



# SSC

## Combined Graduate Level

### (Tier - 1) Exam-2012

# 1

#### PART - A : GENERAL INTELLIGENCE & REASONING

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

- 64 : 144 :: 256 : ?  
(a) 16 (b) 32  
(c) 400 (d) 336
- ACEG : ZXVT :: HJLM : ?  
(a) QOMK (b) SRPO  
(c) RPNL (d) SQON
- QTU : ILM :: BEF : ?  
(a) PSZ (b) CFH  
(c) WZA (d) UXB
- LO : PK :: IR : ?  
(a) GT (b) SH  
(c) MN (d) FU
- 08 : 28 :: 15 : ?  
(a) 63 (b) 65  
(c) 126 (d) 124
- Oxygen : Burn :: Carbon Dioxide : ?  
(a) Isolate (b) Foam  
(c) Extinguish (d) Explode
- Import : Export :: Expenditure : ?  
(a) Revenue (b) Deficit  
(c) Debt (d) Tax
- Scribble : Write :: Stammer : ?  
(a) Walk (b) Play  
(c) Dance (d) Speak
- 6524 : 6465 :: 9638 : ?  
(a) 9825 (b) 9736  
(c) 9697 (d) 9579

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

- (a) 919 - 949 (b) 646 - 686  
(c) 828 - 848 (d) 434 - 464
- (a) Pen (b) Marker  
(c) Paper (d) Pencil
- (a) E (b) I  
(c) O (d) V
- (a) Peak (b) Mountain  
(c) Hill (d) Valley
- (a) A B D G (b) C D F I  
(c) E F H K (d) G H J K

- (a) 24 - 47 (b) 38 - 61  
(c) 74 - 98 (d) 54 - 77
- (a) 73 (b) 53  
(c) 87 (d) 67
- (a) Graph (b) Chart  
(c) Model (d) Drawing
- (a) NML (b) OPQ  
(c) XWV (d) HGE
- 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?

- (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)
- (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)
- 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) c b g b c (b) c g b c b  
(c) c 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

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24. 5, ?, 23, 47, 95, 191  
 (a) 13 (b) 10  
 (c) 17 (d) 11
25. A, P, C, Q, E, R, G, ?, ?  
 (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  
 1 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  
 $16 * 4 * 3 * 4 * 13$   
 (a)  $\div \times - =$  (b)  $\times - + =$   
 (c)  $+ = \div \times$  (d)  $- \times + =$
34. Replacement of which of the following symbols from the given responses satisfy the equation ?  
 $5 + 6 \div 3 - 12 \times 2 = 17$   
 (a)  $\div$  and  $\times$  (b)  $+$  and  $\times$   
 (c)  $+$  and  $\div$  (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 'UOBESH' 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
- |    |    |    |   |
|----|----|----|---|
| 5  | 4  | 9  | 6 |
| 7  | 5  | 2  | 4 |
| 1  | 3  | 4  | 5 |
| 35 | 60 | 72 | ? |
- (a) 116 (b) 136  
 (c) 120 (d) 125
39. From her home Prerna 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 filled ?  
 (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.

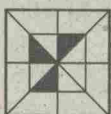
**Assumptions :**

- I. Education increases rational thinking.
- II. Villagers do not go to school.

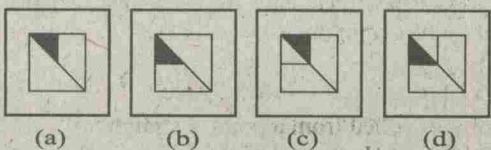
- (a) Only I is implicit
- (b) Only II is implicit
- (c) Both I and II are implicit
- (d) Neither I nor II is implicit

45. Which answer figure will complete the question figure?

**Question Figure**



**Answer Figures**

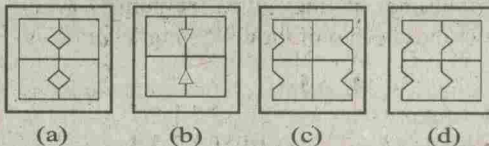


46. A piece of paper is folded and punched as shown below. From the given responses, indicate how it will appear when opened.

**Question Figures**



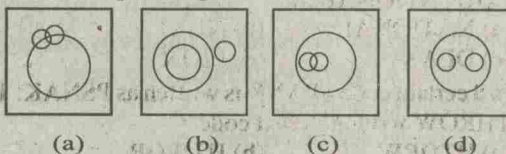
**Answer Figures**



**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  $T + S \times R + P$   
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)  $T \div S - R$   
(c)  $T + S \times R$  (d)  $T \times S + R$
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 ?



**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 birthrate
52. Scheduled Banks have to be registered with  
(a) SEBI (b) RBI  
(c) Finance Minis. (d) SBI
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) Rabi Ray (d) G. V. Mavalankar

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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) Iltutmish  
 (c) Firoz Tughlaq (d) Balban
69. The language used to write source materials in ancient time was  
 (a) Sanskrit (b) Pali  
 (c) Brahma (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 :

List-I (Session of Indian National Congress)	List-II (Venue)
A. 1st Session	1. Allahabad
B. 2nd Session	2. Madras
C. 3rd Session	3. Calcutta
D. 4th Session	4. Bombay

- |             |             |
|-------------|-------------|
| A B C D     | A B C D     |
| (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 ?

- (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
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

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- (b) Corporation Bank  
(c) Central Bank of India  
(d) 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)
- (b) Surat (Gujarat)  
(c) Sivasagar (Assam)  
(d) Virudhunagar (Tamil Nadu)
100. 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

## PART - C : NUMERICAL APTITUDE

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

101.  $0.6 \times 14 \div 0.5 \times 15 = ?$   
(a) 28.2 (b) 18.2  
(c) 24.5 (d) 25.2
102.  $11.573 + 27.492 - 19.674 = ?$   
(a) 19.491 (b) 21.581  
(c) 18.671 (d) 19.391
103.  $43168 - 11078 = ? + 120.56$   
(a) 200.34 (b) 180.34  
(c) 201.43 (d) 190.34
104.  $? \% \text{ of } 780 - 335 = 250$   
(a) 65 (b) 50  
(c) 75 (d) 60
105.  $(92 - 101) \div 3 = ? \div (-5)$   
(a) -15 (b) -0.6  
(c) 15 (d) 0.6
106. Terry consumes 1600 ml of milk every day. How many liters of milk will she consume in 4 weeks?  
(a) 42.6 (b) 43.4  
(c) 44.8 (d) 41.6
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?  
(a) 18 years (b) 21 years  
(c) 20 years (d) 19 years
108. Three-seventh of a number is equal to 120. What is three-fifth of the number?  
(a) 148 (b) 154  
(c) 168 (d) 164
109. How many boxes are required for filling 15 kgs of sweet if each box is filled with 250 grams of sweet?  
(a) 10 (b) 80  
(c) 120 (d) 60
110. One of the angles of a parallelogram is  $26^\circ$ . What is the difference between the adjacent angles of the parallelogram?  
(a)  $138^\circ$  (b)  $144^\circ$   
(c)  $172^\circ$  (d)  $154^\circ$
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?  
(a) 56 (b) 48  
(c) 45 (d) 52
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?  
(a) 32 cms. (b) 16 cms.  
(c) 64 cms. (d) Can not be determined
113. The sum of seven consecutive numbers is 175. What is the difference between twice the largest number and thrice the smallest number?  
(a) 8 (b) 7  
(c) 10 (d) 12
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?  
(a) 18 kms. (b) 75 kms.  
(c) 21 kms. (d) 45 kms
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?  
(a) 64 kgs. (b) 67 kgs.  
(c) 62 kgs. (d) 65 kgs.
116. Out of the fractions  $\frac{3}{7}$ ,  $\frac{4}{11}$ ,  $\frac{5}{9}$ ,  $\frac{6}{13}$  and  $\frac{7}{12}$  which is the second largest?  
(a)  $\frac{3}{7}$  (b)  $\frac{4}{11}$   
(c)  $\frac{5}{9}$  (d)  $\frac{6}{13}$
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).  
(a) Rs. 11,520/- (b) Rs. 1,51,000/-  
(c) Rs. 1,15,000/- (d) Rs. 1,15,200/-
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?  
(a) 42 cms. (b) 21 cms  
(c) 10.5 cms. (d) 94 cms.

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 p.c.p.a? (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 1/90 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. 7 11 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 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 symbols 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.  $[28\% \text{ of } 550 - 35] ? [32\% \text{ of } 650 - 89]$
127.  $[841 \div 29 + 71] ? [407 - 193 - 105]$
128.  $\left[\frac{2}{3} + \frac{4}{7} - \frac{5}{6}\right] ? \left[\frac{4}{5} - \frac{3}{4} + \frac{1}{6}\right]$
129.  $[100 - (\sqrt{196} + 6^2)] ? \sqrt{2500}$
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  $2\frac{1}{2}$  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 m<sup>2</sup> (b) 412.5 m<sup>2</sup>  
 (c) 432.5 m<sup>2</sup> (d) 445 m<sup>2</sup>
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)  $4 - \pi$  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)  $\frac{2Ab}{\sqrt{b^2 + 4A^2}}$  (b)  $\frac{2Ab}{b^2 + 4A^2}$   
 (c)  $\frac{2Ab}{\sqrt{b^4 + 4A^4}}$  (d)  $\frac{2Ab}{\sqrt{b^4 + 4A^2}}$

134. The area of a regular hexagon with side 10 cm is :

- (a)  $50\sqrt{3}$  cm<sup>2</sup> (b)  $150\sqrt{3}$  cm<sup>2</sup>  
 (c) 150 cm<sup>2</sup> (d) 300 cm<sup>2</sup>

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 m<sup>3</sup> (b) 16.75 m<sup>3</sup>  
 (c) 16.5 m<sup>3</sup> (d) 17.5 m<sup>3</sup>

136. The diagonal of a square is  $16\sqrt{2}$  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)  $5\sqrt{2}$  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

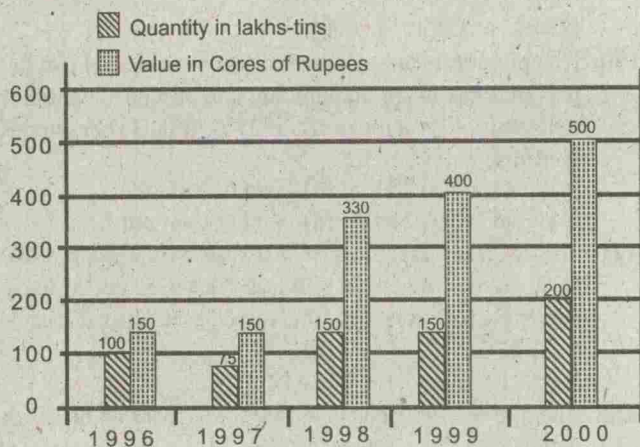
139. If the length of a rectangle is increased by one-third and its width is decreased by one-third, the percentage of decrease in its area will be :

- (a)  $66\frac{2}{3}$  (b)  $33\frac{1}{3}$   
 (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)  $924 \text{ cm}^3$  (b)  $462 \text{ cm}^3$   
 (c)  $264 \text{ cm}^3$  (d)  $528 \text{ cm}^3$
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)  $60^\circ$  (b)  $30^\circ$  (c)  $45^\circ$  (d)  $15^\circ$
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)  $\frac{a^2}{8}$

**Directions (146-149) :** Study the following graph and answer the questions.



146. In which year, the value per ton was minimum?  
 (a) 1996 (b) 1997  
 (c) 1999 (d) 2000
147. What was the approximate percent increase in export value 1996-2000?  
 (a) 350 (b) 330.3  
 (c) 433.3 (d) None of these
148. What was the percent drop in export quantity from 1996 to 1997?  
 (a) 75 (b) 30  
 (c) 25 (d) None of these
149. If in 1999, the processed food tins were exported at the same rate per tin as that in 1998. What would be the value of export in 1999?  
 (a) 400 (b) 375  
 (c) 352 (d) 330
150. ( $x\%$  of  $y + y\%$  of  $x$ ) is :  
 (a)  $x\%$  of  $y$  (b)  $\%$  of  $x$   
 (c)  $2\%$  of  $xy$  (d)  $xy\%$  of 3

**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.



- (a) put on (b) put of  
(c) put away (d) put off
157. I do my work ..... carefully to make mistakes.  
(a) so (b) very  
(c) too (d) more
158. The cat and the dog have a..... enemy in the rat.  
(a) same (b) common  
(c) mutual (d) similar
159. He is very good..... making stories.  
(a) in (b) about  
(c) at (d) for
160. He told me that he..... watching the movie.  
(a) is finished (b) was finished  
(c) had finished (d) not finished
- Directions (161-165) :** In question, out of the four alternatives, choose the one which best expresses the meaning of the given word and make in the Answer-Sheet.
161. Acquaint  
(a) arouse (b) introduce  
(c) appoint (d) acquire
162. Change  
(a) alter (b) renew  
(c) review (d) repeat
163. Request  
(a) ask (b) please  
(c) suggest (d) offer
164. Foreboding  
(a) alarm (b) forecast  
(c) failure (d) foresight
165. Genuine  
(a) good (b) real  
(c) attractive (d) lovable
- Directions (166-167) :** In question, choose the word opposite in meaning of the given word and make in the Answer-Sheet.
166. demolish  
(a) shift (b) build  
(c) repeat (d) hide
167. genial  
(a) stupid (b) stingy  
(c) boorish (d) unkind
168. prevent  
(a) protect (b) block  
(c) hinder (d) induce
169. plausible  
(a) implausible (b) unplausible  
(c) implausible (d) displausible
170. frailty  
(a) energy (b) intensity  
(c) vehemence (d) strength
- Directions (171-175) :** In question, four alternatives, are given for the idiom/phrase underlined in the sentence. Choose the alternative which best expresses the meaning of the idiom/phrase and make it in the Answer-Sheet.

171. Negative arguments generally end up in smoke when their 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 Kolkata, 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 an 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) Parley (b) Amnesty  
 (c) Parole (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) dillemma
187. (a) irrepairable (b) irreparrable  
 (c) irrepable (d) irepairable
188. (a) homogeneous (b) homoganeous  
 (c) homogeneus (d) homogenus
189. (a) genarator (b) generator  
 (c) genarafer (d) genorator
190. (a) privilage (b) privilege  
 (c) previlage (d) previlage

**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**

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