## SSC CGLE MODEL PAPER - 1

## Part - A: General Intelligence \& Reasoning

Directions (1-9): In each of the following questions, select the related word / letters / number from the given alternatives.

1. Yes: No:: Alive : ?
1) Life
2) Live
3) Dead
4) Funeral
2. Today: Day before Yesterday:: January:?
1) December
2) February
3) November
4) March
3. Man: House: : ?
1) Cat: Mouse
2) Beast: Den
3) Tree: Plant
4) Cage: Rat
4. AD: NQ: : EH: ?
1) $R T$
2) $R U$
3) RS
4) RV
5. AZB: BYC: : MVN : ?
1) NUO
2) NVO
3) NVQ
4) $N R Q$
6. BEHI: JMPQ: : KNQR : ?
1) SUXY
2) RUXY
3) RVXY
4) RUYX
7. 625: 25: : 225 : ?
1) 13
2) 14
3) 15
4) 16
8. 49: 216: : 36 : ?
1) 25
2) 125
3) 625
4) 3125
9. $2,4,2: 4,16,4:: 1,1,1:$ ?
1) $2,4,2$
2) 1, 1, 1
3) $2,2,2$
4) $2,13,2$

Directions (10-18): In each of the following questions, select the one which is different from the other three responses.
10. 1) Wood
2) Cork
3) Stone
4) Paper
11. 1) Rain
2) Cloud
3) Mist
4) Fog
12. 1) Lawyer
2) Carpenter
3) Doctor
4) Engineer
13. 1) $M$
2) N
3) O
4) $P$
14. 1) CFH
2) LOQ
3) XAC
4) KMO
15. 1) PCAQ
2) LKIN
3) XGEZ
4) DWUF
17. 1) $92-99$
2) $48-54$
3) $58-64$
4) $89-95$
18. 1) $13-31$
2) $71-88$
3) $45-54$
4) $16-61$

Directions: Arrange the following words according to English Dictionary.
19. (A) PREMONITION
(B) PRELUDE
(C) PREMICE
(D) PRELIMINARY
(E) PREMIUM

1) DBAEC
2) $\operatorname{BDCEA}$
3) DBCEA
4) BDACE

Directions (20-21): In each of the following questions, which one of the given responses would be a meaningful order of the following words in ascending order?
16. 1) 23
2) 37
3) 9
4) 17
20. 1. Word
3. Sentence

1) $1,3,4$, 2
2) $1,4,3,2$
3) $3,4,1,2$
4) $4,1,3,2$
21. 22. Stem
1. Flower
2. Root
3. Leaves
4. Fruit
1) $3,1,4,2,5$
2) $3,1,5,2,4$
3) $4,3,1,5,2$
4) $5,2,1,4,3$
22. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?
a _ bcaa _ caa __
1) abcc
2) abac
3) aabc
4) baac

Directions (Q. 23-26): In each of the following questions, choose the correct alternative from the given ones that will complete the series.
23. J, Q, I, R, H, S,?,?

1) $F T$
2) GT
3) H U
4) KT
24. CFL, EIK, G J, IOI, ?
1) KRH
2) KRJ
3) JRH
4) KQH
25. 256, 16, 4,?
1) 8
2) 6
3) 2
4) 4
26. 1, 6, 13, 22, ?, 46
1) 32
2) 33
3) 40
4) 43
27. Find the wrong number in the given series.
$41,41,42,44,48,51,56$
1) 48
2) 51
3) 56
4) 41
28. $A$ and $B$ are the young ones of $C$. If $C$ is the mother of $B$, but $A$ is not the daughter of $C$, then what is the relationship between C and A ?
1) Nephew and Aunty
2) Brother and Sister
3) Mother and Son
4) Mother and Aunty
29. There are five friends Shailendra, Keshav, Madhav, Ashish and Rakesh. Shailendra is shorter than Keshav but taller than Rakesh, Madhav is the tallest. Ashish is a little shorter than Keshav and little taller than Shailendra. Who is the shortest?
1) Rakesh
2) Shailendra
3) Ashish
4) Keshav
30. From the given alternatives select the word which cannot
be formed using the letters of given word.
1) Rakesh
2) Shailendra
3) Ashish
4) Keshav
31. A group of alphabets are given with each being assigned a number. These have to be unscrambled into a meaningful word and correct order of letters may be indicated from the given responses.

A R K H S
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$

1) 52143
2) 53124
3) 54123
4) 54213
32. PROHIBITION is coded as 68032124205. How will you code INHIBITION?
1) 2531214205
2) 2532125205
3) 2542124205
4) 2532124205
33. Which interchange of signs or numbers will make the following equation correct?
$(7+2) \times 3 \times 4-1=20$
1) 2 and 3
2) $\times$ and -
3) 7 and 3
4)     + and $\times$
34. Some equations are solved on the basis of a certain system. On the same basis, find out the correct answer for the unsolved equation.
$7 \times 8 \times 3=873$
$5 \times 8 \times 4=954$
$2 \times 7 \times 5=$ ?
1) 572
2) 752
3) 257
4) 725
35. Select the correct combination of mathematical signs to replace signs and to balance the given equation.
$6 * 15 * 10 * 3 * 12$
1) $\div+=x$
2) $+\div x=$
3) $\times \div+=$
4) $+=\div$

Directions (36-37): In each of the following equations, select the missing number from the given responses.
36. 10858
$7 \quad 547$
8 ? 9

1) 72
2) 77
3) 74
4) 79
37. 121316

356
8 ?
$288 \quad 520 \quad 384$

1) 4
2) 5
3) 3
4) 6
38. I went 15 m to the north, then $I$ turned west and covered 10 m , then $I$ turned south and covered 5 m and then turned east and covered 10 m . In which direction am I from the starting point?
1) East
2) West
3) North
4) South
39. A person moves 400 metres to East. He turns to his left and moves 400 metres. Then again he turns to his left and walks 400 metres. Finally he turns to his right and moves 100 metres. Now how far away in metres, he is from the starting point?
1) 1300
2) 900
3) 800
4) 500
40. Two statements are given followed by two conclusions I and II. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You are to decide which of the given conclusions, if any, follow from the given statements. Indicate your answer.

Statements: Every bottle with a red label contains fruit juice. Fruit juice is safe to drink.

Conclusions:
I: It is safe to drink the contents of bottles with red label.

II: It is not safe to drink from bottles with green label.

1) Only I follows
2) Only II follows
3) Neither I nor II follows
4) Both I and II follow
41. Two statements are given followed by four conclusions I, II, III and IV. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You are to decide which of the given conclusions, if any, follow from the given statements. Indicate your answer.

Statements:
(A) All clerks are typists.
(B) Some typists are stenos.

Conclusions:
I. Some stenos are clerks.
II. No steno is a clerk.
III. All typists are clerks.
IV. All clerks are stenos.

1) All the conclusions follow.
2) None of conclusions follow.
3) Either I or II follows.
4) Only IV follows.
42. A solid cube of 4 inches has been painted red, green and black on pair of opposite faces. It has been cut into one inch cubes. How many cubes have no face painted?
1) 0
2) 4
3) 8
4) 16
43. Six friends A, B, C, D, E and F are sitting in a row facing east. $C$ is between $A$ and $E . B$ is just to the right of $E$ but left of $D . F$
is not at the right end. Who is to the left of $A$ ?
1) $E$
2) C
3) D
4) F
44. If KEDGY is coded as EKDYG then how will LIGHT be coded?
1) ILHTG
2) ILGHT
3) ILGTH
4) THGIL
45. Which answer figure will complete the pattern in the question figure?

## Question Figure:



Answer Figures:

(1)

(2)

(3)

(4)
46. Select the answer figure in which the question figure is hidden / embedded.

Question Figure:


## Answer Figures:


(1)

(2)

(3)

(4)
47. A piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened?

Question Figures:


Answer Figures:

(1)
(2)


(3)

(4)
48. Which of the answer figure is exactly the mirror image of the given figure, when the mirror is held on the line AB ?

Question Figures:


Answer Figures:

(1)

(2)

(3)

(4)
49. Which one of the following diagrams best depicts the relationship among Days, Year and Months?

(1)

(2)

(3)

(4)
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 3 and that of Matrix II are numbered from 3 to 7. A letter from these matrices can be represented first by its row and next by its column. e.g., ' $A$ ' can be represented by $\mathbf{0 0}$, 33,21 , etc., and ' $M$ ' can be represented by $22,30,13$ etc., Identify the set for the word MEAL.

## MATRIX I

|  | 0 | 1 | 2 | 3 |
| :---: | :---: | :---: | :---: | :---: |
| 0 | A | M | T | I |
| 1 | T | I | A | M |
| 2 | I | A | M | T |
| 3 | M | T | I | A |

## MATRIX II

|  | 4 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: |
| 4 | E | B | L | U |
| 5 | L | U | E | B |
| 6 | U | E | B | L |
| 7 | B | L | U | E |

1) $13,44,23,46$
2) $22,64,54,65$
3) $30,56,21,67$
4) $01,65,12,31$

## Part - B: General Awareness

51. Which one of the following is not an objective of Fiscal Policy in India?
1) Full Employment
2) Price Stability
3) Equitable Distribution of Wealth and Incomes
4) Regulation of International Trade
52. Which one of the following is not a quantitative credit control measure of a Central Bank?
1) Bank Rate Policy
2) Open Market Operations
3) Cash Reserve Ratio
4) Moral Suasion
53. In which market structure is the demand curve of the market represented curve of
the market represented by the demand curve of the firm?
1) Monopoly
2) Oligopoly
3) Duopoly
4) Perfect Competition
54. 'Mixed Farming' means?
1) Sowing of both cash and food crops.
2) Sowing of two or more crops in the same field.
3) Sowing of two or more plants in alternative years.
4) Rearing of cattle and agriculture.
55. Which of the following is deducted from NNP to arrive at NI?
1) Indirect Tax
2) Capital consumption allowance
3) Subsidy
4) Interest
56. The first woman Governor of a State in free India was?
1) Mrs. Sarojini Naidu
2) Mrs. Sucheta Kriplani
3) Mrs. Indira Gandi
4) Mrs. Vijaya Lakshmi Pandit
57. Which of the following does not come under the purview of the Election Commission?
1) The conduct the election of PM of India.
2) To conduct the election of President of India.
3) To give recognition to Political Parties.
4) To assign election symbols to the Political Parties.
58. Which of the following is not associated with parliament?
1) Prorogue
2) Adjournment
3) Dissolve 4) Dismiss
59. Which is a Permanent Institution?
1) Family
2) Political Party
3) Red Cross
4) UNO
60. Which one of the following is a hindrance to liberty and independence?
1) Centralisation
2) Decentralisation
3) Privatisation
4) Nationalisation
61. Mohammad-bin-Tughlaq was a failure because?
1) He was mad.
2) He was not a practical statesman.
3) He transferred the capital city.
4) He waged war with China.
62. Find out the correct match of the following.
1) Asaf Khan - Akbar
2) Adam Khan - Akbar
3) Bairam Khan - Akbar
4) Shaista Khan - Akbar
63. Which of the following States was the top tourist destination in the country in 2012 as per the data available with the Tourism Ministry?
1) Uttar Pradesh
2) Andhra Pradesh
3) Tamil Nadu
4) Rajasthan
64. Who introduced 'doctrine of lapse'?
1) Lord Wellesley
2) Lord Curzon
3) Lord Dalhousie
4) Lord Lytton
65. Which one of the following are correctly matched?

Persons Events

1. Sultan Mahmud - Sack of Somnath.
2. Mohammad Ghouri -Conquest of Sind.
3. Alauddin Khilji - Revolt in Bengal.
4. Mohammad Bin TughlaqChengiz invasion.
1) 1 and 3
2) 2 only
3) 1 only
4) 2 and 4
66. Tides are caused by the gravitational pull of the?
1) Earth on the Moon
2) Earth on the Sun
3) Sun and Moon on the Earth
4) Moon on the Earth
67. Dry farming in India is extensively practiced in?
1) Kanara Plains
2) Deccan Plateau
3) Coromandal Plains
4) Ganga Plains
68. Match the following:

Towns
Rivers
a. Jabalpur

1. Ravi
b. Paris
2. Narmada
c. London
3. Siene
d. Lahore
4. Thames
a b c d
1) $2 \quad 3 \quad 4 \quad 1$
2) $3 \quad 2 \quad 1 \quad 4$
3) $1 \quad 4 \quad 3 \quad 2$
4) $4 \quad 1 \quad 2 \quad 3$
69. The Kulu Valley is situated between?
1) Ladakh and Pirpanjal
2) Ranjoti and Nag Tibba
3) Lesser Himalayas and Siwalik
4) Dhauladhar and Pierpanjal
70. Terrace farming is done?
1) On the slope of hills
2) In dry regions
3) On rooftops
4) On mountain tops
71. The colour change in the Chameleon is due to the presence of?
1) Hemoglobin
2) Chromatophore
3) Chlorophyll
4) Pneumatophore
72. The deficiency of iodine leads to?
1) Hyperthyroidism
2) Goiter
3) Midgut
4) Diabetes
73. Two richest known sources of edible protein are?
1) Meat and eggs
2) Some algae and other microorganisms
3) Soybean and groundnut
4) Milk and leafy vegetables
74. The saliva helps in the digestion of?
1) Proteins
2) Starch
3) Fiber
4) Fats
75. Which of the following correctly explains the phenomenon of "Test Tube Baby"?
1) When every process of embryo formation is in the test tube.
2) When the embryo develops in a test tube.
3) When the fertilisation is external and development is internal.
4) When the fertilisation is internal and development is external.
76. Heart attack occurs due to?
1) Bacterial attack on the heart
2) Stopping of heart beat
3) Lack of supply of blood to the heart itself
4) Impairment of heart's working due to unknown reasons
77. Direct conversion of solar energy with the use of a photo voltaic cell results in the production of?
1) Optical energy
2) Electrical energy
3) Thermal energy
4) Mechanical energy
78. A man inside an artificial satellite feels weightlessness because the force of attraction due to earth is?
1) Zero at that place.
2) Is balanced by the force of attraction due to moon.
3) Equal to the centripetal force.
4) Non-effective due to particular design of the satellite.
79. When a detergent is added to pure water, its surface tension?
1) Increases
2) Decreases
3) Remains constant
4) Becomes infinite
80. 'Super nova' is?
1) A comet
2) An asteroid
3) An exploding Star
4) A black hole
81. The device that converts computer output for transmission over telephone lines is called?
1) Interface
2) Interpreter
3) Modem
4) I/O port
82. A 'bug' in a programme is a?
1) Statement
2) Error
3) Signature
4) Both (2) and (3)

## 83. Wood spirit is?

1) Methyl alcohol
2) Ethyl alcohol
3) Butyl alcohol
4) Propyl alcohol
84. Which of the following processes is used for the production of Biodiesel?
1) Transamination
2) Transcription
3) Transesterification
4) Translation
85. One property of ammonia is?
1) It is insoluble in water

2 ) It is an odorless gas
3) It is a yellowish gas
4) Its aqueous solution turns red litmus blue
86. Find the odd one?

1) Marble
2) Chalk
3) Limestone
4) Slaked lime
87. Biodegradable wastes can usually be converted into useful substances with the help of?
1) Bacteria
2) Nuclear proteins
3) Radioactive substances
4) Viruses
88. Of the following which one pollutes the air of a big city?
1) Copper
2) Chromium
3) Lead
4) Calcium
89. Ultra violet light of Sun's radiation is prevented from
reaching the earth's atmosphere by the layer of?
1) Oxygen
2) Hydrogen
3) Ozone
4) Helium
90. Greater population can be supported on the earth only if we eat more?
1) Mutton
2) Eggs
3) Plant products
4) Beef
91. Varahamihira is?
1) An astronaut
2) A space shuttle
3) A power station
4) An ancient astronomer
92. "Fire-fighting clothes" are made from?
1) Mica
2) Asbestos
3) Talc
4) Steatite
5) A person who has visited several countries.
6) A company operating in several countries.
7) A person having citizenship of several countries.
8) An organisation setup to help developing countries.
94. Tummalapalli in Andhra Pradesh has recently come on the world map for its largest?
1) Uranium deposits
2) Tungsten deposits
3) Coal deposits
4) Bauxite ore deposits
95. As per the provisional result of the 2011 Census, the density of population in India is?
1) 325
2) 352
3) 372
4) 382
96. Japan on August 6, 2013 unveiled its biggest warship
97. 'Multinational' is?
since World War II which has a flight deck that is nearly 250 metres long and is designed to carry up to 14 helicopters. The ship has been named?
1) Kirobo
2) Wakata
3) Izumo
4) Qishtu
97. 'Rath Yantra' at puri is celebrated in honour of?
1) Lord Rama
2) Lord Shiva
3) Lord Jagannath
4) Lord Vishnu
98. Who among the following was appointed as the new Director of the National School of Drama in July 2013?
1) Waman Kendre
2) Nandita Das
3) Mrinal Pande
4) Tripurari Sharan
99. The five permanent members of the United Nations Security Council are?
1) Canada, China, France, U.S.A., U.K.
2) China, France, Russia, U.S.A., U.K.
3) Japan, Germany, Russia, U.S.A., U.K.
4) Germany, China, Russia, U.S.A., U.K.
100. Which city has the Headquarters of two railway zones in India?
1) Hubli
2) New Delhi
3) Mumbai
4) Jabalpur

## Part - C: Quantitative Aptitude

101. The number of times 2 is used while writing the numbers from 1 to 100 is?
1) 21
2) 20
3) 19
4) 18
102. $0.38 \times 7.2=2.736$, then $38 \times$ 0.0072 is?
1) 2766
2) 0.2736
3) 27.36
4) 273.6
103. If the product of two numbers is 2160 and HCF is 6, then the ratio of HCF and LCM is?
1) $21: 60$
2) $60: 21$
3) $1: 60$
4) $60: 1$
104. The next term of the sequence $3,14,39, \ldots$. is?
1) 42
2) 53
3) 65
4) 84
105. Th
value
$\frac{\sqrt{0.2304}}{\sqrt{0.2304}}+\frac{\sqrt{0.1764}}{\sqrt{0.1764}}$ is?
1) 6
2) 28
3) 18
4) 15
106. $P$ and $Q$ can finish a work in 15 and 10 days respectively. $Q$ starts the work and leaves it after 5 days. The number of days in which $P$ can complete the work is?
1) $6 \frac{1}{2}$ days
2) $7 \frac{1}{2}$ days
3) 8 days
4) 9 days
107. A tank can be filled by pipe $A$ in 2 hours and by pipe $B$ in 3 hours. An outlet C can empty the tank in 6 hours. If all the three are opened simultaneously, the tank will be filled in?
1) 1 hour
2) $1 \frac{1}{2}$ hours
3) 2 hours
4) $1 \frac{1}{3}$ hours
108. The difference (in rupees) in discounts between two successive discounts of $8 \%$ each and a single discount of $16 \%$ on Rs. 1000 is?
1) 64
2) 6.40
3) 4.60
4) 46
109. If a shopkeeper marks the price of goods $\mathbf{5 0 \%}$ more than their cost price and allows a discount of $40 \%$, what is his gain or loss percent?
1) Gain $10 \%$
2) Gain $15 \%$
3) Loss $15 \%$
4) Loss $10 \%$
110. Two numbers are in the ratio 9: 16. If each number is increased by 15 , then the ratio becomes 2: 3. The numbers are?
1) 18 and 32
2) 24 and 36
3) 36 and 48
4) 27 and 48
111. The weights of zinc, copper and aluminum in an alloy are in the ratio 2: 3: 7. In the alloy weighting 48 kg , the difference in weights of zinc and aluminum is?
1) 5 kg
2) 16 kg
3) 20 kg
4) 4 kg
112. A cricketer scored $\mathbf{1 8 0}$ runs in the first test and 258 runs in the second. How many runs should he score in the third test so that his average score in the three tests would be 230 runs?
1) 210
2) 245
3) 270
4) 252
113. The average weight of 8 persons is increased by 2.5 kg when one of them whose weight is 56 kg is replaced by a new man. The weight of the new man is?
1) 20 kg
2) 64 kg
3) 58.5 kg
4) 76 kg
114. A bought a computer system for 40000 and sold it to $B$ at a loss of $4 \%$. If $\mathbf{B}$ sold it to $\mathbf{C}$ for Rs. 40,320 profit percent for $B$ is?
1) 4
2) 5
3) 3
4) 6
115. The difference between the selling price of a shirt sold at profits $15 \%$ and $17 \%$ is 3 . Then the cost price of the shirt is?
1) Rs. 200
2) Rs. 150
3) Rs. 175
4) Rs. 180
116. Out of a total population of 5000 people in a village, men increased by $10 \%$ and women by $15 \%$. Now the total population becomes 5600 in a
year. The women population in the village was originally?
1) 2,000
2) 3,000
3) 4,000
4) 3,500
117. Ratan's expenditure and savings are in the ratio 5: 1 . If his salary is increased by $\mathbf{2 5 \%}$ and savings by $15 \%$, the percentage increase in his expenditure is?
1) $18 \%$
2) $27 \%$
3) $28 \%$
4) $32 \%$
118. Cyclist A started his journey on cycle at 7.30 a.m. at a speed of $8 \mathrm{~km} / \mathrm{hr}$. After 30 minutes, cyclist $B$ started from the same place but with a speed of 10 $\mathrm{km} / \mathrm{hr}$. At what time did $B$ overtake A?
1) $8 \mathrm{a} . \mathrm{m}$.
2) $10 \mathrm{a} . \mathrm{m}$.
3) $9 \mathrm{a} . \mathrm{m}$.
4) $9.30 \mathrm{a} . \mathrm{m}$.
119. If the simple interest on a certain sum of money for three years is Rs. 225 and the compound interest on the same sum at the same rate for 2 years is Rs.153, then the principal invested, in rupees, is?
1) 1,500
2) 2,250
3) 3,000
4) 1,875
120. If from a point inside an equilateral triangle, the lengths of perpendiculars on the sides are $5 \mathrm{~cm}, 10 \mathrm{~cm}$, and 15 cm , respectively, then the height of the triangle is?
1) 10 cm
2) 30 cm
3) 40 cm
4) 20 cm
121. The areas of a square and a rectangle with equal perimeter are denoted by $S$ and $R$ respectively. Which one of the following is correct?
1) $S=R$
2) $S>R$
3) $S<R$
4) $S=2 R$
122. If the radius of a circle is increased by $10 \%$, then percentage of increase of its area is?
1) 12
2) 15
3) 17
4) 21
123. Semi-vertical angle of a right circular cone is $30^{\circ}$. If the ratio of the numerical value of the volume and slant surface area be $1: 3$, the radius of the base is?
1) 1 unit
2) 2 units
3) $\sqrt{3}$ units
4) $\frac{2}{\sqrt{3}}$ units
124. If the height and radius of a hemisphere and a right circular cylinder are respectively equal, then ratio of the volume of the
hemisphere and the cylinder is?
1) $2: 3$
2) 3: 2
3) $1: 2$
4) $1: 1$
125. Each of the five angles of a polygon is equal to $172^{\circ}$ and the other angles are $160^{\circ}$ each. The number of sides of the polygon is?
1) 20
2) 21
3) 22
4) 23
126. The volume of a solid hemisphere is numerically equal to its total surface area. Its radius is?
1) 3 units
2) $1 \frac{1}{2}$ units
3) $4 \frac{1}{2}$ units
4) 9 units
127. If $x=2 t$ and $y=\frac{2 t-1}{3}$, then what is the value of $t$ for which $x=y$ holds?
1) $\frac{1}{4}$
2) $-\frac{1}{2}$
3) $\frac{1}{3}$
4) $-\frac{1}{4}$
128. If $x$ and $y$ be two real numbers and $x+y=8$, then the greatest value of $x y$ is?
1) 12
2) 15
3) 16
4) 18
129. If $\sqrt{\frac{\sqrt{5}+1}{\sqrt{5}-1}}$, value of $x^{2}+x-$ 1 is?
1) $\sqrt{5}$
2) 2
3) $-\sqrt{5}$
4) $-\sqrt{5}+1$
130. The value of $k$ for which the system of equations $x+2 y=5$, $3 x+k y+15=0$ has no solution, is?
1) 6
2) -6
3) 2
4) -2
131. Equations of the straight lines containing two sides of a right angled triangle are given by $y$ $=x$ and $y=0$. Of the following, the equation which cannot represent the third side is?
1) $x=5$
2) $x=2$
3) $x=0$
4) $x=-3$
132. If in any triangle ABC , the base $B C$ is produced in both ways, the sum of the exterior angles at $B$ and $C$ is?
1) $\pi-A$
2) $\pi+A$
3) $\frac{\pi}{2}+A$
4) $\pi-\frac{A}{2}$
133. In the figure below, lines $k$ and $I$ are parallel. The value of $a^{\circ}+b^{\circ}$ is?

1) $45^{\circ}$
2) $100^{\circ}$
3) $180^{\circ}$
4) $360^{\circ}$
134. SR is a direct common tangent to the circles of radii 8 cm and 3 cm respectively, their centres being 13 cm apart. If the points $S$ and $R$ are the respective points of contract, then the length of $S R$ is?
1) 12 cm
2) 11 cm
3) 17 cm
4) 10 cm
135. The bisector of the angle BAC of a triangle ABC intersects the side $B C$ at the point $D$ and meets the circumcircle of the $\Delta \mathrm{ABC}$ at E . Then, it is always true that

$$
\mathrm{AB} \cdot \mathrm{BC}+\mathrm{DE} \cdot \mathrm{AE}=?
$$

1) $A D^{2}$
2) $\mathrm{AE}^{2}$
3) $\mathrm{CE}^{2}$
4) $C D^{2}$
136. In $\triangle \mathrm{ABC}, \angle \mathrm{B}=90^{\circ}, \angle \mathrm{C}=$ $45^{\circ}$ and $D$ is the midpoint of AC. If $\mathbf{A C}=4 \sqrt{2}$ units, then BD is?
1) $2 \sqrt{2}$ units
2) $\sqrt{2}$ units
3) $\frac{5}{2}$ units
4) 2 units
137. $\sin ^{2} 21^{\circ}+\sin ^{2} 69^{\circ}$ is equal to?
1) 1
2) 0
3) $2 \sin ^{2} 21^{\circ}$
4) $2 \sin ^{2} 69^{\circ}$
138. The angles of elevation of the top of a tower from two points at a distance $x$ and $y$ from the foot of the tower are complementary. The height of the tower is?
1) $\sqrt{\frac{x}{y}}$
2) $\sqrt{x+y}$
3) $\sqrt{x y}$
4) $\frac{x}{y}$
139. The value of $\sin ^{2} 5^{\circ}+\sin ^{2} 25^{\circ}+$ $\sin ^{2} 45^{\circ}+\sin ^{2} 65^{\circ}+\sin ^{2} 85^{\circ} ?$
1) 1.5
2) 2
3) 2.5
4) 3
140. If $\sin (A+B)=1$ and $\cos (A-$
$B)=\frac{\sqrt{3}}{2}$, where $A$ and $B$ are
positive acute angles with , then $A$ and $B$ are ?
1) $\mathrm{A}=75^{\circ}, \mathrm{B}=15^{\circ}$
2) $\mathrm{A}=60^{\circ}, \mathrm{B}=30^{\circ}$
3) $\mathrm{A}=45^{\circ}, \mathrm{B}=45^{\circ}$
4) None of these 3
141. If $3 \sin ^{2} \alpha+7 \cos ^{2} \alpha=4$ then the value of $\tan \alpha$ is (where $0<\alpha$ $<90^{5}$ )?
1) $\sqrt{2}$
2) $\sqrt{5}$
3) $\sqrt{3}$
4) $\sqrt{6}$

## Directions: (142-145): The

 following line-graph gives the annual percent profit earned by company during the period 1995 2000. Study the line graph and answer the questions.

142. Profit earned by the company is maximum in the year?

1) 1995
2) 1999
3) 2000
4) 1997
143. The period in which the profit of the company has increased fastest is?
1) $1997-98$
2) 1995-96
3) 1998-99
4) 1996-97
144. The range of profit made by the company is (in percentile)?
1) 25
2) 20
3) 15
4) 30
145. The expenditure of the company during the year 1995 was 20 thousand crores. Then the income of the company in that year was (in thousand crores)?
1) 15
2) 28
3) 25
4) 12

Directions (146-150): Monthly budget plan of a man, having monthly income Rs. 18000 is given below in the pie-chart. Study the pie-chart and answer the questions.

146. Monthly expenditure on food, in rupees, is?

1) 3,500
2) 5,250
3) 4,000
4) 3,250
147. Monthly savings is more than the monthly expenditure on education by?
1) 750
2) 500
3) 700
4) 450
148. Monthly expenditure on education is less than that on rent by?
1) Rs. 750
2) Rs. 500
3) Rs. 250
4) Rs. 200
149. Expenditure on rent is more than that on miscellaneous purpose by?
1) $25 \frac{1}{3}$
2) $42 \frac{6}{7}$
3) $62.5 \%$
4) $75 \%$
150. Monthly expenditure on miscellaneous, in rupees, is?
1) 2,000
2) 3,500
3) 2,500
4) 3,250

## Part - D: English Comprehension

Directions (151-155): In the following questions, some of the sentences have errors and some have none. Find out which part of a sentence has an error. The number of that part is your answer. If there is No Error your answer is (4)
151. He is a university (1) / but of his three sons (2) / neither has any merit. (3) / No error. (4)
152. After knowing truth, (1) / they took the right decision (2) / in the matter. (3) / No error. (4)
153. It is time you (1) / decide on your next (2) / course of action. (3) / No error. (4)
154. He who has suffered most (1) / for the cause, (2) / let him speak. (3) / No error.(4)
155. A cup of coffee (1) / is an excellent complement (2) / to smoked salmon. (3) / No error (4).

Direction (156-160): Sentences are given with blanks to be filled in with an appropriate word(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four.
156. The hotel was not too expensive?

1) Was it?
2) Wasn't it?
3) Is it?
4) Isn't it?
157. Like humans, zoo animals must have a dentist $\qquad$ their teeth?
1) Fill
2) Filled
3) Filling
4) To be filled
158. It was very kind of you to do the washing-up, but you $\qquad$ it?
1) Didn't have to do
2) Hadn't to do
3) Mightn't have done
4) Mustn't have done
159. He went $\qquad$ Sea alone?
1) In
2) To
3) Into
4) On
160. The $\qquad$ of our civilization from an agricultural society to today's complex industrial world was accompanied by war?
1) Adjustment
2) Migration
3) Route
4) Metamorphosis

Directions (161-165): In the following questions choose the word opposite in meaning to the given word.

## 161. FLORID

1) Weak
2) Pale
3) Monotonous
4) Ugly

## 162. VERITY

1) Sanctity
2) Reverence
3) Falsehood
4) Rarity

## 163. PERSPICUITY

1) Vagueness
2) Dullness
3) Unfairness
4) Unwillingness

## 164. FERVENT

1) In excitable
2) Enduring
3) Dispassionate
4) Subdued

## 165. MEANDERING

1) Sliding
2) Sloping
3) Strained
4) Straight

Directions (166-170): In the following questions out of the four alternatives, choose the one which best expresses the meaning of the given word.

## 166. LUXURIANT

1) Luxury-loving
2) Lovely
3) Rich
4) Abundant

## 167. CANTANKEROUS

1) Cancerous
2) Ferocious
3) Quarrelsome
4) Fissiparous

## 168. ONUS

1) Sadness
2) Happiness
3) Responsibility
4) Criticism

## 169. DERISION

1) Humiliation
2) Embarrassment
3) Ridicule
4) Condemnation

## 170. TRITE

1) Commonplace
2) Clever
3) Brief
4) Impudent

Directions (171-175): In the following questions a part of the sentence is bold. Below are given alternatives to the bold part at (1), (2) and (3) which may improve the sentence. Choose the correct alternative. In case no improvement is needed, your answer is (4).
171. Obviously the isn't cut up to be a good teacher?

1) Cut out
2) Cut in
3) Cut for
4) No improvement
172. Power got with money is the most craved for today?
1) Sought after
2) Wished for
3) Welcomed for
4) No improvement
173. The brown shirt wants washing?
1) Has to wash
2) Is in need of a wash
3) Requires a wash
4) No improvement
174. You are asked to copy this letter word by word?
1) Word for word
2) Word with word
3) Word to word
4) No improvement
175. The weak man is a slave to his sensuous pleasures?
1) Sensory
2) Sensual
3) Secondary
4) No improvement

Directions: (176-180) In the following questions, out of the four alternatives, choose the one which can be substituted for the given words / sentence.
176. An underhand device resorted to in order to justify misconduct?

1) Subterfuge
2) Maneuver
3) Stratagem
4) Complicity
177. Impossible to describe?
1) Miraculous
2) Ineffable
3) Stupendous
4) Appalling
178. One who criticizes popular beliefs which he thinks is mistaken or unwise?
1) Philistine
2) Iconoclast
3) Imposter
4) Cannibal
179. Detaining and confining someone?
1) Interruption
2) Interrogation
3) Interment
4) Internment
180. Science of the races of mankind?
1) Genealogy
2) Epistemology
3) Ethnology
4) Sociology

Directions (181-185): In the following questions, groups of four words are given. In each group, one word is correctly spelt. Find the correctly spelt word.
181. 1) Collaborate 2. Comemorate
3) Colate
4) Choclate
182. 1) Circuiteous
2) Clairvoyant
3) Chivelery
4) Cavelcade

| 183. 1) Severety | 2) Sovereignity |
| :--- | :--- |
| 3) Superiorty | 4) Serenity |

184. 185) Cummulative
2) Comemmorative
3) Accummulative
4) Accommodative
185. 186) Benediction
2) Besmerch
3) Beneficient
4) Benevolence

Directions: (186-190): In the following questions, the 1 st and the last sentences of the passage are numbered 1 and 6 . The rest of the passage is split into four parts and named $P, Q, R$ and $S$. These four parts are not given in their proper order. Read the sentence and find out which of the four combinations is correct. Then find the correct answer.
186. 1. Education in India had a glorious beginning.
P. But after the British rule, it faced many changes.
Q.It went on for centuries with the same glory.
R. English as the medium of instruction had a very great response.
S. One of the changes was the introduction of English as the medium of instruction.
6. As the Britishers left we had a complexity of opinions regarding English.

1) PQRS
2) QPSR
3) PQSR
4) SRPQ
187. 188. It is easy to criticize the people at the helm, for the slow progress in every field.
P. We are well aware that the intellectuals are leaving our country for better employment opportunities.
Q.Then question remains unanswered because our country cannot show opportunities to the intellectuals.
R.Then, what about their obligation to the Motherland?
1. This situation of 'BrainDrain' leads to a variety of problems.
1) $\operatorname{PSQR}$
2) RPSQ
3) PSRQ
4) $\operatorname{SPRQ}$
188. 189. It is the responsibility of parents to teach the young moral values in life.
P. Many children take advantage of their parents; busy schedule.
Q.This results in children's ignorance of social values.

R . The reason behind it is that parents are quite busy nowadays. S. Nowadays parents spend very meager time with children.
6. As such, the society is going away from the value system.

1) SRPQ
2) $P Q R S$
3) SQRP
4) SPQR
189. 190. The man who does his duty without any selfish desire for fruit may be called a sanyasi as well as yogi.
P. The man who has achieved much evenness of temper will be serene, because his mere thoughts are changed with the strength of action.
Q.He would practice yoga, i.e., evenness of temper, and cannot but perform action.
$R$. The root of the matter is that one should not allow his mind to flit from object of desire to another and from that to a third.
S. But he who abstains from action altogether is only an idler. 6. A yogi is one who is not attached to his objects of sense or to action and whose mind has ceased to roam restlessly.
1) SRQP
2) RQPS
3) QRSP
4) PRSQ
190. 191. This was an important day for Ala took.
P. It was a cold day, but Ala took would be warm.
Q.For the first time he was going to hunt seals alone.
R. First he put on his fur-lined jacket.
S. Then he put on mittens and boots of deerskin to protect his hands and feet from the cold.
1. Finally he picked up the gun he had cleaned so carefully the day before.
1) $P Q R S$
2) QPRS
3) PRSQ
4) QRPS

Directions (191-195): In the following questions, a sentence has been given in Active Voice/Passive Voice, Out of the four alternatives suggested;
select the one which best expresses the same sentence in Passive/Active Voice.
191. They have made a film based on this novel.

1) A film was based on this novel and made.
2) A film has been made based on this novel.
3) A film, based on this novel, has been made.
4) A film has been based and made on this novel.
192. The people couldn't move me to the hospital and the doctor operated on me at home.
1) I couldn't be moved to the hospital and was operated on at home by the doctor.
2) I couldn't be moved to the hospital and was operated on at home by the doctor.
3) I couldn't be moved to the hospital and I was operated at home by the doctor.
4) I couldn't be moved to be hospital by the people and operated on at home.
193. Why did he deprive you of the membership?
1) Why you were deprived of the membership?
2) Why where you deprived of his membership by him?
3) Why was he deprived of his membership?
4) Why were you deprived of your membership by him?
194. The news has been brought to us by him.
1) He brought us the news.
2) He has brought us the news.
3) He was brought the news to us.
4) We brought the news to him.
195. Not a word was spoken by the criminal in self-defense.
1) The criminal spoke not a word in self-defense.
2) The criminal spoke not a word in self-defense.
3) The criminal did not speak a word in self-defense.
4) The criminal spoke in selfdefense not a word.

Directions: (196-200): In the following passage, you have one brief passage with 5 questions following the passage. Read the passage carefully and choose the best answer to each question out of the four alternatives.

## PASSAGE

Every profession or trade, every art and every science has its technical vocabulary, the function of which is partly to designate things or processes which have no names in ordinary

English and party to secure greater exactness in nomenclature. Such special dialects or jargons are necessary in technical discussion of any kind. Being universally understood by the devotees of the particular science or art, they have the precision of a mathematical formula. Besides, they save time, for it is much more economical to name a process than to describe it. Thousands of these technical terms are very properly included in every large dictionary, yet, as a whole, they are rather on the outskirts of the English language than actually within its borders.

Different occupations, however, differ widely in the character of their special vocabularies. In trades and handicrafts and other vocations like farming and fishing that have occupied great numbers of men from remote times, the technical vocabulary is
very old. An average man now uses these in his own vocabulary. The special dialects of law, medicine, divinity and philosophy have become familiar to cultivated persons.
196. Special words used in technical discussion.

1) May become part of common speech.
2) Never last long
3)Should resemble mathematical formula
3) Should be confined to scientific fields.
197. The writer of this article is
1) A scientist
2) A politician
3) A linguist
4) A businessman
198. This passage is primarily concerned with
1) Various occupations and professions
2) Technical terminology
3) Scientific undertakings
4) A new language
199. It is true that
1) Various professions and occupations often interchange words.
2) There is always a nontechnical word that may be substituted for the technical word.
3) The average man often uses in his own vocabulary what was once technical language not meant for him.
4) Everyone is interested in scientific findings.
200. In recent years, there has been a marked increase in the number of technical terms in the nomenclature of

Key

| 1. 3 | 24.1 | 47.4 | 70.1 | 93.2 | 116.1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2. 3 | 25.3 | 48.4 | 71.2 | 94.1 | 117.2 |
| 3. 2 | 26. 2 | 49.2 | 72.2 | 95.4 | 118. 2 |
| 4. 2 | 27.1 | 50.3 | 73.1 | 96.3 | 119.4 |
| 5.1 | 28.3 | 51.4 | 74.2 | 97.3 | 120. 2 |
| 6. 2 | 29.1 | 52.4 | 75.3 | 98.1 | 121. 2 |
| 7. 3 | 30.4 | 53.1 | 76.3 | 99.2 | 122.4 |
| 8. 2 | 31.3 | 54.4 | 77.2 | 100. 3 | 123.4 |
| 9. 2 | 32.4 | 55.1 | 78.1 | 101. 2 | 124. 1 |
| 10. 3 | 33.4 | 56.1 | 79.2 | 102. 2 | 125.4 |
| 11.1 | 34.4 | 57.1 | 80.3 | 103. 3 | 126.3 |
| 12.2 | 35.3 | 58.4 | 81.3 | 104. 4 | 127.4 |
| 13.3 | 36.2 | 59.1 | 82.2 | 105. 4 | 128.3 |
| 14. 4 | 37.1 | 60.1 | 83.1 | 106. 2 | 129.4 |
| 15.1 | 38.3 | 61.2 | 84.3 | 107. 2 | 130. 1 |
| 16.3 | 39.4 | 62.3 | 85.4 | 108. 2 | 131.4 |
| 17.1 | 40.1 | 63.2 | 86.4 | 109. 4 | 132. 2 |
| 18. 2 | 41.3 | 64.3 | 87.1 | 110.4 | 133.1 |
| 19.3 | 42.3 | 65.3 | 88.3 | 111.3 | 134. 1 |
| 20.4 | 43.4 | 66.3 | 89.3 | 112.4 | 135. 2 |
| 21.1 | 44.3 | 67.2 | 90.3 | 113.4 | 136. 1 |
| 22.3 | 45.1 | 68.1 | 91.4 | 114. 2 | 137. 1 |
| 23. 2 | 46.4 | 69.1 | 92.2 | 115.2 | 138.3 |

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| 139.3 | 150.1 | 161.2 | 172.4 | 183.4 | 194.2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 140.2 | 151.3 | 162.3 | 173.3 | 184.4 | 195.3 |
| 141.3 | 152.1 | 163.1 | 174.1 | 185.4 | 196.3 |
| 142.2 | 153.2 | 164.3 | 175.2 | 186.2 | 197.3 |
| 143.1 | 154.3 | 165.4 | 176.2 | 187.4 | 198.2 |
| 144.4 | 155.4 | 166.4 | 177.2 | 188.1 | 199.3 |
| 145.2 | 156.1 | 167.3 | 178.2 | 189.1 | 200.4 |
| 146.2 | 157.1 | 168.3 | 179.4 | 190.2 |  |
| 147.1 | 158.4 | 169.3 | 180.3 | 191.3 |  |
| 148.3 | 159.2 | 170.1 | 181.1 | 192.1 |  |
| 149.4 | 160.4 | 171.1 | 182.2 | 193.4 |  |

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