## SSC Combined Graduate Level (Tier - 1) Exam-2012

### PART - A : GENERAL INTELLIGENCE & REASONING

**Directions (1-9) :** Select the related word/letters/number from the given responses.

1. 64 : 144 :: 256 : ?
   - (a) 16
   - (b) 32
   - (c) 400
   - (d) 336

2. ACEG : ZXVT :: HJLM : ?
   - (a) QOMK
   - (b) SRPO
   - (c) RPNL
   - (d) SQON

3. QTU : ILM :: BEF : ?
   - (a) PSZ
   - (b) CFH
   - (c) WZA
   - (d) UXB

4. LO : PK :: IR : ?
   - (a) GT
   - (b) SH
   - (c) MN
   - (d) FU

5. 08 : 28 :: 15 : ?
   - (a) 63
   - (b) 65
   - (c) 126
   - (d) 124

6. Oxygen : Burn :: Carbon Dioxide : ?
   - (a) Isolate
   - (b) Foam
   - (c) Extinguish
   - (d) Explode

7. Import : Export :: Expenditure : ?
   - (a) Revenue
   - (b) Deficit
   - (c) Debt
   - (d) Tax

8. Scribble : Write :: Stammer : ?
   - (a) Walk
   - (b) Play
   - (c) Dance
   - (d) Speak

9. 6524 : 6465 :: 9638 : ?
   - (a) 9825
   - (b) 9736
   - (c) 9697
   - (d) 9579

**Directions (10-18) :** Find the odd word/letter/number from the given responses.

10. (a) 919 – 949
    - (b) 646 – 686
    - (c) 828 – 848
    - (d) 434 – 464

11. (a) Pen
    - (b) Marker
    - (c) Paper
    - (d) Pencil

12. (a) E
    - (b) I
    - (c) O
    - (d) V

13. (a) Peak
    - (b) Mountain
    - (c) Hill
    - (d) Valley

14. (a) A B D G
    - (b) C D F I
    - (c) E F H K
    - (d) G H J K

15. (a) 24 – 47
    - (b) 38 – 61
    - (c) 74 – 98
    - (d) 54 – 77

16. (a) 73
    - (b) 53
    - (c) 87
    - (d) 67

17. (a) Graph
    - (b) Chart
    - (c) Model
    - (d) Drawing

18. (a) NML
    - (b) OPQ
    - (c) XWV
    - (d) HGE

19. Arrange the following words according to dictionary:
   - (1) gargle
   - (2) garden
   - (3) garbo
   - (4) garnish
   - (5) garland
   - (a) (2), (3), (4), (1), (5)
   - (b) (3), (2), (1), (5), (4)
   - (c) (3), (2), (4), (5), (1)
   - (d) (4), (3), (2), (1), (5)

**Directions (20-21):** Which one of the given responses would be a meaningful order of the following words?

20. (1) Honey
    - (2) Flower
    - (3) Bee
    - (4) Wax
    - (a) (1), (3), (4), (2)
    - (b) (2), (1), (4), (3)
    - (c) (2), (3), (1), (4)
    - (d) (4), (3), (2), (1)

21. (1) Green Vegetables
    - (2) Market
    - (3) Cut
    - (4) Cook
    - (5) Food
    - (a) (1), (2), (3), (4), (5)
    - (b) (2), (1), (3), (4), (5)
    - (c) (2), (1), (2), (5), (4)
    - (d) (5), (2), (1), (3), (4)

22. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?
   - bb – c – bg – b – g
   - (a) b e g b c e
   - (b) c g b c b
   - (c) e g b c c
   - (d) g b c b b

**Directions :** (Question Nos. 23 to 26) Find the missing letters/number/figure from the given responses.

23. 169, 144, 121, 100, ?
   - (a) 99
   - (b) 74
   - (c) 81
   - (d) 101
24. 5, 13, 47, 95, 191
   (a) 13    (b) 10
   (c) 17    (d) 11
   (a) SI    (b) HI
   (c) IS    (d) TJ
26. FLU, GMV, HNW, IOX, ?
   (a) JYP   (b) WYP
   (c) WPY   (d) JPY
27. Which one of the given responses would be a meaningful order of the following letters?
   E O C A N
   I 2 3 4 5
   (a) 3 4 5 2 1   (b) 2 3 1 5 4
   (c) 4 3 1 2 5   (d) 1 3 2 5 4
28. Some equations are solved on the basis of a certain system. On the same basis, find out the correct answer from amongst the four alternatives for the unsolved equation:
   5 + 3 + 7 = 573; 6 + 3 + 9 = 693;
   6 + 4 + 8 = 684; 9 + 4 + 5 = ?
   (a) 594    (b) 945
   (c) 459    (d) 954
29. Find the wrong step in the following series.
   20, 40, 200, 400, 2000, 4000, 8000
   (a) 200    (b) 2000
   (c) 8000   (d) 4000
30. Pointing to a photograph Lata says, "He is the son of the only son of my grandfather." How is the man in the photograph related to Lata?
   (a) Brother    (b) Uncle
   (c) Cousin     (d) Data is inadequate
31. From the given alternative words; select the word which cannot be formed using the letters of the given word
   EDUCATIONAL
   (a) NATIONAL    (b) NEAT
   (c) DEAN       (d) LION
32. In a certain code SPANK is written as PSNAK. How is THROW written in that code?
   (a) HTORW    (b) HTWOR
   (c) HTWRO    (d) HTROW
33. Which one of the following is correct
   16 \times 3 \times 4 = 13
   (a) + x - =    (b) x - + =
   (c) + = + x    (d) - x + =
34. Replacement of which of the following symbols from the given responses satisfy the equation?
   5 + 6 - 3 = 12 \times 2 = 17
   (a) + and x    (b) + and x
   (c) + and +    (d) + and -
35. If Anil runs slower than Sunil and Sunil runs as fast as Suraj but not faster than him, then Suraj runs:
   (a) As fast as Anil    (b) Faster than Sunil
   (c) Faster than Anil   (d) Slower than Anil
36. If BANGALORE is written 98765432 in a certain code. How ELLORA is written in that code?
   (a) 245538    (b) 255438
   (c) 245348    (d) 254538
37. In a certain code language ‘GRANT’ is written as ‘UOBSH’ and ‘PRIDE’ as ‘FEJSQ’. How is ‘SOLD’ written in that code language?
   (a) EPMT    (b) TPME
   (c) EMPT    (d) CKNR
38. Find the missing number
   \begin{array}{cccc}
   5 & 4 & 9 & 6 \\
   7 & 5 & 2 & 4 \\
   1 & 3 & 4 & 5 \\
   35 & 60 & 72 & ?
   \end{array}
   (a) 116    (b) 136
   (c) 120    (d) 125
39. From her home Preerna wishes to go to school. From home she goes toward North and then turns left and then turns right and finally she turns left and reaches school. In which direction her school is situated with respect to her home?
   (a) North-East    (b) North-West
   (c) South-East    (d) South-West
40. There are some flowers in a basket and at every next minute they get double. At the 30th minute, the basket becomes full. Then at exactly which minute the basket is half full?
   (a) 15 min    (b) 20 min
   (c) 29 min    (d) 12 min
41. How many such pairs of letters are there in the word ‘GOVERNMENT’ each of which has as many letters between them in the word as in the English alphabet?
   (a) None    (b) One
   (c) Two     (d) Three
42. Rohit travelled from a point A straight to B, a distance of 12 km. He turned right and travelled 8 km and reached point C. From that point took right turn and travelled 6 km, and reached point D. How far is he away from the starting point?
   (a) 10 km    (b) 12 km
   (c) 13 km    (d) 14 km
43. Two statements are given followed by two conclusions I and II. You have to consider the two statements to be true even if they seem to be at variance from commonly known facts. You have to decide which one of the given conclusions is definitely drawn from the given statements.
   Statements:
   1. Sachin is a good cricketer.
   2. Sachin’s sister is a good singer.
Conclusions:
I. Sachin and his sister are good cricketers.
II. Sachin and his sister are talented.
(a) Only I follows
(b) Only II follows
(c) Neither I nor II follows
(d) Both I and II follow

44. A statement followed by two assumptions I and II is given. You have to consider the statement to be true even if it seems to be at variance from commonly known facts. You are to decide which of the given assumptions can definitely be drawn from the given statement. Indicate which one of the four given responses is correct.

Statement:
Most villagers are uneducated and therefore superstitious.

Assumptions:
I. Education increases rational thinking.
II. Villagers do not go to school.
(a) Only I is implicit
(b) Only II is implicit
(c) Both I and II are implicit
(d) Neither I nor II is implicit

45. Which answer figure will complete the question figure?

**PART - B : GENERAL AWARENESS**

51. In India, the population growth rate is high because
(a) birth rate as well as death rate remain high
(b) birth rate has fallen less than the death rate
(c) death rate has fallen but birth rate remains high
d) death rate has fallen less than the birth rate

52. Scheduled Banks have to be registered with
(a) SEBI  (b) RBI
(c) Finance Minis.  (d) RBI

53. Which organization collects data for the unorganized sector?
(a) NSSO  (b) CSO
(c) ASI  (d) RBI

54. Who among the following visited Gandhiji in South Africa?
(a) B G Tilak  (b) Vallabhbhai Patel
(c) G K Gokhale  (d) J L Nehru

55. Who was the Constitutional Advisor to the Constituent Assembly of India?
(a) Dr. Rajendra Prasad  (b) Dr. B R Ambedkar
(c) Sir B N Rao  (d) Shri K M Munshi

56. Who was the First Speaker of Independent India's Lok Sabha?
(a) Hukam Singh  (b) Bali Ram Bhagat
(c) Rabri Ray  (d) G. V. Mavalankar

46. A piece of paper is folded and punched as shown below. From the given responses, indicate how it will appear when opened.

Question Figures

Answer Figures

Directions (47-49) : Read the information carefully and answer the questions.
A + B means ‘A is the mother of B’
A − B means ‘B is the father of A’
A × B means ‘B is the brother of A’
A ÷ B means ‘B is the husband of A’

47. According to the statement T + S × R + P How is T related with P?
(a) Mother-in-law  (b) Father-in-law
(c) Mother  (d) Father

48. Which of the following means T is the mother of R?
(a) T + S × R  (b) T + S − R
(c) T + S × R  (d) T × S + R

49. According to the statement A ÷ B − C + D How is D related with B?
(a) Mother  (b) Father
(c) Brother  (d) Cannot be determined

50. Which one of the following figures best depicts the relationship among Horses, Parrots and Birds?

(a)  (b)  (c)  (d)
57. In which country Financial Legislation is introduced in the Upper House of the Legislature?
(a) Australia  
(b) France  
(c) Japan  
(d) Germany

58. The Secretary General of UNO is appointed by
(a) the General Assembly  
(b) the Security Council  
(c) the International Court of Justice  
(d) the General Assembly on the recommendations of the Security Council

59. In which year Salt Satyagraha took place?
(a) 1929  
(b) 1930  
(c) 1931  
(d) 1932

60. How many Fundamental Duties are included in Indian Constitution?
(a) Nine  
(b) Ten  
(c) Eleven  
(d) Twelve

61. The Constitution of India lays down that the two Houses of Parliament must be summoned at least
(a) four times a year  
(b) thrice a year  
(c) twice a year  
(d) once a year

62. An appeal to the High Court lies in case the Session Court has awarded the punishment of
(a) one year or more  
(b) two years or more  
(c) three years or more  
(d) four years or more

63. The Vice-president of India is also the
(a) Speaker of Lok Sabha  
(b) Ex-officio Chairman of Rajya Sabha  
(c) Head of the State  
(d) Head of the Government

64. Through which Educational Report Calcutta University came into existence?
(a) Macaulay’s Minute  
(b) Hunter Commission  
(c) Charter Act  
(d) Wood’s despatch

65. Cabinet Mission came to India in the year
(a) 1946  
(b) 1945  
(c) 1942  
(d) 1940

66. Buddhism made an important impact by allowing two sections of society into its fold. They were
(a) Merchants and Priests  
(b) Moneylenders and Slaves  
(c) Warriors and Traders  
(d) Women and Shudras

67. Muslim League was founded in the year
(a) 1900  
(b) 1905  
(c) 1906  
(d) 1902

68. Who introduced the famous Persian Festival of Nauroz?
(a) Alauddin Khalji  
(b) Ilutmish  
(c) Firoz Tughlaq  
(d) Balban

69. The language used to write source materials in ancient time was
(a) Sanskrit  
(b) Pali  
(c) Brahmic  
(d) Kharosthi

70. India’s trade with the Roman Empire came to an end with the invasion of Rome by the
(a) Arabs  
(b) Hungarians  
(c) Hunas  
(d) Turks

71. Match the following:

<table>
<thead>
<tr>
<th>List-I (Session of Indian National Congress)</th>
<th>List-II (Venue)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. 1st Session</td>
<td>A. Allahabad</td>
</tr>
<tr>
<td>B. 2nd Session</td>
<td>B. Madras</td>
</tr>
<tr>
<td>C. 3rd Session</td>
<td>C. Calcutta</td>
</tr>
<tr>
<td>D. 4th Session</td>
<td>D. Bombay</td>
</tr>
</tbody>
</table>

(a) 4 3 2 1  
(b) 1 3 2 4  
(c) 4 2 3 1  
(d) 1 2 3 4

72. Separate electorates for Muslims in India were introduced by which one of the following Acts?
(a) Government of India Act of 1909  
(b) Indian Councils Act of 1892  
(c) Rowlatt Act of 1919  
(d) Government of India Act of 1935

73. Who among the following was the Viceroy of India at the time of the formation of Indian National Congress?
(a) Lord Mayo  
(b) Lord Ripon  
(c) Lord Dufferin  
(d) Lord Lansdowne

74. Arrange the following in chronological order:
   (1) Partition of Bengal  
   (2) Chauri-Chaura incident  
   (3) First Round Table Conference  
   (a) 1-2-3  
   (b) 3-2-1  
   (c) 1-3-2  
   (d) 2-1-3

75. The Arthashastra is a treatise on which one of the following?
(a) Economics  
(b) Environment  
(c) Political Philosophy  
(d) Religion in Administration

76. The Musalman, the handwritten daily newspaper in circulation since 1927, is published from which one of the following places?
(a) Chennai  
(b) Hyderabad  
(c) Mysore  
(d) Lucknow

77. The quarantine regulation for preventing entry of diseased plants into the country is done by which one of the following?
(a) National Botanical Research Institute  
(b) Botanical Survey of India  
(c) National Bureau of Plant Genetic Resources  
(d) Council of Scientific and Industrial Research

78. Which one of the following is a global biodiversity hotspot in India?
91. The Securities and Exchange Board of India (SEBI) announced key changes in the Takeover Code governing mergers and acquisitions of companies in the country in July 2011. According to the new rules an investor will have to make an open offer if his shareholding in a company exceeds ___.
(a) 18%  (b) 20%  (c) 24%  (d) 25%

92. The “World Investment Report 2011” released on July 26, 2011 ranks countries on the basis of foreign direct investment (FDI) received in 2010. India attracted FDI worth $25 billion in 2010. Which country received the highest FDI in 2010?
(a) China  (b) US  (c) Germany  (d) Japan

93. The comprehensive economic partnership agreement (CEPA) between India and Japan came into effect on August 1, 2011. This is India’s third CEPA after ___.
(a) USA and United Kingdom  (b) Singapore and South Korea  (c) Malaysia and Thailand  (d) China and Hong Kong

94. The European Union has decided to lift restrictions on India’s export of which of the following passing through European ports?
(a) Processed food  (b) Cheap medicines  (c) Arms and ammunition  (d) Radioactive waste

95. Management consulting firm PricewaterhouseCoopers unveiled its ‘Indian Entertainment and Media Outlook’ report on the performance and potential of the Indian media industry in July 2011. Which of the following category of media earned the highest share of revenues in 2010?
(a) Television  (b) Internet advertising  (c) Print media  (d) Films

96. Where was a new Centre of the Indian Statistical Institute (ISI) inaugurated in July 2011?
(a) Gangtok  (b) Agartala  (c) Cuttack  (d) Tezpur

97. Which of the following industry chambers announced the launch of Triveni Water Institute with centres at Delhi, Jaipur, Bangalore and Pune to promote conservation of water resources in the country in July 2011?
(a) CII  (b) ASSOCHAM  (c) FICCI  (d) PHDCCI

98. The proposed India International Bank (Malaysia) is a joint venture between Bank of Baroda (BoB), Indian Overseas Bank and ____. (a) Andhra Bank

(a) Western Ghats  (b) Western Himalayas  (c) Eastern Ghats  (d) Northern Himalayas

79. Which one of the following is correct? Great Bear is a
(a) galaxy  (b) planet  (c) star  (d) constellation

80. Which one of the following is a programme that converts high level language to machine language?
(a) Linker  (b) Assembler  (c) Interpreter  (d) Compiler

81. Which one of the following common devices works on the basis of the principle of mutual induction?
(a) Tubelight  (b) Transformer  (c) Photodiode  (d) LED

82. Which one of the following is the secondary source of light in a fluorescent lamp?
(a) Neon gas  (b) Argon gas  (c) Mercury vapour  (d) Fluorescent coating on the glass

83. The phenomenon of mirage occurs due to which one of the following?
(a) Polarization of light  (b) Dispersion of light  (c) Diffraction of light  (d) Total internal reflection of light

84. Between which one of the following sets of blood groups, is the blood transfusion possible?
(a) A and O (A donor)  (b) B and A (B donor)  (c) A and AB (A donor)  (d) AB and O (AB donor)

85. Which one of the following diseases is caused by virus?
(a) Tuberculosis  (b) Typhoid  (c) Influenza  (d) Diphtheria

86. Malaria in the human body is caused by which one of the following organisms?
(a) Bacteria  (b) Virus  (c) Mosquito  (d) Protozoan

87. Sweating during exercise indicates operation of which one of the following processes in the human body?
(a) Enthalpy  (b) Homeostasis  (c) Phagocytosis  (d) Osmoregulation

88. Which one of the following is responsible for converting milk into curd?
(a) Fungi  (b) Bacteria  (c) Virus  (d) None of the above

89. Which one of the following is a major constituent of Biogas?
(a) Carbon dioxide  (b) Methane  (c) Hydrogen  (d) Nitrogen dioxide

90. Which chamber of human heart pumps fully oxygenated blood to aorta and hence to the body?
(a) Right Auricle  (b) Left Auricle  (c) Right Ventricle  (d) Left Ventricle

SSC Combined Graduate Level (Tier - 1) Exam-2012
### PRACTICE MODEL PAPERS

- Corporation Bank
- Central Bank of India
- Indian Bank

99. Which of the following is not among the five cities covered under the Mega Handloom Cluster scheme of the government?
   (a) Varanasi (Uttar Pradesh)

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### PART - C : NUMERICAL APTITUDE

**Directions (101-105) : What will come in place of the question mark (?) in the following questions?**

<table>
<thead>
<tr>
<th>Question</th>
<th>(a)</th>
<th>(b)</th>
<th>(c)</th>
<th>(d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>101. (0.6 \times 14 + 0.5 \times 15 = ?)</td>
<td>28.2</td>
<td>18.2</td>
<td>24.5</td>
<td>25.2</td>
</tr>
<tr>
<td>103. (43168 - 11078 = ? + 12056)</td>
<td>200.34</td>
<td>180.34</td>
<td>201.43</td>
<td>190.34</td>
</tr>
<tr>
<td>104. (%) of 780 - 335 = 250</td>
<td>65</td>
<td>50</td>
<td>75</td>
<td>60</td>
</tr>
<tr>
<td>105. (92 - 101) ÷ 3 = ? + (-5))</td>
<td>-15</td>
<td>-0.6</td>
<td>15</td>
<td>0.6</td>
</tr>
<tr>
<td>106. Terry consumes 1600 ml of milk every day. How many liters of milk will she consume in 4 weeks?</td>
<td>42.6</td>
<td>43.4</td>
<td>44.8</td>
<td>41.6</td>
</tr>
<tr>
<td>107. The ratio between the present ages of Jyoti and Amit is 8 : 9 respectively. After four years Jyoti’s age will be 28 years. What was Amit’s age 8 years ago?</td>
<td>18 years</td>
<td>21 years</td>
<td>20 years</td>
<td>19 years</td>
</tr>
<tr>
<td>108. Three-seventh of a number is equal to 120. What is three-fifth of the number?</td>
<td>148</td>
<td>154</td>
<td>168</td>
<td>164</td>
</tr>
<tr>
<td>109. How many boxes are required for filling 15 kgs of sweet if each box is filled with 250 grams of sweet</td>
<td>10</td>
<td>80</td>
<td>120</td>
<td>60</td>
</tr>
<tr>
<td>110. One of the angles of a parallelogram is 26°. What is the difference between the adjacent angles of the parallelogram?</td>
<td>138°</td>
<td>144°</td>
<td>172°</td>
<td>154°</td>
</tr>
<tr>
<td>111. Jasmine scored 52 marks in Science, 36 marks in Hindi, 47 marks in English and 73 marks in Sanskrit. The total marks of all the subjects together is 400. What is the overall percentage of marks she got?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### 400. What is India’s Per Capita Income at current prices in 2010-11?

| (a) Rs. 41,532 | (b) Rs. 45,278 | (c) Rs. 49,294 | (d) Rs. 54,835 |

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<table>
<thead>
<tr>
<th>Question</th>
<th>(a)</th>
<th>(b)</th>
<th>(c)</th>
<th>(d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>112. The area of a square is equal to the area of a rectangle. The difference between the length and the breadth of the rectangle is 48 cms. and the breadth of the rectangle is one-fourth of its length. What is the side of the square?</td>
<td>32 cms.</td>
<td>16 cms.</td>
<td>64 cms.</td>
<td>Can not be determined</td>
</tr>
<tr>
<td>113. The sum of seven consecutive numbers is 175. What is the difference between twice the largest number and thrice the smallest number?</td>
<td>8</td>
<td>7</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>114. The average speed of a bus is one-third the speed of a train. The train covers 1125 kms. in 15 hours. How much distance will the bus cover in 36 minutes?</td>
<td>18 kms.</td>
<td>75 kms.</td>
<td>21 kms.</td>
<td>45 kms</td>
</tr>
<tr>
<td>115. The body weight of six boys is recorded as 42 kgs., 72 kgs., 85 kgs., 64 kgs., 54 kgs. and 73 kgs. What is the average body weight of all the six boys?</td>
<td>64 kgs.</td>
<td>67 kgs.</td>
<td>62 kgs.</td>
<td>65 kgs.</td>
</tr>
<tr>
<td>116. Out of the fractions (\frac{3}{7}, \frac{4}{11}, \frac{5}{9}) and (\frac{7}{11}, \frac{11}{13}, \frac{13}{12}) which is the second largest?</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>117. Raju’s monthly income is two-third Sonu’s monthly income. Sonu’s annual income is Rs. 1,72,800/-. What is Raja’s annual income? (In some cases monthly income and in some cases annual income is used).</td>
<td>11,520/-</td>
<td>1,51,000/-</td>
<td>1,15,000/-</td>
<td>1,15,200/-</td>
</tr>
<tr>
<td>118. The circumference of a circle is equal to the perimeter of a square. The side of the square is 33 cms. What is double the diameter of the circle?</td>
<td>42 cms.</td>
<td>21 cms</td>
<td>10.5 cms.</td>
<td>94 cms.</td>
</tr>
</tbody>
</table>
119. Five men can complete a piece of work in 24 days. In how many days will 12 men complete the same piece of work?
(a) 8  
(b) 6  
(c) 12  
(d) 10

120. Rita purchased an item for Rs. 6,500/- and sold it at the loss of 20%. From that amount she purchased another item and sold it at the profit of 25%. What is her overall gain/loss?
(a) Loss of Rs. 500/-  
(b) Gain of Rs. 500/-  
(c) Gain of Rs. 250/-  
(d) Neither gain nor loss

121. The simple interest accrued in four years on a principal of Rs. 8,000/- is one-fifteenth the principal. What is the rate of simple interest per annum? ( Rounded off to two digits decimal after).
(a) 1.67  
(b) 3.57  
(c) 2.71  
(d) 4.11

122. The age of Mr. Bhagat in 2002 was 1 9/10 of his birth year. What is his age in 2006?
(a) 30  
(b) 28  
(c) 26  
(d) 22

Directions (123-125) : What will come in place of question mark (?) in the following number series?
123. 11 10 20 36 61 (?)
(a) 97  
(b) 86  
(c) 99  
(d) 85

124. 6 13 22 33 46 (?)
(a) 62  
(b) 61  
(c) 65  
(d) 60

125. 620 428 332 284 260 (?)
(a) 246  
(b) 258  
(c) 262  
(d) 248

Directions (126-130) : In one of these questions is an equation is given with a question mark (?) in place of a correct symbol. Given the values on the right hand side and the left hand side of the question mark, you have to decide which of the following will come in place of the question mark.

Give answer If in place of question mark (?) following will come
(a) > (greater than)  
(b) = (equal to)  
(c) < (less than)  
(d) ≤ (either smaller or equal to)

126. [28% of 550 - 35] ? [32% of 650 - 89]


128. \[\frac{2 + 4 - 5}{3 + 7 - 6}\] ? \[\frac{4 - 3 + 1}{5 - 4 + 6}\]

129. [100 - (\sqrt{196 + 67})] ? \sqrt{2500}

130. \[(42 \times (343)^{1/3}) (49)] ? \pm \sqrt{36}

131. A rocket is in the form of a right circular cylinder, closed at the lower end, with a cone of the same base-radius attached to the top. The cylinder is of radius 2 m and height 21 m, and the cone is of slant height 8 m. The total surface area of the rocket is (use \(\pi = 22/7\)):
(a) 330 m²  
(b) 412.5 m²  
(c) 432.5 m²  
(d) 445 m²

132. P, Q, R, and S are the middle points of the sides AB, BC, CD and DA respectively of a square ABCD. AB = 2 cm and arcs are drawn with centres at A, B, C and D with radius AP. Find the area of the portion of the square bounded by the four arcs:
(a) \(4 - \frac{\pi}{3}\) sq cm  
(b) \(4 - \frac{\pi}{2}\) sq cm  
(c) \(2 - \frac{\pi}{2}\) sq cm  
(d) \(\pi - 4\) sq cm

133. If \(a\) be the area of a right angled triangle and \(b\) is the length of one of the sides containing the right angle, then the length of the altitude on the hypotenuse is:
(a) \(\frac{2ab}{b^2 + 4A^2}\)  
(b) \(\frac{2ab}{b^2 + 4A^2}\)  
(c) \(\frac{2ab}{b^4 + 4A^2}\)  
(d) \(\frac{2ab}{b^4 + 4A^2}\)

134. The area of a regular hexagon with side 10 cm is:
(a) 50√3 cm²  
(b) 150√3 cm²  
(c) 150 cm²  
(d) 300 cm²

135. A toy is made in the form of a hemisphere surmounted by a right circular cone whose base coincides with the plane surface of the hemisphere. The radius of the base of the cone is 1.5 m and its height is 4 m. The volume of the toy is (use \(\pi = 22/7\)):
(a) 14.75 m³  
(b) 16.75 m³  
(c) 16.5 m³  
(d) 17.5 m³

136. The diagonal of a square is 16√2 cm. Its perimeter is:
(a) 48 cm  
(b) 56 cm  
(c) 64 cm  
(d) 72 cm

137. The length, breadth and height of a room are respectively 5 metres, 4 metres and 3 metres. The length of the longest bamboo stick, that can be kept entirely into the room, is:
(a) 5 m  
(b) 60 m  
(c) 7 m  
(d) 5√2 m

138. Each side of a cube is increased by 50%. The percentage of increase in its surface area is:
(a) 50  
(b) 125  
(c) 150  
(d) 180

139. If the length of a rectangle is increased by one-third and its width is decreased by one-third, the percentage of decrease in its area will be:
(a) \(6\frac{2}{3}\)  
(b) \(33\frac{2}{3}\)  
(c) \(16\frac{2}{3}\)  
(d) \(11\frac{1}{9}\)
PRACTICE MODEL PAPERS

140. A right circular cylinder is formed by rolling a rectangular sheet of metal of length 24 cm and breadth 22 cm along its length. The volume of the cylinder is (use $\pi = 22/7$):
(a) 924 cm$^3$  
(b) 462 cm$^3$  
(c) 264 cm$^3$  
(d) 528 cm$^3$

141. Person standing at the end of the shadow of a pole measures that the length of the shadow is $\frac{1}{\sqrt{3}}$ times the length of the pole. At what angle of elevation will the man see the Sun?
(a) 60°  
(b) 30°  
(c) 45°  
(d) 15°

142. Which one of the following statements is true in respect of the expression $\sin 31^\circ + \sin 32^\circ$?
(a) Its value is 0  
(b) Its value is 1  
(c) Its value is less than 1  
(d) Its value is greater than 1

143. $S_1, S_2, S_3$ are three rectangular sheets of identical areas with their lengths in the ratio 1:2:3. If each is converted into a right circular cylinder open at both ends by joining its shorter parallel sides, what is the ratio of the volumes of the three cylinders, $S_1, S_2$ and $S_3$, respectively, so formed?
(a) 1:1:1  
(b) 1:2:3  
(c) 1:2:3  
(d) 6:3:2

144. A cone is inscribed in a hemisphere such that their bases are common. If $C$ is the volume of the cone and $H$ that of the hemisphere, then what is the value of $C: H$?
(a) 1:2  
(b) 2:3  
(c) 3:4  
(d) 4:5

145. A circle is inscribed in an equilateral triangle of side $a$. What is the area of any square inscribed in this circle?
(a) $\frac{a^2}{3}$  
(b) $\frac{a^2}{4}$  
(c) $\frac{a^2}{6}$  
(d) $\frac{a^2}{8}$

PART-D: ENGLISH COMPREHENSION

Directions: In question Nos. 151 to 155, part of the sentence have errors and some have none. Find out which part of a sentence has an error and blacken the rectangle [■] corresponding to the appropriate letter (a, b, c). If there is no error, blacken the rectangle [■] corresponding to (d) in the Answer-Sheet.

151. I told him(a) that I availed(b) the opportunity(c) No error./d)
152. I think/(a) he owns an expensive(b) painting by Hussain(c) No error./d)
153. A large sign near/(a) the entrance warns the visitors/(b) to beware about bears.(c) No error./d)
154. It is time/(a) we should have done/(b) something useful.(c) No error./d)
155. He will tell you/(a) about it when/(b) he will come back/(c) No error./d)

Directions: In question Nos. 156 to 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 and indicate it by blackening the appropriate rectangle [■] in the Answer-Sheet.

156. The Chairman is ill and we’ll have to......... the meeting for a few days.
171. Negative arguments generally end up in smoke when they members sit together to discuss important strategies.
(a) create hard feelings  
(b) lead to bad habits  
(c) spoil good understanding  
(d) become useless finally

172. He knows the ins and out of the case.
(a) entry and exit  
(b) separate ways  
(c) route  
(d) full details

173. The news of the President's death spread like wild fire.
(a) spread rapidly  
(b) caused a major confusion  
(c) was a wild rumour  
(d) set the nation on fire

174. Going abroad for a holiday was out of the question.
(a) undesirable  
(b) impossible  
(c) unpleasant  
(d) irresistible

175. When my friend was in Kolkatta, he ran into an old friend at the theatre.
(a) hit  
(b) met accidentally  
(c) planned to meet  
(d) invited

Directions (176-180): In question, a part of the sentence is underlined. Below are given alternatives to the underlined part at (a), (b) and (c) which may improve the sentence. Choose the correct alternative. In case no improvement is needed your answer is (d).

176. The price cannot be quoted except we are allowed to examine the sample.
(a) if  
(b) unless  
(c) because  
(d) no improvement

177. 'Gulliver's Travels' are an interesting novel.
(a) were  
(b) was  
(c) is  
(d) no improvement

178. If you afford a new car, your business must be looking up.
(a) flourishing  
(b) improving  
(c) increasing  
(d) no improvement

179. The police would be employed at all places to beef up security.
(a) deployed  
(b) appointed  
(c) encouraged  
(d) no improvement

180. If I hadn't seen the car coming, I might have been killed.
(a) If I had seen the car coming  
(b) When I hadn't seen the car coming  
(c) Since I hadn't seen the car coming  
(d) No improvement

Directions (181-185): In question, out of the four alternatives, choose the one which can be substituted for the given words/sentence and indicate it by blackening the appropriate rectangle [■] in the answer-Sheet.

181. Scale used for measuring the strength of an earthquake.
(a) Celsius  
(b) Newtons  
(c) Richter  
(d) Linear
PRACTICE MODEL PAPERS

182. Something kept as a reminder of an event.
   (a) Trophy          (b) Souvenir
   (c) Prize           (d) Antique

183. One who practices one of the arts:
   (a) painter         (b) artist
   (c) designer         (d) architect

184. Found all over the world.
   (a) International    (b) Universal
   (c) Regional          (d) Provincial

185. A general pardon of offenders.
   (a) Parole           (b) Amnesty
   (c) Parley           (d) Acquittal

Directions (186-190): In question, groups of four words are given. In each group, oneword is correctly spelt. Find the correctly spelt word and make your answer in the Answer-Sheet.

186. (a) dilemma        (b) dailemma
      (c) dilema          (d) dilemna

187. (a) irreparable    (b) irreparabale
      (c) irreparable     (d) irrepairable

188. (a) homogeneous    (b) homogenous
      (c) homageneous     (d) homogenus

189. (a) genarator      (b) generator
      (c) generater       (d) genorator

190. (a) privilage      (b) privilege
      (c) privelage       (d) privelage

Directions (191-200): In the following passage, some of the words have been left out. First read the passage over and try to understand what it is about. Then fill in the blanks with the help of the alternatives given. Mark your answer in the answer-Sheet.

Ants play an important part in the 191 of nature. They eat a large 192 of insects and so help keep them 193 becoming too plentiful. In the tropics, ants eat more 194 half the termites hatched each year. Ants, in 195 are an important 196 source for birds. Frogs, lizards and many other animals also feed 197 ants.

Ants are 198 helpful and harmful to farmers. Some kinds of ants aid farmers by killing insects that 199 crops. Ants that dig underground nests 200 the soil. They break up, loosen and mix the soil.

191. (a) destruction  (b) creation
      (c) formation     (d) balance

192. (a) quantity    (b) number
      (c) size          (d) weight

193. (a) from        (b) to
      (c) at            (d) in

194. (a) lees        (b) or
      (c) than          (d) rather

195. (a) environment (b) trees
      (c) nature        (d) ground

196. (a) food        (b) energy
      (c) treasure      (d) land

197. (a) our         (b) up
      (c) for           (d) on

198. (a) once        (b) largely
      (c) both          (d) really

199. (a) fertilise   (b) nourish
      (c) damage        (d) cause

200. (a) impoverish  (b) improve
      (c) ruin          (d) indulge

Answer-Sheet

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