



TEST FORM NUMBER

## INSTRUCTIONS TO CANDIDATE

Maximum Marks : 200

Total Questions : 200

Time Allowed : 120 Min.

**Read the following instructions carefully before you begin to attempt the questions**

- (1) This booklet contains 200 questions in all comprising the following four parts.
  - **Part-(I) : Reasoning Aptitude** (50 Questions)
  - **Part-(II) : General Studies** (50 Questions)
  - **Part-(III) : Quantitative Aptitude** (50 Questions)
  - **Part-(IV) : English Language** (50 Questions)
- (2) All the questions are compulsory and carry equal marks.
- (3) Before you start to attempt the questions, you must explore this booklet and ensure that it contains all the pages and find that no page is missing or replaced. If you find any flaw in this booklet, you must get it replaced immediately.
- (4) **Each question carries negative marking also as 0.25 mark will be deducted for each wrong answer.**
- (5) You will be supplied the Answer-sheet separately by the invigilator. You must complete the details of Name, Roll number, Test name/Id and name of the examination on the Answer-Sheet carefully before you actually start at tempting the questions. You must also put your signature on the Answer-Sheet at the prescribed place. These instructions must be fully complied with, failing which, your Answer-Sheet will not be evaluated and you will be awarded 'ZERO' mark.
- (6) Answer must be shown by completely blackening the corresponding circles on the Answer-Sheet against the relevant question number by **pencil or Black/Blue ball pen** only.
- (7) A machine will read the coded information in the OMR Answer-Sheet. In case the information is incompletely/different from the information given in the application form, the candidature of such candidate will be treated as cancelled.
- (8) The Answer-Sheet must be handed over to the Invigilator before you leave the Examination Hall.
- (9) Failure to comply with any of the above Instructions will make a candidate liable to such action/penalty as may be deemed fit.
- (10) Answer the questions as quickly and as carefully as you can. Some questions may be difficult and others easy. Do not spend too much time on any question.
- (11) Mobile phones and wireless communication device are completely banned in the examination halls/rooms. Candidates are advised not to keep mobile phones/any other wireless communication devices with them even switching it off, in their own interest. Failing to comply with this provision will be considered as using unfair means in the examination and action will be taken against them including cancellation of their candidature.
- (12) No rough work is to be done on the Answer-Sheet.
- (13) No candidate can leave the examination hall before completion of the exam.

NAME OF CANDIDATE:.....

DATE :..... CENTRE CODE :.....

ROLL No:.....

**DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO**

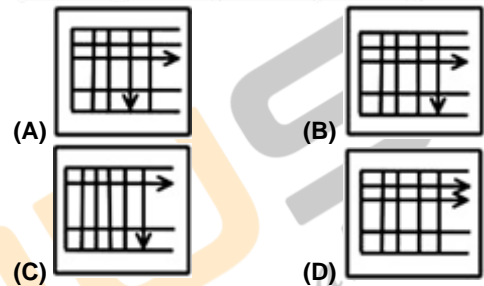
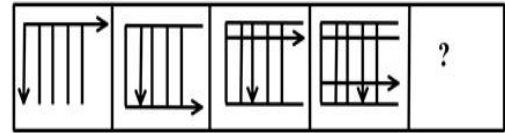
## Reasoning Aptitude

1. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.  
a \_ abb \_ bab \_ ab \_ b \_  
(A) babab (B) ababa  
(C) bbaba (D) aabba
2. Which set of letters when sequentially placed at the gaps in the given letter series shall complete it?  
M \_ N \_ \_ N \_ A \_  
(A) AAMAM (B) ANMAA  
(C) AMAMN (D) NAMMA
3. Select the option that is related to the third group of letters in the same way as the second group of letters is related to the first group of letters.  
MZU : QEA :: GTL : ?  
(A) KYR (B) LXR  
(C) KXP (D) JYR
4. Select the option in which the two groups of letters are related in the same way as the two groups of letters given below.  
BOG : TLY :: ??  
(A) ESZ : AUI (B) UJC : XQF  
(C) IVR : ESH (D) KDN : PWM
5. In the following question, select the related number from the given alternatives.  
453 : 462 :: 624 : ?  
(A) 824 (B) 804  
(C) 312 (D) 622
6. In the following question, select the related number from the given alternatives.  
798 : 597 :: 567 : ?  
(A) 135 (B) 365  
(C) 525 (D) 675
7. In the following question, select the related number from the given alternatives.  
376 : 710 :: 892 : ?  
(A) 103 (B) 236  
(C) 203 (D) 310
8. In the following question, select the odd number pair from the given alternatives.  
(A) 6639 - 27 (B) 8256 - 21  
(C) 7602 - 18 (D) 5927 - 26
9. In the following question, select the related word from the given alternatives.  
Silver revolution : eggs :: black revolution : ?  
(A) Fishes (B) Crude oil  
(C) Meat (D) Potatoes
10. In the following question, select the related word from the given alternatives.  
Bricks : building :: ? : notebook  
(A) Pages (B) Knowledge  
(C) Cover (D) Print
11. In the following question, select the odd number pair from the given alternatives.  
(A) 3913 - 1 (B) 6725 - 53  
(C) 7831 - 13 (D) 3392 - 51
12. In the following question, select the odd number pair from the given alternatives.  
(A) 1783 - 31 (B) 2810 - 16  
(C) 1697 - 69 (D) 2579 - 81
13. Select the set of numbers from the options which is similar to the following set of numbers.  
(48, 72, 93)  
(A) (65, 24, 41) (B) (22, 46, 81)  
(C) (34, 51, 82) (D) (38, 67, 91)
14. In the given question select the most appropriate alternative from the given alternatives.  
Prong : Fork :: ? : Hands  
(A) Legs (B) Nose  
(C) Nails (D) Head
15. In the given question select the most appropriate alternative from the given alternatives.  
Money : ? :: Ruins : urn  
(A) Wealth (B) Cash  
(C) Rich (D) Wallet
16. In the following question, select the odd word from the given alternatives.  
(A) Lake (B) River  
(C) Pond (D) Waterfall
17. Find the wrong number in the given series.  
36, 18, 10, 6, 4, 3  
(A) 3 (B) 36  
(C) 6 (D) 35
18. Find the odd one among the following.  
(A) LEPAP (B) EOGNAR  
(C) NKPI (D) VAUGA
19. Select the odd word pair from the given alternatives.  
(A) Convey and Conduct  
(B) Endure and desist  
(C) Discuss and Debate  
(D) Review and Retrospect
20. Find the odd word from the given alternatives.  
(A) Hurricane (B) Blizzard  
(C) Typhoon (D) Tornado
21. In the following question, select the missing number from the given series.  
3, 6, 12, 33, 93, ?  
(A) 186 (B) 267  
(C) 276 (D) 279
22. In the following question, select the missing number from the given series.  
12, 6, 6, 9, 18, ?  
(A) 36 (B) 54  
(C) 45 (D) 62
23. In a certain code language, 'ABSCOND' is written as 'EMPBTAB' and 'PURPOSE' is written as 'FRPOSTQ', then how will 'MAJESTY' be coded as in the same language?  
(A) QENFVVA (B) ZSTDKZN  
(C) QEDVZAM (D) NZKDTSZ
24. In a certain code language, "TRUNK" is written as "40162637022". How is "BENCH" written in that code language?  
(A) 142571964 (B) 42580964  
(C) 421570972 (D) 42570964
25. If 'x' means 'addition', '-' means 'division', '/' means 'subtraction' and '+' means 'multiplication', then which of the following equation is correct?  
(A)  $20 - 5 + 2 / 3 \times 6 = 9$  (B)  $20 / 5 \times 2 + 3 / 6 = 12$   
(C)  $20 + 5 - 2 / 3 / 6 = 40$  (D)  $20 / 5 \times 2 + 3 - 6 = 16$

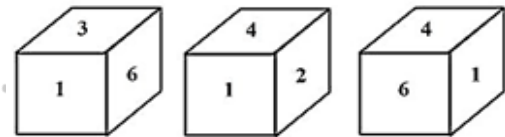
26. In the following question, correct the equation by interchanging two numbers on the same side.  
 $48 \div 8 \times 6 \div 2 + 7 = 15 + 4 \times 2 - 20 \div 5$   
 (A) 4 and 5 (B) 6 and 8  
 (C) 48 and 6 (D) 15 and 20
27. Five friends A, B, C, D and E bought cars which were priced differently. B's car was costlier than C's car but was less costly than E's car. A's car was costlier than D's car but less costly than C's car. Whose car was the 2nd costliest?  
 (A) E (B) C  
 (C) A (D) B
28. In a horizontal row of students, Preksha is 14th from the left end of the row while her friend Suruchi is 10th from the right end of the row. If there are eighteen students in the row, how many students are standing between Preksha and Suruchi?  
 (A) 3 (B) 4  
 (C) 5 (D) 6
29. From the given alternative words, select the word which cannot be formed using the letters of the given word: 'EXTRAMUNDANE'  
 (A) ANNUMERATE (B) UNAERATED  
 (C) MANDATEE (D) MAGTEAUX
30. Arrange the following words in a logical and meaningful order.  
 1) Adolescence 2) Senescence  
 3) Baby 4) Mid-life  
 5) Toddler 6) Quarter-life  
 (A) 3, 5, 1, 2, 6, 4 (B) 2, 4, 6, 1, 5, 3  
 (C) 3, 5, 1, 6, 4, 2 (D) 5, 3, 6, 1, 4, 2
31. Arrange the following words in a logical and meaningful order.  
 1) Elephant 2) Hummingbird  
 3) Blue whale 4) Human  
 5) Eagle 6) One-horned rhinoceros  
 (A) 2, 6, 5, 4, 1, 3 (B) 2, 5, 6, 4, 3, 1  
 (C) 6, 2, 5, 4, 3, 1 (D) 2, 5, 4, 6, 1, 3
32. In the question a statement is given, followed by two arguments, I and II. You have to consider the statement to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given arguments, if any, is a strong argument.  
**Statement:** Should cameras be installed in public school class - rooms to monitor teachers?  
**Argument I:** No, This will violate privacy norms.  
**Argument II:** Yes, This will make teachers more accountable, increasing their productivity.  
 (A) if only argument I is strong.  
 (B) if neither I nor II is strong.  
 (C) If both I and II are strong.  
 (D) if only argument II is strong.
33. Ranjan goes 5 km towards North from a fixed point. Then he goes 3 km after turning to his right. After this he goes 5 km turning to his right. In the end he goes 4 km after turning to his left. How far and in what direction is he now from the fixed point?  
 (A) 9 km, West (B) 7 km, East  
 (C) 9 km, East (D) 7 km, West
34. Point G is exactly between point A and D Point A is 5m to the west of point G. Point S is 6m to the south of point D Point K is 10m to the west of point S. Point K is how far from point A?  
 (A) 5m (B) 8m  
 (C) 10m (D) 6m

35. In this question three statements are given that may differ from the commonly known facts. Each statement is followed by two conclusions. You have to give correct answer out of the five options given below:  
**Statement:** All hairs are black.  
 All black are dark. Some darks are blind.  
**Conclusion: (I)** some dark which are black are also blind.  
**(II)** Some hair being blind is a possibility.  
 (A) If only conclusion I follows  
 (B) If only conclusion II follows  
 (C) If either conclusion I or II follows  
 (D) If both conclusion follows.

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

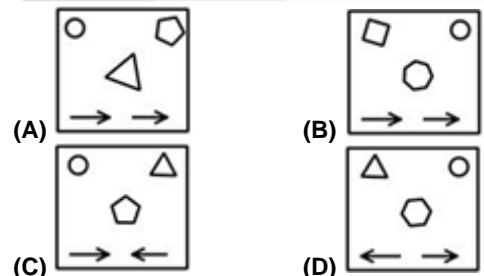
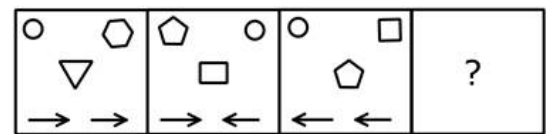


37. Three positions of a dice are shown as below. After rolling the dice, if we get number 1 on the face at the top, which number will be on the face at the bottom.

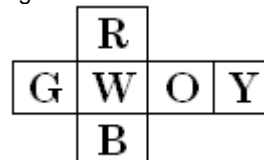


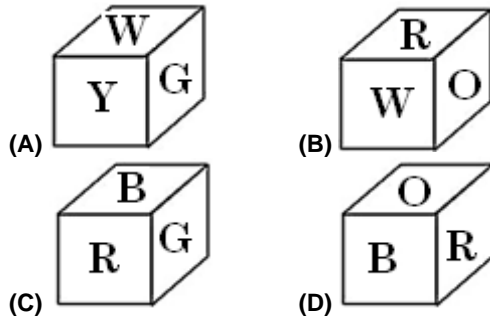
- (A) 5 (B) 4  
 (C) 3 (D) 2

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

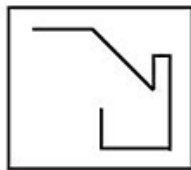


39. Which of the following cube in the answer figure can be made based by the unfolded cube in the question figure?

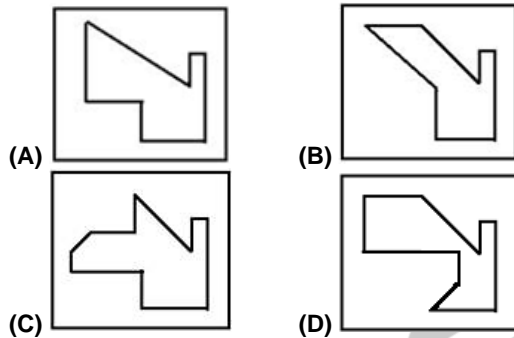




40. In each of the following questions, you are given a figure (X) followed by four alternative figures (a), (b), (c) and (d) such that figure (X) is embedded in one of them. Trace out the alternative figure which contains fig. (X) as its part.

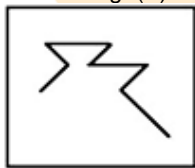


(X)

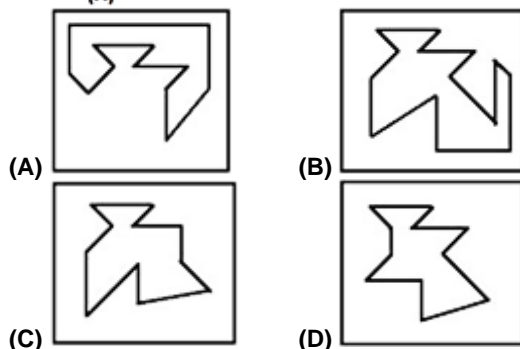


41. In each of the following questions, you are given a figure (X) followed by four alternative figures (a), (b), (c) and (d) such that figure (X) is embedded in one of them. Trace out the alternative figure which contains fig. (X) as its part.

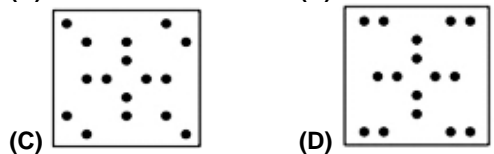
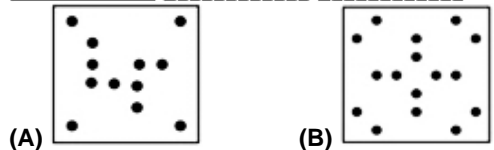
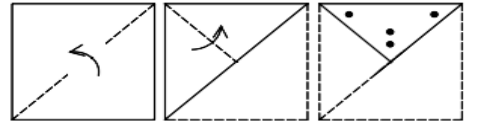
A B C D In each of the following questions, you are given a figure (X) followed by four alternative figures (a), (b), (c) and (d) such that figure (X) is embedded in one of them. Trace out the alternative figure which contains fig. (X) as its part.



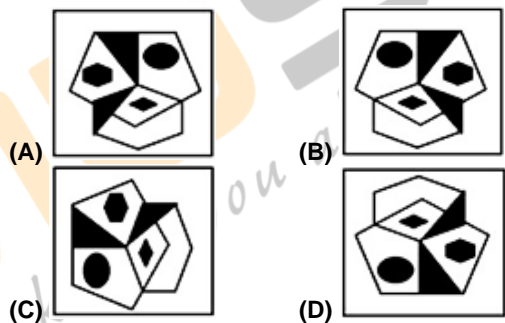
(X)



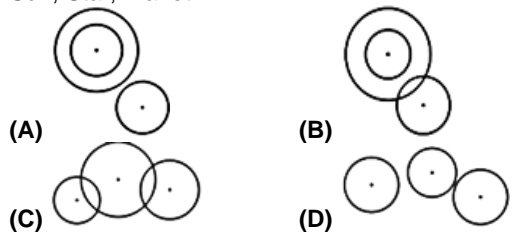
**42.** Find out from amongst the four alternatives how the pattern would appear when the transparent sheet is folded at the dotted line and the holes are punched as given.



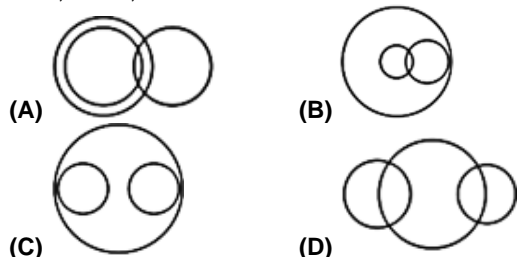
43. Which of the following will be the mirror image of the given question figure, if a mirror is placed along the line MN.



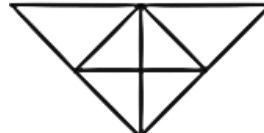
44. Identify the diagram that best represents the relationship among the given classes.  
Sun, Star, Planet



45. Identify the diagram that best represents the relationship among the given classes.  
Pole, Metal, steel



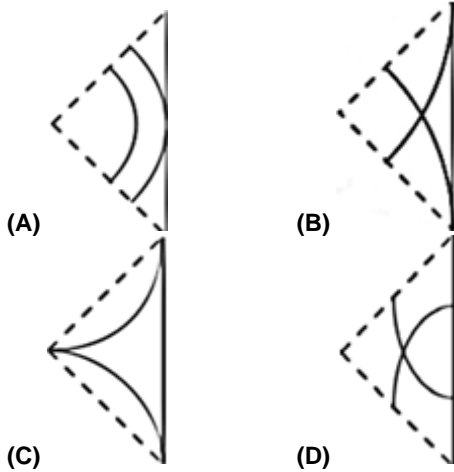
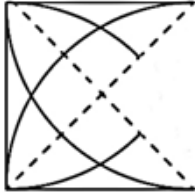
**46.** How many triangles are there in the given figure?



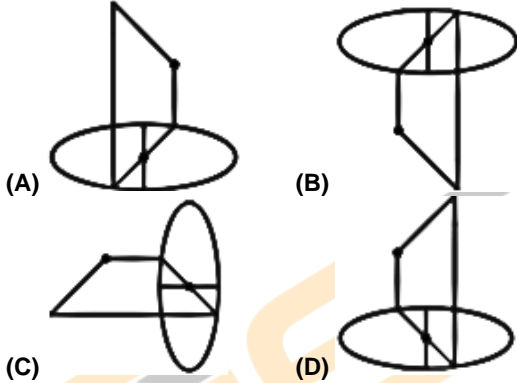
(A) 10  
(B) 12  
(C) 13  
(D) 14



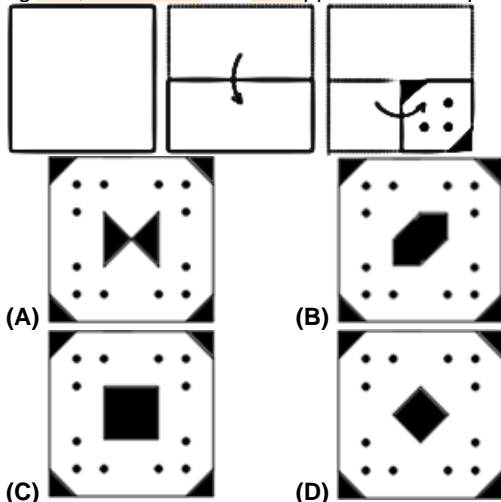
47. Which answer figure will complete the pattern in the question figure?



48. If a mirror is placed on the line, then which of the option figure is the exact mirror image of the given figure?



49. A piece of paper is folded and punched as shown below in the question figure. From the given answer figures, indicate how it will appear when it opened?



50. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered from 5 to 9. A letter from these matrices can be represented first

by its row and next by its column, e.g., 'B' can be represented by 20, 85 etc., and 'K' can be represented by 02, 95 etc. Similarly you have to identify the set for the word 'PLAQUE'.

Matrix I

	0	1	2	3	4
0	Q	O	K	A	I
1	L	F	U	W	Y
2	B	N	R	X	E
3	H	S	V	G	Z
4	P	C	M	J	L

Matrix II

	5	6	7	8	9
5	D	S	F	J	R
6	H	Q	U	C	I
7	O	W	L	V	E
8	B	X	Y	N	G
9	K	Z	T	Q	A

- (A) 40, 77, 99, 98, 12, 67 (B) 40, 44, 03, 66, 79, 24  
(C) 40, 10, 99, 00, 24, 79 (D) 40, 10, 03, 98, 67, 24

### General Studies

51. Forint is the currency of which of the following country?  
(A) Indonesia (B) Hungary  
(C) Greece (D) Israel
52. Who among the following was not the member of the JVP Committee which was based on the reorganization of States?  
(A) Jawaharlal Nehru  
(B) Sardar Vallabhbhai Patel  
(C) Vinayak Damodar Savarkar  
(D) Pattabhi Sitaramayya
53. Which of the following instrument is used for measuring the relative density of liquids?  
(A) Hydrometer (B) Hygrometer  
(C) Hypsometer (D) Hydrophone
54. 'Baglihar Dam' is situated in which state of India?  
(A) Himachal Pradesh (B) Jammu & Kashmir  
(C) Punjab (D) Rajasthan
55. Which one of the following pairs is correctly matched?  
(A) Durand Line: India and Myanmar  
(B) McMahon Line: India and Nepal  
(C) Radcliffe Line: India and Pakistan  
(D) None of these
56. When was the Earth at Aphelion this year?  
(A) July 1<sup>st</sup> (B) July 2<sup>nd</sup>  
(C) July 3<sup>rd</sup> (D) July 4<sup>th</sup>
57. Which of the following vitamin requires cobalt for its activity?  
(A) Vitamin B6 (B) Vitamin B12  
(C) Vitamin B1 (D) Vitamin B2
58. Which among the following coal contains 90 per cent of carbon?  
(A) Peat (B) Lignite  
(C) Anthracite (D) Bitumen
59. Vulcanization of rubber is carried out by adding which of the following element?  
(A) Ozone (B) Sulphur  
(C) Carbon (D) Nitrogen
60. Headquarters of "World Customs Organisation" is located at which place?  
(A) Madrid (B) New York  
(C) Vienna (D) Brussels
61. \_\_\_\_\_ is the rate at which RBI makes loans to commercial banks with no collateral.  
(A) Reverse Repo Rate (B) Repo Rate  
(C) Bank Rate (D) Base Rate

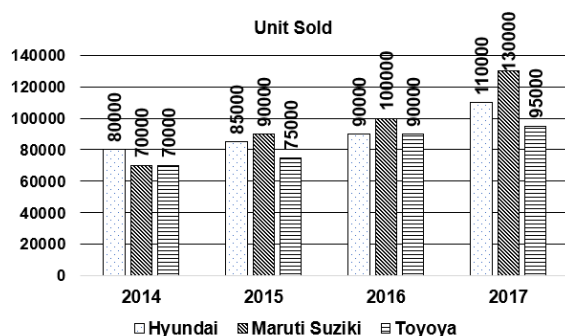
62. Who among the following is the author of the book "In the Line of Fire: A Memoir"?  
 (A) Ernest Hemingway (B) Jules Verne  
 (C) Khushwant Singh (D) Pervez Musharraf
63. When was "Vande Mataram" first sung at the session of the Indian National Congress?  
 (A) 1886 (B) 1892  
 (C) 1896 (D) 1904
64. \_\_\_\_\_ period is called as the Golden age of ancient India.  
 (A) Shunga (B) Mauryan  
 (C) Gupta (D) Vardhan
65. Ball pen functions on which principle of Physics?  
 (A) Viscosity (B) Charles Law  
 (C) Surface Tension (D) Boyles Law
66. Which committee suggested including 'Fundamental Duties' in the Constitution of India?  
 (A) Dhar Committee  
 (B) Goswami Committee  
 (C) Swaran Singh Committee  
 (D) Narasimhan committee
67. Who gave the concept of "Total Revolution"?  
 (A) Karl Marx (B) Mahatma Gandhi  
 (C) Manvendra Nath Roy (D) Jaiprakash Narayan
68. Keenan Stadium is located in which state?  
 (A) Andhra Pradesh (B) Jharkhand  
 (C) Tamil Nadu (D) New Delhi
69. What is the currency of Myanmar?  
 (A) Kyat (B) Rial  
 (C) Peso (D) Krona
70. The "Indian Rebellion of 1857" occurred during the Governor Generalship of which person?  
 (A) Lord Lytton (B) Lord Canning  
 (C) Lord Dalhousie (D) Lord Ripon
71. A metal sulphate has the formula  $MSO_4$ . A chloride of the same metal will have the formula \_\_\_\_\_.  
 (A)  $M_2Cl_3$  (B)  $M_2Cl$   
 (C)  $MCl_2$  (D)  $M_3Cl_3$
72. Who built Jodhpur Fort?  
 (A) Guru Ramdas (B) Shah Jahan  
 (C) Rao Jodhaji (D) Mahatma Gandhi
73. Which of the following is used for making Rs. 1 coins?  
 (A) Delta metal (B) Nickel steel  
 (C) Muntz metal (D) Ferratic Stainless Steel
74. What are the major components of cigarette smoke?  
 (A) Carbon Monoxide and Nicotine  
 (B) Carbon Monoxide and Arsenic  
 (C) Carbon Di Oxide and Lithium  
 (D) Nitrogen Di Oxide and Benzene
75. Which of the following river is known as "Dakshin Ganga"?  
 (A) Krishna (B) Mahanadi  
 (C) Godavari (D) Cauvery
76. Who was the mother of Jain Tirthankara "Mahavir"?  
 (A) Trishala (B) Chetaka  
 (C) Yashoda (D) Gayatri
77. Which of the following protocol is an Internet standard for electronic mail (email) transmission?  
 (A) FTP (B) HTTP  
 (C) SMTP (D) MDI
78. Which of the following disease is not caused by "Fungus"?  
 (A) Leprosy (B) Asthma  
 (C) Baldness (D) Ringworm
79. The long jumper always takes jump at an angle of \_\_\_\_\_ to maximize range of jump.  
 (A)  $22.5^\circ$  (B)  $45^\circ$   
 (C)  $60^\circ$  (D)  $90^\circ$
80. Which of the following is the deepest lake in the world?  
 (A) Caspian Sea (B) Titicaca  
 (C) Baikal (D) Volta
81. Which of the following diseases do not fall under the category of Communicable disease?  
 (A) Cholera (B) Tuberculosis  
 (C) Measles (D) Asthma
82. "Agar-agar" a jelly – like substance is obtained from \_\_\_\_\_.  
 (A) Angiosperms (B) Bacteria  
 (C) Protozoa (D) Algae
83. What type of lens is used by a person in case of Myopia?  
 (A) Circular Lens (B) Convex Lens  
 (C) Concave Lens (D) Spherical Lens
84. Which of the following animals was not domesticated in 'Indus Valley Civilizations'?  
 (A) Donkey (B) Cows  
 (C) Bull (D) Elephant
85. Who was the first king of "Satavahana" dynasty?  
 (A) Dantidurga (B) Simuka  
 (C) Pulakesin-II  
 (D) Gautamiputra Satakarni
86. Which of the following Indus Valley Civilisation sites is NOT correctly matched with its findings?  
 (A) Kalibangan- A wooden furrow  
 (B) Alamgirpur - Impression of cloth on trough  
 (C) Mitathal - Bead making factory  
 (D) Rakhigarhi - Terrecotta wheels, toys, figurines, pottery.
87. Diarchy, the dual scheme of governance was introduced in which Act?  
 (A) Indian Councils Act, 1909  
 (B) Government of India Act, 1919  
 (C) Government of India Act, 1935  
 (D) Indian Councils Act, 1892
88. Which of the following actions are used for correcting disequilibrium in Balance of Payment?  
 I) Devaluation II) Import Restrictions  
 III) Exchange Control IV) Easy monetary policy  
 (A) II and III (B) I, II and IV  
 (C) I, II, III and IV (D) I, II and III
89. The winter rain in Tamil Nadu is caused by \_\_\_\_\_.  
 (A) South- West Monsoon (B) Western Disturbances  
 (C) Cyclonic Disturbances (D) North- East Monsoon
90. "Basic Structure" doctrine came into existence through which famous court case?  
 (A) Shahbano Case (B) Minerva Mills Case  
 (C) Kesvananda Bharati Case  
 (D) Golaknath Case

91. Captain William Hawkins came to the court of which Mughal ruler?  
(A) Aurangzeb (B) Jahangir  
(C) Shahjahan (D) Akbar
92. The instrument for measuring intensity of earthquakes is called \_\_\_\_\_.  
(A) Richter Scale (B) Mercalli Scale  
(C) Hygograph (D) Altimeter
93. "German Silver" is an alloy of which of the following elements?  
(A) Silver, Copper and Aluminum  
(B) Nickel, Iron and Silver  
(C) Copper, Nickel and Zinc  
(D) Copper, Iron and Zinc
94. A man cannot see clearly beyond 10 meters. He suffers from which disease?  
(A) Hypermetropia (B) Myopia  
(C) Astigmatism (D) Onomatopoeia
95. Where warm air rises up, the air \_\_\_\_\_.  
(A) pressure at that place is lowered  
(B) pressure at that place is raised  
(C) humidity at that place is lowered  
(D) humidity at that place is raised
96. In Microsoft Word, \_\_\_\_\_ view shows formatting such as line spacing, font, point size and italics.  
(A) Web Layout (B) Normal Layout  
(C) Reading Layout (D) Print Layout
97. Which of the following is NOT a cold current?  
(A) Falkland Current (B) Oya Shio Current  
(C) Mozambique Current (D) California Current
98. What is the name of new alluvial deposits found in the Gangetic plain of India?  
(A) Terai (B) Khadar  
(C) Bhangar (D) Bhabar
99. Which state has planned to start river cruises to boost tourism?  
(A) Jharkhand (B) Goa  
(C) Kerala (D) Odisha
100. Which nation has pledged not to supply arms to Pakistan?  
(A) France (B) Russia  
(C) US (D) UK
101. What is the percentage increase in the units sold by Toyota in 2017 with respect to 2014?  
(A) 35.71% (B) 28.74%  
(C) 18.60% (D) 32.40%
102. Find the difference between the units sold by Maruti Suzuki in 2016 and the units sold by Hyundai in 2015.  
(A) 20000 (B) 15000  
(C) 10000 (D) 25000
103. What is the ratio of total units sold by Hyundai to the total units sold by Toyota over the given period, 2014-2017?  
(A) 73:66 (B) 84:65  
(C) 76:61 (D) 66:73
104. In which year, the number of units sold by the company Maruti Suzuki is the least?  
(A) 2014 (B) 2015  
(C) 2016 (D) 2017
105. A cylindrical can has a base of diameter 8 cm and height 14 cm. A cuboidal box has a square base of side 8 cm and the same height as the can. What is the difference between their volumes?  
(A)  $216 \text{ cm}^3$  (B)  $196 \text{ cm}^3$   
(C)  $192 \text{ cm}^3$  (D)  $200 \text{ cm}^3$
106. A and B together can complete a work in 24 days. If both start the work together and B does  $\frac{3}{4}$ th of the total work, then in how many days will A alone complete the entire work?  
(A) 96 days (B) 54 days  
(C) 72 days (D) 48 days
107. An automobile is sold for Rs. 210000 at a profit of 75%. What would have been the profit percentage, if it was sold for Rs. 240000?  
(A) 80% (B) 87.50%  
(C) 90% (D) 100%
108. The ratio of the salaries of A and B is 9 : 8, respectively. If both of them get incremented by Rs. 30000, the new ratio becomes 10:9. What is the new salary of B?  
(A) Rs. 270000 (B) Rs. 240000  
(C) Rs. 300000 (D) Rs. 330000
109. Simplify:  $\cot \alpha (\tan \alpha + \cot \alpha) = ?$   
(A)  $\operatorname{cosec}^2 \alpha$  (B)  $\operatorname{cosec} \alpha - \sec \alpha$   
(C)  $\sin^2 \alpha$  (D)  $\cos^2 \alpha$
110. What is the simplified value of  $[\sin A \cos A / (\sin A \sec A + \cot A)] - \sin^2 A$ ?  
(A)  $\cos^4 A$  (B)  $-\cos^4 A$   
(C)  $\sin^4 A$  (D)  $-\sin^4 A$
111. What is the simplified value of  $\sqrt{\sin A ((1 / (\operatorname{cosec} A + 1) + 1 / (\operatorname{cosec} A - 1)))}$ ?  
(A)  $\sqrt{2}$  (B)  $\tan A + \cot A$   
(C)  $\sqrt{2} \tan A$  (D)  $\sqrt{\cot A}$
112. The difference between the amount of simple interest received on a certain sum at the end of 2nd and 3rd year is Rs. 2700. If the amount received at the end of the fourth year is Rs. 55800, then find the rate of simple interest.  
(A) 5% (B) 6%  
(C) 7.5% (D) 8%
113. The ratio of the amounts received on a certain sum invested compounding annually at the end of 1st year and at the end of 2nd year is 20:21. If the amount

### Quantitative Aptitude

**Directions (101–104):** Answer the questions based on the information given below.

The bar chart below shows the number of cars (in units) sold by different automobile companies namely Hyundai, Maruti Suzuki and Toyota in different years starting from 2014 till 2017.

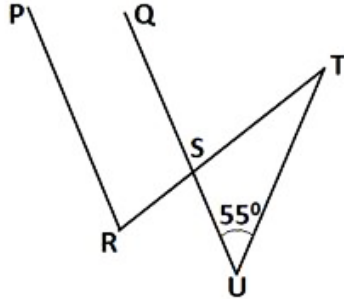


- received at the end of the 3rd year is Rs. 74088, find the original sum invested  
(A) Rs. 58000 (B) Rs. 64000  
(C) Rs. 54000 (D) Rs. 72000
114. The average pocket money of a class of 29 students is Rs. 40. If a new student takes admission in the class, then the new average pocket money increases by Rs. 1. How much pocket money does the new student get?  
(A) Rs. 50 (B) Rs. 48  
(C) Rs. 64 (D) Rs. 70
115. Two girls are standing on either side of a tower. The angles of depression from the top of the tower are observed to be  $30^\circ$  and  $45^\circ$  at the points on the ground where the two girls are standing. If the height of the tower is 18m, then find the distance between the girls. (Note:  $\sqrt{3} = 1.7$ )  
(A) 36m (B) 32.6m  
(C) 48.6m (D) 49m
116. Two poles of length 16 m and 6 m are situated in such a way that the sun rays passing through the top of a pole while also passing through the top of the other pole, fall on the ground making an angle of 45 degrees. The distance between the poles is?  
(A) 8 m (B) 9 m  
(C) 10 m (D) 12 m
117. If  $(a + b)^2 = 1369$  and  $ab = 336$ , then find the value of  $(a^3 + b^3)$  given that  $(a + b)$  is positive.  
(A) 13357 (B) 13557  
(C) 13577 (D) 11357
118. If each side of a square is increased by 20%, what will be the percentage increase in its original area?  
(A) 30% (B) 37%  
(C) 44% (D) 47%
119. A man bought twelve side bags for Rs. 250 each and seven handbags for Rs. 450 each. If he sold all of them at a reasonable price of Rs. 350 each, then what would be his overall profit / loss percentage?  
(A) 7.20% (B) 8.97%  
(C) 8.13% (D) 7.80%
120. Two trains A and B are running at a speed of 87 km/hr and 92 km/hr, respectively in the same direction. If the length of train A and train B are 580 m and 520 m, respectively and both trains are 1.4 km apart, then find the time taken by train B to cross train A  
(A) 24 minutes (B) 30 minutes  
(C) 60 minutes (D) 48 minutes
121. A shopkeeper marks his items at an advance 70% on the actual cost of production. He allows a discount of 20% and also given an item free for every dozen sold at a time. What percentage profit does the shopkeeper make, if items are sold in lots of 12?  
(A) 32% (B) 26%  
(C) 33.33% (D) 40%
122. Ramesh makes a profit of 30% by selling apples at a certain price. If he charge Rs 2 more on each apple, he would gain 50%. Find what price per apple did he sell at first.  
(A) Rs 13 (B) Rs 23  
(C) Rs 14 (D) Rs 17
123. In an exam, the average was found to be 60 marks. After deducting an error, the marks of 80 students were found to have changed from 90 marks to 60 marks each. The average has also come down to 50 marks. Determine how many students have taken the exam?  
(A) 300 (B) 240  
(C) 280 (D) 250
124. Arun mixes milk and water in the ratio 7:3 when 4 litres of mixture are drawn off and 6 litres of water is added, the ratio of milk to water becomes 3:2. How many litres of milk did Arun use initially?  
(A) 21 litres (B) 35 litres  
(C) 28 litres (D) 42 litres
125. Sujata scored 2240 marks in an examination that is 128 marks more than the minimum passing percentage of 64%. What is the percentage of marks obtained by Meena if she scores 887 marks less than Sujata?  
(A) 39 (B) 41  
(C) 45 (D) 36
126. A motorboat, travelling at the same speed, can cover 25 km upstream and 39 km downstream in 8 hrs. At the same speed, it can travel 35 km upstream and 52 km downstream in 11 hrs. The speed of the stream is?  
(A) 9 km/h (B) 4 km/h  
(C) 5 km/h (D) None of these
127. If  $(p+q) : (q+r) : (r+p) = 5:6:7$  and  $p+q+r=18$ , find  $p:q:r$ .  
(A) 9:6:12 (B) 2:3:4  
(C) 4:5:6 (D) 5:6:7
128. In the following questions two equations numbered I and II are given. You have to solve both the equations and determine the relationship.  
I)  $x^2 + x - 20 = 0$  II)  $y^2 - y - 30 = 0$   
(A) if  $x > y$  (B) if  $x \geq y$   
(C) if  $x < y$   
(D) if  $x = y$  or relationship cannot be established
129. If  $12(a^2 + b^2 + c^2) = (2a + 2b + 2c)^2$ , what is the value of  $(a^3 + b^3 + c^3)/6abc$ ? [a, b, c  $\neq 0$ ]  
(A) 2 (B) 3  
(C) 1/2 (D) 1/3
130. If  $x + 1/3x = 2$ , what is the value of  $6x(6x+1)/(9x^4+6x^2+6x+1)$ ?  
(A) -2 (B) 1  
(C) -1 (D) 2
131. If  $(6a^2 - 11ab + 4b^2) = 0$ ,  $(a + b) = 21$  and  $a > b$ , then what is the value of  $(a - b)$ ?  
(A) 1 (B) 2  
(C) 3 (D) 4
132. If  $2^x = 3^y = 5^z$ , what is the value of  $2^z - 30^{xyz/(xy + yz + zx)}$ ?  
(A) 0 (B) 2  
(C) 3 (D) 5
133. If  $x = (2 + \sqrt{3})/(2 - \sqrt{3})$  and  $y = (7 + 4\sqrt{3})/(7 - 4\sqrt{3})$ , then what is the value of 'y/x'?  
(A)  $(6 + 5\sqrt{3})$  (B)  $(8 + 5\sqrt{3})$   
(C)  $(7 + 4\sqrt{3})$  (D)  $(4 + 7\sqrt{3})$
134. If  $x^2 - 3x - 1 = 0$ , what is the value of  $(x^5 - 1/x^3)/(3x+2)$ ?  
(A) 11 (B) -11  
(C) 33 (D) -33
135. If  $2 \times \cos A - \sec A = -1$  and  $\cos A > -1$ , then what is the value of  $\sin(A/2)$ ?  
(A) 1/2 (B) 3/2  
(C) 1 (D)  $1/\sqrt{2}$
136. If  $x = (\sin 30^\circ \cdot \cos 45^\circ)/\tan 60^\circ$ , and  $y = (\sin 60^\circ \cdot \sin 45^\circ)/\cot 30^\circ$ . Then what is the value of  $x^2 + y^2$ ?



- (A)  $\frac{1}{2}\sqrt{6}$  (B)  $\frac{1}{8}$   
(C)  $\frac{1}{6}$  (D)  $\frac{1}{2}\sqrt{2}$
137. There is some water in a cylindrical vessel of diameter 60 cm. If a sphere of diameter 30 cm is merged completely in the water. What will be the increase in the level of water (in cm)?  
(A) 9 cm (B) 5 cm  
(C) 16 cm (D) 2 cm

138. What is the measure of  $\angle PRT$  if ratio of  $\angle PRT$  and  $\angle RTU$  is 16: 5 and  $PR \parallel QS$ ?



- (A)  $75^\circ$  (B)  $80^\circ$   
(C)  $85^\circ$  (D)  $90^\circ$
139. If 100 articles are sold for Rs. 9600 at a profit of 33.33%, at what approximate selling price should each article be sold to make profit of 66.67%?  
(A) Rs. 120 (B) Rs. 102  
(C) Rs. 118 (D) Rs. 124

140. Due to leakage in a tank it would take half an hour longer than usual time to full. Usual time to fill this tank is 3.5 hours. If the tank is full of water, how long would it take to empty itself if water starts leaking out at double the usual rate once the tank is half empty?  
(A) 14 hours (B) 7 hours  
(C) 21 hours (D) 28 hours

141. How many numbers between 750 and 1500 are divisible by 11, 17 and 22?  
(A) 4 (B) 1  
(C) 2 (D) 3

142. A hollow cylinder of height 25 cm is unwrapped to get a rectangle of dimensions 88 cm  $\times$  25 cm. Find the volume of the cylinder.  
(A)  $12600 \text{ cm}^3$  (B)  $15400 \text{ cm}^3$   
(C)  $16400 \text{ cm}^3$  (D)  $14800 \text{ cm}^3$

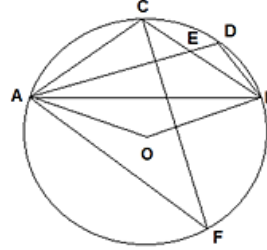
143. The internal angle bisectors of triangle PQR meet at point O. If angle PQR =  $60^\circ$  and angle PRQ =  $20^\circ$ , find the measure of the greatest angle formed at O by the angle bisectors.  
(A)  $110^\circ$  (B)  $140^\circ$   
(C)  $120^\circ$  (D)  $150^\circ$

144. The cost of four chocolates and three ice creams is Rs. 126. The cost of seven candies and two ice creams is Rs. 93. The cost of nine candies and five chocolates is Rs. 138. What is the difference between the cost of an ice cream and that of a candy?  
(A) Rs. 8 (B) Rs. 12  
(C) Rs. 13 (D) Rs. 15

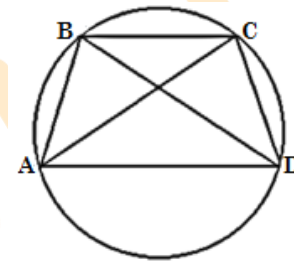
145. Out of total 9 books, mean of number of pages in first 5 books is 430, mean of number of pages in last 5 books is 380 and mean of number of pages in all 9 books is 400, then find the number of pages in 5th book.  
(A) 420 (B) 430  
(C) 440 (D) 450

146. A mixture of 1920 ml is prepared of water and oil in the ratio 5:3, respectively. If this ratio is to be corrected to 1:7, then how much more oil should be added after removing the excess water such that the total quantity of the mixture remains the same?  
(A) 840 ml (B) 960 ml  
(C) 1120 ml (D) 480 ml

147. In the given figure, O is the center of the circle and angle AOB =  $130^\circ$ . If angle CFA =  $35^\circ$  and chord AD bisects angle CAB, what is the measure of angle AEB?



- (A)  $130^\circ$  (B)  $140^\circ$   
(C)  $115^\circ$  (D)  $120^\circ$
148. ABCD is a cyclic trapezium in which BC parallel to AD, AB = 13 cm, and AC = 37 cm. If the height of the trapezium is 12 cm, then find the area of the trapezium ABCD.



- (A)  $420 \text{ cm}^2$  (B)  $440 \text{ cm}^2$   
(C)  $480 \text{ cm}^2$  (D)  $390 \text{ cm}^2$
149. Find the 3-digit largest number which when divided by 12, 15, 25, 30 leaves no remainder?  
(A) 900 (B) 975  
(C) 800 (D) 775
150. By melting a solid lead sphere of diameter 12 cm, three small spheres are made whose radius are in the ratio 3 : 4 : 5. The radius (in cm) of the smallest sphere is  
(A) 3 (B) 6  
(C) 1.5 (D) 4

### English Language

**Directions (151–155):** Identify the best way to improve the underlined part of the given sentence. If there is no improvement required, select 'no improvement'.

151. The policeman decided to act on the tip given by his reliable informant.  
(A) act up (B) act out  
(C) act up to (D) No improvement
152. The thief kicked off once he felt that everyone has left the place.  
(A) Showed up (B) Nodded off  
(C) Passed out (D) No improvement
153. Coping up a new shop was not a trivial matter for them.  
(A) Getting up (B) Falling through  
(C) Setting up (D) No improvement
154. She couldn't account for her absence from work.  
(A) Accounted for (B) Account to  
(C) Accounted to (D) No improvement

155. Servants agree to remain silent in the issue, but they disapproves their actions.  
 (A) disapprove of their (B) disapprove for their  
 (C) disapproving for their (D) No improvement

**Directions (156–165):** Read the passage and answer the following questions.

When we came out of the cafe it had started to rain. 'We must get a 'taxi,' my mother said. We were wearing ordinary hats and coats, and it was raining quite hard. 'Why don't we go back into the cafe and wait for it to stop?' I said. 'I wanted another of those banana splits. They were gorgeous. 'It isn't going to stop,' my mother said. 'We must get home.' We stood on the pavement in the rain, looking for a taxi. Lots of them came by but they all had passengers inside them. 'I wish we had a car with a chauffeur,' my mother said. Just then a man came up to us. He was a small man and he was pretty old, probably seventy or more. He raised his hat politely and said to my mother, 'Excuse me, I do hope you will excuse me . . . 'He was sheltering under an umbrella which he held high over his head 'Yes?' my mother said, very cool and **distant**. 'I wonder if I could ask a small favour of you,' he said 'It is only a very small favour.' I saw my mother looking at him suspiciously. With strange men, she has a golden rule which says, 'The nicer the man seems to be, the more suspicious you must become.' This little old man was particularly nice. He was polite. He was well-spoken. The little man shifted his umbrella from one hand to the other. 'I've never forgotten it before,' he said 'You've never forgotten what?' my mother asked sternly. 'My wallet,' he said 'I must have left it in my other jacket. Isn't that the silliest thing to do?' 'Are you asking me to give you money?' my mother said 'Oh, good gracious me, not!' he cried 'Heaven forbid I should ever do that!' 'Then what are you asking?' my mother said 'Do hurry up. We're getting soaked to the skin here.' 'I know you are,' he said 'And that is why I'm offering you this umbrella of mine to protect you, and to keep forever, if . . . if only . . . ' 'If only what?' my mother said 'If only you would give me in return a pound for my taxi-fare just to get me home.' My mother was still suspicious. 'If you had no money in the first place,' she said, 'then how did you get here?' 'I walked,' he answered 'Every day I go for a lovely long walk and then I **summon** a taxi to get me home. I do it every day of the year.' 'Why don't you walk home now?' my mother asked 'Oh, I wish I could,' he said 'I do wish I could. But I don't think I could manage it on these silly old legs of mine. I've gone too far already.' My mother stood there chewing her lower lip. She was beginning to melt a bit, I could see that. And the idea of getting an umbrella to shelter under must have **tempted** her a good deal. 'It's a lovely umbrella,' the little man said 'So I've noticed,' my mother said 'It's silk,' he said 'I can see that.' 'Then why don't you take it, madam,' he said 'It cost me over twenty pounds, I promise you. But now it's of no importance so long as I can get home and rest these old legs of mine.' I saw my mother's hand feeling for the clasp of her purse. She saw me watching her. I was giving her one of my own frosty-nosed looks this time and she knew exactly what I was telling her. Now listen, mummy, I was telling her, you simply mustn't take advantage of a tired old man in this way. It's a rotten thing to do. My mother **paused** and looked back at me. Then she said to the little man, 'I don't think it's quite right that I should take an umbrella from you worth twenty pounds. I think I'd better just give you the taxi-fare and be done with it.'

156. Why did the protagonist need a car at that moment?  
 (A) They had spent a lot of time in the cafe and it was getting late.  
 (B) They were running out of time as her mother needed to go to work.  
 (C) It had started raining and they were not wearing the appropriate clothes for a wet day.  
 (D) They had to go back home from the cafe.
157. Which of the following can be inferred from the passage?  
 (A) The girl hated to get wet in the rain and was eager to get inside the cafe.  
 (B) The people mentioned here were not from an extravagant background  
 (C) The mother was tensed due to some reason but was trying to hide it from her daughter.  
 (D) The old man was very suspicious of the ladies and he wanted to get rid of them as soon as he got money.
158. Which of the following best describes the character of the mother?  
 (A) She was tensed and suffered from low confidence and low self esteem.  
 (B) She was suspicious but a daring and challenging lady.  
 (C) She had a temper problem and had a rude and suspicious nature.  
 (D) She was a practical, suspicious lady but was not cruel or harsh.
159. Why was the lady suspicious of the old man?  
 (A) He seemed to have been dressed oddly so the silk umbrella did not suit her much.  
 (B) It was the woman's rule that one should be more suspicious of well behaved people.  
 (C) The man was nice to the lady in spite of her rude comments and refusal to help him.  
 (D) The man was attired in rich clothes but said he had no money to go back home.
160. What was the mother trying to ensure by asking the old man a lot of questions?  
 (A) She wanted to know if the man was really tired or sick and was not making a false excuse.  
 (B) She was trying to know the condition of the man that whether he could really afford the silk umbrella  
 (C) She was trying to ensure that he was not tricking them.  
 (D) She was trying to ensure that he was not causing any trouble to them.
161. Which of the following was morally correct according to the passage?  
 (A) The lady should have just given the man the taxi fare without the umbrella in return.  
 (B) The lady should have avoided the whole situation and ignored him.  
 (C) The lady should not have taken the umbrella nor should have given any money.  
 (D) The lady should have taken the umbrella and given him the fare.
162. Which of the following has a meaning opposite to the word 'tempted'?  
 (A) Augmented (B) Encouraged  
 (C) Dissuaded (D) Banned
163. Which of the following means the same as 'summon'?  
 (A) Send of (B) Ask in  
 (C) Bring up (D) Called for

164. Which of the following means the same as 'distant'?  
 (A) Ribald (B) Reticent  
 (C) Demonstrative (D) Didactic
165. Which of the following has a meaning opposite to the word 'paused'?  
 (A) Tailored (B) Estranged  
 (C) Proceed (D) Considered

**Directions (166-170):** Fill in the blanks with the suitable option.

166. The long-tailed blue may be small but it is a powerful flyer and lays eggs on plants \_\_\_\_\_ everlasting pea, which are common in gardens and allotments.  
 (A) So as (B) Such that  
 (C) So that (D) Such as
167. The angle a compass needle makes \_\_\_\_\_ true north and magnetic north is called declination.  
 (A) Among (B) In  
 (C) Within (D) Between
168. The climate emergency is a multigenerational crisis, so the response must be multigenerational \_\_\_\_\_.  
 (A) So well (B) As well  
 (C) As per (D) As such
169. I can still picture the first moment I saw it in the scorching dusk, the first fruit of a tree my brother and I \_\_\_\_\_ just two years before.  
 (A) Planted (B) Had planted  
 (C) Was Planting (D) Were planting
170. He called for urgent measures such as a crackdown \_\_\_\_\_ deforestation in indigenous territories.  
 (A) In (B) With  
 (C) Over (D) On

**Directions (171-175):** Which of these is opposite in meaning to the given word?

171. **Rigor**  
 (A) Ordeal (B) Inaccuracy  
 (C) Intolerance (D) Suffering
172. **Rife**  
 (A) Scarce (B) Universal  
 (C) Pandemic (D) Insidious
173. He was a highly competent surgeon.  
 (A) Proficient (B) Capable  
 (C) Inept (D) Expert
174. **Obviate**  
 (A) Avert (B) Deter  
 (C) Promote (D) Preclude
175. **Espouse**  
 (A) Uphold (B) Advocate  
 (C) Champion (D) Reject

**Directions (176-177):** In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.

176. Many women had took the places of (1)/ their husbands; some of them lay dead (2)/ in the streets by the side of the men. (3)/ No error (4)  
 (A) 1 (B) 2  
 (C) 3 (D) 4

177. Much natives, wearing no clothes, (1)/ came down to meet them, and said (2)/ that the island was called Guanahani. (3)/ No error (4)  
 (A) 4 (B) 3  
 (C) 2 (D) 1

178. Select the wrongly spelt word.  
 (A) fragmentation (B) frustrated  
 (C) fugitive (D) fundamental

179. Select the wrongly spelt word.  
 (A) Evaporation (B) Establish  
 (C) Essential (D) Evaluation

180. In the following questions, a sentence is given with a blank to be filled in with an appropriate word. Select the correct alternative out of the four and mark your answer accordingly.

I ran as fast as I could, but I couldn't catch up \_\_\_\_\_ him.

- (A) With (B) On  
 (C) Onto (D) To

181. Select the wrongly spelt word.  
 (A) dwelling (B) dwindle  
 (C) durable (D) dwarf

182. Select the wrongly spelt word.  
 (A) Devilish (B) Device  
 (C) Deviation (D) Devious

183. Select the wrongly spelt word.  
 (A) blizzard (B) bitter  
 (C) bizare (D) bewitched

**Directions (184-185):** In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and click the button corresponding to it. If the sentence is free from error, click the "No error" option.

184. I have had (A)/ an enormous amount of (B)/ letters from single parents. (C)/ No Error (D)  
 (A) A (B) B  
 (C) C (D) D

185. The window was (A)/ open, letting in streams (B)/ of cold sea air. (C)/ No Error (D)  
 (A) A (B) B  
 (C) C (D) D

**Directions (186-190):** In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.

186. A walk of life  
 (A) An easy comfortable life not necessarily prosperous  
 (B) The most important day of your life.  
 (C) A person's occupation or position within society.  
 (D) Walking is the best form of exercise.

187. Head over heels  
 (A) To do things exactly opposite of what is expected  
 (B) Madly in love.  
 (C) To do stupid things  
 (D) To unknowingly dive into an unpleasant situation.

188. Ask for trouble  
 (A) Act in a way that is likely to incur problems or difficulties.  
 (B) Be the self-appointed guardian of your neighbourhood.



- (C) A clumsy person who keeps making mistakes.  
(D) A person who has no work is bound to create trouble for others.

189. Drive someone up the wall  
(A) To help someone achieve success  
(B) To overcome an obstacle by going over it  
(C) To close someone's path of escape.  
(D) Make someone very irritated or angry.
190. A wet blanket  
(A) A safety net of precaution from fires.  
(B) A person who discourages enjoyment or enthusiasm.  
(C) An extremely uncomfortable place to sleep.  
(D) A trick to shoo away unwelcome guests.

**Direction (191-194):** In the following questions, out of the four alternatives, select the word similar in meaning to the word given.

191. Obtrusive  
(A) Disjunction (B) Stupor  
(C) Paranoid (D) Prominent
192. Frivolous  
(A) Sanctify (B) Success  
(C) Inane (D) Judicial
193. Lambast  
(A) Intuition (B) Demeanour  
(C) Condemn (D) Attune
194. Disparage  
(A) Inexperienced (B) Imitate  
(C) Developing (D) Belittle
195. In each of the questions below, a sentence is given in either direct or indirect speech. Select the option that correctly converts the sentence in direct speech to indirect speech or vice versa.  
"I dressed his wounds and tended him carefully," she said.  
(A) She said that she dressed his wounds and tended him carefully.  
(B) She said that I had dressed his wounds and tended him carefully.  
(C) She said that she had dressed his wounds and tended him carefully.  
(D) She said that she dresses his wounds and tends him carefully.

**Directions (196-200):** In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.

196. The branch of science concerned with the origin, structure, and composition of rocks  
(A) Genealogy (B) Petrology  
(C) Odontology (D) Jurisprudence
197. A heavy burden that prevents one from achieving success.  
(A) All and sundry  
(B) Acknowledge the corn  
(C) Albatross around one's neck  
(D) Another nail in one's coffin
198. Pursue every hope or possibility even if the likelihood of it working is nearly negligible.

- (A) Last resort (B) Grasping at straws  
(C) In dire straits (D) Tip of the iceberg
199. A large group of people or things of a particular kind.  
(A) Bevy (B) Congregation  
(C) Posse (D) Flotilla
200. An expert judge in matters of taste.  
(A) Cannibal (B) Cynic  
(C) Connoisseur (D) Convalescent

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## Reasoning Aptitude

1. **Answer(A)**  
The sequence in the question follows the pattern **ababb**. Hence the correct sequence is **ababb/ababb/ababb**.
2. **Answer(C)**  
The correct sequence is **MANMANMAN**.
3. **Answer(A)**  
 $M + 4 : Q$   
 $Z + 5 : E$   
 $U + 6 : A$   
Similarly,  
 $G + 4 : K$   
 $T + 5 : Y$   
 $L + 6 : R$   
So,  $GTL : KYR$
4. **Answer(B)**  
 $BOG : GOB$   
 $G$  and  $T$  have the same ranks when the letters of the alphabet are ranked alphabetically and in the reverse order respectively. Hence, the letters are replaced by the letters that have the same rank when ranked in the reverse alphabetical order.  
 $GOB : TLY$   
Similarly,  $UJC : XQF$   
So,  $BOG : TLY :: UJC : XQF$
5. **Answer(B)**  
In this question from each digit of the given number, 2 is subtracted and then 2 is multiplied to the resultant digit. Thus group of corresponding digits will be the new number.  
 $4 - 2 = 2 \times 2 = 4$   
 $5 - 2 = 3 \times 2 = 6$   
 $3 - 2 = 1 \times 2 = 2$   
So,  $453 \rightarrow 462$   
Now, similarly,  
 $6 - 2 = 4 \times 2 = 8$   
 $2 - 2 = 0 \times 2 = 0$   
 $4 - 2 = 2 \times 2 = 4$   
 $624 \rightarrow 804$
6. **Answer(A)**  
 $7^*2 = 14 \rightarrow 1+4=5$   
 $9^*2 = 18 \rightarrow 1+8=9$   
 $8^*2 = 16 \rightarrow 1+6=7$   
Similarly,  
 $5^*2 = 10 \rightarrow 1+0=1$   
 $6^*2 = 12 \rightarrow 1+2=3$   
 $7^*2 = 14 \rightarrow 1+4=5$   
Number = 135
7. **Answer(B)**  
 $3+4=7$   
 $7+4=11 = 1^*1 = 1$   
 $6+4=10 = 1^*0 = 0$   
Similarly,  
 $8+4=12 = 1^*2 = 2$   
 $9+4=13 = 1^*3 = 3$   
 $2+4=6$
8. **Answer(B)**  
Except option (b), all follow the same logic as follows:  
 $(6+6+3+9) + 3 = 27$   
 $(7+6+0+2) + 3 = 21$   
 $(5+9+2+7) + 3 = 26$
9. **Answer(B)**  
As silver revolution was for eggs, black revolution was for crude oil.
10. **Answer(A)**  
As, bricks are the building blocks of a building, pages are the primary building blocks of a notebook.
11. **Answer(A)**  
Except option (a), all follow the same logic as follows:  
2<sup>nd</sup> digit is subtracted from the Multiplication of 1<sup>st</sup>, 3<sup>rd</sup> and 4<sup>th</sup> digit of the number.  
 $6^*2^*5 - 7 = 53$   
 $7^*3^*1 - 8 = 13$   
 $3^*9^*2 - 3 = 51$
12. **Answer(D)**  
All except option (d) follows the same logic.  
For  $1783 \rightarrow 1^*7=7; 8^*3=24 \rightarrow 7+24 = 31$   
For  $2810 \rightarrow 2^*8=16; 1^*0=0 \rightarrow 16+0 = 16$   
For  $1697 \rightarrow 1^*6=6; 9^*7=63 \rightarrow 6+63=69$
13. **Answer(A)**  
(Subtracting the smaller digit from the larger digit of each number)  
 $8 - 4 = 4$   
 $7 - 2 = 5$   
 $9 - 3 = 6$   
4, 5, 6 are consecutive numbers.  
Similarly,  
 $6 - 5 = 1$   
 $4 - 2 = 2$   
 $4 - 1 = 3$   
1, 2, 3 are consecutive numbers.  
So, the correct option is (65, 24, 41)  
The rest of the options do not satisfy this condition
14. **Answer(C)**  
A prong is a part of the fork.  
Similarly,  
Nails are the part of hands.
15. **Answer(D)**  
The ruins or ashes are kept in an urn.  
Similarly,  
Money is kept in a wallet.
16. **Answer(D)**  
All except waterfall, are collected or flow horizontally.
17. **Answer(B)**  
 $(34 + 2) \times 0.5 = 36 \times 0.5 = 18$   
 $(18 + 2) \times 0.5 = 20 \times 0.5 = 10$   
 $(10 + 2) \times 0.5 = 12 \times 0.5 = 6$   
 $(6 + 2) \times 0.5 = 8 \times 0.5 = 4$   
 $(4 + 2) \times 0.5 = 6 \times 0.5 = 3$   
So, the wrong number is 36.
18. **Answer(C)**  
The words are jumbled. The actual words are APPLE, ORANGE, PINK and GUAVA. Apple, orange and guava are fruits whereas pink is a color.
19. **Answer(B)**  
Convey and conduct, discuss and debate and review and retrospect are word pairs in which both word are synonyms of each other. Whereas, Endure and desist is a word pair which are antonyms of each other.
20. **Answer(B)**  
Blizzard is a storm accompanied with snow common in polar regions.  
The others are just cyclonic storms common in different areas of the world.
21. **Answer(B)**  
 $3^*3 - (0+3) = 9 - 3 = 6$   
 $6^*3 - (0+6) = 18 - 6 = 12$   
 $12^*3 - (1+2) = 36 - 3 = 33$   
 $33^*3 - (3+3) = 99 - 6 = 93$   
 $93^*3 - (9+3) = 279 - 12 = 267$
22. **Answer(C)**  
 $12^*1 = 12/2 = 6$   
 $6^*2 = 12/2 = 6$   
 $6^*3 = 18/2 = 9$   
 $9^*4 = 36/2 = 18$   
 $18^*5 = 90/2 = 45$
23. **Answer(B)**  
 $A B S C O N D : D N O C S B A$   
 $D + 1 = E$   
 $N - 1 = M$   
 $O + 1 = P$   
 $C - 1 = B$   
 $S + 1 = T$   
 $B - 1 = A$

$A + 1 = B$   
 Similarly,  
 PURPOSE : FRPOSTQ  
 Therefore,  
 MAJESTY : YTSEJAM  
 $Y + 1 = Z$   
 $T - 1 = S$   
 $S + 1 = T$   
 $E - 1 = D$   
 $J + 1 = K$   
 $A - 1 = Z$   
 $M + 1 = N$   
 So, the code for MAJESTY is ZSTDKZN.

24. **Answer(D)**  
 $T \rightarrow 20 * (2+0) = 40$   
 $R \rightarrow 18 * (1+8) = 162$   
 $U \rightarrow 21 * (2+1) = 63$   
 $N \rightarrow 14 * (1+4) = 70$   
 $K \rightarrow 11 * (1+1) = 22$   
 Similarly,  
 $B \rightarrow 2 * (0+2) = 4$   
 $E \rightarrow 5 * (0+5) = 25$   
 $N \rightarrow 14 * (1+4) = 70$   
 $C \rightarrow 3 * (0+3) = 9$   
 $H \rightarrow 8 * (0+8) = 64$   
 Thus,  
 BENCH  $\rightarrow$  42570964

25. **Answer(D)**  
 $20 - 5 + 2/3 \times 6$  means  $20/5 \times 2 - 3 + 6 = 8 - 3 + 6 = 11$   
 $20/5 \times 2 + 3/6$  means  $20 - 5 + 2 \times 3 - 6 = 20 - 5 + 6 - 6 = 15$   
 $20 + 5 - 2/3 \times 6$  means  $20 \times 5/2 - 3 - 6 = 50 - 9 = 41$   
 $20/5 \times 2 + 3 - 6$  means  $20 - 5 + 2 \times 3/6 = 20 - 5 + 1 = 16$

26. **Answer(D)**  
 $48 \div 8 \times 6 \div 2 + 7 = 15 + 4 \times 2 - 20 \div 5$   
 Interchanging 4 and 5 on RHS:  
 $48 \div 8 \times 6 \div 2 + 7 = 15 + 5 \times 2 - 20 \div 4$   
 $LHS = 48 \div 8 \times 6 \div 2 + 7 = 6 \times 3 + 7 = 18 + 7 = 25$   
 $RHS = 15 + 5 \times 2 - 20 \div 4 = 15 + 10 - 5 = 20$ , so  
 interchanging 4 and 5 is invalid.  
 Interchanging 6 and 8 on LHS:  
 $48 \div 6 \times 8 \div 2 + 7 = 15 + 4 \times 2 - 20 \div 5$   
 $LHS = 48 \div 6 \times 8 \div 2 + 7 = 8 \times 4 + 7 = 32 + 7 = 39$   
 $RHS = 15 + 4 \times 2 - 20 \div 5 = 15 + 8 - 4 = 19$ , so  
 interchanging 6 and 8 is invalid.  
 Interchanging 48 and 6 on LHS:  
 $6 \div 8 \times 48 \div 2 + 7 = 15 + 4 \times 2 - 20 \div 5$   
 $LHS = 6 \div 8 \times 48 \div 2 + 7 = (3/4) \times 24 + 7 = 18 + 7 = 25$   
 $RHS = 15 + 4 \times 2 - 20 \div 5 = 15 + 8 - 4 = 19$ , so  
 interchanging 48 and 6 is invalid.  
 Interchanging 15 and 20 on RHS:  
 $48 \div 8 \times 6 \div 2 + 7 = 20 + 4 \times 2 - 15 \div 5$   
 $LHS = 48 \div 8 \times 6 \div 2 + 7 = 6 \times 3 + 7 = 18 + 7 = 25$   
 $RHS = 20 + 4 \times 2 - 15 \div 5 = 20 + 8 - 3 = 25$ , so  
 interchanging 15 and 20 is valid and makes the  
 equation correct.

27. **Answer(D)**  
 B's car was costlier than C's car but was less costly than E's car  
 $E > B > C$   
 A's car was costlier than D's car but less costly than C's car.  
 $E > B > C > A > D$   
 Thus, B's car was the 2<sup>nd</sup> costliest

28. **Answer(B)**  
 As Suruchi is 10<sup>th</sup> from the right end and there are eighteen students in the row, Suruchi stands 9<sup>th</sup> from the left end  
 $(18 - 10 + 1)$ .  
 As Preksha is 14<sup>th</sup> from the left end of the row, there are four students between Preksha and Suruchi.

29. **Answer(D)**  
 Given word: EXTRAMUNDANE

ANNUMERATE  $\rightarrow$  Can be formed as EXTRAMUNDANE.  
 UNAERATED  $\rightarrow$  Can be formed as EXTRAMUNDANE.  
 MANDATEE  $\rightarrow$  Can be formed as EXTRAMUNDANE.  
 MAGTEAUX  $\rightarrow$  Cannot be formed as G is not there in EXTRAMUNDANE.  
 Hence only the word MAGTEAUX cannot be formed.

30. **Answer(C)**

The correct order is:

Baby (0-1 year of age), toddler (1-3 years), adolescence (12-24 years), quarter-life (around 25 years of age), mid-life (around 50 years of age), senescence (above 50 years).

31. **Answer(D)**

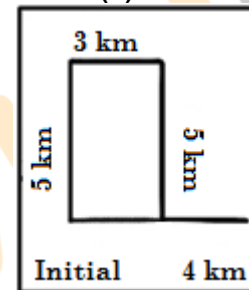
The correct order is (according to size):

Hummingbird, eagle, human, one-horned rhinoceros, elephant, blue whale.

32. **Answer(D)**

As we can first argument tis not strong as class room is to nothing with privacy. 2nd argument is strong as if cameras installed in public school then this will make teachers more accountable, increasing their productivity.

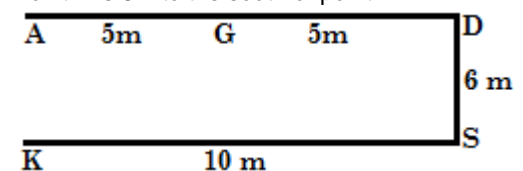
33. **Answer(B)**



Total vertical distance travelled =  $5 - 5 = 0$  km  
 Total horizontal distance travelled =  $3 + 4 = 7$  km.  
 So, Ranjan is  $\sqrt{(0^2 + 7^2)}$ , i.e., 7 km away from the house and he is facing towards East direction.

34. **Answer(D)**

Point K is 6m to the south of point A.



35. **Answer(B)**

Black and blind are not related to each other thus option I does not follow.

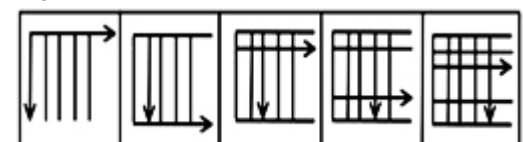
Option II follows since, there is a possibility.



36. **Answer(C)**

Among the vertical lines, the arrow keeps on shifting towards right side.

In each step a horizontal line is added on either side (below or above) and the arrow transfers to that new line.



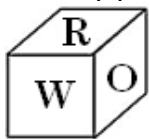
37. **Answer(A)**  
Here, from 1<sup>st</sup> and last dice shown, we get that, 3 is facing 4, since, its only possible when dice is inverted. Then, from second dice and third dice we get, 6 is to the left of face having 1, hence, 6 faces 2. Thus, 1 faces 5.

Alternate solution:

From the three dice given in the question we can see that, 3,6,4,2 are on the faces adjacent to 1. So, 5 can be the only number on the face opposite to 1.

38. **Answer(D)**  
Both the arrows change the direction in alternate steps starting from right one, hence, we get changed direction of right arrow in missing part.  
The polygon at the centre keeps on increasing its side by 1 in each step, hence we get hexagon in the missing part.  
The circle and the other polygon at the top corners, keep interchanging their positions in alternate steps, and, the polygon's side decrease by 1 in each step.

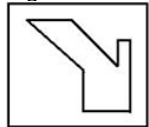
39. **Answer(B)**



When we confirm the adjacent sides, only figure 'b' explains the correct adjacency.

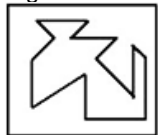
40. **Answer(B)**

Figure X is embedded in option B.

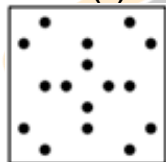


41. **Answer(B)**

Figure X is embedded in option B.



42. **Answer(B)**



The paper will look as per the image given in option B.

43. **Answer(D)**

Option D shows the mirror image of the required figure

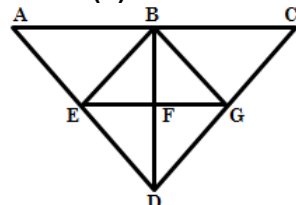
44. **Answer(A)**

"Sun" is a "star". Both, sun and star are self-illuminating, but planet is different. So, circle representing star should inscribe circle representing sun. Circle representing Planet is isolated from both.

45. **Answer(A)**

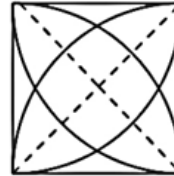
Steel is one of the metals. So, the circle representing "Metal" should inscribe circle representing "Steel". Pole can be metallic (or even steel) or wooden. So, circle representing "Pole" should intersect with circle of "Metal" and "Steel".

46. **Answer(C)**



Triangles = AEB, EBF, EFD, GFD, GFB, BGC, EBG, EDG, EBD, GBD, ABD, CBD and ACD.

47. **Answer(B)**



48. **Answer(B)**

Option B is the correct answer. In rest of the options, position of the circle is wrong.

49. **Answer(D)**

After 1<sup>st</sup> unfolding, we get: -



After 2<sup>nd</sup> unfolding, we get: -



So, option D is the correct answer.

50. **Answer(D)**

From matrices 1 and 2,

P can be coded as 40

L can be coded as 10, 44, 77

A can be coded as 03, 99

Q can be coded as 00, 66, 98

U can be coded as 12, 67

E can be coded as 24, 79

### General Studies

51. **Answer(B)**

The forint is the currency of Hungary. It is divided into 100 fillér, although fillér coins are no longer in circulation. The introduction of the forint on 1 August 1946 was a crucial step of the post-WWII stabilization of the Hungarian economy, and the currency remained relatively stable until the 1980s.

52. **Answer(C)**

Vinayak Damodar Savarkar was not the member of the JVP Committee. The JVP Committee was formed in the year 1949, its members were Jawaharlal Nehru, Sardar Vallabhbhai Patel & Pattabhi Sitaramayya. It was formed after the Jaipur session of 1948, to consider the recommendations of Dhar Commission. This committee also rejected the linguistic factor of reorganization of the states. It recommended the reorganization of States based on security, unity and economic prosperity of the nation.

53. **Answer(A)**

A hydrometer or aerometer is an instrument used for measuring the relative density of liquids based on the concept of buoyancy. They are typically calibrated and graduated with one or more scales such as specific gravity.

54. **Answer(B)**

Baglihar Dam also known as Baglihar Hydroelectric Power Project is a run-of-the-river power project on the Chenab River in Doda district of the Indian state of Jammu and Kashmir.

55. **Answer(C)**

The Radcliffe line became the international border between India and Pakistan (which also included

what is now Bangladesh) during the partition of India. Mr. Mohan line is a border line between Tibetan region of China and North-east region of India.

56. **Answer(D)**

India will soon be hosting the Quad meet involving Australia, Japan and the United States and the 2+2 dialogue with the United States. The details are being worked out for the same.

57. **Answer(B)**

Earth is farthest away from the sun at aphelion. Earth was be 152.1 million kilometers away from the sun at aphelion on July 4, 2022.

Aphelion is the point in the orbit of a planet, comet or other body most distant from the Sun.

When the Earth is at its aphelion in the beginning of July, it is generally about 4,800,000 km farther from the Sun than when at its perihelion in early January.

The words aphelion and perihelion are derived from the Greek language.

While apo means away, peri means near and helios means Sun in the Greek language.

What is Aphelion? Aphelion is when the Earth is farthest away from the Sun, approximately 152 million kilometers away. This happens generally in early July.

What is Perihelion? Perihelion is when the Earth is closest to the Sun, approximately 147 million kilometers. This happens generally in early January.

58. **Answer(C)**

Anthracite, often referred to as hard coal, is a hard, compact variety of coal. It has the highest carbon content, the fewest impurities, and the highest energy density of all types of coal and is the highest ranking of coal.

59. **Answer(B)**

Vulcanization of rubber is a process of improvement of the rubber elasticity and strength by heating it in the presence of sulphur.

60. **Answer(D)**

Headquarters of "World Customs Organisation" is located in Brussels, Belgium.

61. **Answer(C)**

In India, the Reserve Bank of India (RBI) determine the bank rate. It is the rate at which RBI makes loans to commercial banks with no collateral. The RBI also provides short term loans to its clients (keeping collateral) at what is called the repo rate. RBI revises this rate periodically. However, there is no predetermined schedule. The repo rates are changed reactively depending on the economy.

62. **Answer(D)**

The book "In the Line of Fire: A Memoir" has been written by Pervez Musharraf. The book depicts Musharraf's personal life to the international and national issues and his rise to power.

63. **Answer(C)**

Rabindranath Tagore sang Vande Mataram in 1896 at the Calcutta Congress Session held at Beadon Square.

64. **Answer(C)**

Gupta Period is called as the Golden age of ancient India because during this period, literature, science, and the arts flourished in India as never before. It was only during the reign of the Gupta Empire, that various advancements in progressive pursuits such as the decimal system, concept of zero and chess came into fructification. Many scholars made tremendous contributions in the field of literature. Most notable of these include Kalidasa, Aryabhata and Varahamihira.

65. **Answer(C)**

Ball pen functions on the principle of surface tension. Pen is fitted with a tiny ball bearing in its tip. As the pen moves along the paper, the ball rotates picking

up ink from the ink cartridge and leaving it on the paper.

66. **Answer(C)**

The 'Fundamental Duties' of citizens were added to the Constitution by the 42nd Amendment in 1976, upon the recommendations of the Swaran Singh Committee.

67. **Answer(D)**

The Bihar Movement was a movement initiated by students in Bihar in 1974 and led by the veteran socialist Jayaprakash Narayan, popularly known as JP, against misrule and corruption in the government of Bihar. It later turned against Prime Minister Indira Gandhi's government in the central government. It was also called Sampurna Kranti (Total Revolution Movement) and JP Movement.

68. **Answer(B)**

Keenan stadium is a multi-purpose stadium and an International Cricket Stadium in Jamshedpur, Jharkhand.

69. **Answer(A)**

Myanmar is the neighboring country of India. Capital of Myanmar is 'Nay pyi daw' and the currency of Myanmar of Kyat.

70. **Answer(B)**

The 'Indian Rebellion of 1857' was a major uprising in India during 1857–58 against the rule of the 'British East India Company'. The event is known by many names, including the Sepoy Mutiny, the Indian Mutiny, the Great Rebellion, the Revolt of 1857 and India's First War of Independence. Charles Canning was Governor-General of India during the 'Indian Rebellion of 1857'.

71. **Answer(C)**

chemical formula for the metal chloride will be  $MCl_2$ . This is because from the formula  $MSO_4$ , we come to know that the valency of the metal M will be 2 as the valency of  $SO_4$  is 2.

72. **Answer(C)**

Jodhpur Fort was built by Rao Jodhaji. It was built around year 1460 and is also referred to as the Mehrangarh fort.

73. **Answer(D)**

Rs. 1 Coin has the following characteristics-

Metal	Ferritic Stainless steel
Weight	4.85 gms
Diameter	25 mm
Shape	Circular

**Note:** There are different sources which are giving different answers and the answer to this question can also be referred from the RBI website.

74. **Answer(A)**

There are thousands of chemicals in cigarette smoke. Nicotine is perhaps the chemical that is most commonly associated with cigarette smoke. This naturally occurring compound in the tobacco plant is responsible for making cigarette smoking highly addictive. Carbon monoxide and hydrogen cyanide are another 2 highly toxic chemicals found in cigarette smoke. Carbon monoxide is a colorless and odourless gas that is released when tobacco is burned. It is the reason why a lot of smokers gasp for their breath after only light exercise.

75. **Answer(C)**

Godavari River is known as "Dakshin Ganga" since it is the largest peninsular river like the large Himalayan River. It is like the Ganga River in the south thus it is also called Dakshin Ganga.

76. **Answer(A)**

Mahavira was the 24th and last Tirthankara of Jainism. Also known as Vardhamana, he was an Indian ascetic philosopher and one of the principal



figures of Jainism which is one of the major religions of the Indian subcontinent. His father was Siddharth and mother was Trishala.

77. **Answer(C)**  
SMTP (Simple Mail Transfer Protocol) is a protocol used in sending and receiving e-mail.
78. **Answer(A)**  
All other except Leprosy is caused by fungus. Leprosy is a chronic infectious disease that primarily affects the peripheral nerves, skin, upper respiratory tract, eyes, and nasal mucosa (lining of the nose). The disease is caused by a bacillus (rod-shaped) bacterium known as *Mycobacterium leprae*.
79. **Answer(B)**  
As long jump involves the projectile motion so to maximize range of jump, long jumper always takes jump at an angle of  $45^\circ$ . Projectile is a form of motion experienced by an object or particle (a projectile) that is thrown near the Earth's surface and moves along a curved path under the action of gravity only (the effects of air resistance are assumed to be negligible). The horizontal range of a projectile is the distance along the horizontal plane it would travel, before reaching the same vertical position as it started from.
80. **Answer(C)**  
The deepest lake in the world is Lake Baikal in Siberia. Its deepest point is 1637 meters. It holds 20% of the world's fresh surface water and is the world's largest freshwater lake by volume.
81. **Answer(D)**  
Asthma is a Non-Communicable disease, it is a condition in which your airways narrow and swell and produce extra mucus. This can make breathing difficult and trigger coughing, wheezing and shortness of breath. A communicable disease is one that is spread from one person to another through a variety of ways that include: contact with blood and bodily fluids; breathing in an airborne virus; or by being bitten by an insect
82. **Answer(D)**  
Agar-Agar is a jelly-like substance, obtained from red algae. Agar is a mixture of two components: the linear polysaccharide agarose and a heterogeneous mixture of smaller molecules called agaropectin.
83. **Answer(C)**  
A person wears spectacles with concave lenses in case of Myopia (Short Sightedness). It means that normally (when not using glasses) the image of distant objects is focused in his eye much ahead of retina.
84. **Answer(B)**  
Domesticated animals included in 'Indus Valley civilization' were dogs, cats, humped and shorthorn cattle, domestic fowl, and possibly pigs, camels, and buffalo. Cows were not domesticated.
85. **Answer(B)**  
The Satavahanas also referred to as the Andhras in the Puranas, were an ancient Indian dynasty based in the Deccan region. Simuka is mentioned as the first king in a list of royals in a Satavahana inscription.
86. **Answer(C)**  
This is a List of Indus Valley Civilization discoveries:  
Kalibangan- A wooden furrow  
Alamgirpur - Impression of cloth on trough  
Rakhigarhi - Terrecotta wheels, toys, figurines, pottery.  
Mitathal - Earliest agricultural community  
Lothal - Bead making factory, dockyard, button seal, fire altars, painted jar, earliest cultivation of rice (1800 BC)
87. **Answer(B)**

Dyarchy is a system of double government introduced by the Government of India Act (1919) for the provinces of British India. It marked the first introduction of the democratic principle into the executive branch of the British administration of India.

88. **Answer(D)**  
In short, correction of disequilibrium calls for a judicious combination of the following methods:  
(i) Tight monetary policy affecting income and prices in the country;  
(ii) Exchange rate adjustment, i.e., devaluation of the home currency;  
(iii) Expanding Exports and Restraining Imports  
(iv) Capital movement, i.e., borrowing or lending abroad; and  
(v) Exchange control.
89. **Answer(D)**  
Tamil Nadu receives rainfall in the winter season due to northeast trade winds.
90. **Answer(C)**  
The 'Doctrine of Basic Structure' is a judiciary made doctrine which was propounded by the Indian Judiciary on 24th April 1973 in Keshavananda Bharati case. The basic structure doctrine mandates that the Constitution of India has certain basic features that cannot be altered or destroyed through amendments by the parliament.
91. **Answer(B)**  
In 1608, William Hawkins was sent to ask the Mughal emperor Jahangir about trade with England.
92. **Answer(B)**  
The Mercalli intensity scale is a seismic intensity scale used for measuring the intensity of an earthquake. It measures the effects of an earthquake.
93. **Answer(C)**  
Nickel silver, sometimes called German silver, is an alloy. It normally has copper, nickel, and zinc in it. Despite the name, it does not contain any real silver.
94. **Answer(B)**  
Near-sightedness, also known as short-sightedness and myopia, is a condition of the eye where light focuses in front of, instead of on, the retina. This causes distant objects to be blurry while close objects appear normal.
95. **Answer(A)**  
Where warm air rises up, the air pressure at that place is lowered.
96. **Answer(B)**  
In Microsoft Word, Normal layout view shows formatting such as line spacing, font, point size and italics.
97. **Answer(C)**  
Falkland Current, Oya Shio and California Currents are cold currents. Cold currents flow toward the equator on the eastern side of ocean basins. Mozambique Current is a warm current. Warm ocean currents flow away from the equatorial region on the western side of ocean basins.
98. **Answer(B)**  
Khadar soil is new and younger deposits of the alluvium soil on the flood plains. This soil is renewed every year and thus is comparatively more fertile than the bhangar soil (old alluvial).
99. **Answer(D)** Odisha  
Odisha state government has directed its Department of Tourism to start river cruises to boost tourism in the state and counter the impact of COVID-19 on the state's tourism industry. Odisha Chief Secretary, Asit Tripathy said that river cruising itself is compatible with Covid-19 restrictions.
100. **Answer(B)** Russia  
Russia on September 3, 2020 assured that it will follow a policy of 'no arms supply to Pakistan'

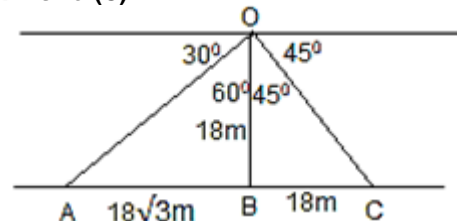
following a request from India during Defence Minister Rajnath Singh's meeting with his Russian counterpart Gen. Sergey Shoigu.

### Quantitative Aptitude

101. **Answer(A)**  
Number of units sold by Toyota in 2014 = 70000  
Number of units sold by Toyota in 2017 = 95000  
Required percentage increase  
=  $[(95000 - 70000)/70000] \times 100 = 35.71\%$
102. **Answer(B)**  
Sales of Maruti Suzuki in 2016 = 100000  
Sales of Hyundai in 2015 = 85000  
Required difference =  $100000 - 85000 = 15000$
103. **Answer(A)**  
Total units sold by Hyundai =  $80000 + 85000 + 90000 + 110000 = 365000$   
Total units sold by Toyota =  $70000 + 75000 + 90000 + 95000 = 330000$   
Thus, the required ratio =  $365000 : 330000 = 73 : 66$
104. **Answer(A)**  
Least units sold by the company Maruti Suzuki is in the year 2014, i.e. 70000
105. **Answer(C)**  
Volume of can =  $22/7 \times 4 \times 4 \times 14 = 704 \text{ cm}^3$   
Volume of box =  $8 \times 8 \times 14 = 896 \text{ cm}^3$   
Required difference =  $896 - 704 = 192 \text{ cm}^3$
106. **Answer(A)**  
Given,  $(1/A) + (1/B) = 1/24$   
Since, B does  $3/4^{\text{th}}$  of the total work.  
This means B is thrice as efficient as A.  
Also, number of days is inversely proportional to the efficiency.  
Let the number of days taken by B alone to complete the work be 'x' days.  
Then, the number of days taken by A alone to complete the work = '3x' days  
So,  $(1/3x) + (1/x) = 1/24$   
 $x = 32$  days  
So, number of days taken by A alone to complete the work =  $3x = 96$  days
107. **Answer(D)**  
Let the cost price of the automobile be Rs. 'x'.  
So,  $1.75x = 210000$   
 $x = 120000$   
So, the cost price of the automobile = Rs. 120000  
New selling price = Rs. 240000  
Required profit percentage  
=  $[(240000 - 120000)/120000] \times 100 = 100\%$
108. **Answer(A)**  
Let the salary of A and B be Rs. '9x' and Rs. '8x' respectively.  
Then,  $(9x + 30000) / (8x + 30000) = 10/9$ .  
 $x = 30000$   
Thus, the new salary of B =  $8 \times 30000 + 30000 = \text{Rs. } 270000$ .
109. **Answer(A)**  
The given expression can be written as-  
 $\cot \alpha (\sin \alpha / \cos \alpha + \cos \alpha / \sin \alpha)$   
(Since,  $\tan x = \sin x / \cos x$  and  $\cot x = \cos x / \sin x$ )  
=  $\cot \alpha \{(\sin^2 \alpha + \cos^2 \alpha) / (\sin \alpha \times \cos \alpha)\}$   
=  $(\cos \alpha / \sin \alpha)$   
 $\{1 / (\sin \alpha \times \cos \alpha)\}$  (Since,  $\sin^2 x + \cos^2 x = 1$ )  
=  $\text{cosec}^2 \alpha$
110. **Answer(D)**  
 $[\sin A \cos A / (\sin A \sec A + \cot A)] - \sin^2 A$   
=  $\sin A \cos A / (\sin A / \cos A + \cos A / \sin A) - \sin^2 A$   
=  $\sin A \cos A / [(\sin^2 A + \cos^2 A) / (\cos A \sin A)] - \sin^2 A$   
=  $\sin^2 A \cos^2 A - \sin^2 A = \sin^2 A (\cos^2 A - 1) = \sin^2 A \times (-\sin^2 A) = -\sin^4 A$
111. **Answer(C)**  
The given expression can be written as-

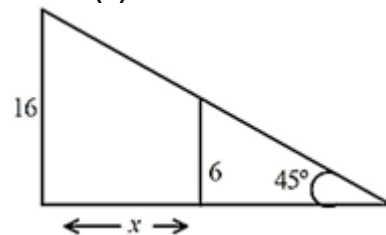
$$\begin{aligned} & \sqrt{\sin A \left( \left( \frac{\sin A}{1 + \sin A} \right) + \left( \frac{\sin A}{1 - \sin A} \right) \right)} \quad (\text{Since, } \sin x = 1/\text{cosec} x) \\ &= \sqrt{\sin^2 A \left( \frac{1}{1 + \sin A} + \frac{1}{1 - \sin A} \right)} \\ &= \sqrt{\sin^2 A \times \frac{2}{1 - \sin^2 A}} \\ &= \sqrt{2 \sin^2 A / \cos^2 A} \\ &= \sqrt{2} \tan A \end{aligned}$$

112. **Answer(B)**  
Since, amount of simple interest earned remains same for every year.  
So, interest earned in one year = Rs. 2700  
Then, the principal amount deposited, P  
=  $55800 - 4 \times 2700$   
P = Rs. 45000.  
So, the required rate of interest, R  
=  $(2700 \times 100) / 45000$   
R = 6%
113. **Answer(B)**  
Let the principal amount deposited be Rs. 'P' and the rate of compound interest be 'R'% per annum.  
 $[P \times (1 + (R / 100)^1)] / [P \times (1 + (R / 100))^2] = 20 / 21$   
 $1 / (1 + (R / 100)) = 20 / 21$   
 $21 = 20 + R/5$   
R = 5%  
Then,  
 $P \times (1 + 0.05)^3 = 74088$   
 $1.157625P = 74088$   
P = Rs. 64000  
So, the principal amount deposited is Rs. 64000.
114. **Answer(D)**  
Let the pocket money of the new student be Rs. 'P'.  
Total amount of pocket money that all the 29 students get =  $29 \times 40 = \text{Rs. } 1160$ .  
When a new student joins, the new average pocket money of the class becomes Rs. 41  
So,  $(1160 + P) / 30 = 41$   
Thus, P = Rs. 70  
Therefore, the pocket money of the new student is Rs. 70.
115. **Answer(C)**



In triangle ABO,  
 $\tan 60^\circ = AB/BO$   
 $AB = 18\sqrt{3} \text{ m}$   
In triangle BOC,  
 $\tan 45^\circ = BC/BO$   
 $BC = 18 \text{ m}$   
Thus, the distance between the girls  
=  $(18 + 18\sqrt{3})$   
= 48.6m

116. **Answer(C)**



$\tan(45) = 1$   
Let the distance between the poles is x  
Then, by similar triangle  
 $16/6 = 16 / (16 - x)$  or  $x = 10 \text{ m}$

117. **Answer(A)**  
Given,  $(a + b)^2 = 1369$  and  $ab = 336$   
By using the identity,  $(a + b)^2 = a^2 + b^2 + 2ab$

$$a^2 + b^2 = (a + b)^2 - 2ab$$

$$a^2 + b^2 = 1369 - 2 \times 336$$

$$a^2 + b^2 = 697$$

$$\text{And, } (a + b) = \sqrt{1369} = 37$$

$$\text{Now, } a^3 + b^3 = (a + b) \times (a^2 - ab + b^2)$$

$$a^3 + b^3 = 37 \times (697 - 336) = 13357$$

118. **Answer(C)**

Let each side of the original square be 's' cm.

Then, original area =  $s^2 \text{ cm}^2$ .

Now, new side =  $1.2s \text{ cm}$

So, new area of square =  $(1.2s)^2 = 1.44s^2 \text{ cm}^2$

Required percentage increase in area =  $\left[\frac{(1.44 - 1)s^2}{s^2}\right] \times 100 = 44\%$

119. **Answer(C)**

Cost price of nineteen bags =  $12 \times 250 + 7 \times 450$

= Rs. 6150

Selling price of nineteen bags =  $19 \times 350$

= Rs. 6650

Thus, overall profit percentage

=  $\left(\frac{6650 - 6150}{6150}\right) \times 100 = 8.13\%$

120. **Answer(B)**

Relative speed of train B with respect to train A

=  $92 - 87 = 5 \text{ km/hr}$

Total distance to be covered by train B

=  $580 + 1400 + 520 = 2500 \text{ m} = 2.5 \text{ km}$

Thus, required time taken by train B to cross train A

=  $2.5/5 = 0.5 \text{ hr} = 30 \text{ minutes}$

121. **Answer(B)**

Let CP of 1 item be 100.

CP of 13 items = Rs 1300

One item is free on the sale of 12 items.

Therefore, SP of 13 items =  $\text{Rs } 1200 \times 1.7 \times 0.8$

= Rs 1632

Profit % =  $\left(\frac{1632 - 1300}{1300}\right) \times 100 = 332/1300 \times 100$

=  $25.54\% \approx 26\%$

122. **Answer(A)**

Suppose the CP of an apple be Rs x.

Then first selling price =  $130x/100 = 13x/10$

If he charges Rs 2 more and get 50% profit, then

$$13x/10 + 2 = 150x/100$$

$$13x/10 + 2 = 15x/10$$

$$15x/10 - 13x/10 = 2$$

$$2x/10 = 2, x = \text{Rs } 10$$

So cost price of an apple = Rs 10

Hence first selling price =  $10 \times 130/100 = \text{Rs } 13$

123. **Answer(B)**

Let total number of students be 'x'.

Initial total marks of 'x' students =  $60 \times x$

Change in marks of 80 students = 30 marks each

Total change in marks =  $80 \times 30 = 2400 \text{ marks}$

Final average = 50 marks

Final total marks of 'x' students =  $50 \times x$

Total change in marks =  $60 \times x - 50 \times x$ , which is equal to 2400

So,  $10 \times x = 2400$

$x = 240$

124. **Answer(C)**

Let the quantity of milk and water in the mixture be 7k and 3k respectively.

If 4 litres is drawn off then the quantity of milk in the mixture =  $7k - (7/10 \times 4) = 7k - 14/5$

If 4 litres is drawn off then the quantity of water in the mixture =  $3k - (3/10 \times 4) = 3k - 6/5$

After adding 6 liters water, quantity of water =  $3k - 6/5 + 6 = 3k + 24/5$

The new ratio is 3:2

$$\Rightarrow (7k - 14/5) : (3k + 24/5) = 3:2$$

$$\Rightarrow 14k - 28/5 = 9k + 72/5$$

$$\Rightarrow 5k = 20$$

$$\Rightarrow k = 4$$

Hence the quantity of milk used by Arun initially =  $7k = 7 \times 4 = 28 \text{ litres}$

125. **Answer(B)**

Passing marks =  $2240 - 128 = 2112$

Total marks =  $2112 \times 100/64 = 3300$

Marks obtained by Meena =  $2240 - 887 = 1353$

Percentage marks obtained by Meena =  $1353/3300 \times 100 = 41\%$

126. **Answer(B)**

Let the speed of the boat and stream be x km/hr and y km/hr.

Speed of the boat along stream =  $(x + y) \text{ km/hr}$

Speed of the boat against stream =  $(x - y) \text{ km/hr}$

So,  $25/(x - y) + 39/(x + y) = 8$  ..... (i)

$35/(x - y) + 52/(x + y) = 11$  ..... (ii)

On solving,

$x = 9 \text{ km/hr}$

$y = 4 \text{ km/hr}$

Hence, speed of stream = 4 km/hr

127. **Answer(A)**

Let the common ratio be = k

$p + q = 5k$

$q + r = 6k$

$+p = 7k$

adding,  $2(p + q + r) = 18k$

$\Rightarrow K = 2$

Now,  $p = 18 - 12 = 6$

$q = 18 - 14 = 4$

$r = 18 - 10 = 8$

hence,  $a:b:c = 6:4:8 = 9:6:12$

128. **Answer(D)**

Consider equation I:

$$x^2 + x - 20 = 0$$

$$x^2 + 5x - 4x - 20 = 0$$

$$x(x + 5) - 4(x + 5) = 0$$

$$(x + 5)(x - 4) = 0$$

$$X = 4 \text{ or } -5$$

Consider equation II:

$$y^2 - y - 30 = 0$$

$$y^2 - 6y + 5y - 30 = 0$$

$$y(y - 6) + 5(y - 6) = 0$$

$$(y - 6)(y + 5) = 0$$

$$Y = 6 \text{ or } -5$$

When  $x = 4, y = 6, X < Y$

When  $x = 4, y = -5, X > Y$

so, we can't determine relationship between x and y

129. **Answer(C)**

$$12(a^2 + b^2 + c^2) = (2a + 2b + 2c)^2$$

$$\Rightarrow 12(a^2 + b^2 + c^2) = 4(a + b + c)^2$$

$$\Rightarrow 3(a^2 + b^2 + c^2) = (a + b + c)^2$$

$$\Rightarrow 3(a^2 + b^2 + c^2) = (a^2 + b^2 + c^2) + 2(ab + bc + ca)$$

$$\Rightarrow 2(a^2 + b^2 + c^2) = 2(ab + bc + ca)$$

$$\Rightarrow a^2 + b^2 + c^2 - ab - bc - ca = 0$$

$$\text{Now, } a^3 + b^3 + c^3 - 3abc = (a + b + c)(a^2 + b^2 + c^2 - ab - bc - ca) = 0$$

$$\therefore a^3 + b^3 + c^3 = 3abc$$

$$(a^3 + b^3 + c^3)/6abc = 3abc/6abc = 1/2$$

130. **Answer(B)**

$$x + 1/3x = 2$$

$$\Rightarrow 3x^2 + 1 = 6x. \quad [x \neq 0]$$

$$\text{Now, } 6x(6x+1)/(9x^4+6x^2+6x+1) = (36x^2 + 6x)/((3x^2)^2 + 2 \times 3x^2 \times 1 + 1^2 + 6x)$$

$$= (36x^2 + 6x)/((3x^2 + 1)^2 + 6x)$$

$$= (36x^2 + 6x)/((6x)^2 + 6x)$$

$$= (36x^2 + 6x)/(36x^2 + 6x)$$

$$= 1$$

131. **Answer(C)**

$$6a^2 - 11ab + 4b^2 = 0$$

$$6a^2 - 3ab - 8ab + 4b^2 = 0$$

$$3a(2a - b) - 4b(2a - b) = 0$$

$$(3a - 4b)(2a - b) = 0$$

$2a - b = 0$  [Here,  $a < b$  we will not consider this equation.]

$$3a = 4b$$

$$a = 4b/3 \dots (1)$$

$$(a + b) = 21 \dots (2)$$

From (1) and (2)-

$$(4b/3) + b = 21$$

$$7b/3 = 21$$

$$b = 9 \text{ and } a = 12$$

$$(a - b) = 12 - 9 = 3$$

132. **Answer(A)**

$$2^x = 3^y = 5^z = k^{xyz} \text{ (let)}$$

$$\therefore 2 = k^{yz}; 3 = k^{xz}; 5 = k^{xy}$$

$$\therefore 2^x \cdot 3^y \cdot 5^z = k^{(yz + xz + xy)}$$

$$\Rightarrow 30 = k^{(xy + yz + zx)}$$

$$\Rightarrow 30^{1/(xy + yz + zx)} = k$$

$$\Rightarrow 30^{xyz/(xy + yz + zx)} = k^{xyz} = 2^x$$

$$\therefore 2^x - 30^{xyz/(xy + yz + zx)} = 0$$

133. **Answer(C)**

$$x = (2 + \sqrt{3})/(2 - \sqrt{3}) \text{ and } y = (7 + 4\sqrt{3})/(7 - 4\sqrt{3})$$

$$x = [(2 + \sqrt{3})(2 + \sqrt{3})]/[(2 - \sqrt{3})(2 + \sqrt{3})] = (4 + 3 + 4\sqrt{3})/(4 - 3) = 7 + 4\sqrt{3}$$

$$y = (7 + 4\sqrt{3})/(7 - 4\sqrt{3})$$

$$(y/x) = y \div x = (7 + 4\sqrt{3})/(7 - 4\sqrt{3}) \div (7 + 4\sqrt{3})$$

$$= (7 + 4\sqrt{3})/(7 - 4\sqrt{3}) \cdot 1/(7 + 4\sqrt{3})$$

$$= (7 + 4\sqrt{3})/(49 - 48)$$

$$= (7 + 4\sqrt{3})$$

134. **Answer(C)**

$$x^2 - 3x - 1 = 0$$

$$\Rightarrow x - 3 - 1/x = 0 \quad [x \neq 0]$$

$$\Rightarrow x - 1/x = 3 \text{ and } x + 1/x = 3 + 2/x = (3x+2)/x$$

$$\text{Now, } x^5 - 1/x^3 = x(x^4 - 1/x^4)$$

$$= x((x^2)^2 - 1/(x^2)^2)$$

$$= x(x^2 - 1/x^2)(x^2 + 1/x^2)$$

$$= x(x + 1/x)(x - 1/x)[(x - 1/x)^2 + 2]$$

$$= x \cdot (3x+2)/x \cdot 3 \cdot (3^2 + 2)$$

$$= 33(3x+2)$$

$$\therefore (x^5 - 1/x^3)/(3x+2) = 33$$

135. **Answer(A)**

$$2 \times \cos A - \sec A = -1$$

$$2 \times \cos A - (1/\cos A) = -1$$

$$2 \times \cos^2 A - 1 = -\cos A$$

$$2 \times \cos^2 A + \cos A - 1 = 0$$

By splitting the middle term, we get

$$\cos A = 1/2 \text{ or } -1, \text{ but } \cos(A) > -1$$

$$\text{So, } \cos A = 1/2$$

$$\text{Thus, } A = 60^\circ$$

$$\text{So, } \sin(A/2) = \sin 30^\circ = 1/2$$

136. **Answer(C)**

$$x = (\sin 30^\circ \cdot \cos 45^\circ)/\tan 60^\circ$$

$$x = (1/2 \cdot 1/\sqrt{2})/\sqrt{3} = 1/2\sqrt{6}$$

$$y = (\sin 60^\circ \cdot \sin 45^\circ)/\cot 30^\circ$$

$$y = (\sqrt{3}/2 \cdot 1/\sqrt{2})/\sqrt{3} = 1/2\sqrt{2}$$

$$\text{Hence } x^2 + y^2 = (1/2\sqrt{6})^2 + (1/2\sqrt{2})^2$$

$$x^2 + y^2 = 1/24 + 1/8 = 1/6$$

137. **Answer(B)**

Let the level of water is increased by h.

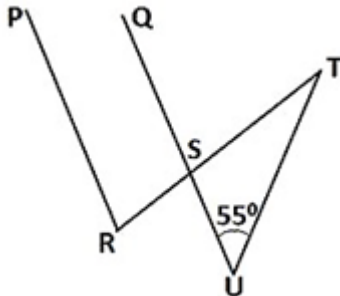
$$\text{Volume of sphere} = 4/3 \pi (15)^3$$

$$\text{And, volume of increased level of water} = \pi r^2 h = \pi (30)^2 h$$

$$4/3 \pi (15)^3 = \pi (30)^2 h$$

$$h = (4 \times 15 \times 15 \times 15)/(3 \times 30 \times 30) = 5 \text{ cm}$$

138. **Answer(B)**



Let  $\angle PRT$  and  $\angle RTU$  is  $16x$  and  $5x$  respectively.

$\angle QST = \angle PRT = 16x$  [PR || QS, Corresponding angles]

$$\angle TSU = (180^\circ - 16x)$$

$$\text{In } \triangle TSU, (180^\circ - 16x) + 55^\circ + 5x = 180^\circ$$

$$11x = 55$$

$$x = 5$$

$$\angle PRT = 16x = 80^\circ$$

139. **Answer(A)**

$$\text{Selling price of 100 articles} = \text{Rs. } 9600$$

$$\text{So, selling price of each article} = \text{Rs. } 96.$$

$$\text{Cost price of each article} = 96/1.33 \sim \text{Rs. } 72$$

$$\text{Selling price of each article at profit } 66.67\% = 72 \times 1.67 \sim \text{Rs. } 120$$

140. **Answer(C)**

Suppose the leak empties the tank in n hours.

Now the inlet fills the tank in 3.5 hours.

$$1/3.5 - 1/n = 1/4$$

$$\Rightarrow n = 28$$

So, usual rate of leak =  $1/28$  per hour

Now the tank will be half empty

From full to half empty, let x hours be required; or

$$x/28 = 1/2 \text{ or } x = 14 \text{ hours}$$

According to question;  $2x/28 = 1/2$  or  $x = 7$  hours

Total time = 21 hours

141. **Answer(C)**

LCM of 11, 17 and 22 is 374.

Numbers which are divisible by 11, 17 and 22 are 374,  $374 \times 2 = 748$ ,  $374 \times 3 = 1122$ ,  $374 \times 4 = 1496$

.....

Thus, two numbers (1122 and 1496) between 750 and 1500 are divisible by 11, 17 and 22.

142. **Answer(B)**

When a hollow cylinder is unwrapped,

Breadth of the rectangle = Height of the cylinder

So, height of cylinder = 25 cm

Also, length of the rectangle = circumference of base of the cylinder

$$88 = 2 \times (22/7) \times r$$

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

Thus, volume of the cylinder =  $(22/7) \times r^2 \times h$

$$= (22/7) \times (14)^2 \times 25$$

$$= 15400 \text{ cm}^3$$

143. **Answer(B)**

Given, angle PQR =  $60^\circ$  and angle PRQ =  $20^\circ$

So, angle QPR =  $180 - 60 - 20 = 100^\circ$  (angle sum property of the triangle)

In triangle POQ,

angle POQ =  $180 - 50 - 30 = 100^\circ$  (angle sum property of the triangle)

In triangle QOR,

angle QOR =  $180 - 30 - 10 = 140^\circ$  (angle sum property of the triangle)

In triangle POR,

angle POR =  $180 - 50 - 10 = 120^\circ$  (angle sum property of the triangle)

144. **Answer(D)**

Let the cost of one candy, one chocolate and one ice cream be Rs. a, Rs. b and Rs. c, respectively.

Then,

$$4b + 3c = 126 \text{ ----(1)}$$

$$7a + 2c = 93 \text{ ----(2)}$$

$$9a + 5b = 138 \text{ ----(3)}$$

On solving the above three equations, we get:

$$a = 7, b = 15 \text{ and } c = 22.$$

Thus, the difference between the cost of an ice cream and that of a candy =  $(22 - 7) = \text{Rs. } 15$

145. **Answer(D)**

Sum of number of number of pages in first 5 books =  $5 \times 430 = 2150$

Sum of number of number of pages in last 5 books =  $5 \times 380 = 1900$

Sum of number of number of pages in all 9 books =  $9 \times 400 = 3600$

Number of number of pages in 5<sup>th</sup> book =  $(2150 + 1900) - 3600 = 450$

146. **Answer(B)**



Quantity of oil in the present mixture =  $\frac{3}{8} \times 1920 = 720$  ml

Quantity of oil to be present in the required mixture =  $\frac{7}{8} \times 1920 = 1680$  ml

Thus, excess oil required =  $1680 - 720 = 960$  ml.

147. **Answer(A)**

Chord CA subtends angle CFA and angle CBA in the same segment.

Thus, angle CFA = angle CBA =  $35^\circ$

Given, angle AOB =  $130^\circ$

Then, exterior angle (AOB) =  $360^\circ - 130^\circ = 230^\circ$

Hence, angle ACB =  $230/2 = 115^\circ$

In triangle ACB,

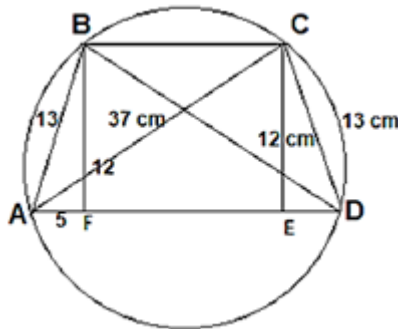
angle CAB =  $(180^\circ - (115^\circ + 35^\circ)) = 30^\circ$  (angle sum property of triangle)

So, angle DAB =  $30/2 = 15^\circ$

Now, in triangle AEB,

angle AEB =  $(180^\circ - (15^\circ + 35^\circ)) = 130^\circ$  (angle sum property of triangle)

148. **Answer(A)**



In a cyclic trapezium, diagonals are equal.

Thus, AC = BD = 37 cm

Also, AB = 13 cm. so, CD = 13 cm and BF = CF = 12 cm

In triangle ACE,

AE =  $(37^2 - 12^2)^{1/2} = 35$  cm

Now, in triangle ABF,

AF =  $(13^2 - 12^2)^{1/2} = 5$  cm

So, EF = BE =  $(35 - 5) = 30$  cm

AD =  $35 + 5 = 40$  cm

Thus, area of trapezium

=  $(\frac{1}{2}) \times (30 + 40) \times 12 = 420 \text{ cm}^2$

149. **Answer(A)**

The given numbers are

12, 15, 25, 30

LCM of 12, 15, 25 and 30 = 300

$\therefore$  The 3-digit largest number =  $300 \times 3 = 900$

150. **Answer(A)**

Volume of sphere =  $\frac{4}{3} \times \pi r^3$

Radius of solid lead sphere =  $\frac{12}{2} = 6$  cm

Volume of big solid lead sphere =

=  $\frac{4}{3} \times \pi \times 6^3$

=  $288\pi$  cubic cm

Given,

Radius of three small spheres are 3A, 4A, 5A respectively.

Given,

$\Rightarrow 288\pi = (\frac{4}{3}) \times \pi \times [(3A)^3 + (4A)^3 + (5A)^3]$

$\Rightarrow 216 = 216A^3$

$\Rightarrow A = 1$

Radius of circle = 3 cm, 4 cm, 5 cm

$\therefore$  Radius of smallest sphere is 3 cm.

### English Language

151. **Answer(D)**

The correct answer is option D) i.e. No improvement.

Act on: to do something because you have been advised or told to do it. This fits properly in the context of the given sentence. Hence, the given sentence needs no improvement.

Act up: Misbehave; cause trouble

Act out: 1) Perform a scene from a play, a charade or an exercise. 2) To behave badly coz you are unhappy or upset.

Act up to : Equal in action; fulfil in practice.

152. **Answer(A)**

'Kick off' means 'to begin' and it should be replaced.

Option 2 'Nod off' means 'to fall asleep' and it does not improve the sentence.

Option 3 'Passed out' means 'to faint' and it should not be the best alternative.

Option 1 'Show up' means 'to arrive' and it is the best alternative.

153. **Answer(C)**

'Cope up' means 'to deal successfully' and it should be replaced.

Option 1 'Getting up' means 'to rise' and it does not make any improvement.

Option 2 'Falling through' means 'to fail' and it is not the best fit.

Option 3 'Set up' means 'to start a business' and it is the best fit.

154. **Answer(D)**

The underlined part of the sentence is grammatically correct and doesn't have to be improved.

The phrasal verb "account for" means "explain or give a reason for something".

None of the other alternatives can make the sentence meaningful.

155. **Answer(A)**

The sentence uses the form 'disapproves of their'.

The phrase uses the present participle form of the verb 'disapprove', however to convey the intended meaning the verb should be in past participle form accompanied by a preposition stating association with the action.

The only alternative that gives the intended meaning is 'disapprove of their'.

156. **Answer(C)**

It had started raining and they did not have any umbrella or raincoat. They were getting wet in the rain so needed a car to reach home. They had no other means.

157. **Answer(B)**

It is mentioned in the passage that the lady wanted a car with a chauffeur. It is understood from the words that she could not afford one.

158. **Answer(D)**

The conversation of the lady shows that she was practical and was trying to make sure that the man was not lying. She was suspicious as mentioned in the passage. It cannot be said that she was cruel or harsh as she was ready to help the man without any favour in return.

159. **Answer(B)**

It is mentioned in the passage, 'I saw my mother looking at him suspiciously. With strange men, she has a golden rule which says, 'The nicer the man seems to be, the more suspicious you must become.' This little old man was particularly nice. He was polite. He was well-spoken.'

160. **Answer(C)**

The lady was suspicious of the man since the very beginning thus it is clear that she wanted to ensure that he was not lying to them. She wanted to be sure that the man was not a trickster.

161. **Answer(A)**

It is morally incorrect to take advantage of an old man's forgetfulness so the lady should not have taken the umbrella which would cost much more than he asked for. She was attracted to the silk umbrella so got ready to help him. The last lines of the passage state the morally correct action to be taken.

162. **Answer(C)**  
The word 'tempted' means 'attracted.' Thus the word having the opposite meaning is 'dissuaded' which means 'persuade (someone) not to take a particular course of action.'
163. **Answer(D)**  
The word 'summon' means 'order (someone) to be present.' The phrase 'called for' means the same. The other options have a different meaning or do not mean anything at all.
164. **Answer(B)**  
The word 'distant' means 'reserved and withdrawn.'  
The meanings of the words are:  
Ribald ⇒ referring to sexual matters in an amusingly rude or irreverent way  
Reticent ⇒ reserved  
Demonstrative ⇒ tending to express feelings, especially of affection, openly  
Didactic ⇒ that which teaches a lesson
165. **Answer(C)**  
The word 'paused' means 'stopped'. Thus 'proceed' which means 'to go forward' is the correct antonym.  
Estranged ⇒ no longer close
166. **Answer(D)**  
Option 1 'So as' cannot be used because it means 'in order to'.  
Option 2 'Such that' cannot be chosen because it means 'to the extent that' and it is not relevant to this sentence.  
Option 3 'So that' cannot be chosen because it is not fit here.  
Option 4 'Such as' which means 'for example' is the best fit for this given sentence.
167. **Answer(D)**  
Option 1 'Among' cannot be chosen because it means 'amid' and it does not fit here.  
Option 2 'In' cannot be chosen because it does not make any meaningful sentence.  
Option 3 'Within' cannot be chosen because it means 'inside' and it does not fit here.  
Option 4 'between' is the best fit.
168. **Answer(B)**  
Option 1 'So well' should not be chosen because it does not make the sentence meaningful.  
Option 3 'As per' which means 'in accordance with' cannot be used because it does not fit here.  
Option 4 'As such' means 'in the exact sense of the word' and it does not make the sentence meaningful.  
Option 2 'As well' means 'too' and it is the best fit.
169. **Answer(B)**  
Option 1 'Planted' cannot be chosen because two actions are mentioned here and the second one was taken before.  
Therefore,  
Option 3 'Was planting' which is in past continuous tense' cannot be chosen.  
Option 4 'Were planting' which is in past continuous tense' cannot be chosen.  
Option 2 'Had planted' which is in Past perfect tense is the best fit.
170. **Answer(D)**  
Option 1 'In' cannot be chosen because after the word 'crackdown' 'in' cannot be chosen.  
Option 2 'With' cannot be written after the word 'Crackdown'.  
Option 3 'Over' which means 'above' and it is not relevant to this sentence.  
Option 4 'On' is the best fit for this sentence.
171. **Answer(B)**  
Rigor means the quality of being extremely thorough and careful.  
For eg; His work was lacking in rigor.

Ordeal means a very unpleasant and prolonged experience.

Inaccuracy means the quality or state of not being accurate.

For eg; Any kind of inaccuracy requires a reasonable explanation.

It is clear from the examples that rigor and inaccuracy are opposite in meaning.

Intolerance means unwillingness to accept views, beliefs, or behavior that differ from one's own.

Suffering means the state of undergoing pain, distress, or hardship.

So, options 1, 3 and 4 are incorrect.

172.

**Answer(A)**

Rife means (especially of something undesirable) of common occurrence; widespread.

For eg; Male chauvinism was rife those days.

Scarce means are insufficient for the demand.

For eg; The raw materials were scarce to develop a new kind of fabric.

It is clear from the examples that rife and scarce are opposite in meaning.

Universal means relating to or done by all people or things in the world or in a particular group; applicable to all cases.

Pandemic means prevalent over a whole country or the world.

Insidious means proceeding in a gradual, subtle way, but with very harmful effects.

So, options 2, 3 and 4 are incorrect.

173.

**Answer(C)**

Competent means having the necessary ability, knowledge, or skill to do something successfully.

Proficient means competent or skilled in doing or using something.

Capable means having the ability, fitness, or quality necessary to do or achieve a specified thing.

Expert means a person who is very knowledgeable about or skilful in a particular area.

Inept means having or showing no skill; clumsy.

For eg; His inept way of handling the situation was discouraged by all.

It is clear that competent and inept are opposites in meaning.

So, options 1, 2 and 4 are incorrect.

174.

**Answer(C)**

Obviate means remove (a need or difficulty).

For eg; He thought he could obviate this unpleasantness.

Avert means turn away (one's eyes or thoughts).

Deter means discourage (someone) from doing something by instilling doubt or fear of the consequences.

Promote means support or actively encourage (a cause, venture, etc.); further the progress of.

For eg; They promoted their brand effectively.

It is clear from the examples that obviate and promote are opposite in meaning.

Preclude means prevent from happening; make impossible.

So, options 1, 2 and 4 are incorrect.

175.

**Answer(D)**

Espouse means adopt or support (a cause, belief, or way of life). For eg; She espoused the principles of justice and liberty.

Uphold means confirm or support (something which has been questioned).

Advocate means a person who publicly supports or recommends a particular cause or policy.

Champion means a person who has surpassed all rivals in a sporting contest or other competition.

Reject means dismiss as inadequate, unacceptable, or faulty. For eg; The boss rejected their proposal for a raise.

It is clear from the examples that espouse and reject are opposite in meaning.

So, options 1, 2 and 3 are incorrect.

176. **Answer(A)**

The past participle form of the verb 'taken' should be used with the past tense construction 'had + verb'. A is the right answer.

177. **Answer(D)**

The countable adjective 'many' should be used in place of the uncountable 'much', as it is being used to refer to the countable noun 'natives'. D is the right answer.

178. **Answer(D)**

The misspelt word is "fundamantal" and the correct spelling is "fundamental" which means basic or elementary.

The meaning of other words are:

Fragmentation: a process of breaking into smaller pieces.

Frustrated: annoy or distressed.

Fugitive: quick to disappear or running away to hide.

179. **Answer(D)**

The misspelt word among the given options is evaluation. The correct spelling will be evaluation which means to make a judgement.

The meaning of other words are:

Evaporation refers to the process of turning from liquid into vapour.

Establish means to start, begin or initiate something.

Essential refers to something very important or absolutely necessary.

180. **Answer(A)**

The correct phrase will be "catch up with" which means to succeed in reaching to a person who is ahead of one. Hence, option A will be the correct answer.

181. **Answer(B)**

The misspelt word is "dwindel" and the correct spelling is "dwindle" which means to decrease in size, amount or strength.

The meaning of the other words are:

- Dwelling means to live or reside in a place.

- Durable refers to something that can last long.

- Dwarf refers to something that is small in size.

182. **Answer(D)**

The misspelt word among the given options is "deveous". The correct spelling will be "devious" which means to show a skilful use of tactics to achieve goals.

The meaning of other words are:

Devilish refers to a devil in evil and cruelty.

Device means a plan, method, or trick with a particular aim.

Deviation refers to going away from an established course or accepted standard.

183. **Answer(C)**

The misspelt word is "bizare". The correct spelling will be "bizarre" which means very strange or unusual.

The meaning of other words will be:

- Blizzard refers to a severe snowstorm with high winds.

- Bitter refers to an unpleasant or pungent taste.

- Bewitched mean to delight or enchant someone.

184. **Answer(B)**

- Replace AMOUNT with NUMBER. You use NUMBER with words such as 'large' or 'small' to say approximately how many things or people there are.

- The confusion between amount and number is common but can be easily overcome. They are not

interchangeable - their use relates to countable and uncountable nouns.

- Use of AMOUNT is with uncountable nouns and abstract nouns: amount of time, amount of snow, amount of noise, amount of love (abstract noun), amount of pride (abstract noun).

- Use of NUMBER is with countable nouns (things that can be counted): number of cars, number of chairs, number of houses, number of topics, number of jobless.

185. **Answer(D)**

- The sentence does not have any error.

186. **Answer(C)**

When people talk about walk(s) of life, they are referring to different types of jobs and different levels of society. Thus option 3 is the correct answer.

187. **Answer(B)**

The phrase 'head over heels' means 'madly in love.' Option 2 is the correct answer.

188. **Answer(A)**

The phrase 'ask for trouble' means 'act in a way that is likely to incur problems or difficulties.' Thus option 1 is the correct answer.

189. **Answer(D)**

The phrase 'drive someone up the wall' means 'Make someone very irritated or angry.' Thus option 4 is the correct answer.

190. **Answer(B)**

The phrase 'a wet blanket' means 'a person who spoils other people's fun by failing to join in with or by disapproving of their activities.' Thus option 2 is the correct answer.

191. **Answer(D)**

"Obtrusive" means noticeable or "prominent" in an unwelcome or intrusive way. Hence, option D will be the correct answer. "Disjunction" means a lack of correspondence or consistency. "Stupor" means a state of near-unconsciousness or insensibility. "Paranormal" means unreasonably or obsessively anxious, suspicious, or mistrustful.

192. **Answer(C)**

FRIVOLOUS means behaving in a silly way and not taking anything seriously, this makes INANE correct as it means lacking sense or meaning; silly correct.

193. **Answer(C)**

"Lambast" means criticize (someone or something) harshly. The correct synonym of this will be "condemn", making option C, the correct answer. "Intuition" means the ability to understand something instinctively, without the need for conscious reasoning. "Demeanour" means outward behaviour or bearing. "Attune" means make receptive or aware.

194. **Answer(D)**

DISPARAGE means regard or represent as being of little worth, this makes option (D) BELITTLE its correct synonym.

195. **Answer(C)**

When converting direct to indirect speech, the simple past tense of the verbs (dressed, tended) will change to the past perfect tense (had dressed and tended). Additionally, the first-person subjective pronoun 'I' should change into the third person subjective 'she'.

196. **Answer(B)**

Genealogy means the study and tracing of lines of descent.

Petrology means the branch of science concerned with the origin, structure, and composition of rocks

Odontology means the scientific study of the structure and diseases of teeth.

Jurisprudence means the theory or philosophy of law.

197. **Answer(C)**

All and sundry means everyone

Acknowledge the corn means admit to a mistake.

Albatross around one's neck means a heavy burden that prevents one from achieving success

Hindrance means an obstacle.

Another nail in one's coffin means something that leads to someone's death, literally or figuratively.

198. **Answer(B)**

Last resort means a final course of action, used only when all else has failed.

Grasping at straws means pursue every hope or possibility even if the likelihood of it working is nearly negligible.

Dire straits mean in a very bad situation.

The tip of the iceberg means only a small part of the problem.

199. **Answer(A)**

Bevy means a large group of people or things of a particular kind.

Congregation means a group of people assembled for religious worship.

Posse means a body of men summoned by a sheriff to enforce the law.

Flotilla means a small fleet of ships or boats

200. **Answer(C)**

Cannibal means a person who eats the flesh of other human beings.

Cynic means a person who believes that people are motivated purely by self-interest rather than acting for honorable or unselfish reasons.

Connoisseur means an expert judge in matters of taste.

Convalescent means recovering from an illness or medical treatment.







TEST FORM NUMBER

## INSTRUCTIONS TO CANDIDATE

अधिकतम अंक : 200

कुल प्रश्न : 200

निर्धारित समय : 120

## प्रश्नों को हल करने से पहले निम्नलिखित निर्देशों को ध्यान से पढ़ें।

- (1) इस पुस्तिका में 200 प्रश्न हैं, जो कि कुल चार भागों में विभाजित हैं।  
 भाग-(I) : Reasoning Aptitude (50 प्रश्न)  
 भाग-(II) : General Studies (50 प्रश्न)  
 भाग-(III) : Quantitative Aptitude (50 प्रश्न)  
 भाग-(IV) : English Language (50 प्रश्न)
- (2) सभी प्रश्न अनिवार्य हैं तथा सबके बराबर अंक हैं।
- (3) प्रश्नों को हल करना प्रारम्भ करने से पहले आपको इस पुस्तिका की जांच करनी चाहिए और यह सुनिश्चित करना चाहिए कि इसमें सभी पृष्ठ उपस्थित हैं और कोई पृष्ठ कम या बदला हुआ नहीं है। अगर आपको इस पुस्तिका में कोई दोष मिलता है, तो आपको तुरंत इसे बदलना होगा।
- (4) प्रत्येक प्रश्न में नकारात्मक अंकन होता है क्योंकि प्रत्येक गलत उत्तर के लिए 0.25 अंक काट दिया जाएगा।
- (5) आपको निरीक्षक द्वारा उत्तर पुस्तिका अलग से दी जाएगी। आपको प्रश्नों को हल करना प्रारम्भ करने से पहले अपना नाम, रोल नंबर, टेस्ट नाम / आईडी और / परीक्षा का नाम उत्तर-पुस्तिका पर सावधानीपूर्वक पूरा करना होगा। आपको उत्तर-पुस्तिका में निर्धारित स्थान पर अपना हस्ताक्षर भी करना होगा। इन निर्देशों का पूरी तरह से पालन किया जाना चाहिए, जिसको न करने पर आपकी उत्तर-पुस्तिका का मूल्यांकन नहीं किया जाएगा और आपको 'शून्य' अंक दिया जाएगा।
- (6) उत्तर केवल पेंसिल या ब्लैक/ब्लू बॉल पेन द्वारा उत्तर-पुस्तिका प्रासंगिक प्रश्न संख्या के सम्बंधित गोले को पूरी तरह से ब्लैक करके दिखाया जाना चाहिए।
- (7) OMR उत्तर पुस्तिका को एक मशीन द्वारा जांचा जायेगा। यदि किसी स्थिति में उपलब्ध जानकारी, आवेदन पत्र में दी गयी जानकारी से अलग पायी गयी, तो आवेदक का आवेदन निरस्त कर दिया जायेगा।
- (8) निरीक्षक की अनुमति मिलने के बाद ही कोई परीक्षा कक्ष छोड़ सकता है।
- (9) उपरोक्त में से किसी भी निर्देश का अनुपालन करने में विफल उम्मीदवार को उपयुक्त कार्यवाही/जुर्माना के लिए उत्तरदायी समझा जा सकता है।
- (10) जितनी जल्दी हो सके उतनी जल्दी और सावधानी से प्रश्नों का उत्तर दें। कुछ सवाल कठिन हो सकते हैं और दूसरे आसान हो सकते हैं। किसी भी प्रश्न पर ज्यादा समय नहीं बिताएं।
- (11) मोबाइल फोन और वायरलेस संचार उपकरण, परीक्षा कक्ष/कमरे में पूरी तरह से प्रतिबंधित हैं। कोई भी आवेदक अपने मोबाइल का या किसी वायरलेस संचार उपकरण को बंद करके भी अपने पास नहीं रख सकता। नियम का उल्लंघन करने पर आवेदक के विरुद्ध उचित कार्यवाही की जायेगी और उसका आवेदन भी निरस्त किया जा सकता है।
- (12) उत्तर-पत्र पर कोई रफ काम नहीं किया जाना चाहिए।
- (13) कोई भी उम्मीदवार परीक्षा पूरा होने से पहले परीक्षा कक्ष नहीं छोड़ सकता है।

परीक्षार्थी का नाम :.....  
 दिनांक :..... परीक्षा कोड :.....  
 अनुक्रमांक :.....

जब तक आपको यह परीक्षण पुस्तिका खोलने को न कहा जाए तब तक न खोले

## Reasoning Aptitude

1. एक श्रृंखला लुप्त पदों के साथ दी गई है। दिए गए विकल्पों में से सही विकल्प का चयन करें जो श्रृंखला को पूरा करेगा।  
a \_ abb \_ bab \_ ab \_  
(A) babab (B) ababa  
(C) bbaba (D) aabba
2. दिए गए अक्षर श्रृंखला में अंतराल पर अनुक्रमिक रूप से रखे जाने पर अक्षरों का कौन सा सेट इसे पूरा करेगा?  
M \_ N \_ \_ N \_ A \_  
(A) AAMAM (B) ANMAA  
(C) AMAMN (D) NAMMA
3. उस विकल्प का चयन करें, जो अक्षरों के तीसरे समूह से उसी तरह संबंधित है जैसे अक्षरों के दूसरे समूह का संबंध पहले अक्षरों के समूह से है।  
MZU : QEA :: GTL : ?  
(A) KYR (B) LXR  
(C) KXP (D) JYR
4. उस विकल्प का चयन करें जिसमें अक्षरों के दो समूह उसी तरह संबंधित हैं जैसे नीचे दिए गए अक्षरों के समूह संबंधित हैं?  
BOG : TLY :: ??  
(A) ESZ : AUI (B) UJC : XQF  
(C) IVR : ESH (D) KDN : PWM
5. निम्नलिखित प्रश्न में, दिए गए विकल्पों में से संबंधित संख्या को चुनिए।  
453 : 462 :: 624 : ?  
(A) 824 (B) 804  
(C) 312 (D) 622
6. निम्नलिखित प्रश्न में, दिए गए विकल्पों में से संबंधित संख्या को चुनिए।  
798 : 597 :: 567 : ?  
(A) 135 (B) 365  
(C) 525 (D) 675
7. निम्नलिखित प्रश्न में, दिए गए विकल्पों में से संबंधित संख्या को चुनिए।  
376 : 710 :: 892 : ?  
(A) 103 (B) 236  
(C) 203 (D) 310
8. निम्नलिखित प्रश्न में, दिए गए विकल्पों में से विषम संख्या युग्म का चयन करें।  
(A) 6639 - 27 (B) 8256 - 21  
(C) 7602 - 18 (D) 5927 - 26
9. निम्नलिखित प्रश्न में, दिए गए विकल्पों में से संबंधित शब्द का चयन करें।  
रजत क्रांति: अंडे :: काली क्रांति::?  
(A) मछलियां (B) कच्चा तेल  
(C) मांस (D) आलू
10. निम्नलिखित प्रश्न में, दिए गए विकल्पों में से संबंधित शब्द का चयन करें।  
ईटें: इमारत :: ? : नोटबुक  
(A) पेज (B) ज्ञान  
(C) कवर (D) प्रिंट
11. निम्नलिखित प्रश्न में, दिए गए विकल्पों में से विषम संख्या युग्म का चयन करें।  
(A) 3913 - 1 (B) 6725 - 53  
(C) 7831 - 13 (D) 3392 - 51
12. निम्नलिखित प्रश्न में, दिए गए विकल्पों में से विषम संख्या युग्म का चयन करें।  
(A) 1783 - 31 (B) 2810 - 16  
(C) 1697 - 69 (D) 2579 - 81
13. विकल्पों में से संख्याओं के समुच्चय का चयन करें जो संख्याओं के निम्नलिखित समुच्चय के समान है।  
(48, 72, 93)

- (A) (65, 24, 41) (B) (22, 46, 81)  
(C) (34, 51, 82) (D) (38, 67, 91)

14. दिए गए प्रश्न में दिए गए विकल्पों में से सबसे उपयुक्त विकल्प का चयन करें।  
Prong : Fork :: ? : Hands  
(A) Legs (B) Nose  
(C) Nails (D) Head
  15. दिए गए प्रश्न में दिए गए विकल्पों में से सबसे उपयुक्त विकल्प का चयन करें।  
Money : ? :: Ruins : urn  
(A) Wealth (B) Cash  
(C) Rich (D) Wallet
  16. निम्नलिखित प्रश्न में, दिए गए विकल्पों में से विषम शब्द को चुनिए।  
(A) झील (B) नदी  
(C) तालाब (D) झरना
  17. गई श्रृंखला में गलत संख्या ज्ञात कीजिए।  
36, 18, 10, 6, 4, 3  
(A) 3 (B) 36  
(C) 6 (D) 41
  18. निम्नलिखित में से विषम को ज्ञात कीजिये।  
(A) LEPAP (B) EOGNAR  
(C) NKPI (D) VAUGA
  19. दिए गए विकल्पों में से विषम शब्द युग्म का चयन करें।  
(A) Convey and Conduct (B) Endure and desist  
(C) Discuss and Debate (D) Review and Retrospect
  20. दिए गए विकल्पों में से विषम शब्द ज्ञात कीजिए।  
(A) हरिकेन (B) ब्लिज्जर्ड  
(C) टाइफून (D) टोर्नेडो
- निर्देश (21-22):** निम्नलिखित प्रश्न में, दी गई श्रृंखला से लुप्त संख्या का चयन करें।
21. 3, 6, 12, 33, 93, ?  
(A) 186 (B) 267  
(C) 276 (D) 279
  22. 12, 6, 6, 9, 18, ?  
(A) 36 (B) 54  
(C) 45 (D) 62
  23. एक निश्चित कूट भाषा में 'ABSCOND' को 'EMPBTAB' और 'PURPOSE' को 'FRPOSTQ' लिखा जाता है, फिर 'MAJESTY' को उसी भाषा में कैसे कोडित किया जाएगा?  
(A) QENFVVA (B) ZSTDKZN  
(C) QEDVZAM (D) NZKDTSZ
  24. एक निश्चित कूट भाषा में, "TRUNK" को "40162637022" लिखा जाता है। उस कोड भाषा में "BENCH" कैसे लिखा जाता है?  
(A) 142571964 (B) 42580964  
(C) 421570972 (D) 42570964
  25. यदि 'x' का अर्थ 'जोड़', '-' का अर्थ 'विभाजन', '/' का अर्थ 'घटाव' और '+' का अर्थ 'गुणा' है, तो निम्नलिखित में से कौन सा समीकरण सही है?  
(A)  $20 - 5 + 2 / 3 \times 6 = 9$  (B)  $20 / 5 \times 2 + 3 / 6 = 12$   
(C)  $20 + 5 - 2 / 3 / 6 = 40$  (D)  $20 / 5 \times 2 + 3 - 6 = 16$
  26. निम्नलिखित प्रश्न में, एक ही तरफ दो संख्याओं को बदलकर समीकरण को ठीक करें।  
 $48 \div 8 \times 6 \div 2 + 7 = 15 + 4 \times 2 - 20 \div 5$   
(A) 4 और 5 (B) 6 और 8  
(C) 48 और 6 (D) 15 और 20
  27. पांच दोस्तों A, B, C, D और E ने ऐसी कारें खरीदीं जिनकी कीमत अलग-अलग थी। B की कार C की कार से महंगी थी लेकिन E की कार से कम

खर्चीली थी। D की कार की तुलना में एक कार महंगी थी, लेकिन C की कार से कम कीमत की थी। किसकी कार दूसरी सबसे महंगी थी?

- (A) E (B) C  
(C) A (D) B

28. छात्रों की एक क्षैतिज पंक्ति में, प्रीशा पंक्ति के बाएं छोर से 14 वें स्थान पर है जबकि उसकी दोस्त सुरुची पंक्ति के दाहिने छोर से 10 वें स्थान पर है। यदि पंक्ति में अठारह छात्र हैं, तो प्रीशा और सुरुची के बीच कितने छात्र हैं?

- (A) तीन (B) चार  
(C) पांच (D) छः

29. दिए गए वैकल्पिक शब्दों में से उस शब्द का चयन करें जिसे दिए गए शब्द EXTRAMUNDANE के अक्षरों का उपयोग करके नहीं बनाया जा सकता है:

- (A) ANNUMERATE (B) UNAERATED  
(C) MANDATEE (D) MAGTEAUX

निर्देश (30-31): निम्नलिखित शब्दों को एक तार्किक और सार्थक क्रम में व्यवस्थित करें।

30. (1) Adolescence (2) Senescence  
(3) Baby (4) Mid-life  
(5) Toddler (6) Quarter-life  
(A) 3, 5, 1, 2, 6, 4 (B) 2, 4, 6, 1, 5, 3  
(C) 3, 5, 1, 6, 4, 2 (D) 5, 3, 6, 1, 4, 2
31. (1) Elephant (2) Hummingbird  
(3) Blue whale (4) Human  
(5) Eagle (6) One-horned rhinoceros  
(A) 2, 6, 5, 4, 1, 3 (B) 2, 5, 6, 4, 3, 1  
(C) 6, 2, 5, 4, 3, 1 (D) 2, 5, 4, 6, 1, 3

32. प्रश्न में एक कथन दिया गया है, उसके बाद दो तर्क I और II दिए गए हैं। आपको इस कथन पर सही विचार करना होगा, भले ही यह आम तौर पर ज्ञात तथ्यों से भिन्न हो। आपको यह तय करना है कि दिए गए तर्कों में से कौन सा, यदि कोई एक मजबूत तर्क है।

कथन: क्या शिक्षकों की निगरानी के लिए पब्लिक स्कूल के क्लास रूम में कैमरे लगाए जाने चाहिए?

तर्क I: नहीं, यह गोपनीयता मानदंडों का उल्लंघन करेगा।

तर्क II: हाँ, यह शिक्षकों को अधिक जवाबदेह बनाएगा, जिससे उनकी उत्पादकता बढ़ेगी।

- (A) यदि केवल तर्क I मजबूत है।  
(B) यदि न तो I और न ही II मजबूत है।  
(C) यदि I और II दोनों मजबूत हैं।  
(D) यदि केवल तर्क II मजबूत है।

33. रंजन एक निश्चित बिंदु से 5 किमी उत्तर की ओर जाता है। फिर वह अपने दाहिने मुड़कर 3 किमी चला जाता है। इसके बाद वह अपने दाईं ओर 5 किमी चलता है। अंत में वह अपनी बाईं ओर मुड़ने के बाद 4 किमी चला जाता है। नियत बिंदु से वह कितनी दूर और किस दिशा में है?

- (A) 9 किमी, पश्चिम (B) 7 किमी, पूर्व  
(C) 9 किमी, पूर्व (D) 7 किमी, पश्चिम

34. बिंदु G बिंदु A और D के बीच में है। बिंदु A, बिंदु G के पश्चिम में 5 मी है। बिंदु S, बिंदु D के दक्षिण में 6 मी है। बिंदु K, बिंदु S के पश्चिम में 10 मी है। बिंदु K, बिंदु A से कितनी दूर है?

- (A) 5 मीटर (B) 8 मीटर  
(C) 10 मीटर (D) 6 मीटर

35. इस प्रश्न में तीन कथन दिए गए हैं जो आमतौर पर ज्ञात तथ्यों से भिन्न हो सकते हैं। प्रत्येक कथन के दो निष्कर्ष हैं। आपको नीचे दिए गए पाँच विकल्पों में से सही उत्तर देना होगा:

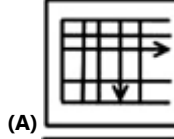
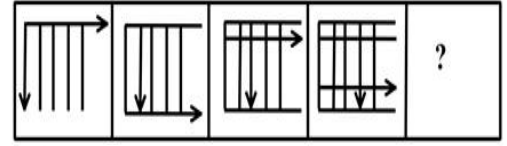
कथन: सभी बाल काले हैं, सभी काले गहरे हैं  
कुछ गहरे अंधे हैं

निष्कर्ष: (I) कुछ गहरे जो काले हैं वे भी अंधे हैं

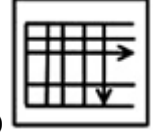
(II) कुछ बाल के अंधे होने की संभावना है

- (A) यदि केवल निष्कर्ष I अनुसरण करता है  
(B) यदि केवल निष्कर्ष II अनुसरण करता है  
(C) यदि या तो निष्कर्ष I या II अनुसरण करता है  
(D) यदि दोनों निष्कर्ष इस प्रकार हैं।

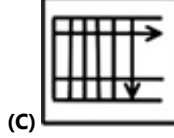
36. निम्नलिखित श्रृंखला में आगे आने वाले आंकड़े का चयन करें।



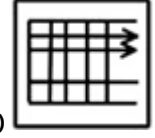
(A)



(B)

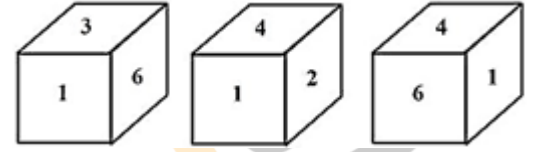


(C)



(D)

37. एक पासा के तीन स्थान नीचे दिए गए हैं। पासा पलटने के बाद, अगर हम शीर्ष पर चेहरे पर नंबर 1 प्राप्त करते हैं, तो नीचे की तरफ चेहरे पर कौन सी संख्या होगी।



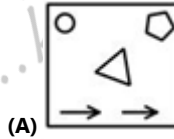
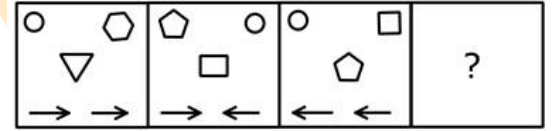
(A) 5

(B) 4

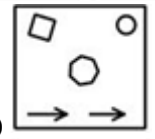
(C) 3

(D) 2

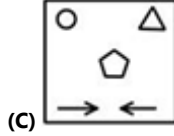
38. निम्नलिखित श्रृंखला में आगे आने वाली आकृति का चयन करें।



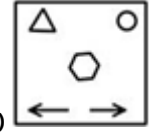
(A)



(B)

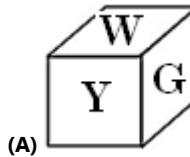
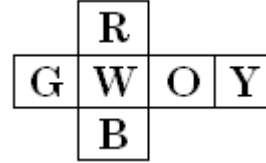


(C)

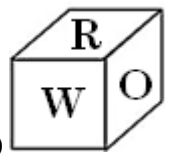


(D)

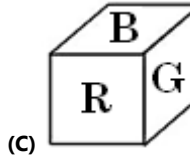
39. उत्तर आकृति में निम्नलिखित में से कौन सा प्रश्न आकृति में सामने आए घन के आधार पर बनाया जा सकता है?



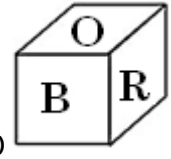
(A)



(B)



(C)

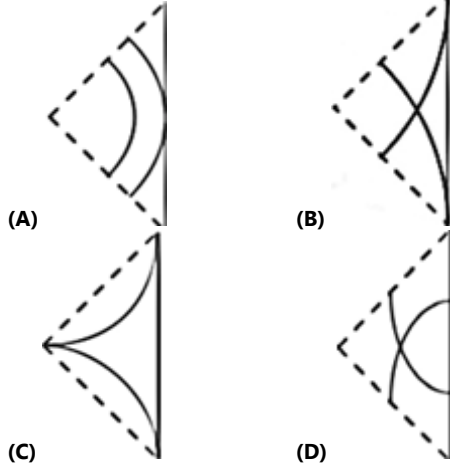


(D)

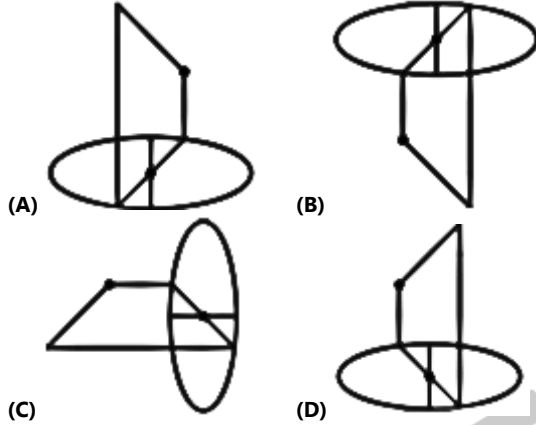
40. निम्नलिखित में से प्रत्येक प्रश्न में, आपको एक आकृति (X) दी गई है, उसके बाद चार वैकल्पिक आंकड़े (a), (b), (c) और (d) जैसे कि चित्र (X) उनमें से एक में अंतर्निहित है। उस वैकल्पिक आकृति को ट्रेस करें जिसमें उसके भाग के रूप में आकृति (X) है।



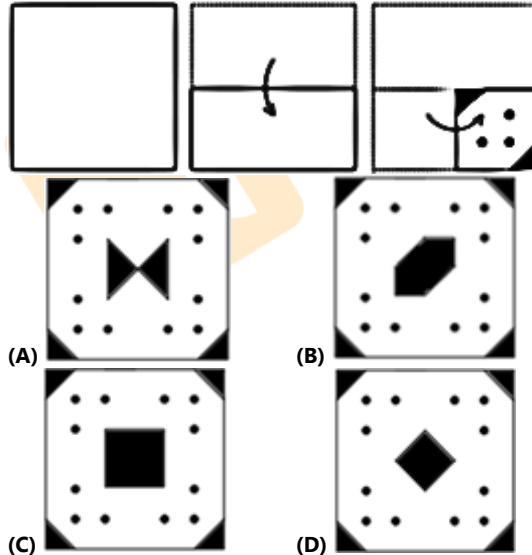




48. यदि दर्पण को लाइन पर रखा जाता है, तो दिए गए आंकड़े की सही दर्पण छवि में से कौन सा विकल्प है?



49. प्रश्न पत्र में नीचे दिखाए अनुसार कागज का एक टुकड़ा मुड़ा और मुड़ा हुआ है। दिए गए उत्तर के आंकड़ों से, इंगित करें कि इसे खोलने पर यह कैसे दिखाई देगा?



50. एक शब्द को संख्या के केवल एक सेट द्वारा दर्शाया जाता है जैसा कि किसी एक विकल्प में दिया गया है। विकल्प में दिए गए संख्याओं के समूह को वर्णमाला के दो वर्गों द्वारा दर्शाया गया है जैसा कि नीचे दिए गए दो मैट्रिक्स में है। मैट्रिक्स I के कॉलम और पंक्तियों की संख्या 0 से 4 तक होती है और मैट्रिक्स II की संख्या 5 से 9 तक होती है। इन मैट्रिक्स के एक अक्षर को पहले इसकी पंक्ति द्वारा और इसके बाद इसके कॉलम द्वारा दर्शाया जा सकता है, जैसे, 'B' हो सकता है 20, 85 आदि द्वारा दर्शाया गया है, और 'के' का प्रतिनिधित्व 02, 95 आदि द्वारा किया जा सकता है। इसी तरह आपको 'PLAQUE' शब्द के लिए सेट की पहचान करनी होगी।

Matrix I

	0	1	2	3	4
0	Q	O	K	A	I
1	L	F	U	W	Y
2	B	N	R	X	E
3	H	S	V	G	Z
4	P	C	M	J	L

(A) 40, 77, 99, 98, 12, 67

(C) 40, 10, 99, 00, 24, 79

Matrix II

	5	6	7	8	9
5	D	S	F	J	R
6	H	Q	U	C	I
7	O	W	L	V	E
8	B	X	Y	N	G
9	K	Z	T	Q	A

(B) 40, 44, 03, 66, 79, 24

(D) 40, 10, 03, 98, 67, 24

## General Studies

51. फोरिंट निम्नलिखित में से किस देश की मुद्रा है?  
(A) इंडोनेशिया (B) हंगरी  
(C) ग्रीस (D) इज़राइल
52. निम्नलिखित में से कौन JVP समिति का सदस्य नहीं था जो राज्यों के पुनर्गठन पर आधारित थी?  
(A) जवाहरलाल नेहरू (B) सरदार वल्लभभाई पटेल  
(C) विनायक दामोदर सावरकर (D) पट्टाभि सीतारमैया
53. तरल पदार्थ के सापेक्ष घनत्व को मापने के लिए निम्न में से किस उपकरण का उपयोग किया जाता है?  
(A) हाइड्रोमीटर (B) हाइग्रोमीटर  
(C) हाइपोमीटर (D) हाइड्रोफोन
54. 'बागलीहार बांध' भारत के किस राज्य में स्थित है?  
(A) हिमाचल प्रदेश (B) जम्मू और कश्मीर  
(C) पंजाब (D) राजस्थान
55. निम्नलिखित में से कौन सा जोड़ा सही रूप से मेल खाता है?  
(A) डूरंड लाइन: भारत और म्यांमार  
(B) मैकमोहन लाइन: भारत और नेपाल  
(C) रेडक्लिफ रेखा: भारत और पाकिस्तान  
(D) इनमें से कोई नहीं
56. इस वर्ष एफेलियन में पृथ्वी कब थी?  
(A) 1 जुलाई (B) 2 जुलाई  
(C) 3 जुलाई (D) 4 जुलाई
57. निम्नलिखित में से किस विटामिन को अपनी गतिविधि के लिए कोबाल्ट की आवश्यकता होती है?  
(A) विटामिन B6 (B) विटामिन B12  
(C) विटामिन B1 (D) विटामिन B2
58. निम्नलिखित कोयले में से किसमें 90 प्रतिशत कार्बन होता है?  
(A) पीट (B) लिग्नाइट  
(C) एन्थ्रेसाइट (D) बिटुमेन
59. निम्न में से किस तत्व को जोड़कर रबर का वल्केनीकरण किया जाता है?  
(A) ओजोन (B) सल्फर  
(C) कार्बन (D) नाइट्रोजन
60. "विश्व सीमा शुल्क संगठन" का मुख्यालय किस स्थान पर स्थित है?  
(A) मैड्रिड (B) न्यूयॉर्क  
(C) वियना (D) ब्रसेल्स
61. \_\_\_\_\_ वह दर है जिस पर RBI वाणिज्यिक बैंकों को बिना संपार्श्विक के ऋण देता है।  
(A) रिजर्व रेपो रेट (B) रेपो रेट  
(C) बैंक दर (D) बेस रेट
62. निम्नलिखित में से कौन पुस्तक "इन द लाइन ऑफ फायर: ए मेमॉयर" के लेखक हैं?  
(A) अर्नेस्ट हेमिंग्वे (B) जूल्स वर्न  
(C) खुशवंत सिंह (D) परवेज मुशर्रफ
63. "वंदे मातरम" पहली बार भारतीय राष्ट्रीय कांग्रेस के सत्र में कब गाया गया था?  
(A) 1886 (B) 1892  
(C) 1896 (D) 1904

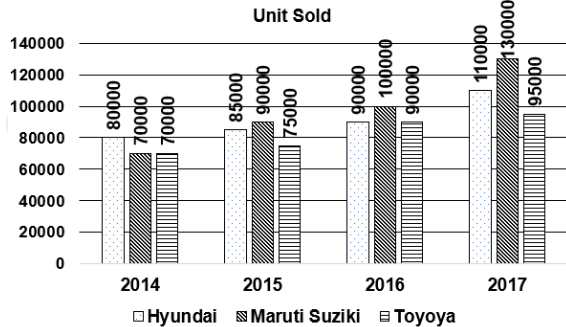
64. \_\_\_\_\_ काल को प्राचीन भारत का स्वर्ण युग कहा जाता है।  
(A) शुंगा (B) मौर्यन  
(C) गुप्त (D) वर्धन
65. भौतिकी के किस सिद्धांत पर बॉल पेन कार्य करता है?  
(A) चिपचिपापन (B) चार्ल्स लॉ  
(C) सरफेस टेंशन (D) बॉयल लॉ
66. भारत के संविधान में 'मौलिक कर्तव्यों' को जोड़ने का सुझाव किस समिति ने दिया?  
(A) धार समिति (B) गोस्वामी समिति  
(C) स्वर्ण सिंह समिति (D) नरसिम्हन समिति
67. "संपूर्ण क्रांति" की अवधारणा किसने दी?  
(A) कार्ल मार्क्स (B) महात्मा गांधी  
(C) मानवेंद्र नाथ राय (D) जयप्रकाश नारायण
68. कीनन स्टेडियम किस राज्य में स्थित है?  
(A) आंध्र प्रदेश (B) झारखंड  
(C) तमिलनाडु (D) नई दिल्ली
69. म्यांमार की मुद्रा क्या है?  
(A) क्यात (B) रियाल  
(C) पेसो (D) क्रोना
70. "1857 का भारतीय विद्रोह" किस व्यक्ति की गवर्नर जनरलशिप के दौरान हुआ?  
(A) लॉर्ड लिटन (B) लॉर्ड कैनिंग  
(C) लॉर्ड डलहौजी (D) लॉर्ड रिपन
71. एक धातु सल्फेट का सूत्र  $MSO_4$  है। उसी धातु के क्लोराइड में सूत्र \_\_\_\_\_ होगा।  
(A)  $M_2Cl_3$  (B)  $M_2Cl$   
(C)  $MCl_2$  (D)  $M_3C_3$
72. जोधपुर का किला किसने बनवाया था?  
(A) गुरु रामदास (B) शाहजहाँ  
(C) राव जोधाजी (D) महात्मा गांधी
73. निम्नलिखित में से किसका उपयोग 1 रु के सिक्के बनाने के लिए किया जाता है?  
(A) डेल्टा धातु (B) निकल स्टील  
(C) मुंज धातु (D) फेरिटिक स्टेनलेस स्टील
74. सिगरेट के धुएँ के प्रमुख घटक क्या हैं?  
(A) कार्बन मोनोऑक्साइड और निकोटीन  
(B) कार्बन मोनोऑक्साइड और आर्सेनिक  
(C) कार्बन मोनोऑक्साइड और आर्सेनिक  
(D) नाइट्रोजन डाई ऑक्साइड और बेन्जीन
75. निम्न में से किस नदी को "दक्षिण गंगा" के नाम से जाना जाता है?  
(A) कृष्ण (B) महानदी  
(C) गोदावरी (D) कावेरी
76. जैन तीर्थंकर "महावीर" की माँ कौन थी?  
(A) त्रिशला (B) चेतका  
(C) यशोदा (D) गायत्री
77. निम्नलिखित में से कौन सा प्रोटोकॉल इलेक्ट्रॉनिक मेल (ईमेल) ट्रांसमिशन के लिए एक इंटरनेट मानक है?  
(A) एफटीपी (B) एचटीटीपी  
(C) SMTP (D) एमडीआई
78. निम्नलिखित में से कौन सी बीमारी "फंगस" के कारण नहीं होती है?  
(A) कुष्ठ रोग (B) अस्थमा  
(C) गंजापन (D) दाद
79. लंबी छलांग लगाने वाला हमेशा \_\_\_\_\_ तक के कोण पर छलांग लगाता है और अधिकतम सीमा तक कूदता है।  
(A)  $22.5^\circ$  (B)  $45^\circ$   
(C)  $60^\circ$  (D)  $90^\circ$
80. विश्व की सबसे गहरी झील निम्नलिखित में से कौन-सी है?  
(A) कैस्पियन सागर (B) टिटिकाका  
(C) बाइकाल (D) वोल्टा
81. निम्नलिखित में से कौन सा रोग संचारी रोग की श्रेणी में नहीं आता है?  
(A) हैजा (B) क्षय रोग  
(C) खसरा (D) अस्थमा
82. "अगर-अगार" एक जेली - जैसे पदार्थ \_\_\_\_\_ से प्राप्त होता है।  
(A) एंजियोस्पर्म (B) बैक्टीरिया  
(C) प्रोटोजोआ (D) शैवाल
83. मायोपिया के मामले में किसी व्यक्ति द्वारा किस प्रकार के लेंस का उपयोग किया जाता है?  
(A) व्रतीय लेंस (B) उत्तल लेंस  
(C) अवतल लेंस (D) गोलाकार लेंस
84. 'सिंधु घाटी सभ्यता' में निम्नलिखित में से किस जानवर को पालतू नहीं बनाया गया था?  
(A) गधा (B) गायें  
(C) बुल (D) हाथी
85. "सातवाहन" वंश का पहला राजा कौन था?  
(A) दंतिदुर्ग (B) सिमुका  
(C) पुलकेशिन- II (D) गौतमीपुत्र सतकर्णी
86. निम्नलिखित में से कौन सी सिंधु घाटी सभ्यता के स्थल अपने निष्कर्षों से सही ढंग से मेल नहीं खाते हैं?  
(A) कालीबंगन- एक लकड़ी का फरसा  
(B) आलमगीरपुर - कुंड पर कपड़े का प्रभाव  
(C) मिताथल - मनका बनाने का कारखाना  
(D) राखीगढ़ी - टेराकोटा के पहिये, खिलौने, मूर्तियाँ, मिट्टी के बर्तन।
87. शासन की दोहरी योजना, किस अधिनियम में शुरू की गई थी?  
(A) भारतीय परिषद अधिनियम, 1909  
(B) भारत सरकार अधिनियम, 1919  
(C) भारत सरकार अधिनियम, 1935  
(D) भारतीय परिषद अधिनियम, 1892
88. भुगतान संतुलन में असमानता को ठीक करने के लिए निम्नलिखित में से किस क्रिया का उपयोग किया जाता है?  
(I) अवमूल्यन (II) आयात प्रतिबंध  
(III) विनिमय नियंत्रण (IV) आसान मौद्रिक नीति  
(A) II और III (B) I, II और IV  
(C) I, II, III और IV (D) I, II और III
89. तमिलनाडु में सर्दियों की बारिश \_\_\_\_\_ के कारण होती है।  
(A) दक्षिण- पश्चिम मानसून (B) पश्चिमी विक्षोभ  
(C) साइक्लोनिक डिस्टर्बेंस (D) उत्तर- पूर्वी मानसून
90. "बेसिक स्ट्रक्चर" सिद्धांत किस प्रसिद्ध कोर्ट केस के माध्यम से अस्तित्व में आया?  
(A) शाहबानो केस (B) मिनर्वा मिल्स केस  
(C) केशवानंद भारती केस (D) गोलकनाथ केस
91. कैप्टन विलियम हॉकिन्स किस मुगल शासक के दरबार में आए थे?  
(A) औरंगजेब (B) जहाँगीर  
(C) शाहजहाँ (D) अकबर
92. भूकंप की तीव्रता मापने के उपकरण को \_\_\_\_\_ कहा जाता है।  
(A) रिक्टर स्केल (B) मर्करी स्केल  
(C) हाइग्रोग्राफ (D) अल्टीमीटर
93. "जर्मन सिल्वर" निम्नलिखित में से किस तत्व का मिश्रधातु है?  
(A) सिल्वर, कॉपर और एल्युमिनियम  
(B) निकेल, आयरन और सिल्वर  
(C) कॉपर, निकल और जिंक  
(D) कॉपर, आयरन और जिंक
94. एक आदमी 10 मीटर से आगे स्पष्ट रूप से नहीं देख सकता है। वह किस बीमारी से पीड़ित है?

- (A) हाइपरमेट्रोपिया (B) मायोपिया  
(C) दृष्टिवैषम्य (D) ओनोमेटोपोइया
95. जहाँ गर्म हवा ऊपर उठती है, वहाँ हवा \_\_\_\_ होती है।  
(A) उस स्थान पर दबाव कम होता है  
(B) उस स्थान पर दबाव बढ़ा है  
(C) उस स्थान पर आर्द्रता कम होती है  
(D) उस स्थान पर आर्द्रता बढ़ जाती है
96. माइक्रोसॉफ्ट वर्ड में, \_\_\_\_\_ दृश्य लाइन स्पेसिंग, फॉन्ट, पॉइंट साइज़ और इटैलिक जैसे फॉर्मेटिंग को दिखाता है।  
(A) वेब लेआउट (B) सामान्य लेआउट  
(C) लेआउट पढ़ना (D) प्रिंट लेआउट
97. निम्न में से कौन सी एक ठंडा धारा नहीं है?  
(A) फ्रॉकलैंड धारा (B) ओया शियो धारा  
(C) मोजाम्बिक धारा (D) कैलिफोर्निया धारा
98. भारत के गंगा के मैदान में पाए जाने वाले नए जलोढ़ निक्षेपों का क्या नाम है?  
(A) तराई (B) खादर  
(C) भांगर (D) भाबर
99. किस राज्य ने पर्यटन को बढ़ावा देने के लिए नदी परिभ्रमण शुरू करने की योजना बनाई है?  
(A) झारखंड (B) गोवा  
(C) केरल (D) ओडिशा
100. किस राष्ट्र ने पाकिस्तान को हथियारों की आपूर्ति नहीं करने का वचन दिया है?  
(A) फ्रांस (B) रूस  
(C) अमेरिका (D) यूके

### Quantitative Aptitude

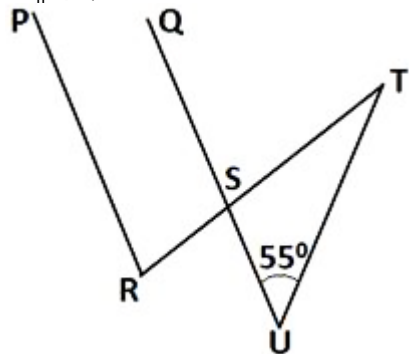
निर्देश (101 - 104): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

नीचे दिए गए बार चार्ट में विभिन्न ऑटोमोबाइल कंपनियों द्वारा बेची गई कारों (इकाइयों में) की संख्या दिखाई देती है, जो कि हुंडई, मारुति सुजुकी और टोयोटा ने 2014 से 2017 तक शुरू की।



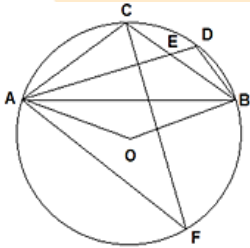
101. टोयोटा द्वारा 2017 में 2014 के संबंध में बेची गई इकाइयों में प्रतिशत वृद्धि क्या है?  
(A) 35.71% (B) 28.74%  
(C) 18.60% (D) 32.40%
102. 2016 में मारुति सुजुकी द्वारा बेची गई इकाइयों और 2015 में हुंडई द्वारा बेची गई इकाइयों के बीच अंतर ज्ञात कीजिये।  
(A) 20,000 (B) 15,000  
(C) 10,000 (D) 25,000
103. 2014-2017 अवधि में हुंडई और टोयोटा द्वारा दी गई कुल इकाइयों का अनुपात क्या है?  
(A) 73:66 (B) 84:65  
(C) 76:61 (D) 66:73
104. किस वर्ष में, मारुति सुजुकी कंपनी द्वारा बेची गई इकाइयों की संख्या सबसे कम है?  
(A) 2014 (B) 2015  
(C) 2016 (D) 2017

105. एक बेलनाकार व्यास का आधार 8 सेमी और ऊंचाई 14 सेमी हो सकती है। एक क्यूबिकल बॉक्स में 8 सेमी का एक चोकोर आधार होता है और केन के समान ऊंचाई होती है। उनके आयतनों में क्या अंतर है?  
(A) 216 cm<sup>3</sup> (B) 196 cm<sup>3</sup>  
(C) 192 cm<sup>3</sup> (D) 200 cm<sup>3</sup>
106. A और B मिलकर 24 दिनों में एक काम पूरा कर सकते हैं। यदि दोनों एक साथ काम शुरू करते हैं और B कुल कार्य का 3/4 वाँ हिस्सा करता है, तो A अकेले कितने दिनों में पूरा काम पूरा करेगा?  
(A) 96 दिन (B) 54 दिन  
(C) 72 दिन (D) 48 दिन
107. एक ऑटोमोबाइल 75% के लाभ पर 210,000 रुपये में बेचा जाता है। लाभ का प्रतिशत क्या होता, अगर इसे 240,000 रुपये में बेचा जाता?  
(A) 80% (B) 87.50%  
(C) 90% (D) 100%
108. A और B के वेतन का अनुपात क्रमशः 9:8 है। यदि इन दोनों में 30,000 रुपये की वृद्धि होती है, तो नया अनुपात 10:9 हो जाता है। B का नया वेतन क्या है?  
(A) 270,000 रुपये (B) 240,000 रुपये  
(C) 300,000 रुपये (D) 330,000 रुपये
109. सरल कीजिये:  $\cot \alpha (\tan \alpha + \cot \alpha) = ?$   
(A)  $\operatorname{cosec}^2 \alpha$  (B)  $\operatorname{cosec} \alpha - \sec \alpha$   
(C)  $\sin^2 \alpha$  (D)  $\cos^2 \alpha$
110.  $[\sin A \cos A / (\sin A \sec A + \cot A)] - \sin^2 A$  का सरलीकृत मान क्या है?  
(A)  $\cos^4 A$  (B)  $-\cos^4 A$   
(C)  $\sin^4 A$  (D)  $-\sin^4 A$
111.  $\sqrt{\sin A ((1 / (\operatorname{cosec} A + 1) + 1 / (\operatorname{cosec} A - 1)))}$  का सरलीकृत मान क्या है?  
(A)  $\sqrt{2}$  (B)  $\tan A + \cot A$   
(C)  $\sqrt{2} \tan A$  (D)  $\sqrt{\cot A}$
112. दूसरे और तीसरे वर्ष के अंत में एक निश्चित राशि पर प्राप्त साधारण ब्याज की राशि के बीच का अंतर 2700 रुपये है। यदि चौथे वर्ष के अंत में प्राप्त राशि 55800 रुपये है, तो साधारण ब्याज की दर ज्ञात कीजिये।  
(A) 5% (B) 6%  
(C) 7.5% (D) 8%
113. एक निश्चित राशि पर प्राप्त राशि का अनुपात 1 वर्ष के अंत में और 2 वर्ष के अंत में वार्षिक निवेश 20:21 है। यदि तीसरे वर्ष के अंत में प्राप्त राशि 74088 रु है, तो निवेश की गई मूल राशि ज्ञात कीजिये।  
(A) 58,000 रुपये (B) 64,000 रुपये  
(C) 54,000 रुपये (D) 72,000 रुपये
114. 29 छात्रों की कक्षा की औसत पॉकेट मनी 40 रुपये है। यदि कोई नया छात्र कक्षा में प्रवेश लेता है, तो नए औसत पॉकेट मनी में 1 रुपये की वृद्धि होती है। नए छात्र को कितनी पॉकेट मनी मिलती है?  
(A) 50 रुपये (B) 48 रुपये  
(C) 64 रुपये (D) 70 रुपये
115. एक टावर के दोनों ओर दो लड़कियां खड़ी हैं। टावर के ऊपर से अवनमन कोणों को 30° और 45° जमीन पर उन बिंदुओं पर देखा जाता है जहाँ दोनों लड़कियां खड़ी हैं। यदि टावर की ऊंचाई 18 मीटर है, तो लड़कियों के बीच की दूरी ज्ञात कीजिये। (नोट:  $\sqrt{3} = 1.7$ )  
(A) 36 मीटर (B) 32.6 मीटर  
(C) 48.6 मीटर (D) 49 मीटर
116. 16 मीटर और 6 मीटर लंबाई के दो ध्रुव इस तरह से स्थित होते हैं कि सूर्य की किरणें एक ध्रुव के ऊपर से गुजरते हुए भी, दूसरे ध्रुव के शीर्ष से गुजरते हुए, जमीन पर गिरते हुए 45 डिग्री का कोण बनाती हैं। ध्रुवों के बीच की दूरी है?  
(A) 8 मीटर (B) 9 मीटर  
(C) 10 मीटर (D) 12 मीटर
117. यदि  $(a + b)^2 = 1369$  और  $ab = 336$ ,  $(a^3 + b^3)$  का मान ज्ञात कीजिये दिया गया  $(a + b)$  पॉजिटिव मान है

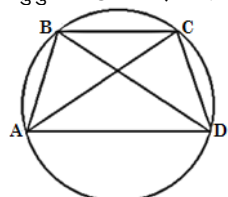
- (A) 13357 (B) 13557  
(C) 13577 (D) 11357
118. यदि किसी वर्ग के प्रत्येक भुजा में 20% की वृद्धि हुई है, तो उसके मूल क्षेत्र में प्रतिशत वृद्धि क्या होगी?  
(A) 30% (B) 37%  
(C) 44% (D) 47%
119. एक आदमी ने 250 रुपये में बारह साइड बैग और 450 रुपये में सात हैंडबैग खरीदे। यदि वह उन सभी को उचित मूल्य पर 350 रुपये में बेचता है, तो उसका कुल लाभ / हानि प्रतिशत क्या होगा?  
(A) 7.20% (B) 8.97%  
(C) 8.13% (D) 7.80%
120. दो ट्रेनें A और B एक ही दिशा में क्रमशः 87 किमी / घंटा और 92 किमी / घंटा की गति से चल रही हैं। यदि ट्रेन A और ट्रेन B की लंबाई क्रमशः 580 मीटर और 520 मीटर है, और दोनों ट्रेनें 1.4 किमी की दूरी पर हैं, तो ट्रेन B द्वारा ट्रेन A को पार करने में लगा समय ज्ञात करें।  
(A) 24 मिनट (B) 30 मिनट  
(C) 60 मिनट (D) 48 मिनट
121. एक दुकानदार उत्पादन की वास्तविक लागत पर अपनी वस्तुओं को अग्रिम 70% पर अंकित करता है। वह 20% की छूट देता है और एक बार में बेची जाने वाली प्रत्येक दर्जन के लिए मुफ्त में एक आइटम भी देता है। यदि दुकानदार 12 वस्तु बेचता है, तो दुकानदार को कितना प्रतिशत लाभ होता है?  
(A) 32% (B) 26%  
(C) 33.33% (D) 40%
122. रमेश एक निश्चित मूल्य पर सेब बेचकर 30% का लाभ कमाता है। यदि वह प्रत्येक सेब पर 2 रुपये अधिक लेता है, तो वह 50% का लाभ प्राप्त करेगा। पहले सेब को किस कीमत पर बेचा?  
(A) 13 रुपये (B) 23 रुपये  
(C) 14 रुपये (D) 17 रुपये
123. एक परीक्षा में औसत 60 अंक पाया गया था। एक त्रुटि को कम करने के बाद, 80 छात्रों के अंक 90 अंकों से बदलकर 60 अंक हो गए थे। औसत भी 50 अंकों से नीचे आ गया है। निर्धारित करें कि कितने छात्रों ने परीक्षा दी है?  
(A) 300 (B) 240  
(C) 280 (D) 250
124. अरुण दूध और पानी को 7: 3 के अनुपात में मिलाता है जब 4 लीटर मिश्रण निकाला जाता है और 6 लीटर पानी डाला जाता है, तो दूध का पानी का अनुपात 3: 2 हो जाता है। शुरू में अरुण ने कितने लीटर दूध का उपयोग किया था?  
(A) 21 लीटर (B) 35 लीटर  
(C) 28 लीटर (D) 42 लीटर
125. सुजाता ने एक परीक्षा में 2240 अंक हासिल किए, जो कि न्यूनतम उत्तीर्ण प्रतिशत 64% से अधिक 128 अंक है। यदि सुजाता से 887 अंक कम है तो मीना द्वारा प्राप्त अंकों का प्रतिशत क्या है?  
(A) 39 (B) 41  
(C) 45 (D) 36
126. एक मोटरबोट, एक ही गति से यात्रा करते हुए, 25 किमी उर्ध्वप्रवाह और 39 किमी अनुप्रवाह 8 घंटे में जा सकती है। एक ही गति से, यह 35 किमी उर्ध्वप्रवाह की ओर और 52 किमी अनुप्रवाह की ओर 11 घंटे में यात्रा कर सकती है। धारा की गति क्या है?  
(A) 9 किमी/घंटा (B) 4 किमी/घंटा  
(C) 5 किमी/घंटा (D) इनमें से कोई नहीं
127. यदि  $(p+q) : (q+r) : (r+p) = 5:6:7$  और  $p+q+r=18$  है, तब  $p:q:r$  का मान ज्ञात कीजिये  
(A) 9:6:12 (B) 2:3:4  
(C) 4:5:6 (D) 5:6:7
128. निम्नलिखित प्रश्नों में दो समीकरण I और II दिए गए हैं। आपको दोनों समीकरणों को हल करना होगा और संबंध निर्धारित करना होगा।  
I)  $x^2 + x - 20 = 0$  II)  $y^2 - y - 30 = 0$   
(A) यदि  $x > y$  (B) यदि  $x \geq y$
- (C) यदि  $x < y$   
(D) यदि  $x = y$  या संबंध स्थापित नहीं किया जा सकता है
129. यदि  $12(a^2 + b^2 + c^2) = (2a + 2b + 2c)^2$ , है  $(a^3 + b^3 + c^3)/6abc$ ?  
[a, b, c  $\neq 0$ ] का मान क्या होगा  
(A) 2 (B) 3  
(C) 1/2 (D) 1/3
130. यदि  $x + 1/3x = 2$ , है, तब  $6x(6x+1)/(9x^4+6x^2+6x+1)$  का मान ज्ञात कीजिये?  
(A) -2 (B) 1  
(C) -1 (D) 2
131. यदि  $(6a^2 - 11ab + 4b^2) = 0$  है, और  $(a + b) = 21$  और  $a > b$  है, तब  $(a - b)$  का मान ज्ञात कीजिये?  
(A) 1 (B) 2  
(C) 3 (D) 4
132. यदि  $2^x = 3^y = 5^z$ , है, तब  $2^x - 30^{xyz/(xy + yz + zx)}$  का मान ज्ञात कीजिये?  
(A) 0 (B) 2  
(C) 3 (D) 5
133. यदि  $x = (2 + \sqrt{3})/(2 - \sqrt{3})$  और  $y = (7 + 4\sqrt{3})/(7 - 4\sqrt{3})$  है, तब 'y/x' का मान ज्ञात कीजिये?  
(A)  $(6 + 5\sqrt{3})$  (B)  $(8 + 5\sqrt{3})$   
(C)  $(7 + 4\sqrt{3})$  (D)  $(4 + 7\sqrt{3})$
134. यदि  $x^2 - 3x - 1 = 0$ , है, तब  $(x^5 - 1/x^3)/(3x+2)$  का मान ज्ञात कीजिये?  
(A) 11 (B) -11  
(C) 33 (D) -33
135. यदि  $2 \times \cos A - \sec A = -1$  और  $\cos A > -1$  है, तब  $\sin(A/2)$  का मान ज्ञात कीजिये?  
(A) 1/2 (B) 3/2  
(C) 1 (D) 1/√2
136. यदि  $x = (\sin 30^\circ \cdot \cos 45^\circ) / \tan 60^\circ$ , और  $y = (\sin 60^\circ \cdot \sin 45^\circ) / \cot 30^\circ$ .  
 $x^2 + y^2$  का मान ज्ञात कीजिये?  
(A)  $1/2\sqrt{6}$  (B) 1/8  
(C) 1/6 (D)  $1/2\sqrt{2}$
137. 60 सेमी व्यास के एक बेलनाकार बर्तन में कुछ पानी होता है। यदि व्यास 30 सेमी के गोले को पूरी तरह से पानी में डूबा दिया जाता है। पानी के स्तर में वृद्धि (सेमी में) क्या होगी?  
(A) 9 सेमी (B) 5 सेमी  
(C) 16 सेमी (D) 2 सेमी
138.  $\angle PRT$  की माप क्या है यदि  $\angle PRT$  और  $\angle RTU$  का अनुपात 16: 5 है और  $PR \parallel QS$  है?
- 
- (A) 75° (B) 80°  
(C) 85° (D) 90°
139. यदि 33.33% के लाभ पर 100 वस्तु 9600 रुपये में बेचे जाते हैं, तो 66.67% का लाभ कमाने के लिए प्रत्येक वस्तु को किस अनुमानित विक्रय मूल्य पर बेचा जाना चाहिए?  
(A) 120 रुपये (B) 102 रुपये  
(C) 118 रुपये (D) 124 रुपये



140. एक टैंक में रिसाव के कारण इसे सामान्य होने में आधे घंटे से अधिक समय लगेगा। इस टैंक को भरने के लिए सामान्य समय 3.5 घंटे है। यदि टैंक पानी से भरा है, तो पानी आधा खाली होने पर सामान्य दर से दोगुना कम होने पर पानी खुद को खाली होने में कितना समय लगेगा?  
(A) 14 घंटे (B) 7 घंटे  
(C) 21 घंटे (D) 28 घंटे
141. 750 और 1500 के बीच की कितनी संख्या 11, 17 और 22 से विभाज्य है?  
(A) 4 (B) 1  
(C) 2 (D) 3
142. ऊँचाई 25 सेमी का एक खोखला बेलन को 88 सेमी  $\times$  25 सेमी आयामों के एक आयत बनाने के लिए खोला जाता है। बेलन का आयतन ज्ञात कीजिए।  
(A) 12600 सेमी<sup>3</sup> (B) 15400 सेमी<sup>3</sup>  
(C) 16400 सेमी<sup>3</sup> (D) 14800 सेमी<sup>3</sup>
143. त्रिभुज PQR के आंतरिक कोण द्विभाजक बिंदु O से मिलते हैं। यदि कोण  $PQR = 60^\circ$  और कोण  $PRQ = 20^\circ$  है, तो कोण द्विभाजक द्वारा O पर बने सबसे बड़े कोण का माप ज्ञात कीजिए।  
(A)  $110^\circ$  (B)  $140^\circ$   
(C)  $120^\circ$  (D)  $150^\circ$
144. चार चॉकलेट और तीन आइस क्रीम की कीमत 126 रुपये है। सात कैंडी और दो आइस क्रीम की कीमत 93 रुपये है। नौ कैंडी और पांच चॉकलेट की कीमत 138 रुपये है। एक आइसक्रीम की कीमत और एक कैंडी के बीच क्या अंतर है?  
(A) 8 रुपये (B) 12 रुपये  
(C) 13 रुपये (D) 15 रुपये
145. कुल 9 पुस्तकों में से, पहली 5 पुस्तकों में पृष्ठों की संख्या 430 है, अंतिम 5 पुस्तकों में पृष्ठों की संख्या 380 है और सभी 9 पुस्तकों में पृष्ठों की संख्या 400 है, फिर 5 वीं पुस्तक में पृष्ठों की संख्या ज्ञात करें।  
(A) 420 (B) 430  
(C) 440 (D) 450
146. 1920 मिलीलीटर का मिश्रण क्रमशः 5: 3 के अनुपात में पानी और तेल से तैयार होता है। यदि इस अनुपात को 1: 7 तक सही किया जाना है, तो अतिरिक्त पानी को निकालने के बाद कितना तेल जोड़ा जाना चाहिए, ताकि मिश्रण की कुल मात्रा समान रहे?  
(A) 840 ml (B) 960 ml  
(C) 1120 ml (D) 480 ml
147. दिए गए आंकड़े में, O वृत्त और कोण  $AOB = 130^\circ$  का केंद्र है। यदि कोण  $CFA = 35^\circ$  और ज्या AD कोण CAB को द्विभाजित करती है, कोण AEB का माप क्या है?



- (A)  $130^\circ$  (B)  $140^\circ$   
(C)  $115^\circ$  (D)  $120^\circ$
148. ABCD एक चक्रीय चतुर्भुज है जिसमें BC, AD के समानांतर है,  $AB = 13$  सेमी, और  $AC = 37$  सेमी। यदि चतुर्भुज की ऊँचाई 12 सेमी है, तो चतुर्भुज ABCD का क्षेत्रफल ज्ञात करें।



- (A)  $420 \text{ cm}^2$  (B)  $440 \text{ cm}^2$   
(C)  $480 \text{ cm}^2$  (D)  $390 \text{ cm}^2$

149. 3-अंकीय सबसे बड़ी संख्या ज्ञात कीजिए जिसे 12, 15, 25, 30 से विभाजित करने पर कोई शेष नहीं बचता है?  
(A) 900 (B) 975  
(C) 800 (D) 775
150. व्यास 12 सेंटीमीटर के ठोस सीसे के गोले को पिघलाकर, तीन छोटे गोले बनाए जाते हैं, जिनकी त्रिज्या 3: 4: 5 के अनुपात में होती है। सबसे छोटे गोले का त्रिज्या (सेमी) में है  
(A) 3 (B) 6  
(C) 1.5 (D) 4

### English Language

**Directions (151–155):** Identify the best way to improve the underlined part of the given sentence. If there is no improvement required, select 'no improvement'.

151. The policeman decided to act on the tip given by his reliable informant.  
(A) act up (B) act out  
(C) act up to (D) No improvement
152. The thief kicked off once he felt that everyone has left the place.  
(A) Showed up (B) Nodded off  
(C) Passed out (D) No improvement
153. Coping up a new shop was not a trivial matter for them.  
(A) Getting up (B) Falling through  
(C) Setting up (D) No improvement
154. She couldn't account for her absence from work.  
(A) Accounted for (B) Account to  
(C) Accounted to (D) No improvement
155. Servants agree to remain silent in the issue, but they disapprove their actions.  
(A) disapprove of their (B) disapprove for their  
(C) disapproving for their (D) No improvement

**Directions (156–165):** Read the passage and answer the following questions.

When we came out of the cafe it had started to rain. 'We must get a 'taxi,' my mother said. We were wearing ordinary hats and coats, and it was raining quite hard. 'Why don't we go back into the cafe and wait for it to stop?' I said. I wanted another of those banana splits. They were gorgeous. 'It isn't going to stop,' my mother said. 'We must get home.' We stood on the pavement in the rain, looking for a taxi. Lots of them came by but they all had passengers inside them. 'I wish we had a car with a chauffeur,' my mother said. Just then a man came up to us. He was a small man and he was pretty old, probably seventy or more. He raised his hat politely and said to my mother, 'Excuse me, I do hope you will excuse me . . . 'He was sheltering under an umbrella which he held high over his head 'Yes?' my mother said, very cool and distant. 'I wonder if I could ask a small favour of you,' he said 'It is only a very small favour.' I saw my mother looking at him suspiciously. With strange men, she has a golden rule which says, 'The nicer the man seems to be, the more suspicious you must become.' This little old man was particularly nice. He was polite. He was well-spoken. The little man shifted his umbrella from one hand to the other. 'I've never forgotten it before,' he said 'You've never forgotten what?' my mother asked sternly. 'My wallet,' he said 'I must have left it in my other jacket. Isn't that the silliest thing to do?' 'Are you asking me to give you money?' my mother said 'Oh, good gracious me, not!'

he cried 'Heaven forbid I should ever do that!' 'Then what are you asking?' my mother said 'Do hurry up. We're getting soaked to the skin here.' 'I know you are,' he said 'And that is why I'm offering you this umbrella of mine to protect you, and to keep forever, if . . . if only . . . ' 'If only what?' my mother said 'If only you would give me in return a pound for my taxi-fare just to get me home.' My mother was still suspicious. 'If you had no money in the first place,' she said, 'then how did you get here?' 'I walked,' he answered 'Every day I go for a lovely long walk and then I **summon** a taxi to get me home. I do it every day of the year.' 'Why don't you walk home now?' my mother asked 'Oh, I wish I could,' he said 'I do wish I could But I don't think I could manage it on these silly old legs of mine. I've gone too far already.' My mother stood there chewing her lower lip. She was beginning to melt a bit, I could see that. And the idea of getting an umbrella to shelter under must have **tempted** her a good deal. 'It's a lovely umbrella,' the little man said 'So I've noticed,' my mother said 'It's silk,' he said 'I can see that.' 'Then why don't you take it, madam,' he said 'It cost me over twenty pounds, I promise you. But now it's of no importance so long as I can get home and rest these old legs of mine.' I saw my mother's hand feeling for the clasp of her purse. She saw me watching her. I was giving her one of my own frosty-nosed looks this time and she knew exactly what I was telling her. Now listen, mummy, I was telling her, you simply mustn't take advantage of a tired old man in this way. It's a rotten thing to do. My mother **paused** and looked back at me. Then she said to the little man, 'I don't think it's quite right that I should take an umbrella from you worth twenty pounds. I think I'd better just give you the taxi-fare and be done with it.'

156. Why did the protagonist need a car at that moment?  
 (A) They had spent a lot of time in the cafe and it was getting late.  
 (B) They were running out of time as her mother needed to go to work.  
 (C) It had started raining and they were not wearing the appropriate clothes for a wet day.  
 (D) They had to go back home from the cafe.
157. Which of the following can be inferred from the passage?  
 (A) The girl hated to get wet in the rain and was eager to get inside the cafe.  
 (B) The people mentioned here were not from an extravagant background  
 (C) The mother was tensed due to some reason but was trying to hide it from her daughter.  
 (D) The old man was very suspicious of the ladies and he wanted to get rid of them as soon as he got money.
158. Which of the following best describes the character of the mother?  
 (A) She was tensed and suffered from low confidence and low self esteem.  
 (B) She was suspicious but a daring and challenging lady.  
 (C) She had a temper problem and had a rude and suspicious nature.  
 (D) She was a practical, suspicious lady but was not cruel or harsh.
159. Why was the lady suspicious of the old man?  
 (A) He seemed to have been dressed oddly so the silk umbrella did not suit her much.

- (B) It was the woman's rule that one should be more suspicious of well behaved people.  
 (C) The man was nice to the lady in spite of her rude comments and refusal to help him.  
 (D) The man was attired in rich clothes but said he had no money to go back home.

160. What was the mother trying to ensure by asking the old man a lot of questions?  
 (A) She wanted to know if the man was really tired or sick and was not making a false excuse.  
 (B) She was trying to know the condition of the man that whether he could really afford the silk umbrella  
 (C) She was trying to ensure that he was not tricking them.  
 (D) She was trying to ensure that he was not causing any trouble to them.
161. Which of the following was morally correct according to the passage?  
 (A) The lady should have just given the man the taxi fare without the umbrella in return.  
 (B) The lady should have avoided the whole situation and ignored him.  
 (C) The lady should not have taken the umbrella nor should have given any money.  
 (D) The lady should have taken the umbrella and given him the fare.
162. Which of the following has a meaning opposite to the word 'tempted'?  
 (A) Augmented (B) Encouraged  
 (C) Dissuaded (D) Banned
163. Which of the following means the same as 'summon'?  
 (A) Send of (B) Ask in  
 (C) Bring up (D) Called for
164. Which of the following means the same as 'distant'?  
 (A) Ribald (B) Reticent  
 (C) Demonstrative (D) Didactic
165. Which of the following has a meaning opposite to the word 'paused'?  
 (A) Tailored (B) Estranged  
 (C) Proceed (D) Considered

**Directions (166-170):** Fill in the blanks with the suitable option.

166. The long-tailed blue may be small but it is a powerful flyer and lays eggs on plants \_\_\_\_\_ everlasting pea, which are common in gardens and allotments.  
 (A) So as (B) Such that  
 (C) So that (D) Such as
167. The angle a compass needle makes \_\_\_\_\_ true north and magnetic north is called declination.  
 (A) Among (B) In  
 (C) Within (D) Between
168. The climate emergency is a multigenerational crisis, so the response must be multigenerational \_\_\_\_\_.  
 (A) So well (B) As well  
 (C) As per (D) As such
169. I can still picture the first moment I saw it in the scorching dusk, the first fruit of a tree my brother and I \_\_\_\_\_ just two years before.  
 (A) Planted (B) Had planted  
 (C) Was Planting (D) Were planting

170. He called for urgent measures such as a crackdown \_\_\_\_\_ deforestation in indigenous territories.

(A) In (B) With  
(C) Over (D) On

**Directions (171–175):** Which of these is opposite in meaning to the given word?

171. **Rigor**  
(A) Ordeal (B) Inaccuracy  
(C) Intolerance (D) Suffering

172. **Rife**  
(A) Scarce (B) Universal  
(C) Pandemic (D) Insidious

173. He was a highly **competent** surgeon.  
(A) Proficient (B) Capable  
(C) Inept (D) Expert

174. **Obviate**  
(A) Avert (B) Deter  
(C) Promote (D) Preclude

175. **Espouse**  
(A) Uphold (B) Advocate  
(C) Champion (D) Reject

**Directions (176–177):** In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.

176. Many women had took the places of (1)/ their husbands; some of them lay dead (2)/ in the streets by the side of the men. (3)/ No error (4)  
(A) 1 (B) 2  
(C) 3 (D) 4

177. Much natives, wearing no clothes, (1)/ came down to meet them, and said (2)/ that the island was called Guanahani. (3)/ No error (4)  
(A) 4 (B) 3  
(C) 2 (D) 1

178. Select the wrongly spelt word.  
(A) fragmentation (B) frustrated  
(C) fugitive (D) fundamental

179. Select the wrongly spelt word.  
(A) Evaporation (B) Establish  
(C) Essential (D) Evaluation

180. In the following questions, a sentence is given with a blank to be filled in with an appropriate word. Select the correct alternative out of the four and mark your answer accordingly.

I ran as fast as I could, but I couldn't catch up \_\_\_\_\_ him.

(A) With (B) On  
(C) Onto (D) To

181. Select the wrongly spelt word.  
(A) dwelling (B) dwindle  
(C) durable (D) dwarf

182. Select the wrongly spelt word.  
(A) Devilish (B) Device  
(C) Deviation (D) Devious

183. Select the wrongly spelt word.

(A) blizzard (B) bitter  
(C) bizare (D) bewitched

**Directions (184–185):** In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and click the button corresponding to it. If the sentence is free from error, click the "No error" option.

184. I have had (A)/ an enormous amount of (B)/ letters from single parents. (C)/ No Error (D)  
(A) A (B) B  
(C) C (D) D

185. The window was (A)/ open, letting in streams (B)/ of cold sea air. (C)/ No Error (D)  
(A) A (B) B  
(C) C (D) D

**Directions (186–190):** In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.

186. A walk of life  
(A) An easy comfortable life not necessarily prosperous.  
(B) The most important day of your life.  
(C) A person's occupation or position within society.  
(D) Walking is the best form of exercise.

187. Head over heels  
(A) To do things exactly opposite of what is expected  
(B) Madly in love.  
(C) To do stupid things  
(D) To unknowingly dive into an unpleasant situation.

188. Ask for trouble  
(A) Act in a way that is likely to incur problems or difficulties.  
(B) Be the self-appointed guardian of your neighbourhood.  
(C) A clumsy person who keeps making mistakes.  
(D) A person who has no work is bound to create trouble for others.

189. Drive someone up the wall  
(A) To help someone achieve success  
(B) To overcome an obstacle by going over it  
(C) To close someone's path of escape.  
(D) Make someone very irritated or angry.

190. A wet blanket  
(A) A safety net of precaution from fires.  
(B) A person who discourages enjoyment or enthusiasm.  
(C) An extremely uncomfortable place to sleep.  
(D) A trick to shoo away unwelcome guests.

**Direction (191–194):** In the following questions, out of the four alternatives, select the word similar in meaning to the word given.

191. Obtrusive  
(A) Disjunction (B) Stupor  
(C) Paranoid (D) Prominent

192. Frivolous  
(A) Sanctify (B) Success  
(C) Inane (D) Judicial

193. Lambast  
(A) Intuition (B) Demeanour  
(C) Condemn (D) Attune



194. Disparage  
(A) Inexperienced (B) Imitate  
(C) Developing (D) Belittle
195. In each of the questions below, a sentence is given in either direct or indirect speech. Select the option that correctly converts the sentence in direct speech to indirect speech or vice versa.  
"I dressed his wounds and tended him carefully," she said.  
(A) She said that she dressed his wounds and tended him carefully.  
(B) She said that I had dressed his wounds and tended him carefully.  
(C) She said that she had dressed his wounds and tended him carefully.  
(D) She said that she dresses his wounds and tends him carefully.

**Directions (196–200):** In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.

196. The branch of science concerned with the origin, structure, and composition of rocks  
(A) Genealogy (B) Petrology  
(C) Odontology (D) Jurisprudence
197. A heavy burden that prevents one from achieving success.  
(A) All and sundry  
(B) Acknowledge the corn  
(C) Albatross around one's neck  
(D) Another nail in one's coffin
198. Pursue every hope or possibility even if the likelihood of it working is nearly negligible.  
(A) Last resort (B) Grasping at straws  
(C) In dire straits (D) Tip of the iceberg
199. A large group of people or things of a particular kind.  
(A) Bevy (B) Congregation  
(C) Posse (D) Flotilla
200. An expert judge in matters of taste.  
(A) Cannibal (B) Cynic  
(C) Connoisseur (D) Convalescent

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## Reasoning Aptitude

1. **Answer: (A)**  
प्रश्न में अनुक्रम पैटर्न ababb का अनुसरण करता है। अतः सही क्रम ababb / ababb / ababb है।
2. **Answer: (C)**  
MANMANMAN The correct sequence is
3. **Answer: (A)**  
M + 4 : Q  
Z + 5 : E  
U + 6 : A  
ऐसे ही,  
G + 4 : K  
+ 5 : Y  
L + 6 : R  
अतः, GTL : KYR
4. **Answer: (B)**  
BOG : GOB  
G और T की रैंक समान होती है जब वर्णमाला के अक्षर क्रमशः वर्णानुक्रम में और रिवर्स ऑर्डर में क्रमबद्ध होते हैं। इसलिए, अक्षरों को उन अक्षरों से बदल दिया जाता है जिनके पास एक ही रैंक होती है जब उन्हें रिवर्स वर्णमाला क्रम में रैंक किया जाता है।  
GOB : TLY  
ऐसे ही, UJC : CJU : XQF  
अतः, BOG : TLY :: UJC : XQF
5. **Answer: (B)**  
दिए गए अंक के प्रत्येक अंक से इस प्रश्न में, 2 घटाया जाता है और फिर 2 को परिणामी अंक से गुणा किया जाता है। इस प्रकार संबंधित अंकों का समूह नया नंबर होगा।  
 $4 - 2 = 2 \times 2 = 4$   
 $5 - 2 = 3 \times 2 = 6$   
 $3 - 2 = 1 \times 2 = 2$   
अतः, 453 → 462  
अब, ऐसे ही,  
 $6 - 2 = 4 \times 2 = 8$   
 $2 - 2 = 0 \times 2 = 0$   
 $4 - 2 = 2 \times 2 = 4$   
624 → 804
6. **Answer: (A)**  
 $7 \times 2 = 14 \rightarrow 1 + 4 = 5$   
 $9 \times 2 = 18 \rightarrow 1 + 8 = 9$   
 $8 \times 2 = 16 \rightarrow 1 + 6 = 7$   
ऐसे ही,  
 $5 \times 2 = 10 \rightarrow 1 + 0 = 1$   
 $6 \times 2 = 12 \rightarrow 1 + 2 = 3$   
 $7 \times 2 = 14 \rightarrow 1 + 4 = 5$   
अंक = 135
7. **Answer: (B)**  
 $3 + 4 = 7$   
 $7 + 4 = 11 = 1 \times 1 = 1$   
 $6 + 4 = 10 = 1 \times 0 = 0$   
ऐसे ही,  
 $8 + 4 = 12 = 1 \times 2 = 2$   
 $9 + 4 = 13 = 1 \times 3 = 3$   
 $2 + 4 = 6$
8. **Answer: (B)**  
विकल्प (B) को छोड़कर, सभी एक ही तर्क का अनुसरण करते हैं:  
 $(6+6+3+9) + 3 = 27$   
 $(7+6+0+2) + 3 = 21$   
 $(5+9+2+7) + 3 = 26$
9. **Answer: (B)**  
चूंकि रजत क्रांति अंडे के लिए थी, काली क्रांति कच्चे तेल के लिए थी।
10. **Answer: (A)**  
ईट एक इमारत के निर्माण खंड हैं, पृष्ठ एक नोटबुक के प्राथमिक भवन खंड हैं।
11. **Answer: (A)**  
विकल्प (A) को छोड़कर, सभी निम्नानुसार एक ही तर्क का पालन करते हैं:  
2 अंक को संख्या के 1, 3 और 4 वें अंक के गुणन से घटाया जाता है।  
 $6 \times 2 \times 5 - 7 = 53$   
 $7 \times 3 \times 1 - 8 = 13$
12. **Answer: (D)**  
विकल्प (d) को छोड़कर सभी एक ही तर्क का पालन करते हैं।  
1783 के लिए →  $1 \times 7 = 7$ ;  $8 \times 3 = 24 \rightarrow 7 + 24 = 31$   
2810 के लिए →  $2 \times 8 = 16$ ;  $1 \times 0 = 0 \rightarrow 16 + 0 = 16$   
1697 के लिए →  $1 \times 6 = 6$ ;  $9 \times 7 = 63 \rightarrow 6 + 63 = 69$
13. **Answer: (A)**  
(प्रत्येक संख्या के बड़े अंक से छोटे अंक घटाना)  
 $8 - 4 = 4$   
 $7 - 2 = 5$   
 $9 - 3 = 6$   
4, 5, 6 लगातार संख्याएँ हैं।  
ऐसे ही,  
 $6 - 5 = 1$   
 $4 - 2 = 2$   
 $4 - 1 = 3$   
1, 2, 3 लगातार संख्याएँ हैं।  
तो, सही विकल्प है (65, 24, 41)  
बाकी विकल्प इस शर्त को पूरा नहीं करते हैं
14. **Answer: (C)**  
एक शूल कांटा का एक हिस्सा है।  
ऐसे ही,  
नाखून हाथों का हिस्सा है।
15. **Answer: (D)**  
The ruins or ashes are kept in an urn.  
ऐसे ही,  
Money is kept in a wallet.
16. **Answer: (D)**  
झरने को छोड़कर, सभी एकत्र या क्षैतिज रूप से प्रवाहित होते हैं।
17. **Answer: (B)**  
 $(34 + 2) \times 0.5 = 36 \times 0.5 = 18$   
 $(18 + 2) \times 0.5 = 20 \times 0.5 = 10$   
 $(10 + 2) \times 0.5 = 12 \times 0.5 = 6$   
 $(6 + 2) \times 0.5 = 8 \times 0.5 = 4$   
 $(4 + 2) \times 0.5 = 6 \times 0.5 = 3$   
तो, गलत संख्या 36 है।
18. **Answer: (C)**  
शब्द मिक्स किये गए हैं। वास्तविक शब्द APPLE, ORANGE, PINK और GUAVA हैं। सेब, नारंगी और अमरूद फल हैं जबकि गुलाबी रंग है।
19. **Answer: (B)**  
कॉनवे और आचरण, चर्चा और बहस और समीक्षा और पूर्वव्यापी शब्द जोड़े हैं जिसमें दोनों शब्द एक दूसरे के पर्याय हैं। जबकि, Endure और desist एक शब्द युग्म है जो एक-दूसरे के विलोम हैं।
20. **Answer: (B)**  
ब्लिज्जर्ड एक तूफान है जिसमें ध्रुवीय क्षेत्रों में बर्फ आम है।  
बाकी दुनिया के विभिन्न क्षेत्रों में सामान्य चक्रवाती तूफान हैं।
21. **Answer: (B)**  
 $3 \times 3 - (0 + 3) = 9 - 3 = 6$   
 $6 \times 3 - (0 + 6) = 18 - 6 = 12$   
 $12 \times 3 - (1 + 2) = 36 - 3 = 33$   
 $33 \times 3 - (3 + 3) = 99 - 6 = 93$   
 $93 \times 3 - (9 + 3) = 279 - 12 = 267$
22. **Answer: (C)**  
 $12 \times 1 = 12/2 = 6$   
 $6 \times 2 = 12/2 = 6$   
 $6 \times 3 = 18/2 = 9$   
 $9 \times 4 = 36/2 = 18$   
 $18 \times 5 = 90/2 = 45$
23. **Answer: (B)**  
A B S C O N D : D N O C S B A  
 $D + 1 = E$   
 $N - 1 = M$   
 $O + 1 = P$   
 $C - 1 = B$   
 $S + 1 = T$   
 $B - 1 = A$   
 $A + 1 = B$   
ऐसे ही,  
PURPOSE : FRPOSTQ  
अतः,  
MAJESTY : YTSEJAM

$$Y + 1 = Z$$

$$T - 1 = S$$

$$S + 1 = T$$

$$E - 1 = D$$

$$J + 1 = K$$

$$A - 1 = Z$$

$$M + 1 = N$$

तो, MAJESTY का कोड ZSTDKZN है।

24. **Answer: (D)**

$$T \rightarrow 20 * (2 + 0) = 40$$

$$R \rightarrow 18 * (1 + 8) = 162$$

$$U \rightarrow 21 * (2 + 1) = 63$$

$$N \rightarrow 14 * (1 + 4) = 70$$

$$K \rightarrow 11 * (1 + 1) = 22$$

ऐसे ही,

$$B \rightarrow 2 * (0 + 2) = 4$$

$$E \rightarrow 5 * (0 + 5) = 25$$

$$N \rightarrow 14 * (1 + 4) = 70$$

$$C \rightarrow 3 * (0 + 3) = 9$$

$$H \rightarrow 8 * (0 + 8) = 64$$

अतः,

$$\text{BENCH} \rightarrow 42570964$$

25. **Answer: (D)**

$$20 - 5 + 2/3 \times 6 \text{ अर्थात } 20/5 \times 2 - 3 + 6 = 8 - 3 + 6 = 11$$

$$20/5 \times 2 + 3/6 \text{ अर्थात } 20 - 5 + 2 \times 3 - 6 = 20 - 5 + 6 - 6 = 15$$

$$20 + 5 - 2/3/6 \text{ अर्थात } 20 \times 5/2 - 3 - 6 = 50 - 9 = 41$$

$$20/5 \times 2 + 3 - 6 \text{ अर्थात } 20 - 5 + 2 \times 3/6 = 20 - 5 + 1 = 16$$

26. **Answer: (D)**

$$48 \div 8 \times 6 \div 2 + 7 = 15 + 4 \times 2 - 20 \div 5$$

RHS पर इंटरचेंजिंग 4 और 5:

$$48 \div 8 \times 6 \div 2 + 7 = 15 + 5 \times 2 - 20 \div 4$$

$$\text{LHS} = 48 \div 8 \times 6 \div 2 + 7 = 6 \times 3 + 7 = 18 + 7 = 25$$

RHS =  $15 + 5 \times 2 - 20 \div 4 = 15 + 10 - 5 = 20$ , इसलिए 4 और 5 को बदलना अमान्य है।

LHS पर इंटरचेंजिंग 6 और 8:

$$48 \div 6 \times 8 \div 2 + 7 = 15 + 4 \times 2 - 20 \div 5$$

$$\text{LHS} = 48 \div 6 \times 8 \div 2 + 7 = 8 \times 4 + 7 = 32 + 7 = 39$$

RHS =  $15 + 4 \times 2 - 20 \div 5 = 15 + 8 - 4 = 19$ , इसलिए 6 और 8 को बदलना अमान्य है।

LHS पर इंटरचेंजिंग 48 और 6:

$$6 \div 8 \times 48 \div 2 + 7 = 15 + 4 \times 2 - 20 \div 5$$

$$\text{LHS} = 6 \div 8 \times 48 \div 2 + 7 = (3/4) \times 24 + 7 = 18 + 7 = 25$$

RHS =  $15 + 4 \times 2 - 20 \div 5 = 15 + 8 - 4 = 19$ , इसलिए इंटरचेंजिंग 48 और 6 अमान्य है।

RHS पर इंटरचेंजिंग 15 और 20:

$$48 \div 8 \times 6 \div 2 + 7 = 20 + 4 \times 2 - 15 \div 5$$

$$\text{LHS} = 48 \div 8 \times 6 \div 2 + 7 = 6 \times 3 + 7 = 18 + 7 = 25$$

RHS =  $20 + 4 \times 2 - 15 \div 5 = 20 + 8 - 3 = 25$ , इसलिए 15 और 20 को बदलना वैध है और समीकरण को सही बनाता है।

27. **Answer: (D)**

B की कार C की कार से महंगी थी लेकिन E की कार से कम खर्चीली थी

$$E > B > C$$

D की कार की तुलना में एक कार महंगी थी, लेकिन C की कार से कम खर्चीली थी।

$$E > B > C > A > D$$

इस प्रकार, B की कार दूसरी सबसे महंगी थी

28. **Answer: (B)**

जैसे कि सुरुची दाहिने छोर से 10 वें स्थान पर है और पंक्ति में अठारह छात्र हैं, सुरुची बाएं छोर से 9 वें स्थान पर है  $(18 - 10 + 1)$ ।

चूंकि प्रीशा पंक्ति के बाएं छोर से 14 वें स्थान पर है, प्रीशा और सुरुची के बीच चार छात्र हैं।

29. **Answer: (D)**

दिया है: EXTRAMUNDANE

ANNUMERATE  $\rightarrow$  as EXTRAMUNDANE का गठन किया जा सकता है

UNAERATED  $\rightarrow$  EXTRAMUNDANE का गठन किया जा सकता है

MANDATEE  $\rightarrow$  EXTRAMUNDANE का गठन किया जा सकता है

MAGTEAUX  $\rightarrow$  G का गठन नहीं किया जा सकता क्योंकि EXTRAMUNDANE में G नहीं है

इसलिए केवल शब्द MAGTEAUX का गठन नहीं किया जा सकता है।

30. **Answer: (C)**

सही क्रम है:

Baby (0-1 year of age), toddler (1-3 years), adolescence (12-24 years), quarter-life (around 25 years of age), mid-life (around 50 years of age), senescence (above 50 years).

31. **Answer: (D)**

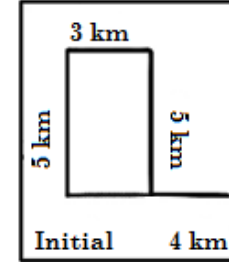
सही क्रम है (आकार के अनुसार):

Hummingbird, eagle, human, one-horned rhinoceros, elephant, blue whale.

32. **Answer: (D)**

जैसा कि हम पहले तर्क कर सकते हैं मजबूत नहीं है क्योंकि क्लास रूम गोपनीयता के साथ कुछ भी नहीं है। दूसरा तर्क मजबूत है क्योंकि अगर पब्लिक स्कूल में कैमरे लगाए जाते हैं तो इससे शिक्षकों को अपनी जवाबदेही बढ़ानी होगी।

33. **Answer: (B)**



कुल खड़ी दूरी =  $5 - 5 = 0$  किमी

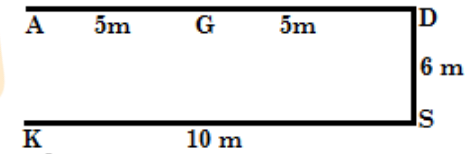
कुल क्षैतिज दूरी =  $3 + 4 = 7$  किमी।

तो, रंजन  $\sqrt{(0^2 + 7^2)}$  है, यानी, घर से 7 किमी दूर और वह पूर्व दिशा की ओर मुंह कर रहा है।

इसलिए सही विकल्प बी है।

34. **Answer: (D)**

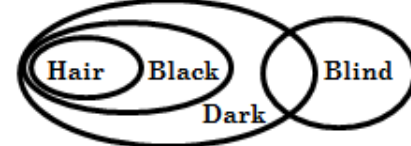
बिंदु K, बिंदु A के दक्षिण में 6 मी है।



35. **Answer: (B)**

काले और अंधे एक दूसरे से संबंधित नहीं हैं इस प्रकार विकल्प में पालन नहीं करता हूँ।

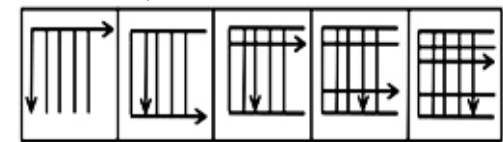
विकल्प II इस प्रकार है, एक संभावना है।



36. **Answer: (C)**

ऊर्ध्वाधर रेखाओं के बीच, तीर दाईं ओर बढ़ता रहता है।

प्रत्येक चरण में एक क्षैतिज रेखा दोनों ओर (नीचे या ऊपर) जोड़ी जाती है और तीर उस नई रेखा में स्थानांतरित हो जाता है।



37. **Answer: (A)**

यहां, पहले और अंतिम पासे से दिखाया गया है, हमें यह पता चलता है कि, 3 का सामना 4 से हो रहा है, क्योंकि इसका केवल तभी संभव है जब पासा उलटा हो।

फिर, दूसरे पासे और तीसरे पासे से हम 6 प्राप्त करते हैं, 1 के चेहरे के बाईं ओर 6 है, इसलिए 6 चेहरे 2 हैं।

इस प्रकार, 1 चेहरे 5

वैकल्पिक समाधान:

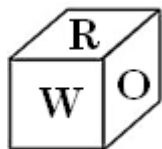
प्रश्न में दिए गए तीन पासे में से हम देख सकते हैं कि, 3, 6, 4, 2 1 से सटे चेहरों पर हैं। इसलिए, 1 के विपरीत चेहरे पर 5 केवल संख्या हो सकती है।

38. **Answer: (D)**

दोनों तीर दाईं ओर से शुरू होने वाले वैकल्पिक चरणों में दिशा बदलते हैं, इसलिए, हमें लापता हिस्से में दाहिने तीर की दिशा बदल जाती है।

केंद्र में बहुभुज प्रत्येक चरण में अपना पक्ष 1 से बढ़ाता रहता है, इसलिए हम लापता हिस्से में षट्भुज प्राप्त करते हैं। शीर्ष कोनों पर सर्कल और अन्य बहुभुज, वैकल्पिक चरणों में अपनी स्थिति को बदलते रहते हैं, और, प्रत्येक चरण में बहुभुज का पक्ष 1 से घट जाता है।

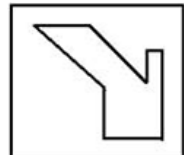
39. **Answer: (B)**



जब हम आसन्न पक्षों की पुष्टि करते हैं, तो केवल b सही आसन्नता की व्याख्या करता है

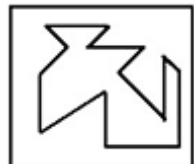
40. **Answer: (B)**

चित्र X विकल्प B में सन्निहित है।

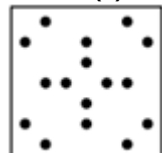


41. **Answer: (B)**

चित्र X विकल्प B में सन्निहित है।



42. **Answer: (B)**



पेपर विकल्प B में दी गई छवि के अनुसार दिखेगा

43. **Answer: (D)**

विकल्प D आवश्यक आकृति की दर्पण छवि दिखाता है

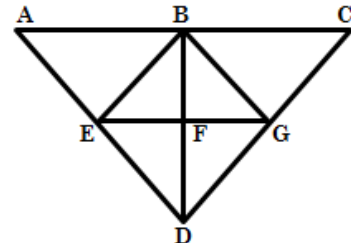
44. **Answer: (A)**

"सूर्य" एक "तारा" है। सूर्य और तारा दोनों ही आत्म-प्रदीप्त हैं, लेकिन ग्रह अलग है। तो, तारे का प्रतिनिधित्व करने वाले वृत्त को सूर्य का प्रतिनिधित्व करने वाले वृत्त को लिखना चाहिए। ग्रह का प्रतिनिधित्व करने वाला वृत्त दोनों से अलग है।

45. **Answer: (A)**

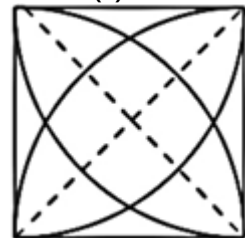
स्टील धातुओं में से एक है। तो, "मेटल" का प्रतिनिधित्व करने वाले सर्कल को "स्टील" का प्रतिनिधित्व करने वाले सर्कल को लिखना चाहिए। ध्रुव धात्विक (या स्टील) या लकड़ी भी हो सकता है। तो, "पोल" का प्रतिनिधित्व करने वाले सर्कल को "धातु" और "स्टील" के सर्कल के साथ काटना चाहिए।

46. **Answer: (C)**



त्रिभुज = AEB, EBF, EFD, GFD, GFB, BGC, EBG, EDG, EBD, GBD, ABD, CBD and ACD.

47. **Answer: (B)**



48.

**Answer: (B)**

विकल्प B सही उत्तर है। बाकी विकल्पों में, सर्कल की स्थिति गलत है।

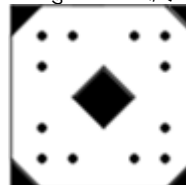
49.

**Answer: (D)**

पहली खुलने के बाद, हम:



2 वें खुलने के बाद, हम:



तो, विकल्प D सही उत्तर है।

50.

**Answer: (D)**

मेट्रिसेस 1 और 2 से,  
P को 40 के रूप में कोडित किया जा सकता है  
L को 10, 44, 77 के रूप में कोडित किया जा सकता है  
A को 03, 99 के रूप में कोडित किया जा सकता है  
Q को 00, 66, 98 के रूप में कोडित किया जा सकता है  
U को 12, 67 के रूप में कोडित किया जा सकता है  
E को 24, 79 के रूप में कोडित किया जा सकता है

### General Studies

51.

**Answer: (B)**

फ़ोरिंट हंगरी की मुद्रा है। इसे 100 फ़िलर में विभाजित किया गया है, हालांकि फ़िलर सिक्के अब प्रचलन में नहीं हैं। 1 अगस्त 1946 को फ़ोरिंट का परिचय हंगरी की अर्थव्यवस्था के बाद WWII के स्थिरीकरण का एक महत्वपूर्ण कदम था, और मुद्रा 1980 के दशक तक अपेक्षाकृत स्थिर रही।

52.

**Answer: (C)**

विनायक दामोदर सावरकर जेजीपी समिति के सदस्य नहीं थे। JVP समिति का गठन वर्ष 1949 में किया गया था, इसके सदस्य जवाहरलाल नेहरू, सरदार वल्लभभाई पटेल और पट्टाभि सीतारामैया थे। धार आयोग की सिफारिशों पर विचार करने के लिए 1948 के जयपुर सत्र के बाद इसका गठन किया गया था। इस समिति ने राज्यों के पुनर्गठन के भाषाई कारक को भी खारिज कर दिया। इसने राष्ट्र की सुरक्षा, एकता और आर्थिक समृद्धि के आधार पर राज्यों के पुनर्गठन की सिफारिश की।

53.

**Answer: (A)**

एक हाइड्रोमीटर या एरोमीटर एक उपकरण है जिसका उपयोग उछाल की अवधारणा के आधार पर तरल पदार्थ के सापेक्ष घनत्व को मापने के लिए किया जाता है। वे आमतौर पर अंशांकित होते हैं और विशिष्ट गुरुत्वाकर्षण जैसे एक या अधिक तराजू के साथ स्नातक किए जाते हैं।

54.

**Answer: (B)**

बागलीहार बांध जिसे बागलीहार पनबिजली परियोजना के रूप में भी जाना जाता है, भारतीय राज्य जम्मू और कश्मीर के डोडा जिले में चिनाब नदी पर चलने वाली एक नदी परियोजना है।

55.

**Answer: (C)**

रेडक्लिफ रेखा भारत और पाकिस्तान के बीच अंतर्राष्ट्रीय सीमा बन गई (जिसमें यह भी शामिल है कि अब बांग्लादेश क्या है) भारत के विभाजन के दौरान। मैकमोहन रेखा चीन के तिब्बती क्षेत्र और भारत के उत्तर-पूर्व क्षेत्र के बीच की सीमा रेखा है।

56.

**Answer: (D)**

उदासीनता के समय पृथ्वी सूर्य से सबसे दूर होती है। पृथ्वी 4 जुलाई, 2022 को उदासीनता के समय सूर्य से 152.1 मिलियन किलोमीटर दूर थी।

एफ़ेलियन सूर्य से सबसे दूर किसी ग्रह, धूमकेतु या अन्य पिंड की कक्षा में स्थित बिंदु है।

जब पृथ्वी जुलाई की शुरुआत में अपने उदासीनता पर होती है, तो यह आमतौर पर जनवरी की शुरुआत में सूर्य से लगभग 4,800,000 किमी दूर होती है।

एफ़ेलियन और पेरीहेलियन शब्द ग्रीक भाषा से लिए गए हैं।

जबकि एपो का अर्थ है दूर, पेरी का अर्थ है निकट और हेलिओस का अर्थ ग्रीक भाषा में सूर्य है।

एफेलियन क्या है? अपहेलियन तब होता है जब पृथ्वी सूर्य से सबसे दूर होती है, लगभग 152 मिलियन किलोमीटर दूर। यह आमतौर पर जुलाई की शुरुआत में होता है।

पेरीहेलियन क्या है? पेरीहेलियन तब होता है जब पृथ्वी सूर्य के सबसे करीब होती है, लगभग 147 मिलियन किलोमीटर। यह आमतौर पर जनवरी की शुरुआत में होता है।

57. **Answer: (B)**

विटामिन B 12 एक पोषक तत्व है जो शरीर की तंत्रिका और रक्त कोशिकाओं को स्वस्थ रखने में मदद करता है और सभी कोशिकाओं में डीएनए, आनुवंशिक सामग्री बनाने में मदद करता है। विटामिन बी 12 एक प्रकार के एनीमिया को रोकने में मदद करता है जिसे मेगालोब्लास्टिक एनीमिया कहा जाता है जो लोगों को थका हुआ और कमजोर बनाता है। कोबाल्ट विटामिन बी 12 के केंद्र में पाया जाता है और अन्य सह-एंजाइमों की एक सीमा होती है जिसे कोबाल्टिन कहा जाता है। हालांकि शरीर में केवल 2-5 मिलीग्राम विटामिन B 12 होता है, लाल रक्त कोशिकाओं के उत्पादन में इसकी भागीदारी का मतलब है कि यह जीवन के लिए महत्वपूर्ण है।

58. **Answer: (C)**

एन्थ्रेस्राइट, जिसे अक्सर हार्ड कोल कहा जाता है, एक कठिन, कॉम्पैक्ट किस्म का कोयला है। इसमें उच्चतम कार्बन सामग्री, सबसे छोटी अशुद्धियाँ, और सभी प्रकार के कोयले का उच्चतम ऊर्जा घनत्व है और कोयले की उच्चतम रैंकिंग है।

59. **Answer: (B)**

रबर का वल्कनीकरण, सल्फर की उपस्थिति में इसे गर्म करके रबर की लोच और शक्ति में सुधार की एक प्रक्रिया है।

60. **Answer: (D)**

"विश्व सीमा शुल्क संगठन" का मुख्यालय ब्रुसेल्स, बेल्जियम में स्थित है।

61. **Answer: (C)**

भारत में, भारतीय रिजर्व बैंक (RBI) बैंक दर निर्धारित करता है। यह वह दर है जिस पर RBI वाणिज्यिक बैंकों को बिना किसी जमानत के ऋण देता है। आरबीआई अपने ग्राहकों को अल्पकालिक ऋण भी प्रदान करता है (संपार्श्विक रखते हुए) जिसे रेपो दर कहा जाता है। RBI इस दर को समय-समय पर संशोधित करता है। हालांकि, कोई पूर्व निर्धारित कार्यक्रम नहीं है। रेपो दरों को अर्थव्यवस्था के आधार पर प्रतिक्रियात्मक रूप से बदल दिया जाता है।

62. **Answer: (D)**

किताब "इन द लाइन ऑफ फायर: ए मेमॉयर" को परवेज मुशर्रफ ने लिखा है। इस किताब में मुशर्रफ के निजी जीवन से लेकर अंतराष्ट्रीय और राष्ट्रीय मुद्दों और उनके सत्ता में आने का चित्रण है।

63. **Answer: (C)**

रवींद्रनाथ टैगोर ने 1896 में बीडन स्क्रायर में आयोजित कलकत्ता कांग्रेस सत्र में वंदे मातरम गाया था।

64. **Answer: (C)**

गुप्त काल को प्राचीन भारत का स्वर्ण युग कहा जाता है क्योंकि इस अवधि के दौरान, भारत में साहित्य, विज्ञान और कलाएँ पहले कभी नहीं पनीं। यह गुप्त साम्राज्य के शासनकाल के दौरान ही था, कि प्रगतिशील गतिविधियों में विभिन्न प्रगति जैसे कि दशमलव प्रणाली, शून्य और शतरंज की अवधारणा विनाश में आ गई। कई विद्वानों ने साहित्य के क्षेत्र में जबरदस्त योगदान दिया। इनमें से सबसे उल्लेखनीय कालिदास, आर्यभट्ट और वराहमिहिर शामिल हैं।

65. **Answer: (C)**

बॉल पेन सतही तनाव के सिद्धांत पर कार्य करता है। पेन की नोक पर एक छोटी गेंद लगी होती है। जैसे-जैसे कलम कागज के साथ चलती है, गेंद स्याही कारतूस से स्याही उठाती है और कागज पर छोड़ती है।

66. **Answer: (C)**

स्वर्ण सिंह समिति की सिफारिशों के आधार पर नागरिकों के 'मौलिक कर्तव्यों' को 1976 में 42 वें संशोधन द्वारा संविधान में जोड़ा गया।

67. **Answer: (D)**

बिहार आंदोलन 1974 में बिहार में छात्रों द्वारा शुरू किया गया एक आंदोलन था और बिहार के कुशासन और भ्रष्टाचार के खिलाफ जेपी के नाम से प्रसिद्ध समाजवादी जयप्रकाश नारायण ने नेतृत्व किया था। यह बाद में केंद्र सरकार में प्रधान मंत्री इंदिरा गांधी की सरकार के खिलाफ हो गया। इसे सम्पूर्ण क्रांति (सम्पूर्ण क्रांति आंदोलन) और जेपी आंदोलन भी कहा जाता था।

68. **Answer: (B)**

कीनन स्टेडियम एक बहुउद्देश्यीय स्टेडियम और जमशेदपुर, झारखंड में एक अंतराष्ट्रीय क्रिकेट स्टेडियम है।

69. **Answer: (A)**

म्यांमार भारत का पड़ोसी देश है। म्यांमार की राजधानी नय पेई दाव 'और म्यांमार की मुद्रा क्यात की है।

70.

**Answer: (B)**

'1857 का भारतीय विद्रोह' 1857-58 के दौरान 'ब्रिटिश ईस्ट इंडिया कंपनी' के शासन के दौरान भारत में एक बड़ा विद्रोह था। इस घटना को कई नामों से जाना जाता है, जिसमें सिपाही विद्रोह, भारतीय विद्रोह, महा विद्रोह, 1857 का विद्रोह और भारत का प्रथम स्वतंत्रता संग्राम शामिल हैं। 1857 के 'भारतीय विद्रोह' के दौरान चार्ल्स केनिंग भारत के गवर्नर-जनरल थे।

71.

**Answer: (C)**

धातु क्लोराइड के लिए रासायनिक सूत्र  $MCl_2$  होगा। ऐसा इसलिए है क्योंकि सूत्र  $MSO_4$  से, हमें पता चलता है कि धातु M की वैधता 2 होगी क्योंकि  $SO_4$  की वैधता 2 है।

72.

**Answer: (C)**

जोधपुर किला राव जोधाजी द्वारा बनाया गया था। यह वर्ष 1460 के आसपास बनाया गया था और इसे मेहरानगढ़ किले के रूप में भी जाना जाता है।

73.

**Answer: (D)**

1 रुपये के सिक्के में निम्नलिखित विशेषताएँ हैं-

धातु	फेरिटिक स्टेनलेस स्टील
वजन	4.85 ग्राम
व्यास	25 मिमी
आकार	वर्तकार

नोट: अलग-अलग स्रोत हैं जो अलग-अलग उत्तर दे रहे हैं और इस प्रश्न के उत्तर को RBI वेबसाइट से भी संदर्भित किया जा सकता है।

74.

**Answer: (A)**

सिगरेट के धुएँ में हजारों रसायन होते हैं। निकोटीन शायद वह रसायन है जो सिगरेट के धुएँ से सबसे अधिक जुड़ा होता है। तंबाकू के पौधे में प्राकृतिक रूप से पाया जाने वाला यह यौगिक सिगरेट के धूम्रपान को अत्यधिक नशीला बनाने के लिए जिम्मेदार है। कार्बन मोनोऑक्साइड और हाइड्रोजन साइनाइड सिगरेट के धुएँ में पाए जाने वाले 2 अन्य जहरीले रसायन हैं। कार्बन मोनोऑक्साइड एक रंगहीन और गंधहीन गैस है जो तंबाकू के जलने पर निकलती है। यही कारण है कि केवल हल्के व्यायाम के बाद बहुत सारे धूम्रपान करने वाले अपनी सांस के लिए हाँफते हैं।

75.

**Answer: (C)**

गोदावरी नदी को "दक्षिण गंगा" के रूप में जाना जाता है क्योंकि यह बड़ी हिमालयी नदी की तरह सबसे बड़ी प्रायद्वीपीय नदी है। यह दक्षिण में गंगा नदी की तरह है, इसलिए इसे दक्षिण गंगा भी कहा जाता है।

76.

**Answer: (A)**

महावीर जैन धर्म के 24 वें और अंतिम तीर्थंकर थे। उन्हें वर्धमान के रूप में भी जाना जाता है, वह एक भारतीय तपस्वी दार्शनिक थे और जैन धर्म के प्रमुख व्यक्तित्वों में से एक थे, जो भारतीय उपमहाद्वीप के प्रमुख धर्मों में से एक है। उनके पिता सिद्धार्थ और माता त्रिशला थीं।

77.

**Answer: (C)**

SMTP (सिंपल मेल ट्रांसफर प्रोटोकॉल) एक प्रोटोकॉल है जिसका उपयोग ई-मेल भेजने और प्राप्त करने में किया जाता है।

78.

**Answer: (A)**

कुष्ठ को छोड़कर अन्य सभी कवक के कारण होता है। कुष्ठ एक पुरानी संक्रामक बीमारी है जो मुख्य रूप से परिधीय तंत्रिकाओं, त्वचा, ऊपरी श्वसन पथ, आंखों और नाक के श्लेष्म (नाक की परत) को प्रभावित करती है। यह रोग एक बैसिलस (छड़ी के आकार का) जीवाणु के कारण होता है जिसे माइकोबैक्टीरियम लेप्राई के रूप में जाना जाता है।

79.

**Answer: (B)**

चूंकि लंबी कूद में प्रक्षेप्य गति शामिल होती है, इसलिए अधिकतम छलांग लगाने के लिए लंबी जम्पर हमेशा 45° के कोण पर कूदती है। प्रक्षेप्य एक वस्तु या कण (एक प्रक्षेप्य) द्वारा अनुभव की जाने वाली गति का एक रूप है जो पृथ्वी की सतह के पास फेंक दिया जाता है और केवल गुरुत्वाकर्षण की कार्यवाई के तहत एक घुमावदार पथ के साथ चलता है (वायु प्रतिरोध के प्रभाव को नगण्य माना जाता है)। एक प्रक्षेप्य की क्षैतिज सीमा क्षैतिज विमान के साथ की दूरी है जो यह यात्रा करेगा, उसी ऊर्ध्वाधर स्थिति तक पहुंचने से पहले जहां से यह शुरू हुआ था।

80.

**Answer: (C)**

दुनिया की सबसे गहरी झील साइबेरिया में बैकाल झील है। इसका सबसे गहरा बिंदु 1637 मीटर है। यह दुनिया की ताजा सतह के पानी का 20% हिस्सा है और मात्रा के हिसाब से दुनिया की सबसे बड़ी ताजे पानी की झील है।

81.

**Answer: (D)**

अस्थमा एक गैर-संचारी रोग है, यह एक ऐसी स्थिति है जिसमें आपके वायुमार्ग संकीर्ण और सूज जाते हैं और अतिरिक्त बलगम उत्पन्न करते हैं। इससे साँस लेना मुश्किल हो सकता है और खाँसी, घरघराहट और साँस



- की तकलीफ हो सकती है। एक संचारी रोग वह है जो विभिन्न तरीकों से एक व्यक्ति से दूसरे में फैलता है जिसमें शामिल हैं: रक्त और शारीरिक तरल पदार्थों के साथ संपर्क; एक हवाई वायरस में साँस लेना; या किसी कीड़े द्वारा काटे जाने से।
82. **Answer: (D)**  
आगर-आगर एक जेली जैसा पदार्थ है, जो लाल शैवाल से प्राप्त होता है। आगर दो घटकों का मिश्रण है: रैखिक पॉलीसैकराइड agarose और agaropectin नामक छोटे अणुओं का एक विषम मिश्रण।
83. **Answer: (C)**  
एक व्यक्ति मायोपिया (लघु दृष्टि) के मामले में अवतल लेंस के साथ चश्मा पहनता है। इसका मतलब यह है कि आम तौर पर (जब चश्मे का उपयोग नहीं किया जाता है) दूर की वस्तुओं की छवि उसकी आंख में रेटिना से बहुत आगे होती है।
84. **Answer: (B)**  
सिंधु घाटी सभ्यता में शामिल पालतू जानवर कुत्ते, बिल्ली, कूबड़ वाले और शोर मचाने वाले मवेशी, घरेलू मुर्गी और संभवतः सुअर, ऊँट और भैंस थे। गायों को पालतू नहीं बनाया गया।
85. **Answer: (B)**  
सातवाहनों को पुराणों में अंधों के रूप में भी जाना जाता है, यह दक्षिण क्षेत्र में स्थित एक प्राचीन भारतीय राजवंश था। सातवाहन शिलालेख में राज्याभिषेक की सूची में प्रथम राजा के रूप में सिमुक का उल्लेख किया गया है।
86. **Answer: (C)**  
यह सिंधु घाटी सभ्यता की खोजों की सूची है:  
कालीबंगन- एक लकड़ी का फरसा  
आलमगीरपुर - कुंड पर कपड़े का छापा  
राखीगढ़ी - टेरीकोटा के पहिये, खिलौने, मूर्तियाँ, मिट्टी के बर्तन।  
मिताथल - प्रारंभिक कृषि समुदाय  
लोथल - मनके कारखाने, डोकियाई, बटन सील, आग वेदी, चित्रित जार, चावल की जल्द से जल्द खेती (1800 मिलियन)
87. **Answer: (B)**  
द्वैध ब्रिटिश भारत के प्रांतों के लिए भारत सरकार अधिनियम (1919) द्वारा शुरू की गई दोहरी सरकार की एक प्रणाली है। इसने भारत के ब्रिटिश प्रशासन की कार्यकारी शाखा में लोकतांत्रिक सिद्धांत का पहला परिचय दिया।
88. **Answer: (D)**  
संक्षेप में, निम्न विधियों के विवेकपूर्ण संयोजन के लिए असमानता के सुधार को कहते हैं:  
(i) देश में आय और कीमतों को प्रभावित करने वाली तंग मौद्रिक नीति;  
(ii) विनिमय दर समायोजन, यानी, घरेलू मुद्रा का अवमूल्यन;  
(iii) एक्सपोर्ट और एक्सपोर्टिंग इम्पोर्ट्स का विस्तार  
(iv) पूंजी आंदोलन, i। ई., उधार या उधार पर सवार; तथा  
(v) विनिमय नियंत्रण।
89. **Answer: (D)**  
पूर्वोत्तर व्यापार हवाओं के कारण तमिलनाडु में सर्दियों के मौसम में वर्षा होती है।
90. **Answer: (C)**  
बुनियादी संरचना का सिद्धांत एक न्यायपालिका है, जिसे भारतीय न्यायपालिका ने 24 अप्रैल 1973 को केशवानंद भारती मामले में प्रतिपादित किया था। बुनियादी ढाँचा सिद्धांत कहता है कि भारत के संविधान में कुछ बुनियादी विशेषताएँ हैं जिन्हें संसद द्वारा संशोधनों के माध्यम से परिवर्तित या नष्ट नहीं किया जा सकता है।
91. **Answer: (B)**  
1608 में, विलियम हॉकिंस को मुगल सम्राट जहाँगीर से इंग्लैंड के साथ व्यापार के बारे में पूछने के लिए भेजा गया था।
92. **Answer: (B)**  
मर्करी इंटेंसिटी स्केल भूकंप की तीव्रता मापने के लिए इस्तेमाल किया जाने वाला भूकंपीय तीव्रता पैमाना है। यह भूकंप के प्रभावों को मापता है।
93. **Answer: (C)**  
निकेल सिल्वर, जिसे कभी-कभी जर्मन सिल्वर कहा जाता है, एक मिश्र धातु है। इसमें सामान्य रूप से तांबा, निकल और जस्ता होता है। नाम के बावजूद, इसमें कोई वास्तविक चांदी नहीं है।
94. **Answer: (B)**  
निकट-दृष्टि, जिसे लघु-दृष्टि और मायोपिया के रूप में भी जाना जाता है, आंख की एक स्थिति है जहाँ प्रकाश रेटिना के बजाय, सामने की ओर केंद्रित होता है। इससे दूर की वस्तुएँ धुंधली हो जाती हैं, जबकि नज़दीकी वस्तुएँ सामान्य दिखाई देती हैं।
95. **Answer: (A)**  
जहाँ गर्म हवा ऊपर उठती है, उस स्थान पर हवा का दबाव कम हो जाता है।

96. **Answer: (B)**  
Microsoft Word में, सामान्य लेआउट दृश्य स्वरूपण जैसे लाइन रिक्ति, फॉन्ट, बिंदु आकार और इटैलिक दिखाता है।
97. **Answer: (C)**  
फ्रॉकलैंड करंट, ओया शियो और कैलिफ़ोर्निया करंट ठंडी धाराएँ हैं। समुद्र की घाटियों के पूर्वी ओर भूमध्य रेखा की ओर ठंडी धाराएँ बहती हैं। मोज़ाम्बिक करंट एक गर्म धारा है। गर्म महासागरीय धाराएँ महासागर के घाटियों के पश्चिमी ओर भूमध्यरेखीय क्षेत्र से दूर बहती हैं।
98. **Answer: (B)**  
खादर मिट्टी बाढ़ के मैदानों पर जलोढ़ मिट्टी की नई और छोटी जमा है। इस मिट्टी को हर साल नवीनीकृत किया जाता है और इस प्रकार तुलनात्मक रूप से यह भांगर मिट्टी (पुरानी जलोढ़) की तुलना में अधिक उपजाऊ होती है।
99. **Answer: (D)**  
ओडिशा राज्य सरकार ने अपने पर्यटन विभाग को राज्य में पर्यटन को बढ़ावा देने और राज्य के पर्यटन उद्योग पर COVID-19 के प्रभाव का मुकाबला करने के लिए नदी परिभ्रमण शुरू करने का निर्देश दिया है। ओडिशा के मुख्य सचिव, असित त्रिपाठी ने कहा कि नदी का परिभ्रमण स्वयं COVID -19 प्रतिबंधों के अनुरूप है।
100. **Answer: (B)**  
3 सितंबर, 2020 को रूस ने आश्वासन दिया कि वह रक्षा मंत्री राजनाथ सिंह की अपने रूसी समकक्ष जनरल सर्गेई शोइगू के साथ बैठक के दौरान भारत 'पाकिस्तान को कोई हथियार की आपूर्ति नहीं' की नीति का पालन करेगा।

### Quantitative Aptitude

101. **Answer: (A)**  
टोयोटा द्वारा 2014 में बेची गई इकाइयों की संख्या = 70000  
2017 में टोयोटा द्वारा बेची गई इकाइयों की संख्या = 95000  
आवश्यक प्रतिशत में वृद्धि =  $[(95000 - 70000)/70000] \times 100 = 35.71\%$
102. **Answer: (B)**  
2016 में मारुति सुजुकी की बिक्री = 100000  
2015 में हुंडई की बिक्री = 85000  
आवश्यक अंतर =  $100000 - 85000 = 15000$
103. **Answer: (A)**  
हुंडई द्वारा बेची गई कुल इकाइयाँ =  $80000 + 85000 + 90000 + 110000 = 365000$   
टोयोटा द्वारा बेची गई कुल इकाइयाँ =  $70000 + 75000 + 90000 + 95000 = 330000$   
इस प्रकार, आवश्यक अनुपात =  $365000 : 330000 = 73 : 66$
104. **Answer: (A)**  
कंपनी मारुति सुजुकी द्वारा बेची गई कम से कम इकाइयाँ वर्ष 2014 में हैं, अर्थात् 70000
105. **Answer: (C)**  
केन की मात्रा =  $22/7 \times 4 \times 4 \times 14 = 704$  सेमी<sup>3</sup>  
बॉक्स की मात्रा =  $8 \times 8 \times 14 = 896$  सेमी<sup>3</sup>  
आवश्यक अंतर =  $896 - 704 = 192$  सेमी<sup>3</sup>
106. **Answer: (A)**  
दिया है,  $(1/A) + (1/B) = 1/24$   
चूंकि, B कुल कार्य का  $3/4$  वाँ भाग करता है।  
इसका मतलब है कि B, A के समान ही कुशल है।  
इसके अलावा, दिनों की संख्या दक्षता के विपरीत अनुपातिक है।  
माना कार्य को पूरा करने के लिए B द्वारा लिए गए दिनों की संख्या को 'x' ह।  
फिर, कार्य पूरा करने के लिए A द्वारा अकेले लिए गए दिनों की संख्या =  $3x$  दिन  
तो,  $(1/3x) + (1/x) = 1/24$   
 $x = 32$  दिन  
तो, कार्य को पूरा करने के लिए A द्वारा अकेले लिए गए दिनों की संख्या =  $3x = 96$  दिन
107. **Answer: (D)**  
माना कि ऑटोमोबाइल की कीमत कीमत x रु  
तो,  $1.75x = 210000$   
 $x = 120000$   
तो, ऑटोमोबाइल की लागत मूल्य = 120000 रु  
नई बिक्री मूल्य = 240000 रु  
आवश्यक लाभ प्रतिशत =  $[(240000 - 120000)/120000] \times 100 = 100\%$
108. **Answer: (A)**  
माना कि A और B का वेतन क्रमशः 9x और 8x रुपये है।

$$\text{तब, } (9x + 30000) / (8x + 30000) = 10/9.$$

$$x = 30000$$

इस प्रकार, B का नया वेतन =  $8 \times 30000 + 30000 = 270000$  रुपये

109. **Answer: (A)**

दी गई अभिव्यक्ति के रूप में लिखा जा सकता है

$$\cot \alpha (\sin \alpha / \cos \alpha + \cos \alpha / \sin \alpha)$$

$$(\text{Since, } \tan x = \sin x / \cos x \text{ and } \cot x = \cos x / \sin x)$$

$$= \cot \alpha \{(\sin^2 \alpha + \cos^2 \alpha) / (\sin \alpha \times \cos \alpha)\}$$

$$= (\cos \alpha / \sin \alpha) \{1 / (\sin \alpha \times \cos \alpha)\} \quad (\text{Since, } \sin^2 x + \cos^2 x = 1)$$

$$= \csc^2 \alpha$$

110. **Answer: (D)**

$$[\sin A \cos A / (\sin A \sec A + \cot A)] - \sin^2 A$$

$$= \sin A \cos A / (\sin A / \cos A + \cos A / \sin A) - \sin^2 A$$

$$= \sin A \cos A / [(\sin^2 A + \cos^2 A) / \cos A \sin A] - \sin^2 A$$

$$= \sin^2 A \cos^2 A - \sin^2 A = \sin^2 A (\cos^2 A - 1) = \sin^2 A \times (-\sin^2 A) =$$

$$-\sin^4 A$$

111. **Answer: (C)**

दी गई अभिव्यक्ति के रूप में लिखा जा सकता है

$$\sqrt{\sin A \{(\sin A / (1 + \sin A)) + (\sin A / (1 - \sin A))\}} \quad (\text{Since,}$$

$$\sin x = 1 / \csc x)$$

$$= \sqrt{\sin^2 A \{((1 / (1 + \sin A)) + (1 / (1 - \sin A)))\}}$$

$$= \sqrt{\sin^2 A \times (2 / (1 - \sin^2 A))}$$

$$= \sqrt{(2 \sin^2 A / \cos^2 A)}$$

$$= \sqrt{2} \tan A$$

112. **Answer: (B)**

चूंकि, प्रत्येक वर्ष के लिए अर्जित साधारण ब्याज की राशि समान रहती है।

तो, एक वर्ष में अर्जित ब्याज = 2700 रु

फिर, मूल राशि जमा,  $P = 55800 - 4 \times 2700$

$$P = 45,000 \text{ रु}$$

तो, ब्याज की आवश्यक दर,  $\text{आर} = (2700 \times 100) / 45000$

$$R = 6\%$$

113. **Answer: (B)**

माना कि जमा की गई मूल राशि 'P' रु और चक्रवृद्धि ब्याज की दर % R प्रति वर्ष है।

$$[P \times (1 + (R / 100)^1)] / [P \times (1 + (R / 100)^2)] = 20 / 21$$

$$1 / (1 + (R / 100)) = 20 / 21$$

$$21 = 20 + R/5$$

$$R = 5\%$$

तब,

$$P \times (1 + 0.05)^3 = 74088$$

$$1.157625P = 74088$$

$$P = 64000 \text{ रु}$$

तो, जमा की गई मूल राशि 64000 रु

114. **Answer: (D)**

माना कि नए छात्र की पॉकेट मनी 'P' रु।

कुल 29 छात्रों को जेब से मिलने वाली कुल राशि =  $29 \times 40 = 1160$  रु

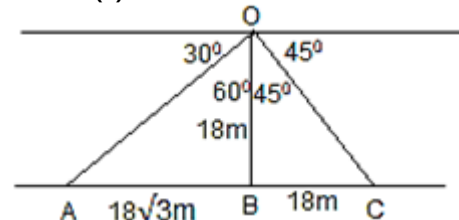
जब एक नया छात्र जुड़ता है, तो कक्षा की नई औसत पॉकेट मनी 41 रु

$$\text{तो, } (1160 + P) / 30 = 41$$

इस प्रकार,  $P = 70$  रु

इसलिए, नए छात्र की पॉकेट मनी 70 रु है।

115. **Answer: (C)**



त्रिभुज ABO में,

$$\tan 60^\circ = AB / BO$$

$$AB = 18\sqrt{3} \text{ m}$$

त्रिभुज BOC में,

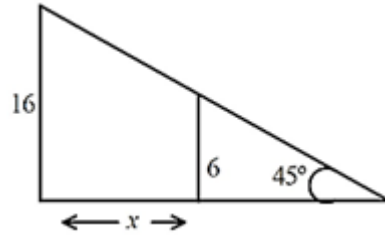
$$\tan 45^\circ = BC / BO$$

$$BC = 18 \text{ मी}$$

इस प्रकार, लड़कियों के बीच की दूरी

$$= (18 + 18\sqrt{3}) = 48.6 \text{ मी}$$

116. **Answer: (C)**



$$\tan(45) = 1$$

माना कि डंडे के बीच की दूरी x है

फिर, इसी तरह के त्रिकोण द्वारा

$$16/6 = 16/(16-x) \text{ or } x = 10 \text{ मी}$$

117. **Answer: (A)**

दिया है,  $(a + b)^2 = 1369$  और  $ab = 336$

पहचान का उपयोग करके,  $(a + b)^2 = a^2 + b^2 + 2ab$

$$a^2 + b^2 = (a + b)^2 - 2ab$$

$$a^2 + b^2 = 1369 - 2 \times 336$$

$$a^2 + b^2 = 697$$

$$\text{और, } (a + b) = \sqrt{1369} = 37$$

$$\text{अब, } a^3 + b^3 = (a + b) \times (a^2 - ab + b^2)$$

$$a^3 + b^3 = 37 \times (697 - 336) = 13357$$

118. **Answer: (C)**

माना कि वर्ग की प्रत्येक भुजा s सेमी।

फिर, मूल क्षेत्र =  $s^2$  सेमी<sup>2</sup>

अब, नया पक्ष = 1.2 सेमी

तो, वर्ग का नया क्षेत्र =  $(1.2s)^2 = 1.44 s^2$  सेमी<sup>2</sup>

क्षेत्र में आवश्यक प्रतिशत में वृद्धि

$$= [(1.44 - 1) s^2 / (s^2)] \times 100 = 44\%$$

119. **Answer: (C)**

उन्नीस बैग की लागत मूल्य =  $12 \times 250 + 7 \times 450 = 6150$  रु

उन्नीस बैग की बिक्री मूल्य =  $19 \times 350 = 6650$  रु

इस प्रकार, कुल लाभ प्रतिशत =  $((6650 - 6150) / 6150) \times 100 = 8.13\%$

120. **Answer: (B)**

रेलगाड़ी B की सापेक्ष गति A के संबंध में  $A = 92 - 87 = 5$  किमी / घंटा  
ट्रेन B द्वारा कवर की जाने वाली कुल दूरी =  $580 + 1400 + 520 = 2500$  मीटर = 2.5 किमी

इस प्रकार, ट्रेन B द्वारा ट्रेन A पार करने के लिए आवश्यक समय =  $2.5 / 5 = 0.5$  घंटा = 30 मिनट

121. **Answer: (B)**

माना 1 आइटम का CP 100

13 वस्तुओं का CP = 1300 रु

12 वस्तुओं की बिक्री पर एक आइटम मुफ्त है।

इसलिए, 13 वस्तुओं का SP =  $1200 \times 1.7 \times 0.8 = 1632$  रु

लाभ % =  $(1632 - 1300) / 1300 \times 100 = 332 / 1300 \times 100 = 25.54\% \approx 26\%$

122. **Answer: (A)**

मान लीजिए कि एक सेब का CP X है।

फिर पहले बिक्री मूल्य =  $130x / 100 = 13x / 10$

यदि वह 2 रुपये अधिक शुल्क लेता है और 50% लाभ प्राप्त करता है, तो

$$13x / 10 + 2 = 150x / 100$$

$$13x / 10 + 2 = 15x / 10$$

$$15x / 10 - 13x / 10 = 2$$

$$2x / 10 = 2, x = 10 \text{ रुपये}$$

तो एक सेब की कीमत = 10 रु

इसलिए पहली बिक्री मूल्य =  $10 \times 130 / 100 = 13$  रु

123. **Answer: (B)**

माना छात्रों की कुल संख्या 'x'

'X' छात्रों का प्रारंभिक कुल अंक =  $60 \times x$

80 छात्रों के अंकों में परिवर्तन = प्रत्येक में 30 अंक

अंकों में कुल परिवर्तन =  $80 \times 30 = 2400$  अंक

अंतिम औसत = 50 अंक

'X' छात्रों का अंतिम कुल अंक =  $50 \times x$

अंकों में कुल परिवर्तन =  $60 \times x - 50 \times x$ , जो 2400 के बराबर है

$$\text{इसलिए, } 10 \times x = 2400$$

$$x = 240$$

124. **Answer: (C)**

माना मिश्रण में दूध और पानी की मात्रा क्रमशः 7k और 3k

यदि 4 लीटर निकाला जाता है तो मिश्रण में दूध की मात्रा =  $7k - (7/10$

$$X) 4) = 7k - 14/5$$

यदि 4 लीटर निकाला जाता है तो मिश्रण में पानी की मात्रा =  $3k - (3/10) \times 4 = 3k - 6/5$   
 6 लीटर पानी जोड़ने के बाद, पानी की मात्रा =  $3k - 6/5 + 6 = 3k + 24/5$   
 नया अनुपात 3: 2 है  
 $\Rightarrow (7k - 14/5) : (3k + 24/5) = 3:2$   
 $\Rightarrow 14k - 28/5 = 9k + 72/5$   
 $\Rightarrow 5k = 20$   
 $\Rightarrow k = 4$   
 इसलिए शुरू में अरुण द्वारा उपयोग किए जाने वाले दूध की मात्रा =  $7k = 7 \times 4 = 28$  लीटर

125. **Answer: (B)**

पासिंग मार्क्स =  $2240 - 128 = 2112$   
 कुल अंक =  $2112 \times 100/64 = 3300$   
 मीणा द्वारा प्राप्त अंक =  $2240 - 887 = 1353$   
 मीणा द्वारा प्राप्त प्रतिशत अंक =  $1353/3300 \times 100 = 41\%$

126. **Answer: (B)**

नाव और धारा की गति  $x$  किमी / घंटा और  $y$  किमी / घंटा है।  
 धारा के साथ नाव की गति =  $(x + y)$  किमी / घंटा  
 धारा के विरुद्ध नाव की गति =  $(x - y)$  किमी / घंटा  
 तो,  $25 / (x - y) + 39 / (x + y) = 8$  ..... (i)  
 $35 / (x - y) + 52 / (x + y) = 11$  ..... (ii)  
 हल करने पर,  
 $x = 9$  किमी / घंटा  
 $y = 4$  किमी / घंटा  
 इसलिए, धारा की गति = 4 किमी / घंटा

127. **Answer: (A)**

माना सामान्य अनुपात =  $k$   
 $p + q = 5k$   
 $q + r = 6k$   
 $r + p = 7k$   
 जोड़ने पर,  $2(p + q + r) = 18k$   
 $\Rightarrow K = 2$   
 अब,  $p = 18 - 12 = 6$   
 $q = 18 - 14 = 4$   
 $r = 18 - 10 = 8$   
 अतः,  $a:b:c = 6:4:8 = 9:6:12$

128. **Answer: (D)**

समीकरण I पर विचार करें:  
 $x^2 + x - 20 = 0$   
 $x^2 + 5x - 4x - 20 = 0$   
 $x(x+5) - 4(x+5) = 0$   
 $(x+5)(x-4) = 0$   
 $X = 4$  or  $-5$   
 समीकरण II पर विचार करें:  
 $y^2 - y - 30 = 0$   
 $y^2 - 6y + 5y - 30 = 0$   
 $y(y-6) + 5(y-6) = 0$   
 $(y-6)(y+5) = 0$   
 $Y = 6$  or  $-5$

जब  $x = 4, y = 6, X < Y$

जब  $x = 4, y = -5, X > Y$

इसलिए, हम  $x$  और  $y$  के बीच संबंध निर्धारित नहीं कर सकते

129. **Answer: (C)**

$12(a^2 + b^2 + c^2) = (2a + 2b + 2c)^2$   
 $\Rightarrow 12(a^2 + b^2 + c^2) = 4(a + b + c)^2$   
 $\Rightarrow 3(a^2 + b^2 + c^2) = (a + b + c)^2$   
 $\Rightarrow 3(a^2 + b^2 + c^2) = (a^2 + b^2 + c^2) + 2(ab + bc + ca)$   
 $\Rightarrow 2(a^2 + b^2 + c^2) = 2(ab + bc + ca)$   
 $\Rightarrow a^2 + b^2 + c^2 - ab - bc - ca = 0$   
 अब,  $a^3 + b^3 + c^3 - 3abc = (a + b + c)(a^2 + b^2 + c^2 - ab - bc - ca) = 0$   
 $\therefore a^3 + b^3 + c^3 = 3abc$   
 $(a^3 + b^3 + c^3)/6abc = 3abc/6abc = 1/2$

130. **Answer: (B)**

$x + 1/3x = 2$   
 $\Rightarrow 3x^2 + 1 = 6x$  [  $x \neq 0$  ]  
 अब,  $6x(6x+1)/(9x^4+6x^2+6x+1) = (36x^2 + 6x)/((3x^2)^2 + 2 \times 3x^2 \times 1 + 1^2 + 6x)$   
 $= (36x^2 + 6x)/((3x^2 + 1)^2 + 6x)$   
 $= (36x^2 + 6x)/((6x)^2 + 6x)$

$= (36x^2 + 6x)/(36x^2 + 6x)$   
 $= 1$

131. **Answer: (C)**

$6a^2 - 11ab + 4b^2 = 0$   
 $6a^2 - 3ab - 8ab + 4b^2 = 0$   
 $3a(2a - b) - 4b(2a - b) = 0$   
 $(3a - 4b)(2a - b) = 0$   
 $2a - b = 0$  [अतः,  $a < b$  हम इस समीकरण पर विचार नहीं करेंगे।]  
 $3a = 4b$

$a = 4b/3$  ... (1)

$(a + b) = 21$  .... (2)

(1) और (2) से-

$(4b/3) + b = 21$

$7b/3 = 21$

$b = 9$  और  $a = 12$

$(a - b) = 12 - 9 = 3$

132. **Answer: (A)**

$2^x = 3^y = 5^z = k^{xyz}$  (let)  
 $\therefore 2 = k^{yz}; 3 = k^{xz}; 5 = k^{xy}$   
 $\therefore 2^x \cdot 3^y \cdot 5^z = k^{(yz + xz + xy)}$   
 $\Rightarrow 30 = k^{(xy + yz + zx)}$   
 $\Rightarrow 30^{1/(xy + yz + zx)} = k$   
 $\Rightarrow 30^{xyz/(xy + yz + zx)} = k^{xyz} = 2^x$   
 $\therefore 2^x = 30^{xyz/(xy + yz + zx)} = 0$

133. **Answer: (C)**

$x = (2 + \sqrt{3})/(2 - \sqrt{3})$  और  $y = (7 + 4\sqrt{3})/(7 - 4\sqrt{3})$   
 $x = [(2 + \sqrt{3})(2 + \sqrt{3})]/[(2 - \sqrt{3})(2 + \sqrt{3})] = (4 + 3 + 4\sqrt{3})/(4 - 3)$   
 $y = (7 + 4\sqrt{3})/(7 - 4\sqrt{3})$   
 $(y/x) = y \div x = (7 + 4\sqrt{3})/(7 - 4\sqrt{3}) \div (7 + 4\sqrt{3})$   
 $= (7 + 4\sqrt{3})/(7 - 4\sqrt{3}) \times 1/(7 + 4\sqrt{3})$   
 $= (7 + 4\sqrt{3})/(49 - 48)$   
 $= (7 + 4\sqrt{3})$

134. **Answer: (C)**

$x^2 - 3x - 1 = 0$   
 $\Rightarrow x - 3 - 1/x = 0$  [  $x \neq 0$  ]  
 $\Rightarrow x - 1/x = 3$  और  $x + 1/x = 3 + 2/x = (3x+2)/x$   
 अब,  $x^5 - 1/x^3 = x(x^4 - 1/x^4)$   
 $= x((x^2)^2 - 1/(x^2)^2)$   
 $= x(x^2 - 1/x^2)(x^2 + 1/x^2)$   
 $= x(x + 1/x)(x - 1/x)[(x - 1/x)^2 + 2]$   
 $= x \cdot (3x+2)/x \cdot 3 \cdot (3^2 + 2)$   
 $= 33(3x+2)$   
 $\therefore (x^5 - 1/x^3)/(3x+2) = 33$

135. **Answer: (A)**

$2 \times \cos A - \sec A = -1$   
 $2 \times \cos A - (1/\cos A) = -1$   
 $2 \times \cos^2 A - 1 = -\cos A$   
 $2 \times \cos^2 A + \cos A - 1 = 0$   
 मध्य अवधि को विभाजित करके, हम प्राप्त करते हैं  
 $\cos A = 1/2$  or  $-1$ , but  $\cos(A) > -1$   
 अतः,  $\cos A = 1/2$   
 तब,  $A = 60^\circ$   
 अतः,  $\sin(A/2) = \sin 30^\circ = 1/2$

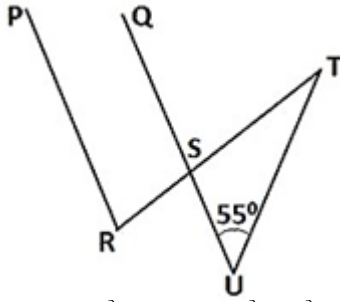
136. **Answer: (C)**

$x = (\sin 30^\circ \cdot \cos 45^\circ)/\tan 60^\circ$   
 $x = (1/2 \cdot 1/\sqrt{2})/\sqrt{3} = 1/2\sqrt{6}$   
 $y = (\sin 60^\circ \cdot \sin 45^\circ)/\cot 30^\circ$   
 $y = (\sqrt{3}/2 \cdot 1/\sqrt{2})/\sqrt{3} = 1/2\sqrt{2}$   
 अतः  $x^2 + y^2 = (1/2\sqrt{6})^2 + (1/2\sqrt{2})^2$   
 $x^2 + y^2 = 1/24 + 1/8 = 1/6$

137. **Answer: (B)**

माना कि पानी का स्तर  $h$  से बढ़ा हुआ है।  
 गोले का आयतन =  $4/3 \pi (15)^3$   
 और, पानी के बढ़े हुए स्तर की मात्रा =  $\pi r^2 h = \pi (30)^2 h$   
 $4/3 \pi (15)^3 = \pi (30)^2 h$   
 $h = (4 \times 15 \times 15 \times 15)/(3 \times 30 \times 30) = 5$  सेमी

138. **Answer: (B)**



माना  $\angle PRT$  और  $\angle RTU$ ,  $16x$  और  $5x$  है  
 $\angle QST = \angle PRT = 16x$  [PR || QS, संगत कोणों]  
 $\angle TSU = (180^\circ - 16x)$   
 In  $\triangle TSU$ ,  $(180^\circ - 16x) + 55^\circ + 5x = 180^\circ$   
 $11x = 55$   
 $x = 5$   
 $\angle PRT = 16x = 80^\circ$

139. **Answer: (A)**

100 वस्तु का मूल्य बेचना = 9600 रु  
 तो, प्रत्येक वस्तु की बिक्री मूल्य = 96 रु  
 प्रत्येक वस्तु की लागत मूल्य =  $96 / 1.33 \sim 72$  रु  
 लाभ 66.67% पर प्रत्येक वस्तु की कीमत बेचना =  $72 \times 1.67 \sim 120$  रु

140. **Answer: (C)**

मान लीजिए कि रिसाव  $n$  घंटे में टैंक को खाली कर देता है।  
 अब इनलेट टैंक को 3.5 घंटे में भर देता है।  
 $1/3.5 - 1/n = 1/4$   
 $\Rightarrow n = 28$   
 तो, रिसाव की सामान्य दर =  $1/28$  प्रति घंटे  
 अब टैंक आधा खाली हो जाएगा  
 पूर्ण से आधे खाली तक,  $x$  घंटे की आवश्यकता होती है; या  $x / 28 = 1/2$   
 या  $x = 14$  घंटे  
 प्रश्न के अनुसार;  $2x / 28 = 1/2$  या  $x = 7$  घंटे  
 कुल समय = 21 घंटे

141. **Answer: (C)**

11, 17 और 22 का LCM 374 है  
 संख्याएँ जो विभाज्य हैं 11, 17 और 22 है 374,  $374 \times 2 = 748$ ,  $374 \times 3 = 1122$ ,  $374 \times 4 = 1496$  .....  
 इस प्रकार, 750 और 1500 के बीच दो संख्याएँ (1122 और 1496) 11, 17 और 22 से विभाज्य हैं।

142. **Answer: (B)**

जब एक खोखले बेलन को खोल दिया जाता है,  
 आयत की चौड़ाई = बेलन की ऊँचाई  
 तो, बेलन की ऊँचाई = 25 सेमी  
 इसके अलावा, आयत की लंबाई = बेलन के आधार की परिधि  
 $88 = 2 \times (22/7) \times r$   
 $r = 14$  सेमी  
 इस प्रकार, बेलन का आयतन =  $(22/7) \times r^2 \times h$   
 $= (22/7) \times (14)^2 \times 25$   
 $= 15400$  सेमी<sup>3</sup>

143. **Answer: (B)**

दिया, कोण PQR = 600 और कोण PRQ = 200  
 तो, कोण QPR =  $180 - 60 - 20 = 100^\circ$   
 (त्रिभुज की कोण राशि)  
 त्रिभुज POQ में,  
 कोण POQ =  $180 - 50 - 30 = 100^\circ$  (त्रिभुज की कोण राशि)  
 त्रिकोण QOR में,  
 कोण QOR =  $180 - 30 - 10 = 140^\circ$  (त्रिभुज की कोण राशि)  
 त्रिभुज POR में,  
 कोण POR =  $180 - 50 - 10 = 120^\circ$  (त्रिभुज की कोण राशि)

144. **Answer: (D)**

एक कैंडी, एक चॉकलेट और एक आइसक्रीम की कीमत क्रमशः A, B, C रु।  
 तब,  
 $4b + 3c = 126$  ----(1)  
 $7a + 2c = 93$  ----(2)  
 $9a + 5b = 138$  ----(3)  
 उपरोक्त तीन समीकरणों को हल करने पर, हमें यह मिलता है:  
 $a = 7$ ,  $b = 15$  and  $c = 22$ .  
 इस प्रकार, एक आइसक्रीम की लागत और एक कैंडी के बीच का अंतर  
 $= (22 - 7) = 15$  रूपये

145.

**Answer: (D)**

पहले 5 पुस्तकों में पृष्ठों की संख्या का योग =  $5 \times 430 = 2150$   
 अंतिम 5 पुस्तकों में पृष्ठों की संख्या का योग =  $5 \times 380 = 1900$   
 सभी 9 पुस्तकों में पृष्ठों की संख्या का योग =  $9 \times 400 = 3600$   
 5 वीं पुस्तक में पृष्ठों की संख्या =  $(2150 + 1900) - 3600 = 450$

146.

**Answer: (B)**

वर्तमान मिश्रण में तेल की मात्रा =  $3/8 \times 1920 = 720$  मिली  
 आवश्यक मिश्रण में मौजूद होने के लिए तेल की मात्रा =  $7/8 \times 1920 = 1680$  मिली  
 इस प्रकार, अतिरिक्त तेल की आवश्यकता है =  $1680 - 720 = 960$  ml

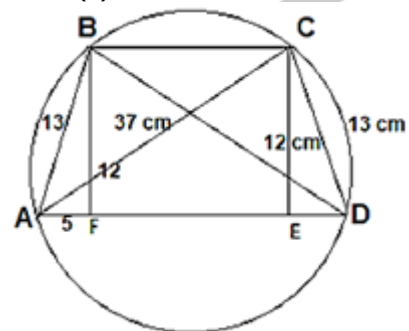
147.

**Answer: (A)**

ज्या CA उसी खंड में कोण CFA और कोण CBA को घटाता है।  
 इस प्रकार, कोण CFA = कोण CBA =  $35^\circ$   
 दिया, कोण AOB =  $130^\circ$   
 फिर, बाहरी कोण (AOB) =  $360^\circ - 130^\circ = 230^\circ$   
 इसलिए, कोण ACB =  $230/2 = 115^\circ$   
 त्रिभुज ACB में,  
 कोण CAB =  $(180^\circ - (115^\circ + 35^\circ)) = 30^\circ$  (त्रिभुज का कोण योग)  
 तो, कोण DAB =  $30/2 = 15^\circ$   
 अब, त्रिभुज AEB में,  
 कोण AEB =  $(180^\circ - (15^\circ + 35^\circ)) = 130^\circ$  (त्रिभुज का कोण योग गुण)

148.

**Answer: (A)**



एक चक्रीय चतुर्भुज में, विकर्ण समान होते हैं।  
 इस प्रकार, AC = BD = 37 cm  
 और, AB = 13 सेमी.  
 अतः, CD = 13 सेमी और BF = CF = 12 सेमी  
 त्रिभुज ACE में,  
 $AE = (37^2 - 12^2)^{1/2} = 35$  सेमी  
 अब, त्रिभुज ABF में,  
 $AF = (13^2 - 12^2)^{1/2} = 5$  सेमी  
 अतः, EF = BC =  $(35 - 5) = 30$  सेमी  
 $AD = 35 + 5 = 40$  सेमी  
 इस प्रकार, चतुर्भुज का क्षेत्रफल =  $(1/2) \times (30 + 40) \times 12 = 420$  सेमी<sup>2</sup>

149.

**Answer: (A)**

दिए गए नंबर हैं  
 12, 15, 25, 30  
 12, 15, 25 और 30 का LCM = 300  
 $\therefore$  3 अंकों की सबसे बड़ी संख्या =  $300 \times 3 = 900$

150.

**Answer: (A)**

गोले का आयतन =  $4/3 \times \pi r^3$   
 ठोस बड़े गोले की त्रिज्या =  $12/2 = 6$  सेमी  
 बड़े ठोस सीसे के गोले का आयतन =  
 $= 4/3 \times \pi \times 6^3$   
 $= 288\pi$  क्यूबिक सेमी  
 दिया है,  
 तीन छोटे क्षेत्रों के त्रिज्या क्रमशः 3A, 4A, 5A हैं।  
 दिया हुआ,  
 $\Rightarrow 288\pi = (4/3) \times \pi \times [(3A)^3 + (4A)^3 + (5A)^3]$   
 $\Rightarrow 216 = 216A^3$   
 $\Rightarrow A = 1$   
 सर्कल का त्रिज्या = 3 सेमी, 4 सेमी, 5 सेमी  
 $\therefore$  सबसे छोटे गोले का त्रिज्या 3 सेमी है।

### English Language

151.

**Answer(D)**

The correct answer is option D) i.e. No improvement.  
 Act on: to do something because you have been advised or told to do it. This fits properly in the context



of the given sentence. Hence, the given sentence needs no improvement.

Act up: Misbehave; cause trouble

Act out: 1) Perform a scene from a play, a charade or an exercise. 2) To behave badly coz you are unhappy or upset.

Act up to : Equal in action; fulfil in practice.

152. **Answer(A)**

'Kick off' means 'to begin' and it should be replaced.

Option 2 'Nod off' means 'to fall asleep' and it does not improve the sentence.

Option 3 'Passed out' means 'to faint' and it should not be the best alternative.

Option 1 'Show up' means 'to arrive' and it is the best alternative.

153. **Answer(C)**

'Cope up' means 'to deal successfully' and it should be replaced.

Option 1 'Getting up' means 'to rise' and it does not make any improvement.

Option 2 'Falling through' means 'to fail' and it is not the best fit.

Option 3 'Set up' means 'to start a business' and it is the best fit.

154. **Answer(D)**

The underlined part of the sentence is grammatically correct and doesn't have to be improved.

The phrasal verb "account for" means "explain or give a reason for something".

None of the other alternatives can make the sentence meaningful.

155. **Answer(A)**

The sentence uses the form 'disapproves of their'.

The phrase uses the present participle form of the verb 'disapprove', however to convey the intended meaning the verb should be in past participle form accompanied by a preposition stating association with the action.

The only alternative that gives the intended meaning is 'disapprove of their'.

156. **Answer(C)**

It had started raining and they did not have any umbrella or raincoat. They were getting wet in the rain so needed a car to reach home. They had no other means.

157. **Answer(B)**

It is mentioned in the passage that the lady wanted a car with a chauffeur. It is understood from the words that she could not afford one.

158. **Answer(D)**

The conversation of the lady shows that she was practical and was trying to make sure that the man was not lying. She was suspicious as mentioned in the passage. It cannot be said that she was cruel or harsh as she was ready to help the man without any favour in return.

159. **Answer(B)**

It is mentioned in the passage, 'I saw my mother looking at him suspiciously. With strange men, she has a golden rule which says, 'The nicer the man seems to be, the more suspicious you must become.' This little old man was particularly nice. He was polite. He was well-spoken.'

160. **Answer(C)**

The lady was suspicious of the man since the very beginning thus it is clear that she wanted to ensure that he was not lying to them. She wanted to be sure that the man was not a trickster.

161. **Answer(A)**

It is morally incorrect to take advantage of an old man's forgetfulness so the lady should not have taken the umbrella which would cost much more than he asked for. She was attracted to the silk umbrella so

got ready to help him. The last lines of the passage state the morally correct action to be taken.

162. **Answer(C)**

The word 'tempted' means 'attracted.' Thus the word having the opposite meaning is 'dissuaded' which means 'persuade (someone) not to take a particular course of action.'

163. **Answer(D)**

The word 'summon' means 'order (someone) to be present.' The phrase 'called for' means the same. The other options have a different meaning or do not mean anything at all.

164. **Answer(B)**

The word 'distant' means 'reserved and withdrawn.'

The meanings of the words are:

Ribald ⇒ referring to sexual matters in an amusingly rude or irreverent way

Reticent ⇒ reserved

Demonstrative ⇒ tending to express feelings, especially of affection, openly

Didactic ⇒ that which teaches a lesson

165. **Answer(C)**

The word 'paused' means 'stopped'. Thus 'proceed' which means 'to go forward' is the correct antonym.

Estranged ⇒ no longer close

166. **Answer(D)**

Option 1 'So as' cannot be used because it means 'in order to'.

Option 2 'Such that' cannot be chosen because it means 'to the extent that' and it is not relevant to this sentence.

Option 3 'So that' cannot be chosen because it is not fit here.

Option 4 'Such as' which means 'for example' is the best fit for this given sentence.

167. **Answer(D)**

Option 1 'Among' cannot be chosen because it means 'amid' and it does not fit here.

Option 2 'In' cannot be chosen because it does not make any meaningful sentence.

Option 3 'Within' cannot be chosen because it means 'inside' and it does not fit here.

Option 4 'between' is the best fit.

168. **Answer(B)**

Option 1 'So well' should not be chosen because it does not make the sentence meaningful.

Option 3 'As per' which means 'in accordance with' cannot be used because it does not fit here.

Option 4 'As such' means 'in the exact sense of the word' and it does not make the sentence meaningful.

Option 2 'As well' means 'too' and it is the best fit.

169. **Answer(B)**

Option 1 'Planted' cannot be chosen because two actions are mentioned here and the second one was taken before.

Therefore,

Option 3 'Was planting' which is in past continuous tense' cannot be chosen.

Option 4 'Were planting' which is in past continuous tense' cannot be chosen.

Option 2 'Had planted' which is in Past perfect tense is the best fit.

170. **Answer(D)**

Option 1 'In' cannot be chosen because after the word 'crackdown' 'in' cannot be chosen.

Option 2 'With' cannot be written after the word 'Crackdown'.

Option 3 'Over' which means 'above' and it is not relevant to this sentence.

Option 4 'On' is the best fit for this sentence.

171. **Answer(B)**

Rigor means the quality of being extremely thorough and careful.

For eg; His work was lacking in rigor.  
 Ordeal means a very unpleasant and prolonged experience.  
 Inaccuracy means the quality or state of not being accurate.  
 For eg; Any kind of inaccuracy requires a reasonable explanation.  
 It is clear from the examples that rigor and inaccuracy are opposite in meaning.  
 Intolerance means unwillingness to accept views, beliefs, or behavior that differ from one's own.  
 Suffering means the state of undergoing pain, distress, or hardship.  
 So, options 1, 3 and 4 are incorrect.

172. **Answer(A)**

Rife means (especially of something undesirable) of common occurrence; widespread.  
 For eg; Male chauvinism was rife those days.  
 Scarce means are insufficient for the demand.  
 For eg; The raw materials were scarce to develop a new kind of fabric.  
 It is clear from the examples that rife and scarce are opposite in meaning.  
 Universal means relating to or done by all people or things in the world or in a particular group; applicable to all cases.  
 Pandemic means prevalent over a whole country or the world.  
 Insidious means proceeding in a gradual, subtle way, but with very harmful effects.  
 So, options 2, 3 and 4 are incorrect.

173. **Answer(C)**

Competent means having the necessary ability, knowledge, or skill to do something successfully.  
 Proficient means competent or skilled in doing or using something.  
 Capable means having the ability, fitness, or quality necessary to do or achieve a specified thing.  
 Expert means a person who is very knowledgeable about or skilful in a particular area.  
 Inept means having or showing no skill; clumsy.  
 For eg; His inept way of handling the situation was discouraged by all.  
 It is clear that competent and inept are opposites in meaning.  
 So, options 1, 2 and 4 are incorrect.

174. **Answer(C)**

Obviate means remove (a need or difficulty).  
 For eg; He thought he could obviate this unpleasantness.  
 Avert means turn away (one's eyes or thoughts).  
 Deter means discourage (someone) from doing something by instilling doubt or fear of the consequences.  
 Promote means support or actively encourage (a cause, venture, etc.); further the progress of.  
 For eg; They promoted their brand effectively.  
 It is clear from the examples that obviate and promote are opposite in meaning.  
 Preclude means prevent from happening; make impossible.  
 So, options 1, 2 and 4 are incorrect.

175. **Answer(D)**

Espouse means adopt or support (a cause, belief, or way of life). For eg; She espoused the principles of justice and liberty.  
 Uphold means confirm or support (something which has been questioned).  
 Advocate means a person who publicly supports or recommends a particular cause or policy.  
 Champion means a person who has surpassed all rivals in a sporting contest or other competition.

Reject means dismiss as inadequate, unacceptable, or faulty. For eg; The boss rejected their proposal for a raise.  
 It is clear from the examples that espouse and reject are opposite in meaning.  
 So, options 1, 2 and 3 are incorrect.

176. **Answer(A)**

The past participle form of the verb 'taken' should be used with the past tense construction 'had + verb'. A is the right answer.

177. **Answer(D)**

The countable adjective 'many' should be used in place of the uncountable 'much', as it is being used to refer to the countable noun 'natives'. D is the right answer.

178. **Answer(D)**

The misspelt word is "fundamantal" and the correct spelling is "fundamental" which means basic or elementary.  
 The meaning of other words are:  
 Fragmentation: a process of breaking into smaller pieces.  
 Frustrated: annoy or distressed.  
 Fugitive: quick to disappear or running away to hide.

179. **Answer(D)**

The misspelt word among the given options is evaluation. The correct spelling will be evaluation which means to make a judgement.  
 The meaning of other words are:  
 Evaporation refers to the process of turning from liquid into vapour.  
 Establish means to start, begin or initiate something.  
 Essential refers to something very important or absolutely necessary.

180. **Answer(A)**

The correct phrase will be "catch up with" which means to succeed in reaching to a person who is ahead of one. Hence, option A will be the correct answer.

181. **Answer(B)**

The misspelt word is "dwindel" and the correct spelling is "dwindle" which means to decrease in size, amount or strength.  
 The meaning of the other words are:  
 Dwelling means to live or reside in a place.  
 Durable refers to something that can last long.  
 Dwarf refers to something that is small in size.

182. **Answer(D)**

The misspelt word among the given options is "deveous". The correct spelling will be "devious" which means to show a skilful use of tactics to achieve goals.  
 The meaning of other words are:  
 Devilish refers to a devil in evil and cruelty.  
 Device means a plan, method, or trick with a particular aim.  
 Deviation refers to going away from an established course or accepted standard.

183. **Answer(C)**

The misspelt word is "bizare". The correct spelling will be "bizarre" which means very strange or unusual.  
 The meaning of other words will be:  
 Blizzard refers to a severe snowstorm with high winds.  
 Bitter refers to an unpleasant or pungent taste.  
 Bewitched mean to delight or enchant someone.

184. **Answer(B)**

Replace AMOUNT with NUMBER. You use NUMBER with words such as 'large' or 'small' to say approximately how many things or people there are.  
 The confusion between amount and number is common but can be easily overcome. They are not

interchangeable - their use relates to countable and uncountable nouns.

- Use of AMOUNT is with uncountable nouns and abstract nouns: amount of time, amount of snow, amount of noise, amount of love (abstract noun), amount of pride (abstract noun).
- Use of NUMBER is with countable nouns (things that can be counted): number of cars, number of chairs, number of houses, number of topics, number of jobless.

185. **Answer(D)**

- The sentence does not have any error.

186. **Answer(C)**

When people talk about walk(s) of life, they are referring to different types of jobs and different levels of society. Thus option 3 is the correct answer.

187. **Answer(B)**

The phrase 'head over heels' means 'madly in love.' Option 2 is the correct answer.

188. **Answer(A)**

The phrase 'ask for trouble' means 'act in a way that is likely to incur problems or difficulties.' Thus option 1 is the correct answer.

189. **Answer(D)**

The phrase 'drive someone up the wall' means 'Make someone very irritated or angry.' Thus option 4 is the correct answer.

190. **Answer(B)**

The phrase 'a wet blanket' means 'a person who spoils other people's fun by failing to join in with or by disapproving of their activities.' Thus option 2 is the correct answer.

191. **Answer(D)**

"Obtrusive" means noticeable or "prominent" in an unwelcome or intrusive way. Hence, option D will be the correct answer. "Disjunction" means a lack of correspondence or consistency. "Stupor" means a state of near-unconsciousness or insensibility. "Paranormal" means unreasonably or obsessively anxious, suspicious, or mistrustful.

192. **Answer(C)**

FRIVOLOUS means behaving in a silly way and not taking anything seriously, this makes INANE correct as it means lacking sense or meaning; silly correct.

193. **Answer(C)**

"Lambast" means criticize (someone or something) harshly. The correct synonym of this will be "condemn", making option C, the correct answer. "Intuition" means the ability to understand something instinctively, without the need for conscious reasoning. "Demeanour" means outward behaviour or bearing. "Attune" means make receptive or aware.

194. **Answer(D)**

DISPARAGE means regard or represent as being of little worth, this makes option (D) BELITTLE its correct synonym.

195. **Answer(C)**

When converting direct to indirect speech, the simple past tense of the verbs (dressed, tended) will change to the past perfect tense (had dressed and tended). Additionally, the first-person subjective pronoun 'I' should change into the third person subjective 'she'.

196. **Answer(B)**

Genealogy means the study and tracing of lines of descent.

Petrology means the branch of science concerned with the origin, structure, and composition of rocks

Odontology means the scientific study of the structure and diseases of teeth.

Jurisprudence means the theory or philosophy of law.

197. **Answer(C)**

All and sundry means everyone

Acknowledge the corn means admit to a mistake.

Albatross around one's neck means a heavy burden that prevents one from achieving success

Hindrance means an obstacle.

Another nail in one's coffin means something that leads to someone's death, literally or figuratively.

198. **Answer(B)**

Last resort means a final course of action, used only when all else has failed.

Grasping at straws means pursue every hope or possibility even if the likelihood of it working is nearly negligible.

Dire straits mean in a very bad situation.

The tip of the iceberg means only a small part of the problem.

199. **Answer(A)**

Bevy means a large group of people or things of a particular kind.

Congregation means a group of people assembled for religious worship.

Posse means a body of men summoned by a sheriff to enforce the law.

Flotilla means a small fleet of ships or boats

200. **Answer(C)**

Cannibal means a person who eats the flesh of other human beings.

Cynic means a person who believes that people are motivated purely by self-interest rather than acting for honorable or unselfish reasons.

Connoisseur means an expert judge in matters of taste.

Convalescent means recovering from an illness or medical treatment.