duties are addressed to the ____.
- Government
 - Legislature
 - State
 - Citizens
65. In case of first false start in a running event, the athlete(s) shall be:
- Disqualified
 - Can restart
 - Warned
 - Suspended
66. In which year did India host the ICC T20 World Cup cricket for the first time?
- 2014
 - 2012
 - 2016
 - 2018
67. Which of the following war ended with the treaty of Salbai?
- Third Battle of Panipat
 - Battle of Buxar
 - First Maratha War
 - Second Anglo-Maratha War
68. With reference of Rice cultivation, which pair(s) of state and type of crop is/are correctly matched?
- Punjab - Subsistence Crop
 - Odisha - Commercial Crop
- Only I
 - Only II
 - Neither I nor II
 - Both I and II
69. The last Sub-Section (k) on the education of children was added in 2002 as a part of the Fundamental Duties. The same Amendment also introduced ____ in the Constitution.
- Article 48A
 - Article 21A
 - Article 32A
 - Article 11A
70. Whose law states that at a junction in an electric circuit, the sum of the currents flowing into the junction is equal to the sum of the currents flowing out of the junction?
- Michael Faraday
 - Georg Simon Ohm
 - Victor Francis Hess
 - Gustav Robert Kirchhoff
71. Tokyo 2020 Paralympic Games bronze medallist, Manoj Sarkar, is associated with which of the following events?
- Shooting
 - Badminton
 - Table tennis
 - Athletics
72. Which of the following is a radio isotope of the hydrogen?
- Xenon
 - Technetium
 - Thorium
 - Tritium
73. Which of the following is correct regarding globalization?
- It involves creation of networks and activities transcending economic, social and geographical boundaries.
 - Outsourcing is one of the important outcomes of the globalisation process.
- Both I and II
 - Only I
 - Only II
 - Neither I nor II
74. 'The Godfather of Soul' is an autobiography of ____, who was one of the greatest singer.
- Tina Turner
 - Kurt Cobain
 - Johnny Cash
 - James Brown
75. Which of the following characteristics is NOT correct about Tropical Evergreen forests?
- These forests are well-stratified.
 - In these forests, trees reach great heights up to 60 m or above.
 - These forests receive annual precipitation of about 100 cm.
 - They are found in warm and humid areas.
76. Which of the following were NOT a part of a citadel in Harappan architecture?
- Storehouses for grains
 - Great Bath for important people
 - Fire altars for religious ceremonies
 - Residential buildings for masses
77. In which year was the famous sitar player Pt. Ravi Shankar awarded the Bharat Ratna?
- 1998
 - 1999
 - 1996
 - 1995
78. The emoluments and allowances of the President and other expenditure relating to his office is charged on the ____ of India.
- contingency fund
 - estimates fund
 - consolidated fund
 - public accounts fund

79. Which of the following statements is correct?
1. Atomic radius increases across a period and decreases down a group in the periodic table.
 2. Atomic radius decreases across a period and increases down a group in the periodic table.
 3. Atomic radius decreases across a period and down a group in the periodic table.
 4. Atomic radius increases across a period and increases down a group in the periodic table.
80. Which of the following liquids can dissolve noble metals such as gold and platinum?
1. Formic acid
 2. Aqua regia
 3. Acetic acid
 4. Chloroform
81. Which of the following pair of compound name – formula is correct?
- I. Hydrogen chloride – H_2Cl
 II. Hydrogen sulphide – HS_2
1. Only I
 2. Neither I nor II
 3. Only I
 4. Both I and II
82. Who was the author of Tarikh-i-Mubarak Shahi which is a Persian language chronicle of the Delhi Sultanate?
1. Jawahar-fi-Jawahir
 2. Khazain-ul-Futuh
 3. Tarikh-i-Firoz Shahi
 4. Yahya bin Ahmad Sirhindi
83. Which Article of the Constitution of India provides for the power to the President to convene a joint sitting of the both the Houses of Parliament?
1. Article 331
 2. Article 105
 3. Article 108
 4. Article 85
84. In which of the following years Sikandar Lodi founded Agra?
1. 1506 CE
 2. 1504 CE
 3. 1499 CE
 4. 1508 CE
85. The National Commission on Agriculture (1976) of India has classified social forestry into how many categories?
1. 5
 2. 2
 3. 3
 4. 4
86. The claim for 'swarajya' or self-government within the British Empire, on the model of self-governing colonies like Australia and Canada, was put forward from the Congress platform in 1905 by:
1. Lala Lajpat Rai
 2. Dadabhai Naoroji
 3. Bipin Chandra Pal
 4. Gopal Krishna Gokhale
87. Compounds with exactly two double carbon – carbon bonds are known as ____.
1. Terpenes
 2. Dienes
 3. Trialkyne
 4. Dialkyne
88. Hari Prasad Chaurasia, an Indian flutist, is associated with which of the following music gharanas?
1. Maihar
 2. Rampur-Jaipur
 3. Senia
 4. Prasanna
89. As per the 75th NSS report, ____ has the lowest number of literate females in the state, with the female literacy percentage for the state pegged at 57.6%.
1. Rajasthan
 2. Uttar Pradesh
 3. Andhra Pradesh
 4. Bihar
90. Which physical theory explains the generation of thrust by rocket engines, jet engines and deflating balloons?
1. Newton's laws of motion
 2. Exclusion principle
 3. Faraday's laws of electromagnetic induction
 4. Laws of thermodynamics
91. As of 15th March 2021, how many women judges are there in the Supreme Court of India?
1. 5
 2. 2
 3. 4
 4. 3
92. Ustad Allauddin Khan, the legendary sarod player, was from which of the following gharanas of music?
1. Kasur-Patiala
 2. Benaras
 3. Maihar
 4. Rangeela
93. Which of the following is NOT one of the major tectonic plates of the earth?
1. Nazca plate
 2. Pacific plate
 3. Africa with the eastern Atlantic floor plate
 4. India-Australia-New Zealand plate
94. Which of the following is NOT a national political party?
1. Bahujan Samaj Party
 2. National Conference
 3. Bhartiya Janata Party
 4. Nationalist Congress Party
95. In ____ the Mughal emperor appointed the Company as the Diwan of the provinces of Bengal.
1. 1770
 2. 1754
 3. 1750
 4. 1765
96. In which of the following places was the first edition of the World Para Table Tennis Championships held in 1990?
1. Assen, Netherlands
 2. Granada, Spain
 3. Beijing, China
 4. Lasko, Slovenia
97. The actual growth rate of the ninth and tenth five year plans was ____ and ____ respectively.
1. 5.4 percent, 7.6 percent
 2. 7.2 percent, 7.6 percent
 3. 6.5 percent, 8.1 percent
 4. 7.2 percent, 8.4 percent
98. In an ecosystem, vertical distribution of different species occupying different levels is called ____.
1. levelling
 2. grouping
 3. ramification
 4. stratification
99. Which of the following statement is correct?
- I. On combustion in excess of air, lithium forms mainly the oxide.
 II. The alkali metal halides are all high melting, colourless crystalline liquids.
1. Neither I nor II
 2. Only II
 3. Only I
 4. Both I and II
100. By which of the following names are the valleys situated between the lesser Himalaya and Shiwaliks known?
1. Marg
 2. Bet
 3. Duns
 4. Tarai

Quantitative Aptitude

101. If $\cos A + \cos B + \cos C = 3$, then what is the value of $\sin A + \sin B + \sin C$?
1. 1
 2. 2
 3. 0
 4. -1
102. A shopkeeper sells his items using a faulty balance which measures 25% less. He then marks up his items 15% above the cost price. If he also gives a discount of 10%, then find his net profit percentage on 1 kg items.
1. 32%
 2. 41%
 3. 44%
 4. 38%
103. The average of 15 results is 21. The average of the first 7 of those is 21 and the average of the last 7 is 20. What is the 8th result?
1. 25
 2. 31
 3. 28
 4. 22
104. In the given circle with diameter AB, find the value of x .



1. 40°
 2. 20°
 3. 30°
 4. 50°
105. The following table shows the number of centuries scored by cricketers in the past 5 years.

Years/ Cricketers	2021	2020	2019	2018	2017
A	1	0	2	1	1
B	1	2	0	0	1
C	0	0	1	1	0
D	0	1	1	0	1
E	1	0	1	0	1

1. 2020
2. 2018
3. 2019
4. 2021

106. The percentage marks obtained by 6 students in different subjects are given below. The maximum marks for each subject have been indicated in the table.

Subject Students/ Maximum marks	Physics	Mathematics	Hindi	Geography	English	History
	80	150	100	75	120	50
P	70	44	88	88	70	38
Q	90	40	54	92	65	40
R	85	32	70	64	55	30
S	75	70	58	80	60	35
T	65	60	45	88	50	42
U	60	50	60	72	25	48

The total marks obtained by student Q in Physics and Hindi are what percentage (rounded off to the nearest integer) more than the total marks obtained by student T in Geography and History?

1. 45 2. 49 3. 56 4. 38
107. What is the value of the following in terms of trigonometric ratios?

$$\frac{\sin A}{1 + \cos A} + \frac{1 + \cos A}{\sin A}$$
 1. $2 \operatorname{cosec} A$ 2. $2 \cos A$ 3. $2 \sec A$ 4. $2 \sin A$
108. The highest common factor of 108, 72 and $5a$ is a . What can be the least common multiple of 108, 72 and a ?
 1. 432 2. 324 3. 108 4. 216
109. If the number 6336633P is divisible by 132, then the value of P is:
 1. 4 2. 2 3. 3 4. 6
110. The area of a circle is 1386 cm^2 . What is the radius of the circle? [Use $\pi = 22/7$]
 1. 7 cm 2. 14 cm 3. 18 cm 4. 21 cm
111. The price of one shirt is ₹700 in a shop, on which 10% discount is available for all customers. An additional 20% discount is there for the customers who pay in cash. What is the amount a customer has to pay for a shirt if he pays in cash?
 1. ₹432 2. ₹504 3. ₹523 4. ₹514
112. The speeds of two bodies are in the ratio 2 : 3. If the difference in the time taken to cover 50 m is 10 sec, then find the difference in their speeds.
 1. $\frac{8}{9} \text{ m/s}$ 2. $\frac{5}{6} \text{ m/s}$ 3. $\frac{6}{5} \text{ m/s}$ 4. $\frac{7}{5} \text{ m/s}$
113. If X, Y, Z and W are in fourth proportion. $X = 3$, $Y = 13$ and $W = 39$, determine Z.
 1. 5 2. 20 3. 15 4. 9
114. The given table represents the population of different villages.

Name of the Village	Number of males	Number of females
A	1500	1220
B	1460	1320
C	1105	1180
D	1305	1170

Find the ratio of males to females in all villages.

1. 537 : 389 2. 163 : 179 3. 179 : 163 4. 389 : 537
115. The price of an article is first increased by 25% and later on, the price was decreased by 30% due to a reduction in sales. Find the net percentage change in the final price of the article.
 1. 11.5% increased 2. 14% decreased
 3. 13% increased 4. 12.5% decreased
116. The production of AB Co. increased by 10% after one year, and in the next year it increased by 22%. In the third year, it increased by 5%. What overall change (in %) has been there in the production in three years from the original production?
 1. 41.5% 2. 40.9% 3. 41.2% 4. 42.8%

117. Study the following table and answer the question below.

School name	Total number of students enrolled	Percentage of enrolled student, opted Biology	Ratio of male to female students who opted Biology
A	900	30	7 : 8
B	400	36	9 : 10
C	1000	24	5 : 19
D	800	18	5 : 7

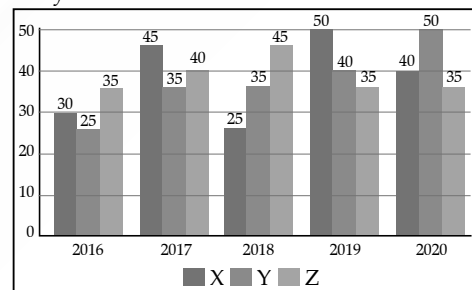
Find the ratio of the number of students who opted biology in school B and School D.

1. 1 : 4 2. 1 : 2 3. 1 : 1 4. 2 : 1
118. The following table shows the number of centuries scored by given five cricketers in the past 5 years.

Years/ Cricketers	2021	2020	2019	2018	2017
A	1	0	1	0	1
B	1	0	2	1	1
C	1	2	0	0	1
D	0	0	1	1	0
E	0	1	1	0	1

Who scored the maximum number of centuries?

1. A 2. C 3. B 4. E
119. The bar graph given here shows the data of the production of cars by three different companies X, Y, Z over the years.



For which of the following years is the percentage rise/fall in the production from the previous year the maximum for company Y?

1. 2019 2. 2018 3. 2016 4. 2017
120. If the value of $\operatorname{cosec} A + \cot A = m$, then the value of $\operatorname{cosec} A - \cot A$ is:
 1. $\frac{1}{m}$ 2. m 3. \sqrt{m} 4. m^2
121. There are 3 taps, A, B and C, in a tank. These can fill the tank in 10 h, 20 h and 25 h, respectively. At first, all three taps are opened simultaneously. After 2 h, tap C is closed and tap A and B keep running. After 4 h, tap B is also

closed. The remaining tank is filled by tap A alone. Find the percentage of work done by tap A itself.

1. 75% 2. 52% 3. 72% 4. 32%
122. A man goes 24 m towards east and then 10 m towards north. How far is he away from his initial position?
1. 23 m 2. 25 m 3. 26 m 4. 24 m
123. If $x + \frac{1}{x} = 2$, then the value of $x^4 + \frac{1}{x^4} =$ _____.
1. 0 2. 2 3. -1 4. 1
124. A chord of a circle is equal to its radius of length 9 cm. Find the angle subtended by it in major segment.
1. 90° 2. 60° 3. 30° 4. 120°
128. The following table shows the marks (in percentage) obtained by six students in six different subjects in an examination. The maximum marks in each subject are 100.

Student	Subject					
	CS	Physics	Chemistry	Maths	History	Geography
A	95	65	90	70	70	80
B	90	70	75	75	85	85
C	80	80	65	70	90	95
D	85	90	85	75	90	95
E	80	95	95	85	90	95
F	90	90	90	95	90	90

Answer the following question based on the table:

In which of the following subjects is the overall percentage the highest?

1. Chemistry 2. Geography 3. History 4. CS
129. What is the radius of a normal cylinder whose height is 21 cm and curved surface area is 1386 cm²?
1. 10.5 cm 2. 3.5 cm 3. 7 cm 4. 10 cm
130. Study the following data and answer the question below.
- | Year | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------------|------|------|------|------|------|
| Company's % Profit | 30 | 20 | 25 | 15 | 10 |
- What was the revenue of the company if its expenditure was ₹50 lakhs in the year when its profit percentage was the highest?
1. ₹55 lakhs 2. ₹70 lakhs 3. ₹65 lakhs 4. ₹60 lakhs
131. Solve the following equation.
 $(7^3 - 7^2 + 6) \times (6^3 - 2^3 - 3^2 + 1) \div (21^2 + 20^2 - 41) =$ _____.
1. 75 2. 40 3. 50 4. 25
132. What is the greatest positive integer that divides 554, 714 and 213 leaving the remainder 43, 57 and 67, respectively?
1. 95 2. 71 3. 83 4. 73
133. Find the LCM of 25, 30, 50 and 75.
1. 15.0 2. 150 3. 1.50 4. 75
134. If $\cos \theta + \sin \theta = \sqrt{2} \cos \theta$, find the value of $(\cos \theta - \sin \theta)$.
1. $\sqrt{2} \sin \theta$ 2. $\sqrt{2} \cos \theta$ 3. $\frac{1}{\sqrt{2}} \sin \theta$ 4. $\frac{1}{2} \cos \theta$
135. 60 men can complete a work in 40 days. They start work together but after every 10 day, 5 men leave the work. In how many days will the work be completed?
1. 47.5 2. 49.5 3. 42.5 4. 45.5
136. If the number 8764x5 is divisible by 9, then find the least possible value of x where x is a two-digit number.
1. 15 2. 06 3. 14 4. 18
137. Find the HCF of 364 and 724.
1. 4 2. 2 3. 6 4. 364
138. If a, b, c are all non-zero and $a + b + c = 0$, find the value of $\frac{a^2}{bc} + \frac{b^2}{ca} + \frac{c^2}{ab}$.
125. Find the amount if a sum of ₹7,500 is invested on compound interest at 8% p.a. for 1.5 years when the interest is compounded half yearly.
1. ₹8,436.48 2. ₹8,736.48 3. ₹8,657.48 4. ₹8,564.48
126. If $a^2 + b^2 + 1 = 2a$, then the value of $a^4 + b^4$ is:
1. 1 2. 0 3. 2 4. 4
127. A supermarket earns 5½% as discount on the total purchasing value and a bonus of ½% on sales more than ₹10,000. What is the total sale value if it earns ₹1,990?
1. ₹14,000 2. ₹16,000 3. ₹34,000 4. ₹24,000
139. Ajay buys 18 oranges for ₹90 and sells 15 oranges for ₹105. Find the percentage of his gain.
1. 35% 2. 30% 3. 25% 4. 40%
140. The monthly incomes of Ravi and Shiv are in the ratio 1 : 2 and their monthly expenditures are in the ratio 1 : 3. If each saves ₹4,000 per month, then find the monthly income of Shiv.
1. ₹16,000 2. ₹18,000 3. ₹14,000 4. ₹20,000
141. The length of a cold storage is 5 times its breadth, and its height is 8 m. The area of its four walls (including the doors) is 720 m². Find the total surface area of cold storage.
1. 1290.6 m² 2. 1275.3 m² 3. 1265.25 m² 4. 1282.5 m²
142. A truck goes from Haryana to Bangalore with an average speed of 60 km/h. The journey takes 30 hours. It returns from Bangalore to Haryana on the same road with an average speed of 40 km/h. What was the average speed of the truck during the roundtrip?
1. 60 km/h 2. 40 km/h 3. 50 km/h 4. 48 km/h
143. In a journey of three unequal laps, a car covers a distance of 200 km in 4 h in the first lap, while another 162 km at the speed of 15 m/s in the second lap. It covered the remaining distance of the final lap in 4 h such that the average speed of the car for entire journey was 50 km/h. What was the speed of the car in the third lap of the journey?
1. 47 km/h 2. 52 km/h 3. 42 km/h 4. 45 km/h
144. Three persons P, Q, R run along a circular track at speeds of 3 km/h, 4 km/h, 6 km/h, respectively. If the length of the track is 36 km, then after how much time will they meet again at the starting point?
1. 38 hours 2. 36 hours 3. 24 hours 4. 28 hours
145. A tangent is drawn from an external point 'A' to a circle of radius 12 cm. If the length of the tangent is 5 cm, then the distance from the centre of the circle to point 'A' is:
1. 17 cm 2. 9 cm 3. 7 cm 4. 13 cm

146. The price of a bat and a ball are in the ratio 9 : 5. The price of the bat is Rs.380 more than the price of the ball. Find the price of the ball.

1. Rs.470 2. Rs.485 3. Rs.475 4. Rs.480

147. The greatest number of five digits which is divisible by 13, 15, 18 and 21 is:

1. 99120 2. 98280 3. 96840 4. 95830

148. Solve the following equation.

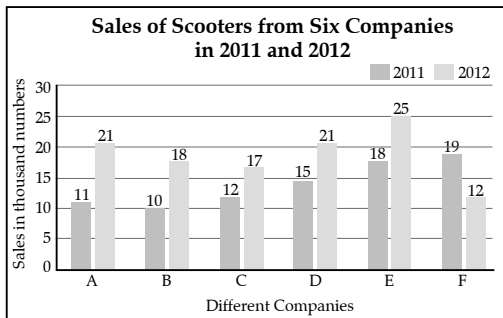
$$456 - (76 + 15^2) + \frac{3}{4} \text{ of } \frac{76}{18} \div \left(\frac{19}{72 \times 24} \right) = \text{---}$$

1. 443 2. 256 3. 356 4. 401

149. Three metallic spheres of radii 10 cm, 8 cm and 6 cm, respectively, are melted to form a single solid cone of radius 12 cm. Find the curved surface area of the cone, correct to two places of decimal. (Take $\pi = 3.14$)

1. 1664.50 cm² 2. 1669.86 cm²
3. 1876.79 cm² 4. 1861.41 cm²

150. The following bar graph shows the sales (in thousand numbers) of scooters from six different companies in 2011 and 2012.



The average sales of companies B and D in 2012 are what percentage of the average sales of companies A and E in 2011?

1. 65.89% 2. 72.87% 3. 70.89% 4. 74.36%

English Comprehension

151. Identify the sentence that correctly uses the indefinite article.

- In a big city like Mumbai, we see lot of rubbish being thrown from households and factories.
- In big city like Mumbai, we see a lot of rubbish being thrown from households and factories.
- In a big city like Mumbai, we see a lot of rubbish being thrown from households and factories.
- In a big city like Mumbai, we see an lot of rubbish being thrown from households and factories.

152. Select the most appropriate ANTONYM of the given word.

Vigorous

1. Buoyant 2. Sturdy 3. Frail 4. Robust

153. Select the most appropriate meaning of the given idiom. A slap on the wrist

- Punishment to an innocent.
- Suggest something secretly.
- A very mild punishment.
- Beating someone too much on the wrist.

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

She has let herself be gone after her divorce.

1. let herself go 2. let herself gone
3. let her go in 4. let herself going

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

To become a strong person in spite of many difficulties.

1. Anxious 2. Triggered 3. Safe 4. Resilient

156. Select the most appropriate synonym of the given word. Penchant

1. Bitterness 2. Liking 3. Sourness 4. Disliking

157. Identify the INCORRECTLY spelt word in the given sentence.

Food spoliage refers to an irreversible modification in which food becomes inedible or its quality is compromised.

1. irreversible 2. spoliage
3. modification 4. inedible

158. Select the most appropriate meaning of the given idiom. A lot on one's plate

- To eat a lot
- A lot to do
- To have a serious ailment
- To serve all dishes on one plate

159. Select the most appropriate ANTONYM of the given word.

Intense

1. Regular 2. Rough 3. Stationary 4. Faint

160. Select the most appropriate meaning of the given idiom. To be on thin ice

- To be in faulty situation
- To be in marginalised situation
- To be in a risky situation
- To be in limited scope

161. Select the most appropriate ANTONYM of the given word.

Separable

1. Branched 2. Judicious 3. Indivisible 4. Liable

162. Select the INCORRECTLY spelt word.

1. Alliterate 2. Elementary
3. Illiterate 4. Alimentary

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

I will be gone to buy a cupboard which will fit under the stairs.

1. am going to buy 2. will going to buy
3. am going to buying 4. will be buy

164. Select the most appropriate meaning of the underlined segment in the given sentence. Ms. Tina could finish the assignment by Friday - at a push, Wednesday.

- try very hard to do something, usually something nice
- probably possible, but it will be difficult
- make more of an effort
- using whatever methods are necessary

165. Select the most appropriate meaning of the given idiom. A lame excuse

1. No excuse 2. Explanation
3. Weak excuse 4. Strong excuse

166. Select the INCORRECTLY spelt word.

1. Column 2. Scale 3. Peace 4. Square

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

A large group of people

1. Convocation 2. Flock 3. Herd 4. Horde

168. Select the correct meaning of the idiom in bold and italics. Our **hearts go out to** the families of the victims of this terrible tragedy.

1. To receive or express praise for a job well done
2. To feel sympathy for someone when they are distressed
3. Well wishes for a deceased person
4. To wish for things does not yield to anything
169. Select the most appropriate synonym of the given word. Peculiar
1. Unusual 2. Customary
3. Perplexed 4. Proven
170. Select the most appropriate option that can substitute the underlined word in the given sentence.
None of the countries involved in war were ready to broach the issue of retreat.
1. turn down thoughtlessly
2. bring up for discussion
3. underestimate the worth of
4. disregard contemptuously
171. Select the most appropriate ANTONYM of the underlined word in the given sentence.
He leaves behind an indelible contribution to the financial world.
1. temporary 2. futile 3. durable 4. solitary
172. Select the most appropriate meaning of the given idiom. Toffee-nosed
1. A person who thinks he is of a high social class and looks down on people of lower class
2. A solid, respectable and respected member of society
3. Continue to live at the same social standard we have lived at, even though we have money problems
4. A person who seems impolite/of low education at first, but who is usually of good character
173. Select the most appropriate meaning of the underlined idiom.
He is in high spirits today.
1. Annoying 2. Disturbed 3. Drunk 4. Cheerful
174. The following sentence has been divided into parts. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer.
The research fellow defended / his thesis scholarly/ and obtained the degree.
1. No error
2. his thesis scholarly
3. and obtained the degree
4. The research fellow defended
175. Select the most appropriate synonym of the given word. Contrary
1. Wobbly 2. Crooked 3. Straight 4. Opposite
176. Select the most appropriate idiom for the underlined segment in the given sentence.
The evidence put forward could not confirm his guilt.
1. Bring up 2. Break down
3. Bear up 4. Blow off
177. Select the most appropriate ANTONYM of the given word. Pensive
1. Frivolous 2. Unreflective
3. Hollow 4. Goofy
178. Read the given sentence and select the most appropriate ANTONYM of the word 'Dilemma' from the following options.
The solutions given for the frequently asked questions were written so poorly that the buyers disliked the products.
1. Disliked 2. Poorly 3. Frequently 4. Solution
179. Select the most appropriate synonym to replace the italicised word.
If you feel good, then you will portray that attitude and look fabulous no matter what!
1. Distort 2. Garble 3. Falsify 4. Depict
180. Select the most appropriate option that can substitute the underlined segment in the given sentence.
I always encouraging people to read books which I have enjoyed reading myself.
1. encourage people to read books
2. encouraged people read books
3. am encouraged people reading books
4. encourage people to be reading books
181. Select the most appropriate option that can substitute the underlined segment in the given sentence.
I am sure you can win the match if you try hardly.
1. if you try hard 2. if you are trying hardly
3. if you trying hard 4. if you will try hardly
182. Select the option that will improve the underlined part of the given sentence. In case no improvement is needed, select 'No improvement required'.
What exactly is your problem with me?
1. definitely is your 2. entirely is your
3. finally is your 4. No improvement required
183. Identify the INCORRECTLY spelt word in the given sentence.
Because of some inevitable circumstances, the conference was postponed indefinite, indefinitely but the members could not be informed.
1. Conference 2. Circumstances
3. Indefinite 4. Inevitable
184. The following sentence has been split into four segments. Identify the segment that contains a grammatical error.
As is usual with stories of this genre, / in spite of their varying socio political realities, / the youngsters have fallen in love / with each other madly.
1. the youngsters have fallen in love
2. with each other madly
3. in spite of their varying socio political realities
4. As is usual with stories of this genre
185. Select the INCORRECTLY spelt word
1. Knowing 2. Cooking 3. Liveing 4. Loving
186. Substitute one word for the italicised expression.
When her teacher calls her a person who cannot be corrected, she laughs at herself.
1. Obedient 2. Reformable
3. Incorrigible 4. Manageable
187. Select the most appropriate meaning of the underlined idiom.
In the movie 'Encanto', the family thought Bruno was a black sheep.
1. Disgrace for the family 2. Unrelated to the family
3. Danger to the family 4. Unloved by the family
188. Read the given sentence and select the most appropriate ANTONYM of the word 'Sane' from the following options.
We started the day by going on a crazy ride, then we had a delicious lunch and then beautiful sightseeing to end the evening.
1. end 2. beautiful 3. delicious 4. crazy
189. Select the option that can be used as a one-word substitute for the given group of words.
Person living at the same time
1. Contemporary 2. Coquette
3. Cosmopolitan 4. Connoisseur

190. Select the most appropriate synonym of the given word.
Cogent

1. Rational 2. Insane 3. Tyrannical 4. Coward

Comprehension:

Read the given passage and answer the questions that follow.
While there is no denying that the world loves a winner, it is important that you recognise the signs of stress in your behaviour and be healthy enough to enjoy your success. Stress can strike anytime, in a fashion that may leave you unaware of its presence in your life. While a certain amount of pressure is necessary for performance, it is important to be able to recognise your individual limit. For instance, there are some individuals who accept competition in a healthy fashion. There are others who collapse into weeping wrecks before an exam or on comparing mark sheets and finding that their friend has scored better.

Stress is a body reaction to any demands or changes in its internal and external environment. Whenever there is a change in the external environment such as temperature, pollutants, humidity and working conditions, it leads to stress. In these days of competition when a person makes up his mind to surpass what has been achieved by others, leading to an imbalance between demands and resources, it causes psycho-social stress. It is a part and parcel of everyday life.

Stress has a different meaning, depending on the stage of life you are in. The loss of a toy or a reprimand from the parents might create a stress shock in a child. An adolescent who fails in the examination may feel as if everything has been lost and life has no further meaning. In an adult the loss of his or her companion, job or professional failure may appear as if there is nothing more to be achieved.

Such signs appear in the attitude and behaviour of the individual, such as muscle tension in various parts of the body, palpitation and high blood pressure, indigestion, and hyperacidity. Ultimately, the result is self-destructive behaviour such as eating and drinking too much, smoking excessively, relying on tranquilisers. There are other signs of stress such as trembling, shaking, nervous blinking, dryness of throat and mouth and difficulty in swallowing. The professional under stress behaves as if he is a perfectionist. It leads to depression, lethargy, and weakness. Periodic mood shifts also indicate the stress status of the students, executives, and professionals.

191. What is the tone of the passage?

1. Authoritative 2. Anxious
3. Informative 4. Dejected

192. Which situation does NOT lead to stress?

1. Finding a penny on the ground
2. Giving exams as a teenager
3. Loss of job as an adult
4. Losing a toy as a child

193. Select the most appropriate ANTONYM of 'success' from the passage.

1. Neglect 2. Laxity 3. Default 4. Failure

194. What does excessive stress NOT result in?

1. Hypertension 2. Indigestion
3. Relaxation 4. Palpitation

195. Select an appropriate title for the passage.

1. Levels of Stress in Different Age Groups
2. Stress and Relief
3. Life and Stress
4. Stress and its Consequences

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.

Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world. There (1)_____ progress over the last decades: More girls are going to school, fewer girls are forced into early marriage, more women are serving in parliament and positions of leadership, and laws are being reformed to (2)_____ gender equality. Despite these gains, many challenges remain: discriminatory laws and social norms remain (3)_____, women continue to be underrepresented at all levels of political leadership, and 1 in 5 women and girls between the ages of 15 and 49 report experiencing physical or sexual violence by an intimate partner within a 12-month period. The effects of the COVID-19 pandemic could reverse the limited progress that has been made on gender equality and women's rights. The coronavirus outbreak (4)_____ existing inequalities for women and girls across every sphere – from health and the economy to security and social protection. Women play a disproportionate role in responding to the virus, including as frontline healthcare workers and carers at home. Women's unpaid care work has increased significantly as a result of school closures and the increased needs of older people. Women are also harder hit by the economic (5)_____ of COVID-19, as they disproportionately work in insecure labour markets. Nearly 60 per cent of women work in the informal economy, which puts them at greater risk of falling into poverty.

196. Select the most appropriate option to fill blank 1.

1. are 2. has been 3. is 4. were

197. Select the most appropriate option to fill blank 2.

1. impede 2. hinder 3. retract 4. advance

198. Select the most appropriate option to fill blank 3.

1. rare 2. limited 3. pervasive 4. narrow

199. Select the most appropriate option to fill blank 4.

1. placate 2. exacerbates 3. appease 4. aid

200. Select the most appropriate option to fill blank 5.

1. impacts 2. frivolity
3. impertinence 4. paltriness

Answer Key

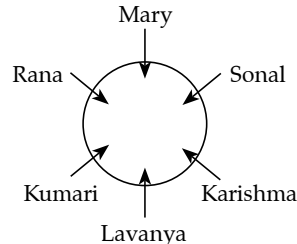
1. (4)	2. (3)	3. (4)	4. (1)	5. (3)	6. (4)	7. (4)	8. (3)	9. (4)	10. (1)
11. (2)	12. (4)	13. (1)	14. (1)	15. (4)	16. (4)	17. (2)	18. (4)	19. (4)	20. (3)
21. (2)	22. (4)	23. (1)	24. (1)	25. (1)	26. (1)	27. (4)	28. (4)	29. (4)	30. (2)
31. (2)	32. (2)	33. (1)	34. (1)	35. (4)	36. (3)	37. (1)	38. (2)	39. (2)	40. (3)
41. (2)	42. (2)	43. (2)	44. (1)	45. (2)	46. (2)	47. (3)	48. (3)	49. (2)	50. (1)
51. (3)	52. (4)	53. (1)	54. (4)	55. (2)	56. (1)	57. (1)	58. (1)	59. (1)	60. (1)
61. (4)	62. (3)	63. (1)	64. (4)	65. (2)	66. (3)	67. (3)	68. (3)	69. (2)	70. (4)
71. (2)	72. (4)	73. (1)	74. (4)	75. (3)	76. (4)	77. (2)	78. (3)	79. (2)	80. (2)
81. (2)	82. (4)	83. (3)	84. (2)	85. (3)	86. (4)	87. (2)	88. (3)	89. (1)	90. (1)
91. (3)	92. (3)	93. (1)	94. (2)	95. (4)	96. (1)	97. (1)	98. (4)	99. (3)	100. (3)
101. (3)	102. (4)	103. (3)	104. (3)	105. (3)	106. (1)	107. (1)	108. (4)	109. (4)	110. (4)
111. (2)	112. (2)	113. (4)	114. (3)	115. (4)	116. (2)	117. (3)	118. (3)	119. (4)	120. (1)
121. (3)	122. (3)	123. (2)	124. (3)	125. (1)	126. (1)	127. (3)	128. (2)	129. (1)	130. (3)

131. (1)	132. (4)	133. (2)	134. (1)	135. (1)	136. (1)	137. (1)	138. (3)	139. (4)	140. (1)
141. (1)	142. (4)	143. (1)	144. (2)	145. (4)	146. (3)	147. (2)	148. (1)	149. (4)	150. (4)
151. (3)	152. (3)	153. (3)	154. (1)	155. (4)	156. (2)	157. (2)	158. (2)	159. (4)	160. (3)
161. (3)	162. (4)	163. (1)	164. (2)	165. (3)	166. (1)	167. (4)	168. (2)	169. (1)	170. (2)
171. (1)	172. (1)	173. (4)	174. (2)	175. (4)	176. (3)	177. (2)	178. (4)	179. (4)	180. (1)
181. (1)	182. (4)	183. (2)	184. (4)	185. (3)	186. (3)	187. (1)	188. (4)	189. (1)	190. (1)
191. (3)	192. (1)	193. (4)	194. (3)	195. (4)	196. (2)	197. (4)	198. (3)	199. (2)	200. (1)

Answers with Explanations

1. Option (4) is correct.

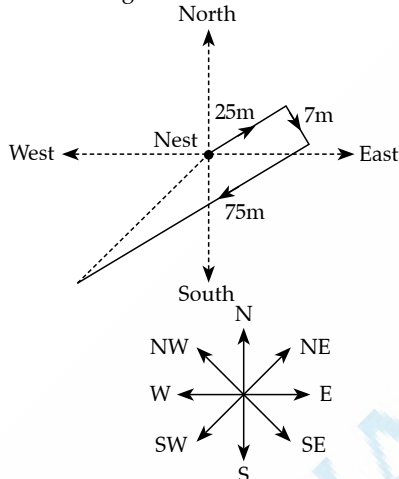
The sitting arrangement of six students around a circular table facing the centre is as follows:



From the above arrangement, Lavanya is sitting to the immediate right of Kumari.

2. Option (3) is correct.

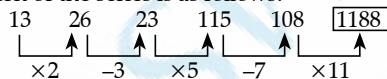
The direction diagram of a bird is as follows:



From the above diagram, the bird is in the south-west direction from its nest.

3. Option (4) is correct.

The pattern of the series is as follows:



Here, all the factors are prime numbers. Therefore, 1188 will complete the series.

4. Option (1) is correct.

The correct order of the given words as they would appear in the English dictionary is as follows:

- Tatters 1
- ↓
- Tatting 2
- ↓
- Tattle 3
- ↓
- Tattoo 4
- ↓
- Taut 5

5. Option (3) is correct.

Given set: (16, 22, 28)

$$16 + 22 = 38, 38 - 10 = 28$$

And, (14, 19, 23)

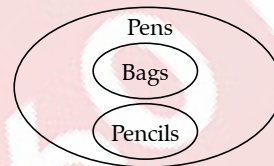
$$14 + 19 = 33, 33 - 10 = 23$$

Similarly, for option (3) (15, 26, 31)

$$15 + 26 = 41, 41 - 10 = 31$$

6. Option (4) is correct.

The Venn diagram of the given statements is as follows:



From conclusion I: Some pens are bags is true.

From conclusion II: All bags are pencils is false.

From conclusion III: Some pens are pencils is true.

Therefore, both conclusions I and III follow.

7. Option (4) is correct.

Given set: (2, 28, 4)

$$5(2 + 4) - 2 = 28, (5(a + c) - a = b)$$

$$10 + 20 - 2 = 28 \Rightarrow 30 - 2 = 28 \Rightarrow 28 = 28$$

And, (3, 22, 2)

$$5(3 + 2) - 3 = 22$$

$$15 + 10 - 3 = 22 \Rightarrow 25 - 3 = 22 \Rightarrow 22 = 22$$

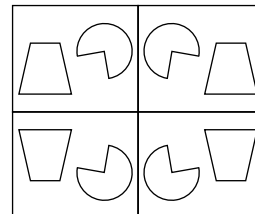
Similarly, from option (4), (4, 31, 3)

$$5(4 + 3) - 4 = 31 \Rightarrow 20 + 15 - 4 = 31$$

$$35 - 4 = 31 \Rightarrow 31 = 31$$

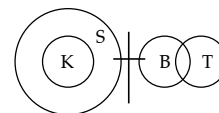
8. Option (3) is correct.

After unfolding the paper, it will appear as follows:



9. Option (4) is correct.

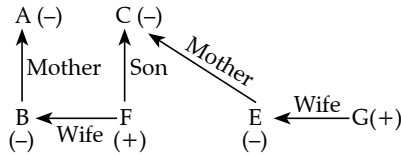
The Venn diagram of the given statements is as follows:



From conclusion I: No K are B is true.
 From conclusion II: Some T are not S is true.
 From conclusion III: Some T are B is also true.
 And from conclusion IV: All B being K is a possibility is false.
 Therefore, only conclusion IV does not follow.

10. Option (1) is correct.

The blood relationship tree is as follows:



From the above diagram, B is wife's brother's wife to G.

11. Option (2) is correct.

Given set: (7, 12, 25)

$$7 + 12 = 19 + 6 = 25, ((a + b) + 6 = c)$$

And, (6, 9, 21)

$$6 + 9 = 15 + 6 = 21$$

Similarly, from option (2), (5, 8, 19)

$$5 + 8 = 13 + 6 = 19$$

12. Option (4) is correct.

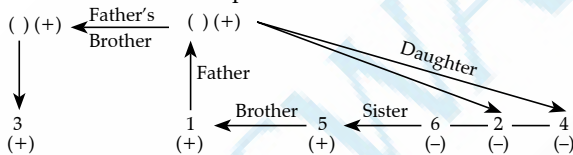
The correct order of the given words as they would appear in the English dictionary is as follows:

- Pelvic 1
- Pentagon 2
- Perceive 5
- Permanent 3
- Persistent 4

Therefore, 1, 2, 5, 3, 4 is the correct order.

13. Option (1) is correct.

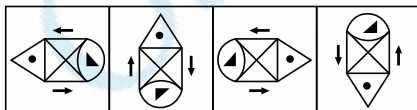
The blood relationship tree is as follows:



From the above diagram, 4 is sister to 1.

14. Option (1) is correct.

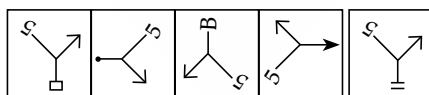
The figure series is as follows:



Here, the inner element moves clockwise and the arrows move anticlockwise. Therefore, option figure (1) will complete the series.

15. Option (4) is correct.

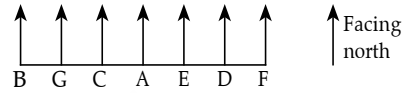
The figure series is as follows:



Here, all the elements move clockwise. By noting that element S appears after two steps, the arrow remains constant throughout, and the third element changes throughout. Therefore, option figure (1) will complete the series.

16. Option (4) is correct.

The sitting arrangement of seven people in a straight row facing north is as follows:



From the above diagram, A sits at the centre.

17. Option (2) is correct.

Given set: (14, 25, 38)

$$14 + 38 = 52, 52 - 2 = 50, 50/2 = 25$$

And,

$$(8, 19, 32)$$

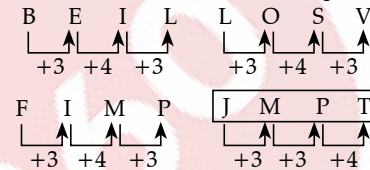
$$8 + 32 = 40, 40 - 2 = 38, 38/2 = 19$$

Similarly, from option (2), (6, 17, 30)

$$6 + 30 = 36, 36 - 2 = 34, 34/2 = 17$$

18. Option (4) is correct.

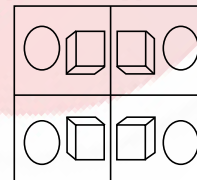
Except for JMPT, all others have the same pattern.



Therefore, JMPT is the odd one out.

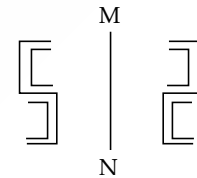
19. Option (4) is correct.

After unfolding paper, it will appear as follows:



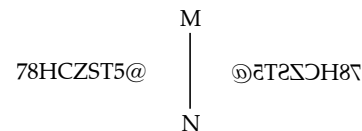
20. Option (3) is correct.

The mirror image of the given figure is as follows:



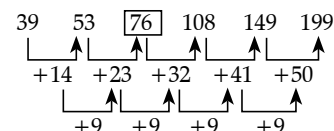
21. Option (2) is correct.

The mirror image of the given figure is as follows:



22. Option (4) is correct.

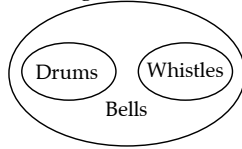
The pattern of the series is as follows:



Therefore, 76 will complete the series.

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

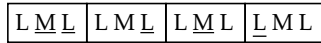
The Venn diagram of the given statements is as follows:



From conclusion I: Some drums are whistles is false.
 From conclusion II: Some bells are drums is true.
 From conclusion III: Some bells are whistles is true.
 Therefore, both conclusions II and III follow.

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

The pattern of the series is as follows:



Therefore, MLLML will complete the series.

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

Given expression:

$$89 \times 36 - 9 + 2 \div 11 = ?$$

After putting the signs, we get:

$$89 + 36 \div 9 - 2 \times 11 = ?$$

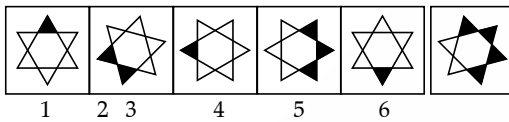
$$89 + 4 - 22 = ?$$

$$93 - 22 = ?$$

$$71 = ?$$

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

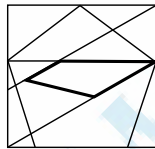
The pattern of the figure series is as follows:



Here, figures 1, 3, and 5 move anticlockwise without increasing any triangle in them while figures 2 and 4 move anticlockwise with increasing one triangle alternately. Therefore, option figure (1) will complete the series.

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

The option figure (4) is the figure in which the given figure is embedded.



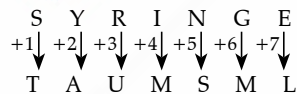
28. **Option (4) is correct.**

Given that: VACCINE is written as WCFGNTL

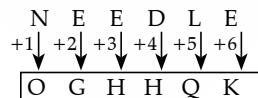


Here, each letter of the given word is increasing by +1, +2, +3, and so on.

And, SYRINGE is written as



Similarly, NEEDLE is written in the same way



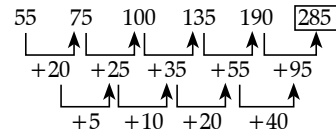
Therefore, NEEDLE will be written as OGHHQK.

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

From the two figures A and 6 is common in both dice position, therefore 5 will be opposite to 2.

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

The pattern of the series is as follows:

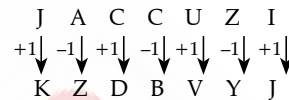


Therefore, 285 will complete the series.

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

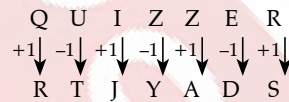
Given that:

JACCUZI is written as KZDBVYJ

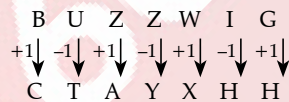


Here, letters 1st, 3rd, 5th, and 7th increased by 1 and letters 2nd, 4th, and 6th decreased by 1.

And, QUIZZER is written as RTJYADS



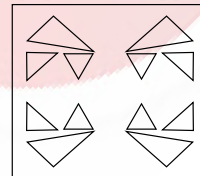
Similarly, BUZZWING is written in the same way



Therefore, BUZZWING will be written as CTAYXHH.

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

After unfolding the paper, it will appear as



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

Given expression:

$$115Q23R\sqrt[3]{64}S3P9R44 = ?$$

After putting the signs, we get:

$$115 \div 23 + \sqrt[3]{64} - 3 \times 9 + 44 = 5 + 4 - 27 + 44 = 26$$

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

Given expression: $355 * (12 * 3) * 289 * (186 * 6) * 71$

After putting the signs, we get:

$$355 + (12 \times 3) = 289 + (186 \div 6) + 71$$

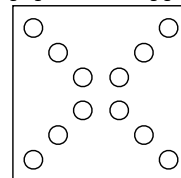
$$355 + 36 = 289 + 31 + 71$$

$$391 = 391$$

$$\text{LHS} = \text{RHS}$$

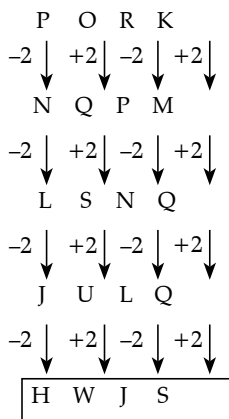
35. **Option (4) is correct.**

After unfolding the paper, it will appear as follows:



36. Option (3) is correct.

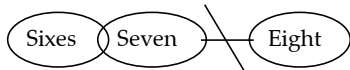
The pattern of the series is as follows:



Here, the 1st and 3rd letters decreased by 2 while the 2nd and 4th letters increased by 1. Therefore, HWJS will complete the series.

37. Option (1) is correct.

The Venn diagram of the given statements is as follows:



From conclusion I: All eights are sixes is false.
 From conclusion II: No eight is a six is also false.
 Therefore, neither conclusion I nor II follows.

38. Option (2) is correct.

Given expression: $12 + 156 \div 13 \times 6 - 100 = 50$

After putting the signs, we get:

$$\begin{aligned}
 12 \times 156 \div 13 + 6 - 100 &= 50 \\
 12 \times 12 + 6 - 100 &= 50 \\
 144 + 6 - 100 &= 50 \\
 150 - 100 &= 50 \\
 50 &= 50 \\
 \text{LHS} &= \text{RHS}
 \end{aligned}$$

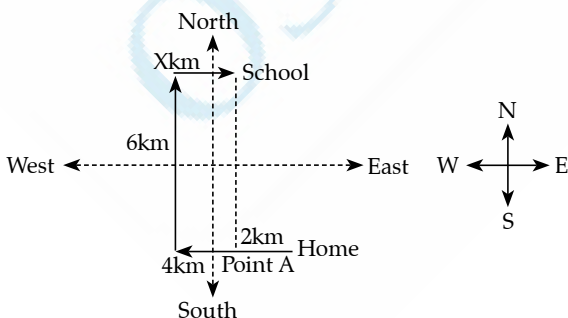
39. Option (2) is correct.

Given that:

you can start is written as sent room dark
 can you read is written as room sent less
 you are good is written as tyre room spin
 Therefore, code for you is room and code for can is sent.
 So, it is clear that code for can is sent.

40. Option (3) is correct.

The direction diagram of Reema is as follows:



So, the value of X is:
 $X = 4 - 2 \Rightarrow X = 2 \text{ km}$

41. Option (2) is correct.

As we know that a lion lives in the forest. Similarly, a shark lives in the ocean.

42. Option (2) is correct.

Given expression:

$$32 + 36 \times 4 - 21 \div 56 = ?$$

After putting the signs, we get:

$$32 \times 36 \div 4 + 21 - 56 = ?$$

$$32 \times 9 + 21 - 56 = ?$$

$$288 + 21 - 56 = ? \Rightarrow ? = 253$$

43. Option (2) is correct.

Given expression:

$$48 \text{ D } 12 \text{ A } (\sqrt{36} \text{ B } 3) \text{ C } 19 \text{ A } 24 = ?$$

After putting the signs, we get:

$$\Rightarrow 48 \text{ D } 12 \text{ A } (\sqrt{36} \text{ B } 3) \text{ C } 19 \text{ A } 24$$

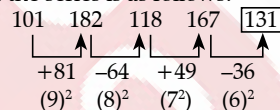
$$\Rightarrow 48 \div 12 + (\sqrt{36} \times 3) - 19 + 24$$

$$4 + (6 \times 3) - 19 + 24$$

$$= 4 + 18 - 19 + 24 = 27$$

44. Option (1) is correct.

The pattern of the series is as follows:



Therefore, 131 will complete the series.

45. Option (2) is correct.

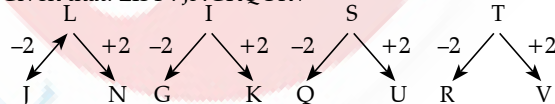
The pattern of the series is as follows:



Therefore, PAJASPJ will complete the series.

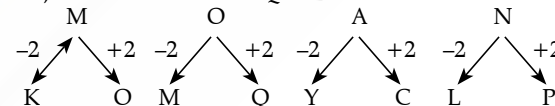
46. Option (2) is correct.

Given that: LIST : JNGKQURV

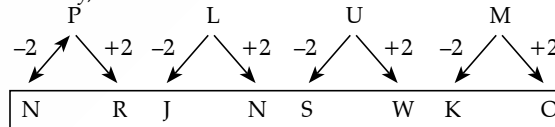


Here, each letter of the given word is first decreased by 2 and then increased by 2.

And, MOAN : KOMQYCLP

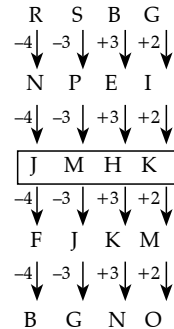


Similarly, PLUM : ?



47. Option (3) is correct.

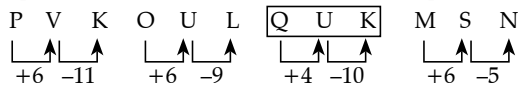
The pattern of the series is as follows:



Here, the 1st letter is decreased by 4, the 2nd letter is decreased by 3, the 3rd letter is increased by 3, and the 4th letter is increased by 2. Therefore, JMHK will complete the series.

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

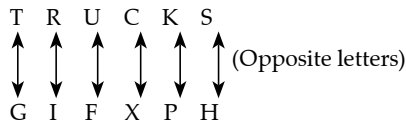
Except for QUK, all the others have the same pattern.



Therefore, QUK is the odd one out.

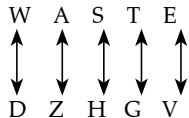
49. **Option (2) is correct.**

Given that: TRUCKS is written as GIFXPH

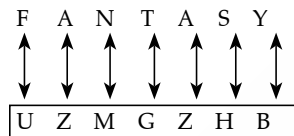


Here, each letter of the given word is the opposite of the other.

And, WASTE is written as DZHGV



Similarly, FANTASY is written in the same way



Therefore, FANTASY will be written as UZMGZHB.

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

Given expression: $456 C 236 D 2 A 14 B 1$

After putting the signs, we get:

$$456 - 236 \div 2 + 14 \times 1$$

$$456 - 118 + 14$$

$$470 - 118 = 352$$

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

NBFC-MFI is a non-deposit-taking NBFC that meets the following conditions (other than a company certified under Section 25 of the Indian Companies Act, 1956). Minimum Net Owned Funds (NOF) of ₹ 5 crores. (A minimum NOF of ₹ 2 crores is required for those registered in the country's North Eastern Region). At least 85 percent of its Total Net means are Qualifying means. Every new NBFC-MFI must maintain a Capital adequacy ratio of at least 15% of its aggregate risk-weighted assets, which shall include Tier I and Tier II Capital. An NBFC that does not qualify as an NBFC MFI is not permitted to make loans to the microfinance sector that exceed 10% of its total assets.

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

The Dandiya dance is popular in Rajasthan's Marwar region. Dandia or Raas is the most popular dance in Gujarat, as well as in the rest of India. It is most commonly seen during the Navratri festival. The Dandiya dance, originally performed in honour of Goddess Durga, depicts a battle between the demon Mahishasura and the Goddess. Another legend states that the dance form originated from Krishna & Radha's 'Raas Leela', hence the name 'Dandiya Raas'. This dance is typically performed by a mixed group of men and women.

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

Directive Principles of State Policy (DPSP) are addressed in Articles 36-51 of Part IV of the Indian Constitution (DPSP).

They are taken from the Irish Constitution, which was based on the Spanish Constitution. Directive Principles of State Policy are non-justiciable rights, which means they cannot be enforced in a court of law but establish the objectives and framework for making policies and laws. They are, however, not justifiable in a court of law. Directive principles are instruments of instruction to the current government to do something positive.

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

Banaras Hindu University was founded by Madan Mohan Malaviya. Along with Madan Mohan Malaviya, Prabhu Narayan Singh, Rameshwar Singh, Madan Mohan Malaviya, Sunder Lal, and Annie Besant founded it in 1916. Previously, it was known as the Central Hindu College. In 2012, the university's engineering institute was designated as the Indian Institute of Technology (IIT BHU). Pandit Madan Mohan Malaviya and Pandit Din Dayal Sharma founded the Bharat Dharma Mahamandala in Varanasi in 1887 AD. In 1915, he founded the Hindu Mahasabha.

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

The Inheritance of Loss is Indian author Kiran Desai's second novel. It was released for the first time in 2006. It received several honors, including the Man Booker Prize that year, the National Book Critics Circle Fiction Award in 2007, and the Vodafone Crossword Book Award in 2006. It took her seven years to write after her first book, the critically acclaimed Hullabaloo in the Guava Orchard. Its main themes include migration, living between two worlds, and time travel.

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

Nirad C. Chaudhuri, an Indian author, published his autobiography under the title "The Autobiography of an Unknown Indian" in 1951. He wrote it when he was about 50 years old. It follows his life from his birth in the small Bangladeshi town of Kishoreganj in 1897.

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

The Sattriya dance form was introduced in the 15th century A.D. as a powerful medium for the propagation of the Vaishnava faith by the great Vaishnava saint and reformer of Assam, Mahapurusha Sankaradeva. It is one of India's eight classical dance forms. Sankaradeva popularised this dance form by combining elements from various treatises, popular dance forms, and local folk dances with his unique perspective. Sattriya dance is a clear indication of the former's influence on the latter. Other visible influences on Sattriya dance include Assamese folk dances such as Bihu and Bodos. Many hand gestures and rhythmic syllables in these dance forms are strikingly similar.

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

Francium is an element with the atomic number 87 and the symbol Fr. It has a high level of radioactivity. Francium-223, its most stable isotope, has a half-life of only 22 minutes. It is the second most electropositive element after caesium. It is the second-rarest element found in nature. To produce francium, radium is bombarded with neutrons in a nuclear reactor. It is also possible to create it by bombarding thorium with protons. Atomic number: The atomic number is the number of protons in an atom's nucleus. The proton count of an element determines its identification.

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

Appa Jalgaonkar performed on the harmonium. He was well-known as Bhimsen Joshi's accompanist. Appa Jalgaonkar collaborated with singers such as Amir Khan, Bade Ghulam Ali Khan, and Hirabai Barodekar. For his achievements in harmonium playing, he received the

prestigious Sangeet Natak Akademi Award. He died on September 16th, at the age of 87, in Pune.

60. Option (1) is correct.

Economic growth is the most effective means of eradicating poverty and raising living standards in developing countries. It is well-established that there is a positive correlation between economic growth and poverty reduction. However, it is not as clear how income inequality impacts this relationship. There is uncertainty regarding whether increased inequality diminishes the poverty reduction benefits of growth. The degree of income inequality at the outset influences how well growth reduces poverty.

61. Option (4) is correct.

Kwashiorkor is a type of malnutrition characterized by a severe lack of protein. This causes abdominal swelling and fluid retention. Kwashiorkor primarily affects children. It is more common in developing countries that have high levels of poverty and food insecurity. Patients with Kwashiorkor may have enough food to eat, but not enough protein. Kwashiorkor can be treated by eating more protein and calories in general.

62. Option (3) is correct.

Turmeric has a warm, bitter flavor that is commonly used to flavor or color curry powders, mustards, butter, and cheeses. Lead chromate, a chemical compound made up of lead and chromium, is a yellow pigment that can brighten a substance. It is also poisonous, acting as a neurotoxin when ingested or inhaled by humans. Other adulterants found in turmeric include Aniline dyes with metanil yellow. The chalk powder starch was added.

63. Option (1) is correct.

In 1856, Governor-General Canning declared that Bahadur Shah Zafar would be the last Mughal emperor and that after his death, none of his descendants would be recognized as kings. His descendants would only be referred to as princes. In 1849, Governor-General Dalhousie announced that after Zafar's death, his family would be relocated from the Red Fort to another location in Delhi. Around this time, the name of the Mughal emperor was also removed from coins.

64. Option (4) is correct.

Fundamental Responsibilities and Fundamental Duties are addressed in Part IV-A (Article 51-A). The 42nd Amendment, passed in 1976, added this section. It originally had ten responsibilities. It now has 11 duties as a result of the 86th Amendment Act of 2002. Thus, the original Constitution did not include the citizens' Fundamental Duties, but they were added later. This feature is taken from the Soviet constitution.

65. Option (2) is correct.

When an athlete moves faster than 0.1 seconds after the gun, it is considered a false start. The number of false starts at major events has decreased dramatically since the new rule was implemented. When there is a false start, the starter will fire the gun twice to alert the field. The rule states that only one false start is permitted per race without disqualifying the athlete(s) who makes the false start. In the event of a first false start, the athlete(s) may restart.

66. Option (3) is correct.

In 2016, India hosted the tournament. After a five-year hiatus, India was awarded the hosting rights for the 2021 edition as well, but due to the COVID-19 pandemic, the matches were held in Oman and the United Arab Emirates. Australia, which won the tournament the previous year, hosted the 2022 edition.

67. Option (3) is correct.

On May 17, 1782, the British East India Company and the Marathas signed the Treaty of Salbai. Salbai is located in Madhya Pradesh's Gwalior District. After long negotiations to settle the outcome of the First Anglo-Maratha War, representatives of the Maratha Empire and the British East India Company signed the Treaty of Salbai on May 17, 1782, between Warren Hastings and Mahadaji Scindia.

68. Option (3) is correct.

Commercial crops are those that provide farmers with higher returns. Farmers cultivate subsistence crops for their own and their family's consumption. Rice, as a tropical crop, thrives in hot and humid conditions. It is grown in rain-fed areas that receive a lot of rain each year. Because of this, it is an important Kharif crop in India. Rice is still harvested using traditional methods in India. Rice is a subsistence crop in Orissa but a commercial crop in states such as Punjab.

69. Option (2) is correct.

The Constitution (42nd Amendment) Act of 1976 added the fundamental duties to Part IV-A of the Constitution during Indira Gandhi's Emergency. The 42nd Amendment added ten of the eleven essential duties listed in Article 51(A). The eleventh duty was added in 2002, during the Prime Ministership of Atal Bihari Vajpayee. These obligations are not legally enforceable. A court may, however, consider them when making a decision. The final subsection was added in 2002 by the Constitution (86th Amendment) Act. This section is about children's education. Article 21A was added to the Constitution during the same revision. According to Article 21A, "the State shall provide free and compulsory education to all children between the ages of six and fourteen in such manner as the State may by law determine."

70. Option (4) is correct.

Kirchhoff's first law is also known as Kirchhoff's Current Law (KCL), Kirchhoff's Junction Rule (KJR), Kirchhoff's Point Rule (KPR), and Kirchhoff's Nodal Rule (KNR). It is an application of the principle of electric charge conservation. The law states that the sum of the currents flowing into and out of any circuit junction is equal. Kirchhoff's first law states that the sum of all currents entering a node equals the sum of all currents leaving the node.

71. Option (2) is correct.

Manoj Sarkar is an Indian para-badminton player. He has 50 international medals to his name, including 19 gold, 13 silver, and 18 bronze. He is from Uttarakhand. In 2018, the President of India bestowed the Arjun award upon him. The GoSports Foundation assists him through its Para Champions Program.

72. Option (4) is correct.

Tritium, also known as hydrogen-3, is a rare and radioactive isotope of hydrogen. The nucleus of a tritium atom is made up of one proton and two neutrons. Tritium occurs naturally very rarely on Earth. There are trace amounts in the atmosphere, which are produced when gases interact with cosmic rays. It can be created artificially by exposing lithium metal or lithium-containing ceramic pebbles to radiation in a nuclear reactor.

73. Option (1) is correct.

Globalization refers to the movement of financial products, goods, technology, information, and jobs across national and cultural boundaries. In economic terms, it refers to global interdependence made possible by free trade. Globalization is a phenomenon in social,

cultural, political, and legal terms. As a result, social interaction between different populations grows. Globalization exemplifies cultural exchange across civilizations in terms of ideas, values, and artistic expression. Outsourcing is a significant consequence of globalization. Outsourcing is the practice of engaging regular services from outside vendors, typically located abroad. Many services, including voice-based business operations and record guidance, are outsourced to India by companies in wealthy countries.

74. Option (4) is correct.

James Joseph Brown, also known as “The Godfather of Soul” and “The Hardest Working Man in Show Business,” was a two-time Grammy Award winner and multiple Grammy Award nominee who was widely regarded as one of the most influential figures in twentieth-century popular music.

75. Option (3) is correct.

Tropical evergreen forests can be found in areas where the annual rainfall exceeds 200 cm. As a result, Statement 3 is incorrect. In the coldest months, the forests thrive at a monthly mean temperature of 18 degrees Celsius or higher. Tropical evergreen forests are dense, multilayered, and home to a diverse range of plants and animals. As a result, Statement 1 is correct. Because of the dense growth of trees, sunlight cannot reach the ground in tropical evergreen forests. This type of forest is abundant in tree species that can grow to heights of 60 meters or more. As a result, Statement 2 is correct. Ebony and Mahogany are two important trees in the tropical evergreen forest. Cinchona, Rosewood, and Rubber commercially important species include Bamboo, Sal, Shisha, Sandalwood, Khair, Kusum, and Mulberry. These can be found on the Eastern and Western slopes of the Western Ghats, as well as in hot and humid climates.

76. Option (4) is correct.

The most intriguing aspect of the Harappan civilization’s urban design is its town planning. Large structures in the citadel may have served as administrative or ritual centers. Special buildings were built on the citadel in some cities of the Indus Valley Civilization. The residential structures are constructed in the lower town. As a result, they are not a part of the citadel. In a crisscross pattern, the streets intersect at right angles. It divides the city into residential areas. Narrow lanes connect the main street. House doors opened in these lanes rather than the main streets. The houses of the common people, on the other hand, ranged in size from single-room structures in Harappa to larger structures. The houses were mostly made of burned bricks.

77. Option (2) is correct.

Pt. Ravi Shankar was a well-known sitarist who received India’s highest civilian honor, the Bharat Ratna, in 1999. He was an Indian composer and musician, who was born on April 7, 1920. He has received numerous honors, including the Padma Bhushan, Padma Vibhushan, Bharat Ratna, and the Grammy Award. The “Sitar maestro” was the most well-known sitarist of the second half of the twentieth century, influencing many other musicians around the world, including Beatles guitarist George Harrison.

78. Option (3) is correct.

The Consolidated Fund contains revenues received by the government through direct and indirect taxes, money borrowed, and receipts from loans and expenses made by it, excluding exceptional items. This fund was established under Article 266 (1) of the Indian Constitution. Except for exceptional items, which are

met from the Contingency Fund or the Public Account, all government expenditures are made from this fund. Without the approval of the Parliament, no money can be withdrawn from this fund.

79. Option (2) is correct.

Atomic radius decreases across a period because valence electrons are added to the same energy level while the nucleus increases in protons. The increased nuclear charge attracts electrons more strongly, causing them to move closer to the nucleus.

80. Option (2) is correct.

Aqua regia, also known as King’s Water, is a 1:3 solution of nitric acid and hydrochloric acid used to dissolve noble metals such as gold and platinum. Only the combination of two acids can dissolve various elements, whereas HCl and HNO₃ cannot dissolve them separately. It is a yellow-orange fuming liquid that is used to remove metals such as gold and platinum from materials, particularly in microelectronics and micro-fabrication labs.

81. Option (2) is correct.

The substance hydrogen chloride is a hydrogen halide with the chemical formula HCl. HCl is a colorless gas with a pungent odor. Hydrochloric acid is the aqueous solution of hydrogen chloride. Hydrogen sulfide has an offensively unpleasant odor similar to rotting eggs. Hydrogen sulfide is a chalcogen hydride gas with the chemical formula H₂S. It is a hazardous, flammable, and highly corrosive gas. It is employed in analytical chemistry to identify cations. Hydrogen sulfide is the precursor to elemental sulfur.

82. Option (4) is correct.

Yahya-bin-Ahmad Sirhindi wrote Tarik-i-Mubarak Shahi. Tarikh-i Mubarak Shahi contains valuable information about the rulers of Delhi’s Sayyid Dynasty (1414-1451 AD). It also includes Muhammad Ghori’s and his rulers’ histories up to the third ruler of the Sayyid dynasty. The earlier part of the book was written with the assistance of other historians’ works, but the later part was written by him based on reliable information and personal knowledge. Many subsequent writers used it as a primary text in their works.

83. Option (3) is correct.

Article 108 of the Indian Constitution provides for joint sittings of both Houses. It should be noted that the provision of joint sitting only applies to ordinary or financial bills, not money bills or Constitutional amendment bills. The President convenes a joint session of Parliament, which is presided over by the Speaker or, in his absence, the Deputy Speaker of the Lok Sabha or, in his absence, the Deputy-Chairman of the Rajya Sabha. A money bill has overriding powers in the Lok Sabha, whereas a Constitutional amendment bill must be passed by each House separately. The Chairman does not preside over the joint session under any circumstances.

84. Option (2) is correct.

It is widely assumed that Agra was both an ancient city from the time of the Mahabharata and Sultan Sikandar Lodi. He was the Muslim ruler of the Delhi Sultanate when he founded Agra in 1504. He was a devout Sunni and a Muslim zealot. He was anti-religious and imposed the Jaziya and Pilgrims taxes on Hindus. He was a generous patron of the arts and wrote verses in Persian under the pen name Gulrukhi. The Sultan’s son, Sultan Ibrahim Lodi, inherited the city after his father died. He ruled his Sultanate from Agra until he was defeated in the First Battle of Panipat in 1526 by Mughal Badshah (emperor) Babar. Sikandar was named after the village of Sikandara, near Agra, which houses Akbar’s tomb. As a result, we can say that Sikandar Lodi founded the city of Agra.

85. Option (3) is correct.

The National Commission on Agriculture divides social forestry into three categories (1976). Farm, rural, and urban forestry are the three types of forestry. Growing and maintaining trees on public and privately owned properties in and near urban areas, such as greenways, parks, avenues along streets, and green spaces for industry and commerce, are examples of urban forestry.

86. Option (4) is correct.

Gopal Krishna Gokhale was an Indian politician who was regarded as "moderate" and a social reformer. Gokhale founded the Servants of India Society. He was a prominent Indian National Congress member. A significant step forward was made during the Congress session presided over by Dadabhai Naoroji in Calcutta in 1906. It was stated that the Indian National Congress was founded to achieve "self-government or swaraj like the United Kingdom or the colonies" of Australia or Canada.

87. Option (2) is correct.

Diene is an unsaturated molecule with two double bonds between its carbon atoms. Diene is used in industry as the monomer constituent of complex polymers. Organic synthesis also makes use of it. Dienes are classified into three groups based on the position of the double bond about the rest of the molecule: A cumulated diene is one with two consecutive double bonds on Carbon atoms nearby. They are also known as Allene. A conjugated diene is a compound that contains two conjugated double bonds that are separated by only one bond. An isolated diene is made up of two double bonds separated by two or more double bonds.

88. Option (3) is correct.

Hariprasad Chaurasia is a well-known Indian flutist. He comes from the Hindustani classical tradition. In 1984, he was awarded the Sangeet Natak Akademi. In 2000, he received India's second-highest civilian award, the Padma Vibhushan.

89. Option (1) is correct.

According to the NSS report, Rajasthan has the lowest percentage of literate females in the state. The estimated female literacy rate in the state is 57.6%. Other Indian states with the lowest percentages of female illiteracy are Andhra Pradesh, Bihar, Uttar Pradesh, and Jharkhand. When female and male literacy rates are combined, the overall literacy rate in Rajasthan is 69.7%. Men in the state have a literacy rate of 80.8%. Female literacy in Andhra Pradesh is 59.5%. Andhra Pradesh has the lowest male and overall literacy rates in the country, at 66.4% and 73.4%, respectively.

90. Option (1) is correct.

"For every action, there is an equal but opposite reaction," Newton's third law states. Thrust generation in rocket propulsion rocket engines, jet engines, and deflating balloons are examples. When a burnt-out fuel mixture is thrown in the back direction with high velocity, a forward thrust is generated in the reaction, propelling the rocket forward.

91. Option (3) is correct.

First, three female Supreme Court judges were sworn in on August 31, 2021, including Justice BV Nagarathna, who will be the first female Chief Justice of India (CJI) in September 2027. With this, the Supreme Court of India now has four female judges, the most in its history. Fathima Beevi, the court's first female justice, was appointed on October 6, 1989. Since then, the court has had 11 female justices.

92. Option (3) is correct.

A Sangeet Samaroh is held annually in Maihar, Satna, in Ustad Allaiddin Khan's honor. The Ustad Allaiddin Khan Sangeet Academy is organizing it in collaboration with the Madhya Pradesh Sanskriti Parishad. Maihar's Allaiddin Khan Sangeet Samaroh is a three-day festival. Allaiddin Khan completely reshaped the Maihar Gharana of Indian classical music. Baba Allaiddin Khan was another name for Allaiddin Khan. He was a sarod player from India.

93. Option (1) is correct.

The lithosphere of the Earth is divided into seven major and some minor plates. The major plates are surrounded by Young Fold Mountain ridges, oceanic trenches, and/or transform faults. These are some examples: Antarctica (and its surrounding oceanic plate) The North American license plate (with the western Atlantic floor separated from the South American plate along with the Caribbean islands) The plate from South America (with the western Atlantic floor separated from the North American plate along with the Caribbean islands) The plate from the Pacific Plate India-Australia-New Zealand Africa's eastern Atlantic floor plate Eurasia and its neighboring oceanic plate

94. Option (2) is correct.

List of Indian National Parties: Bharatiya Janata Party (BJP). National Congress of Indians (INC). India's Communist Party (CPI). National People's Party (NPP). Bahujan Samaj Party (BSP). Nationalist Congress Party (NCP). India's Communist Party (Marxist). Aam Aadmi Party (AAP) and All India Trinamool Congress (AITC).

95. Option (4) is correct.

Following the defeat at Plassey, Sirajuddaulah Nawab of Bengal was assassinated, and the puppet Nawab of Bengal Mir Jafar was installed. When the company interfered with Mir Jafar's internal administration, the company deposed him and installed Mir Qasim in his place. When Mir Qasim objected, he was defeated in a battle at Buxar (1764), expelled from Bengal, and Mir Jafar was reinstated. Nawab was required to pay Rs 500,000 every month, but the Company required more funds to finance its wars, meet trade demands, and cover other expenses. The company desired more territories as well as more revenue. The mood of the Company had shifted by the time Mir Jafar died in 1765.

96. Option (1) is correct.

The World Para Table Tennis Championship, which began in 1990 in Assen, Netherlands, was previously held every four years, with both platoon and individual events, with the most recent edition being held in Beijing, China in 2014. The event has since been restructured to point to platoon events at inconvenient times and individual events at appropriate times. The 2018 World Para Table Tennis Crowns will be the first World title event for individual para table tennis events since the Rio 2016 Paralympic Games, with an estimated 330 of the world's most stylish para table tennis players expected to descend on Slovenia to compete for World Crowns titles in 21 order events.

97. Option (1) is correct.

The ninth five-year plan (1997-2002) achieved a lower-than-expected GDP growth rate of 5.4%. Nonetheless, industrial growth was 4.5%, which was higher than the 3% target. The service industry grew at a 7.8% annual rate. An annual growth rate of 6.7% was achieved on average. Quality of life, creation of productive jobs, regional balance, and self-sufficiency. Growth in the context of social justice and equality. 6.5% growth is the target. The tenth five-year plan (2002-2007) is as follows: It was successful in reducing poverty by 5%, increasing

forest cover by 25%, increasing literacy rates to 75%, and increasing the country's economic growth by more than 8%. To achieve an 8% GDP growth rate, reduce poverty by 5 percentage points, and increase the country's literacy rate.

98. Option (4) is correct.

The process of identifying and counting plant and animal species in an ecosystem determines its species composition. The vertical distribution of different species at different levels is referred to as stratification. In a forest, for example, trees occupy the top vertical strata or layer, shrubs the second, and herbs and grasses the bottom layers.

99. Option (3) is correct.

When lithium reacts with excess air, it usually forms lithium oxide, but lithium peroxide can also form. However, we know that when peroxides are hydrolyzed, they produce hydrogen peroxide and a metal hydroxide. $4\text{Li} + \text{O}_2 \rightarrow 2\text{Li}_2\text{O}$ is the reaction between lithium and oxygen. The alkali metal halides are colorless crystalline solids that appear white when finely ground. They melt at high temperatures, typically hundreds of degrees, to form colorless liquids. Their high melting point reflects the high lattice energy of their crystals.

100. Option (3) is correct.

Duns are the longitudinal valleys that connect the Lesser and Outer Himalayas (Shivaliks). Duns are structurally formed and covered with boulders and gravel eroded from the Himalayas and the Shivalik uplands. The region's major dunes include Dehra, Kohtri, Chaukham, Patli, and Kota. Dehradun's dun is the largest, measuring 35 kilometers in length and 25 kilometers in width.

101. Option (3) is correct.

$\cos A + \cos B + \cos C = 3$
 $\Rightarrow \cos A = \cos B = \cos C = 1$
 $\Rightarrow A = B = C = 0^\circ$
 $\therefore \sin A + \sin B + \sin C = 0$
 Hence, 0 is the correct answer.

102. Option (4) is correct.

The net effect will be $\frac{\text{SP}}{\text{CP}} = \frac{1000}{750} \times \frac{115}{100} \times \frac{90}{100}$
 $= \frac{4}{3} \times \frac{23}{20} \times \frac{9}{10} = \frac{69}{50}$
 $\Rightarrow \text{Profit}\% = \frac{19}{50} \times 100 = 38\%$

Hence, 38% is the correct Answer.

103. Option (3) is correct.

The sum of 21 results = $21 \times 15 = 315$ and the sum of the 7 = $7 \times 21 = 147$ and sum of last 7 = $7 \times 20 = 140$
 8^{th} will be $315 - (147 + 140) = 28$
 Hence, 28 is the correct answer.

104. Option (3) is correct.

$\angle ABD = \angle ACD = 50^\circ$ [Angles in the same segment]
 In $\triangle ADB$, by angle sum property we have
 $\angle BAD + \angle ADB + \angle ABD = 180^\circ$
 But, we know that angle in a semi-circle is 90°
 $\angle ADB = 90^\circ$
 So, $x + 90^\circ + 50^\circ = 180^\circ \Rightarrow x = 180^\circ - 140^\circ$
 Hence, $x = 40^\circ$

105. Option (3) is correct.

Centuries scored in 2021 = $1 + 1 + 0 + 0 + 1 = 3$
 Centuries scored in 2020 = $0 + 2 + 0 + 1 + 0 = 3$
 Centuries scored in 2019 = $2 + 0 + 1 + 1 + 1 = 5$

Centuries scored in 2018 = $1 + 0 + 1 + 0 + 0 = 2$

Centuries scored in 2017 = $1 + 1 + 0 + 1 + 1 = 4$

Therefore, Maximum centuries scored is in 2019 which is 5.

Hence, 2019 is the correct answer.

106. Option (1) is correct.

Marks obtained by student Q in physics and Hindi
 $= \frac{90}{100} \times 80 + \frac{54}{100} \times 100 = 126$

Marks obtained by student T in Geography and History
 $= \frac{88}{100} \times 75 + \frac{42}{100} \times 50 = 87$

More % = $\frac{126 - 87}{87} \times 100 = 44.82$

Hence, 45% is the correct answer.

107. Option (1) is correct.

Given = $\frac{\sin^2 A + 1 + \cos A + \cos A + \cos^2 A}{\sin A + \sin A \cos A}$
 $= \frac{2 + 2 \cos A}{\sin A + \sin A \cos A} = \frac{2(1 + \cos A)}{\sin A(1 + \cos A)}$
 $= \frac{2}{\sin A} = 2 \operatorname{cosec} A$

Hence, $2 \operatorname{cosec} A$ is the correct Answer.

108. Option (4) is correct.

Given HCF of 108, 72 and $5a$ is a .

$\Rightarrow 108 = 72 \times 1 + 36$

$\Rightarrow 72 = 36 \times 2 + 0$

Third number = $5a = 5 \times 36 = 180$

Therefore, $a = 36$

Now, LCM of 108, 72 and 36 = $36 \times 2 \times 3 = 216$

Hence, 216 is the correct Answer.

109. Option (4) is correct.

Given number is 6336633P is divisible by 132.

Now, as 132 is divisible by 11 and 12 and then the given number should also be divisible by 11 and 12.

Now to check the divisibility of 12 we need to check the divisibility of 4 and 3.

If the sum of digits is divisible by 3 then the number is divisible by 3.

$6 + 3 + 3 + 6 + 6 + 6 + 3 + 3 + P = 30 + P$

$\Rightarrow P + 30 = 33$

$\Rightarrow P = 3$

Now divisibility of 4 says that if the last 2 digits of a number is divisible by 4 then all the number is divisible by 4.

Now If $P = 3$ then 33 is not divisible by 4 and therefore only option is left which is 6.

Now, 63366336 is now divisible by both 3 and 4.

Hence, 6 is the correct Answer.

110. Option (4) is correct.

We know that the area of circle = πr^2

$\Rightarrow \pi r^2 = 1386 \text{ cm}^2$

$\Rightarrow \frac{22}{7} r^2 = 1386$

$\Rightarrow r^2 = \frac{1386}{22} \times 7 = 441$

$\Rightarrow r = 21$

Hence, radius is 21 cm.

111. Option (2) is correct.

The amount which has to be paid by the customer =

$$700 \times \frac{90}{100} \times \frac{80}{100} = 504$$

Hence, 504 is the correct Answer.

112. Option (2) is correct.

Let the speed of two bodies are $2x$ and $3x$ respectively.

A.T.Q.,

$$\Rightarrow \frac{50}{2x} - \frac{50}{3x} = 10$$

$$\Rightarrow \frac{15x - 10x}{6x^2} = 1$$

$$\Rightarrow 6x^2 = 5x$$

$$\Rightarrow x = \frac{5}{6}$$

So, difference of speeds = $3x - 2x = x = \frac{5}{6}$ m/s

Hence, $\frac{5}{6}$ is the correct Answer.

113. Option (4) is correct.

We know that $\frac{a}{b} = \frac{c}{d} \Rightarrow \frac{3}{13} = \frac{z}{39} \Rightarrow z = 3 \times \frac{39}{13} = 9$

Hence, 9 is the correct Answer.

114. Option (3) is correct.

Number of Males = $1500 + 1460 + 1105 + 1305 = 5370$

Number of Females = $1220 + 1320 + 1180 + 1170 = 4890$

The Ratio is $5370 : 4890 = 179 : 163$

Hence, $179 : 163$ is the correct Answer.

115. Option (4) is correct.

The successive change = $\frac{125}{100} \times \frac{70}{100} = \frac{8750}{10000}$

Net decrease = $\frac{(10000 - 8750)}{10000} \times 100 = 12.5$

Hence, 12.5% is the correct Answer.

116. Option (2) is correct.

Let initial production was 1000.

Net Production after 3rd year = $1000 \times \frac{110}{100} \times \frac{122}{100} \times$

$$\frac{105}{100} = 1409.1$$

Therefore increase = $\frac{1409.1 - 1000}{1000} \times 100 = 40.9\%$.

Hence, 40.9% is the correct Answer.

117. Option (3) is correct.

Students who opted Biology in School B = $\frac{36}{100} \times 400$

$$= 144.$$

Students who opted Biology in School D = $\frac{18}{100} \times 800$

$$= 144$$

Therefore, the ratio is $144 : 144 = 1 : 1$

Hence, $1 : 1$ is the correct Answer.

118. Option (3) is correct.

Centuries scored by A = $1 + 0 + 1 + 0 + 1 = 3$

Centuries scored by B = $1 + 0 + 2 + 1 + 1 = 5$

Centuries scored by C = $1 + 2 + 0 + 0 + 1 = 4$

Centuries scored by E = $0 + 1 + 1 + 0 + 1 = 3$

Hence, B scored the maximum number of centuries.

119. Option (4) is correct.

From the observation the maximum rise is in the year of 2017.

The percentage rise in 2017 = $\frac{10}{25} \times 100 = 40\%$

Hence, 2017 is the correct Answer.

120. Option (1) is correct.

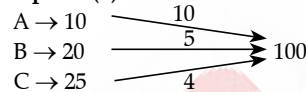
We know that if $a = x$ then $-a = \frac{1}{x}$

Similarly, $\operatorname{cosec} A + \cot A = m$ then $\operatorname{Cosec} A - \cot A = \frac{1}{m}$

Hence, $\frac{1}{m}$ is the correct Answer.

121. Option (3) is correct.

A \rightarrow 10
B \rightarrow 20
C \rightarrow 25



Total work done by all in 2 hours = $19 \times 2 = 38$

Total work done by (A+B) in 2 hours = $15 \times 2 = 30$

Work Left = $100 - 38 - 30 = 32$

Total work done by A = $40 + 32 = 72$

Hence, A completes 72% of the work.

122. Option (3) is correct.

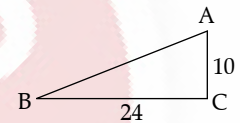
We know that $AB^2 = BC^2 + AC^2$

$$\Rightarrow AB^2 = 24^2 + 10^2$$

$$\Rightarrow AB^2 = 576 + 100 = 676$$

$$\Rightarrow AB = 26$$

Hence, 26 m is the correct Answer.

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

Given $x + \frac{1}{x} = 2$

$$x^2 + \frac{1}{x^2} = 2$$

$$\Rightarrow x^4 + \frac{1}{x^4} = 2$$

Hence, $x^4 + \frac{1}{x^4} = 2$ is the correct Answer. (Put

$$x = 1 \text{ then } x + \frac{1}{x} = 2 \text{ and } x^4 + \frac{1}{x^4} = 2)$$

124. Option (3) is correct.

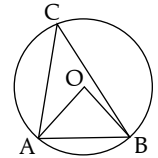
AOB is an isosceles triangle in which $AO = AB = OB$

Now $\angle AOB = \angle ABO = \angle OAB = 60^\circ$

We know $\angle AOB = 2 \times \angle ACB$

$$\Rightarrow \angle 60^\circ = 2 \times \angle ACB \Rightarrow \angle ACB = \angle 30^\circ.$$

Hence, $\angle 30^\circ$ is the correct Answer.

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

Principal = 7500 and time = 3 and Rate = 8% per annum. So, half-yearly = 4%

$$\Rightarrow \text{Amount} = 7500 \left(1 + \frac{4}{100}\right)^3$$

$$\Rightarrow \text{Amount} = 7500 \times \frac{104}{100} \times \frac{104}{100} \times \frac{104}{100} = 8436.48$$

Hence, 8436.48 is the correct Answer.

126. Option (1) is correct.

We know that $(a - b)^2 = a^2 + b^2 - 2ab$

$$\Rightarrow a^2 + b^2 + 1 = 2a$$

$$\Rightarrow a^2 + b^2 + 1 - 2a = 0$$

$$\Rightarrow (a-1)^2 + b^2 = 0$$

$$\Rightarrow (a-1)^2 = 0, b^2 = 0.$$

We get $a = 1$ and $b = 0$

$$a^4 + b^7 = 1^4 + 0^7 = 0 + 1 = 1$$

Hence 1 is the correct Answer.

127. Option (3) is correct.

Let total sales = x

$$\text{Discount} = 5\frac{1}{2}\%$$

And bonus = $\frac{1}{2}\%$ on his total sales.

$$\Rightarrow 5\frac{1}{2}\% \times x + \frac{0.5}{100}(x - 10000) = 1990$$

$$\Rightarrow \frac{5.5}{100} \times x + \frac{0.5}{100} \times x - \frac{0.5}{100} \times 10000 = 1990$$

$$\Rightarrow 6x = 199000 + 5000 \Rightarrow x = 34000$$

Hence, Total sales is 34000.

128. Option (2) is correct.

Marks in Chemistry = $90 + 75 + 65 + 85 + 95 + 90 = 500$

Geography = $80 + 85 + 95 + 95 + 95 + 90 = 540$

Marks in History = $70 + 85 + 90 + 90 + 90 + 90 = 515$

Marks in CS = $95 + 90 + 80 + 85 + 80 + 90 = 520$

Hence, marks are highest in Geography which is 540.

129. Option (1) is correct.

We know that curved surface area of cylinder = $2\pi rh$

$$\Rightarrow 2\pi rh = 1388 \text{ cm}^2$$

$$\Rightarrow 2\pi 21 \times r = 1388 \text{ cm}^2$$

$$\Rightarrow 2 \times \frac{22}{7} \times 21 \times r = 1388 \text{ cm}^2$$

$$\Rightarrow r = \frac{1388 \times 7}{22 \times 2 \times 21} \Rightarrow r = 10.5$$

Hence, Radius = 10.5 cm

130. Option (3) is correct.

Highest Profit = 30% in 2016.

Now Expenditure = 50 lakh

$$\text{Now Revenue} = 50 \times \frac{130}{100} = 65 \text{ lakhs}$$

Hence, 65 lakh is the correct Answer.

131. Option (1) is correct.

$$\begin{aligned} & (7^3 - 7^2 + 6) \times (6^3 - 2^3 - 3^2 + 1) \div (21^2 + 20^2 - 41) \\ &= (343 - 49 + 6) \times (216 - 8 - 9 + 1) \div (441 + 400 - 41) \\ &= 300 \times 200 \div 800 = 75 \end{aligned}$$

Hence, 75 is the correct Answer.

132. Option (4) is correct.

If the integer leaves remainder 43, on dividing 554, then it divides 511 exactly

If the integer leaves remainder 57, on dividing 714, then it divides 657 exactly

If the integer leaves remainder 67, on dividing 213, then it divides 146 exactly

On prime factorizing 511, 657 and 146, we have

$$\Rightarrow 511 = 7 \times 73$$

$$\Rightarrow 657 = 3 \times 3 \times 73 \Rightarrow 146 = 2 \times 73$$

$$\text{HCF of } 511, 657 \text{ and } 146 = 73$$

Therefore, the greatest positive integer that divides 554, 714 and 213 leaving the remainder 43, 57 and 67, respectively is 73.

133. Option (2) is correct.

The LCM of 25, 30, 50 and 75.

The LCM is 150 as 150 is divisible by all numbers viz. 25, 30, 50 and 75.

Hence, 150 is the correct Answer.

134. Option (1) is correct.

$$\cos \theta + \sin \theta = \sqrt{2} \cos \theta$$

Squaring on both the sides, we get,

$$\Rightarrow \cos^2 \theta + \sin^2 \theta + 2 \sin \theta \cos \theta = 2 \cos^2 \theta$$

$$\Rightarrow \cos^2 \theta - \sin^2 \theta = 2 \cos \theta \sin \theta$$

$$\Rightarrow (\cos \theta + \sin \theta)(\cos \theta - \sin \theta) = 2 \cos \theta \sin \theta$$

$$\Rightarrow \sqrt{2} \cos \theta (\cos \theta - \sin \theta) = 2 \cos \theta \sin \theta$$

$$\cos \theta - \sin \theta = \sqrt{2} \sin \theta$$

Hence, $\sqrt{2} \sin \theta$ is the correct Answer.

135. Option (1) is correct.

Total work = $60 \times 40 = 2400$

Work completed in first 10 days = $10 \times 60 = 600$

Work in the next 10 days = $55 \times 10 = 550$

Work in the next 10 days = $50 \times 10 = 500$

Work in the 10 days = $45 \times 10 = 450$

Total work done in 40 days = 2100

Remaining work is $2400 - 2100 = 300$

Therefore only 40 men has to do 300 work, so days they

$$\text{will take} = \frac{300}{40} = 7.5 \text{ days}$$

Hence, 47.5 days is the correct Answer.

136. Option (1) is correct.

We know that when any number is divisible by 9 then the sum of the digits of a number should be divisible by 9.

$$\Rightarrow 8 + 7 + 6 + 4 + x + 5 = 30 + x$$

Using options we put

$$\Rightarrow 30 + x = 45 \Rightarrow x = 15$$

Hence, 15 is the correct Answer.

137. Option (1) is correct.

As only 4 can divide both 364 and 724.

Hence, 4 is the HCF of 364 and 724.

138. Option (3) is correct.

Given that $a + b + c = 0$ where a, b, c are non zero.

Let $a = -1, b = -2$ and $c = 3$

$$\text{then } \frac{a^2}{bc} + \frac{b^2}{ca} + \frac{c^2}{ab} = \frac{(-1)^2}{(-2)(3)} + \frac{(-2)^2}{(-1)(3)} + \frac{3^2}{(-1)(-2)}$$

$$= \frac{-1}{6} - \frac{4}{3} + \frac{9}{2} = \frac{-9}{6} + \frac{9}{3} = \frac{18}{6} = 3$$

Hence, 3 is the correct answer.

139. Option (4) is correct.

According to the question,

$$\text{Cost price of 1 orange} = \frac{90}{18} = ₹ 5$$

$$\text{Selling price of 1 orange} = \frac{105}{15} = ₹ 7$$

$$\text{So, profit percentage} = \frac{7-5}{5} \times 100$$

$$= \frac{2}{5} \times 100 = 40\%$$

Hence, 40% is correct answer.

140. Option (1) is correct.

Given, Ratio of Ravi's and Shiv's income = 1 : 2
 Let Ravi's and Shiv's income are x and $2x$ respectively.
 Ratio of their expenditures = 1 : 3
 Let their expenditures are y and $3y$ respectively.
 A.T.Q.,

$$x - y = 4000 \quad \dots(1)$$

$$\text{and } 2x - 3y = 4000 \quad \dots(2)$$

By Equations (1) and (2),
 $x = 8000$ and $y = 4000$

So, salary of Shiv = $2x = 8000 \times 2 = ₹ 160000$

141. Option (1) is correct.

We know that Area = $2(l + b) \times h$

$$\Rightarrow 2(5x + x) \times 8 = 720 \text{ m}^2$$

$$\Rightarrow 6x = \frac{720}{16} \Rightarrow x = 7.5$$

Total surface Area = $2(lb + bh + lh) = 2(37.5 \times 7.5 + 7.5 \times 8 + 8 \times 37.5)$

$$= 2(281.25 + 60 + 300) = 1282.5$$

Hence, 1282.5 is the correct answer.

142. Option (4) is correct.

Since distance is same. So, Average speed = $\frac{2xy}{x + y}$

$$\Rightarrow \frac{2 \times 60 \times 40}{60 + 40} = 48 \text{ km/h}$$

Hence, 48 km/hr is the correct Answer.

143. Option (1) is correct.

We know that Average speed = $\frac{\text{Total distance}}{\text{total time}}$

$$\text{Speed} = 15 \times \frac{18}{5} = 54 \text{ km/h}$$

$$\text{Time} = \frac{162}{54} = 3$$

Let distance in 3rd lap = x

Time = 4 hr

$$\text{Average Speed} = \frac{200 + 162 + x}{4 + 3 + 4} = 50 \text{ km}$$

$$\Rightarrow 362 + x = 50 \times 11$$

$$\Rightarrow x = 550 - 362 = 188 \text{ km}$$

$$\text{Speed is } \frac{188}{4} = 47 \text{ km/h}$$

Hence, 47 km/hr is the correct Answer.

144. Option (2) is correct.

$$\text{Time of P} = \frac{36}{3} = 12$$

$$\text{Time taken by Q} = \frac{36}{4} = 9$$

$$\text{Time taken by R} = \frac{36}{6} = 6$$

Now the LCM of 12, 9 and 6 is 36 hours.

Hence, 36 hours is the correct Answer.

145. Option (4) is correct.

We know any tangent at a point on a circle is at right angles to the radius obtained by joining centre and the point of tangency.

In Triangle AOB,

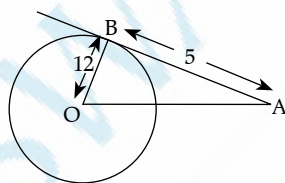
$$OA^2 = OB^2 + BA^2$$

$$\Rightarrow OA^2 = 12^2 + 5^2$$

$$\Rightarrow OA = \sqrt{144 + 25}$$

$$\Rightarrow OA = 13 \text{ cm}$$

Hence, 13 cm is the correct answer.

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

Bat : Ball = 9 : 5

Difference $9 - 5 = 4$.

4 unit $\rightarrow 380$

$$5 \text{ unit} \rightarrow \frac{380}{4} \times 5 = 475$$

Hence, 475 is the correct Answer.

147. Option (2) is correct.

After the divisibility only 98280 is divisible by 13, 15 and 21 using elimination method. (Note check the divisibility of 13, 15, 21)

Hence, 98289 is the correct Answer.

148. Option (1) is correct.

$$456 - (76 + 15^2) + \frac{3}{4} \text{ of } \frac{76}{18} \div \left(\frac{19}{72 \times 24} \right)$$

$$= 456 - (76 + 15^2) + \frac{3}{4} \times \frac{76}{18} \div \left(\frac{19}{72 \times 24} \right)$$

$$= 456 - (76 + 15^2) + \frac{19}{6} \div \left(\frac{19}{72 \times 24} \right)$$

$$= 456 - (76 + 15^2) + \frac{19}{6} \times \frac{72 \times 24}{19}$$

$$= 456 - (76 + 15^2) + 12 \times 24$$

$$= 456 - (301) + 288 = 443$$

Hence, 443 is the correct Answer.

149. Option (4) is correct.

Volume of three Spheres = Volume of Cone melted.

$$\Rightarrow \frac{4}{3} \pi r^3 = \frac{1}{3} \pi r^2 h$$

$$\Rightarrow \frac{4}{3} \pi (10^3 + 8^3 + 6^3) = \frac{1}{3} \pi \times 12^2 \times h$$

$$\Rightarrow 4(1000 + 512 + 216) = 144 \times h$$

$$\Rightarrow 4(1728) = 144 \times h$$

$$\Rightarrow h = \frac{4 \times 1728}{144} = 48$$

Now know $l^2 = h^2 + r^2$

$$\Rightarrow l^2 = 48^2 + 12^2 \Rightarrow l^2 = 2304 + 144$$

$$\Rightarrow l^2 = 2448 \Rightarrow l = \sqrt{2448}$$

$$\Rightarrow l = 49.47$$

Now, we know that curved surface area of cone = $\pi r l$

$$= 3.14 \times 49.47 \times 12 = 1864.41$$

Hence, 1864.41 is the correct Answer.

150. Option (4) is correct.

$$\text{Average sales of B and D in 2012} = \frac{18 + 21}{2} = 19.5$$

$$\text{Average sales of A and E} = \frac{11 + 18}{2} = 14.5$$

$$\text{Percentage} = \frac{19.5}{14.5} \times 100 = 134.48\%$$

Hence, 134.48% is the correct Answer.

151. Option (3) is correct.

The sentence incorrectly uses the indefinite article "an" before the consonant word "big." The article "an" is used before vowel sounds and "a" before consonant sounds. This error is rectified in option (3). So, the correct use will be "a big city."

152. Option (3) is correct.

This question checks a student's vocabulary. Vigorous means strong, healthy, and full of energy. Example: "A

tall, vigorous, and muscular man." Buoyant means able or tending to keep afloat or rise to the top of a liquid or gas, or cheerful and optimistic. Sturdy means (of a person or their body) strongly and solidly built; robust. Example: "He had a sturdy, muscular physique." Frail means weak and delicate. The antonym of vigorous is weak or frail.

- 153. Option (3) is correct.**
This question checks a student's understanding of phrases and idioms. The phrase "a slap on the wrist" means to get a light punishment (for doing something wrong). Example of Use: "He should be in jail for what he did, but he got off with just a slap on the wrist."
- 154. Option (1) is correct.**
This question checks a student's understanding of phrases and idioms. The idiom "let herself go" means to behave in a wild or uninhibited manner.
- 155. Option (4) is correct.**
This question checks a student's vocabulary. To become a strong person in spite of many difficulties is known as being resilient.
- 156. Option (2) is correct.**
This question checks a student's vocabulary. *Pendant* means a strong or habitual liking for something or a tendency to do something. Example: "He has a penchant for adopting stray dogs."
- 157. Option (2) is correct.**
This question checks a student's vocabulary. The incorrectly spelled word is "spoliage". It should be *spoilage*.
- 158. Option (2) is correct.**
This question checks a student's understanding of phrases and idioms. A lot on one's plate is an idiom that means that one has too much to do, that one's workload is too heavy, that one's schedule is too hectic, or that one is burdened with too much responsibility.
- 159. Option (4) is correct.**
This question checks a student's vocabulary. Intense means of extreme force, degree, or strength. Example: "The job demands intense concentration." Faint means feeling weak, dizzy, and close to losing consciousness. The antonym of intense is fragile.
- 160. Option (3) is correct.**
This question checks a student's understanding of phrases and idioms. To be on thin ice means to be doing something dangerous or risky. If someone is on thin ice, they are doing something that may have unpleasant consequences for them.
- 161. Option (3) is correct.**
This question checks a student's vocabulary. The word separable means able to be separated from each other. The antonym of separable is indivisible. Liable means responsible by law; legally answerable.
- 162. Option (4) is correct.**
The incorrectly spelled word is "alimentery." It should be "alimentary." Alimentary means relating to nourishment or sustenance.
- 163. Option (1) is correct.**
The sentence is talking about the future tense. The correct structure of the sentence should be: "I am going to buy."
- 164. Option (2) is correct.**
This question checks a student's understanding of phrases and idioms. The idiom at a push means with some difficulty: by making a special effort.
- 165. Option (3) is correct.**
This question checks a student's understanding of phrases and idioms. The idiom lame excuse means an excuse or reasoning that is considered pathetically unconvincing or inadequate.
- 166. Option (1) is correct.**
This question checks a student's vocabulary. The incorrectly spelled word is "column." It should be *column*.
- 167. Option (4) is correct.**
This question checks a student's vocabulary. A large group of people is called *horde*. Convocation is a large formal assembly of people. Flock means a number of birds of one kind feeding, resting, or travelling together. Herd means a large group of animals, especially hoofed mammals, that live together or are kept together as livestock.
- 168. Option (2) is correct.**
This question checks a student's understanding of phrases and idioms. The idiom "have" (one's) heart go out to (someone) to feel sympathy towards someone, typically because they are experiencing a particularly tragic situation. Our hearts go out to all who have been affected by this disaster.
- 169. Option (1) is correct.**
This question checks a student's vocabulary. *Peculiar* means different from what is normal or expected; it is strange. Example: "He gave her some very peculiar looks." The synonym for peculiar is unusual. Customary means according to the customs or usual practices associated with a particular society, place, or set of circumstances. Perplexed means completely baffled; very puzzled.
- 170. Option (2) is correct.**
This question checks a student's vocabulary. *Broach* means to begin a discussion of something difficult.
- 171. Option (1) is correct.**
This question checks a student's vocabulary. *Indelible* means making marks or impressions that cannot be removed. Example: "The story made an indelible impression on me." *Futile* means useless. *Durable* means long-lasting. *Solitary* is done or existing alone. The antonym for indelible is something that is short-lasting or temporary.
- 172. Option (1) is correct.**
This question checks a student's understanding of phrases and idioms. *Toffee-nosed* means pretentiously superior; snobbish means one who thinks he is of a high social class and looks down on people of a lower class. Example: "Toffee-nosed creeps who think they're the same as royalty."
- 173. Option (4) is correct.**
This question checks a student's vocabulary. If someone is in high spirits, they are extremely happy and having a good time.
- 174. Option (2) is correct.**
The word "thesis" means a dissertation embodying the results of original research and especially substantiating a specific view, a critically written scholarly piece of research work. So, the error lies in part (2).
- 175. Option (4) is correct.**
This question checks a student's vocabulary. *Contrary* means opposite. *Wobbly* means tending to move unsteadily from side to side. *Crooked* means bent or twisted out of shape or out of place, dishonest.
- 176. Option (3) is correct.**
This question checks a student's understanding of phrases and idioms. The sentence mentions that the evidence could not sustain the weight of his guilt. The correct idiom to express this is "bear up." The meaning of "bear up" is to support or encourage. *Breaking down* means to cease to continue; *collapse* means to lose control of one's emotions when in a state of distress. Example: "Pay negotiations with management broke down." *Bring up* means to raise a matter for discussion or consideration, or to raise a child. Example: "She tried repeatedly to bring up the subject of money." *Blow off*

means to fail to keep an appointment with someone. "I just made this date before I met you—I didn't want to blow her off."

- 177. Option (2) is correct.**
This question checks a student's vocabulary. Pensive means engaged in, involving, or reflecting deep or serious thought. Example: She became withdrawn and pensive, hardly speaking to anyone. The antonym of pensive is unreflective. Frivolous means not having any serious purpose or value. Hollow means having a hole or empty space inside. Goofy means foolish or harmlessly eccentric.
- 178. Option (4) is correct.**
This question checks a student's vocabulary. Dilemma means a difficult situation or problem. Example: "The insoluble dilemma of adolescence." The antonym of dilemma is solution.
- 179. Option (4) is correct.**
This question checks a student's vocabulary. Portray means to depict (someone or something) in a work of art or literature, describe someone in a particular way. Distort means to pull or twist out of shape. Falsify means to prove (a statement or theory) to be false. Garbled means confused, distorted; unclear.
- 180. Option (1) is correct.**
The word "always" suggests that the action takes place frequently. Any action that takes place frequently is expressed in the simple present tense. Hence, the sentence should be: I always encourage people to read books.
- 181. Option (1) is correct.**
The adverb "hard" intensifies the verb. It means "a lot" or "with great energy and determination." It follows the verb. He works hard. He should be promoted. In contrast, the adverb "hardly" tells you "almost never" about a verb or "almost not at all." It's hardly polite to burp in public. If you do so, you have hardly any manners. In the given sentence, it should be: I am sure you can win the match if you try hard.
- 182. Option (4) is correct.**
The given sentence is grammatically correct.
- 183. Option (2) is correct.**
This question tests a student's vocabulary. The incorrectly spelled word is "circumstances." It should be "circumstances." Circumstances means a fact or condition connected with or relevant to an event or action. Example: "We wanted to marry, but circumstances didn't permit."
- 184. Option (4) is correct.**
"As is usual" is an incorrect idiomatic expression, it should be "as usual." The word "as" is a preposition or a conjunction. So, "as" should be followed by either a noun or a clause.
- 185. Option (3) is correct.**
This question tests a student's vocabulary. The incorrectly spelled word is "Liveing." It should be "living."
- 186. Option (3) is correct.**
This question tests a student's vocabulary. A person who cannot be corrected is called incorrigible.
- 187. Option (1) is correct.**
This question tests a student's understanding of phrases and idioms. A black sheep is a person who has done something bad that brings embarrassment or shame to his or her family. Example: He's the black sheep of the family.
- 188. Option (4) is correct.**
This question tests a student's vocabulary. Sane means of a sound mind; not mad or mentally ill, sensible. Example: "A sane discussion on the important social issues of our time." The antonym of sane is crazy.
- 189. Option (1) is correct.**
This question tests a student's vocabulary. A person living at the same time is known as a "contemporary." Coquette means a flirtatious woman. Cosmopolitan means including people from many different countries. Connoisseur means an expert judge in matters of taste.
- 190. Option (1) is correct.**
This question tests a student's vocabulary. Cogent means A cogent argument, reason, etc. is clearly expressed and persuades people to believe it. Rational means being able to think sensibly or logically. Rational and cogent are synonyms. Insane means in a state of mind that prevents normal perception, behaviour, or social interaction; seriously mentally ill. Tyranny means exercising power in a cruel or arbitrary way. A coward is a person who is contemptibly lacking in the courage to do or endure dangerous or unpleasant things.
- 191. Option (3) is correct.**
The passage intends to provide information related to stress. Hence, the tone of the passage is informative. Authoritative means commanding and self-confident. Anxious is "causing worry." Dejected means sad and depressed; dispirited.
- 192. Option (1) is correct.**
From the penultimate paragraph, we can find all the options quoted as reasons for the creation of stress, save option (1). Finding a penny on the ground doesn't create stress.
- 193. Option (4) is correct.**
The antonym of success is failure. Laxity means a lack of strictness or care.
- 194. Option (3) is correct.**
Refer to the line: "Such signs appear in the attitude and behaviour of the individual, such as muscle tension in various parts of the body, palpitation and high blood pressure, indigestion, and hyperacidity." From these lines, we can deduce that stress does not result in relaxation.
- 195. Option (4) is correct.**
The passage primarily focuses on stress, its reasons, and its consequences.
- 196. Option (2) is correct.**
The sentence requires a helping verb to make complete sense. The sentence mentions the act started in the past and has an impact in the present, so the sentence should be in the present perfect tense.
- 197. Option (4) is correct.**
The blank requires a positive word because, in the former sentence, it is stated that there has been progress towards gender equality. Impede, hinder, and retract are negative words and do not fit in the blank. The word that fits in the blank is "advances".
- 198. Option (3) is correct.**
The sentence mentions that in spite of all the progress, women are still underrepresented, and discriminatory laws and social norms are still prevalent. So, the word that best fits in this context is "pervasive."
- 199. Option (2) is correct.**
The former sentence mentions that COVID-19 has reversed the progress made in the direction of gender equality. The next line elaborates on it, so you need a negative word to fill in the blank. The best word in the given context is exacerbates.
- 200. Option (1) is correct.**
The best word to fill in the blank is "impact." The correct sentence is: Women are also harder hit by the economic impact of COVID-19.