PART – (a)
GENERAL INTELLIGENCE

Directions : In Question Nos. 1 to 9, select the related word/letters/number from the given alternatives.

1. Actor : Theatre :: Chemist : ?
   (A) Hospital   (B) Court
   (C) Workshop   (D) Pharmacy

2. Clouds : Rain :: ?
   (A) Wind : Hurricane
   (B) Thunder : Lightning
   (C) Water : Solution
   (D) Sky : Universe

3. EIM : FKO :: LPT : ?
   (A) NRV   (B) MQU
   (C) NSW   (D) MRV

4. DIMO : DMIO :: JUVR : ?
   (A) JVRU   (B) JRVU
   (C) JVUR   (D) JUVR

5. LIRG : GIRL :: BAML : ?
   (A) ALMB   (B) LAMB
   (C) MALB   (D) LABM

6. 15 : 50 :: 18 : ?
   (A) 55   (B) 59
   (C) 64   (D) 62

7. Words : Sentence :: Paragraph : ?
   (A) Typing   (B) Passage
   (C) Letters   (D) Phrase

8. 42 : 56 :: 110 : ?
   (A) 140   (B) 136
   (C) 132   (D) 89

9. 3 : 4 :: 6 : ?
   (A) 30   (B) 25
   (C) 15   (D) 11

Directions : In Question Nos. 10 to 18, select the one which is different from the other three responses.

10. (A) Breathing   (B) Swimming
    (C) Dancing   (D) Playing

11. (A) Pen : Ink
    (B) Typewriter : Ribbon
    (C) Brush : Paint
    (D) Pencil : Refill

12. (A) 15   (B) 27
    (C) 13   (D) 21

13. (A) 9687   (B) 7869
    (C) 9486   (D) 9876

14. (A) 183-54   (B) 99-63
    (C) 108-97   (D) 243-132

15. (A) GARAGE   (B) HANGAR
    (C) DOCK   (D) PARK

SPACE FOR ROUGH WORK

16. (A) BEH   (B) CFI
    (C) DGJ   (D) EHL

17. (A) FGQR   (B) GJPS
    (C) HIYZ   (D) NOUV

18. (A) BDFG   (B) MNRS
    (C) GHDP   (D) AEIO

Directions : In Question Nos. 19 & 20, which one of the given responses would be a meaningful order of the following words in ascending order ?

19. 1. Wood
    2. Book
    3. Factory
    4. Paper
    5. Print
    (A) 1, 3, 4, 5, 2   (B) 2, 5, 1, 4, 3
    (C) 3, 1, 5, 4, 2   (D) 4, 2, 3, 1, 5

20. 1. Probation
    2. Interview
    3. Selection
    4. Appointment
    5. Advertisement
    (A) 5, 2, 3, 4, 1   (B) 5, 3, 2, 1, 4
    (C) 5, 4, 2, 3, 1   (D) 4, 5, 1, 2, 3

21. Which of the following words will come fourth if arranged according to English Dictionary ?
    (A) RAIN   (B) REEF
    (C) READY   (D) RAINBOW

22. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it ?

ab_c ba_b cc_a abccb_ _ bccba

    (A) c a b a a
    (B) a b b a c
    (C) a b c a b
    (D) c c a a b

Directions : In Question Nos. 23 to 26, choose the correct alternative from the given ones that will complete the series.

23. JKLN, KLMO, LMNP, MNOQ, ___?___
    (A) BPMK   (B) MKOP
    (C) NMLP   (D) NOPR

24. BDE, GIJ, LNO, ___?___
    (A) QRT   (B) QRS
    (C) QST   (D) QSR

SPACE FOR ROUGH WORK

25. 325, 259, 204, 160, 127, 105, __?__

(A) 94   (B) 96

(C) 98   (D) 100

26. 2, 6, 12, 20, __?__

(A) 28   (B) 30

(C) 42   (D) 48

27. Find the wrong number in the given number series :

0, 6, 24, 50, 120, 210

(A) 24   (B) 50

(C) 120   (D) 210

28. Kamal introduces Hari saying, "He is the husband of the grand daughter of the father of my father". How is Hari related to Kamal ?

(A) Brother

(B) Son-in-law

(C) Brother-in-law

(D) Grand-son

29. My mother's age is thrice of my age and 5 years less than my father's age. If my age is 10 years then what was the age of my father at the time of my birth ?

(A) 15 years   (B) 20 years

(C) 25 years   (D) 30 years

30. From the following alternatives select the word which can be formed using the letters of the given word :

DEDICATE

(A) DECIDE   (B) DEMAND

(C) DERIDE   (D) DEDUCE

31. If A = 5, B = 6, C = 7, D = 8, then the numbers 16, 5, 27, 29, 9, 22, 23 will give a word

(A) TEACHER   (B) LAWYERS

(C) CRAWLER   (D) TRAINER

32. In a certain code COMPUTER is written as PMOCRETU. In the same code which alternative will be written as CELENORT ?

(A) NORTCELE   (B) ELECTRON

(C) TRONCEEC   (D) TRONCLEE

33. If a means 'plus', b means 'minus', c means 'multiplied by' and d means divided by then

18 c 14 a 6 b 16 d 4 = ?

(A) 63   (B) 254

(C) 288   (D) 1208

34. From following alternatives select the word which cannot be formed using the letters of the given word :

CONSULTATION

(A) STATION   (B) CONSTANT

(C) SALUTE   (D) NATION

SPACE FOR ROUGH WORK

35. Some equations are solved on the basis of a certain system. On the same basis, find out the correct answer for the unsolved equation.
If $8 - 7 = 6$, $4 - 7 = 8$, $13 - 6 = 8$, then what should $18 - 9$ be ?
(A) 9
(B) 8
(C) 18
(D) 2

36. Select the correct combination of mathematical signs to replace ∗ signs and to balance the given equation :
$$20 ∗ 10 ∗ 5 ∗ 2$$
(A) $- × =$
(B) $- = ×$
(C) $= × -$
(D) $× - =$

Directions : In Question Nos. 37 & 38, find the missing number from the given responses.

37.
5	4	9
7	8	6
3	?	8
105	224	432

(A) 7
(B) 9
(C) 35
(D) 79

38.
5	23	41
11	29	?
17	35	53

(A) 37
(B) 46
(C) 47
(D) 40

39. Abu starts from his house and walks 20 m east, turns South, walks 50 m, turns West, walks 10 m, turns North, walks 20 m and finally turns West, walks 10 m. How far is Abu from his house ?
(A) 10 m
(B) 20 m
(C) 30 m
(D) 50 m

40. In a class four boys are sitting on a bench. Sunil is sitting on the left side of Mathew and the right side of Rahim. Rahim is on the left side of Anil. Who is sitting at left extreme ?
(A) Sunil
(B) Mathew
(C) Rahim
(D) Anil

41. Gandhinagar is to the East of Ambedkar Nag... Subhashnagar is to the North of Gandhinagar. Gandhinagar is to the North of Bharatnagar. In which direction is Bharatnagar to Subhashnagar ?
(A) South
(B) East
(C) West
(D) North

42. After sunrise Sudhir faces the Sun and walks for one Kilometre. Then he turns right and walk for two kms. Then he turns right again and walks for one km. In which direction is Sudhir from his starting point ?
(A) South
(B) North
(C) East
(D) West

SPACE FOR ROUGH WORK

Directions : In Questions Nos. 43 & 44, 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.

43. **Statements :** All Hindus are God fearing. No Japanese is a Hindu.

    Conclusions : I. The Japanese are not God fearing.

    II. All God fearing are Hindus.

    (A) Only conclusion I follows.
    (B) Only conclusion II follows.
    (C) Both conclusions I & II follow.
    (D) Neither conclusion I nor II follows.

44. **Statements :** All crows are black. Some black things are beautiful.

    Conclusions : I. Some crows are beautiful.
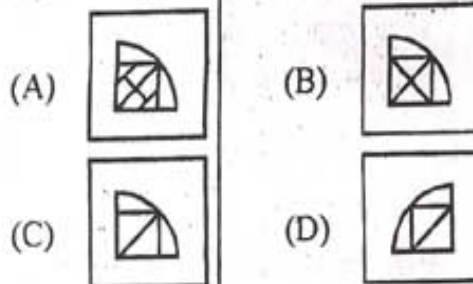
    II. Some beautiful things are black.

    (A) Only conclusion I follows.
    (B) Only conclusion II follows.
    (C) Both conclusions I & II follow.
    (D) Neither conclusion I nor II follows.

45. Which answer figure will complete the pattern in the question figure ?
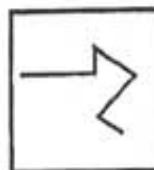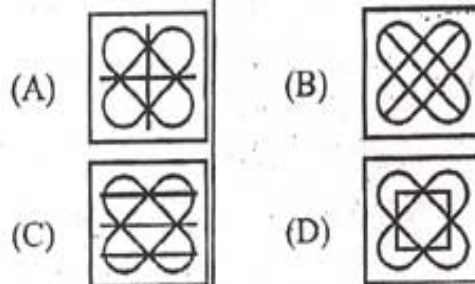
Question figure :

Answer figures :

(A)   (B)

(C)   (D)

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

Question figure :

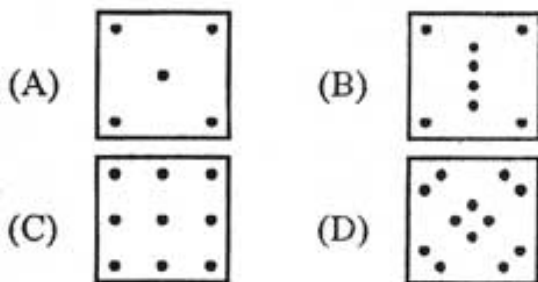**Answer figures :**

(A)   (B)

(C)   (D)

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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 figure :

Answer figures :
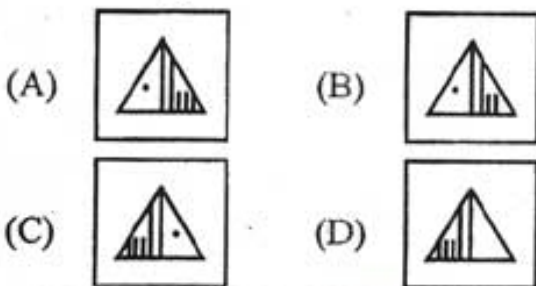
(A) (B)

(C) (D)

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 figure :

Answer figures :

(A) (B)

(C) (D)

49. In the following question a word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, e.g., 'R' can be represented by 11, 23, 30 etc. and 'T' can be represented by 68, 75, 99 etc. Identify the set for the word FAST.
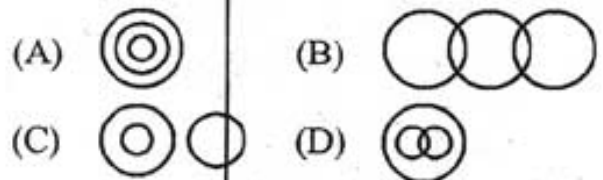
MATRIX – I	0	1	2	3	4
0	F	O	M	S	R
1	S	R	F	O	M
2	O	M	S	R	F
3	R	F	O	M	S
4	M	S	R	F	O

MATRIX – II	5	6	7	8	9
5	A	T	D	I	P
6	I	P	A	T	D
7	T	D	I	P	A
8	P	A	T	D	I
9	D	I	P	A	T

(A) 12, 67, 22, 66
(B) 24, 79, 43, 99
(C) 31, 86, 42, 78
(D) 00, 67, 03, 56

50. Which one of the following diagrams best depicts the relationship among Minutes, Days and Months ?

(A) (B)

(C) (D)

SPACE FOR ROUGH WORK

PART – (b)
GENERAL AWARENESS

51. The Planning Commission of India was established in the year
    (A) 1947   (B) 1949
    (C) 1950   (D) 1952

52. Green Revolution was started in
    (A) 1960   (B) 1970
    (C) 1980   (D) 1990

53. The term of the Finance Commission is
    (A) Ten years
    (B) Five years
    (C) Six years
    (D) Three years

54. Reserve Bank of India was nationalised in
    (A) 1948   (B) 1947
    (C) 1949   (D) 1950

55. Who was the Chairman of the Constituent Assembly ?
    (A) Dr. B.R. Ambedkar
    (B) Dr. Rajendra Prasad
    (C) Jawahar Lal Nehru
    (D) Vallabh Bhai Patel

56. Which one of the following methods is used to ascertain the public opinion on important legislation ?
    (A) Initiative
    (B) Recall
    (C) Referendum
    (D) None of the above

57. The value of a commodity expressed in terms of money is known as
    (A) Price   (B) Utility
    (C) Value   (D) Wealth

58. The final authority to interpret our Constitution is the
    (A) President
    (B) Parliament
    (C) Prime Minister
    (D) Supreme Court

59. Compared with Society, the scope of State activity is
    (A) Wider
    (B) Narrow
    (C) Just equal
    (D) No comparison between the two

60. Seleucus Nicator was defeated by
    (A) Asoka
    (B) Chandragupta Maurya
    (C) Bindu Sara
    (D) Brihadratha

61. The striking feature of the Indus Valley Civilization was
    (A) Urban Civilization
    (B) Agrarian Civilization
    (C) Mesolithic Civilization
    (D) Paleolithic Civilization

62. The Governor-General who abolished the practice of Sati was
    (A) Dalhousie
    (B) Ripon
    (C) William Bentinck
    (D) Curzon

63. Fundamental Duties were added to the Constitution by
    (A) 24th Amendment
    (B) 39th Amendment
    (C) 42nd Amendment
    (D) 44th Amendment

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64. After Alexander's death the Eastern part of his empire came under
    (A) Seleucus Nicator
    (B) Menander
    (C) Rudradaman
    (D) Kanishka

65. The Thar Express goes to
    (A) Afghanistan
    (B) Bangladesh
    (C) Pakistan
    (D) Myanmar

66. The product used for manufacturing of Industrial alcohol is
    (A) Khandasari
    (B) Bagasse
    (C) Molasses
    (D) Paper-pulp

67. Guwahati is situated on the bank of the river
    (A) Teesta
    (B) Brahmaputra
    (C) Hooghly
    (D) Sone

68. Kanchenjunga is situated in
    (A) Nepal
    (B) Sikkim
    (C) West Bengal
    (D) Himachal Pradesh

69. The famous Bhakti Saint who belonged to the royal family of Mewar was
    (A) Chaitanya
    (B) Andal
    (C) Meerabai
    (D) Ramabai

70. The green colour of the leaves is due to the presence of
    (A) Proteins
    (B) Lipids
    (C) Chlorophyll
    (D) Carbohydrates

71. The edible part of an onion is
    (A) Modified root
    (B) Aerial flower
    (C) Aerial stem
    (D) Fleshy leaves

72. To which group of blood an universal recipient belongs ?
    (A) A group
    (B) B group
    (C) O group
    (D) AB group

73. The normal body temperature of human beings is
    (A) 96.4 °F
    (B) 97.4 °F
    (C) 98.4 °F
    (D) 99.4 °F

74. Columba livia is the scientific name of
    (A) Pigeon
    (B) Snake
    (C) Rabbit
    (D) Shark

75. With which set of following countries has Arunachal Pradesh common border ?
    (A) Bhutan, Bangladesh & China
    (B) Myanmar, Bangladesh & China
    (C) Bhutan, China & Myanmar
    (D) Bhutan, Bangladesh & Myanmar

18

76. Name the process of production of energy in the Sun
(A) Nuclear fission
(B) Radioactivity
(C) Nuclear fusion
(D) Ionization

77. A spherical ball made of steel when dropped in mercury container will
(A) sink in mercury
(B) will be on the surface of mercury
(C) will be partly immersed in mercury
(D) will dissolve in mercury

78. The sounds having a frequency of 20 Hertz to 20,000 Hertz are known as
(A) Audible sounds
(B) Ultrasonics
(C) Infrasonics
(D) Megasonics

79. Eclipses occur due to which optical phenomena ?
(A) Reflection
(B) Refraction
(C) Rectilinear propagation
(D) Diffraction

80. Which of the following produces highest amount of energy upon oxidation ?
(A) Protein
(B) Fat
(C) Glucose
(D) An alkane

81. Bones are pneumatic in
(A) Fishes
(B) Amphibians
(C) Reptiles
(D) Birds

82. Where is National Chemical Laboratory (NCL) located ?
(A) Chandigarh
(B) Bhavnagar
(C) Pune
(D) Panaji

83. The metals commonly used for electroplating are
(A) Gold, Sodium & Chromium
(B) Chromium, Copper & Nickel
(C) Nickel, Lead & Chromium
(D) Gold, Sodium & Potassium

84. Which of the following in automobile exhaust can cause cancer ?
(A) Oxides of nitrogen
(B) Carbon monoxide
(C) Lead
(D) Polyclinic hydrocarbons

85. Bleaching powder is used in drinking water as a/an
(A) disinfectant
(B) antibiotic
(C) antiseptic
(D) coagulant

86. Gamma rays have greatest similarity with
(A) α-rays   (B) β-rays
(C) X-rays   (D) U.V.-rays

87. In the absence of ozone layer, which rays will enter into atmosphere ?
(A) Infrared
(B) Visible
(C) Ultraviolet
(D) X-rays

88. Pure water is bad conductor of electricity because it is
(A) feebly ionized
(B) not volatile
(C) a very good solvent
(D) a non-polar solvent

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89. In HTML, <B> and </B> tags display the enclosed text in
    (A) black colour
    (B) background
    (C) bold
    (D) bright

90. Who invented chloroform as anaesthetic ?
    (A) James Simpson
    (B) Edward Jenner
    (C) Alexander Fleming
    (D) Christian Barnard

91. The Nobel Prize for Chemistry for the year 2011 has been awarded to
    (A) Saul Perlmutter, Brian P. Schmidt & Adam G. Riess
    (B) Bruce A. Beutler, Jules A. Hoffmann & Ralph M. Steinman
    (C) Christopher A. Sims & Thomas J. Sargent
    (D) Dan Schechtman

92. Sebastian Vettel won the Formula 1 Indian Grand Prix held at Greater Noida on October 30, 2011. This was also his _____ win of the season.
    (A) 10th   (B) 11th
    (C) 12th   (D) 13th

93. Of which of the following States of India is Kuchipudi a dance-drama ?
    (A) Orissa
    (B) Andhra Pradesh
    (C) Kerala
    (D) Tamil Nadu

94. Where are programs and data to be used by the computer available ?
    (A) Processing Unit
    (B) Output
    (C) Storage
    (D) Input

95. Census data released on July 15, 2011 reflects that 13.48 percent urban population lives in
    (A) Uttar Pradesh
    (B) Bihar
    (C) Maharashtra
    (D) Rajasthan

96. National Social Assistance Programme is aimed at providing
    (A) financial support to Scheduled Castes and Scheduled Tribes
    (B) old age pension to very poor
    (C) insurance for the poor
    (D) All of the above

97. As per studies, the Tummalapalle mine in Andhra Pradesh could have Uranium reserve of
    (A) 1 lakh tonnes
    (B) 1.5 lakh tonnes
    (C) 2 lakh tonnes
    (D) 2.5 lakh tonnes

98. Which of the following is a famous Assamese festival ?
    (A) Makar Sakranti
    (B) Yugadi
    (C) Onam
    (D) Rongali Bihu

99. The least populated State in India is
    (A) Arunachal Pradesh
    (B) Sikkim
    (C) Mizoram
    (D) Uttarakhand

100. With which of the following was Satyajit Ray associated ?
    (A) Classical dance
    (B) Journalism
    (C) Classical music
    (D) Direction of films

PART – (c)

QUANTITATIVE APTITUDE

101. $\frac{1}{3} + \frac{1}{15} + \frac{1}{35} + \frac{1}{63} + \frac{1}{99} =$

(A) $\frac{10}{11}$ (B) $\frac{5}{11}$

(C) $\frac{9}{11}$ (D) $\frac{7}{11}$

102. Square root of 5^{2^4} is

(A) 5^{2^2} (B) 5^{2^3}

(C) 5^2 (D) 5^3

103. The number 1.232323...., when written as a fraction in lowest terms, the difference of numerator and denominator is

(A) 24 (B) 7

(C) 23 (D) 868

104. The number of prime factors in the expression $6^{10} \times 7^{17} \times 11^{27}$ is

(A) 54 (B) 64

(C) 71 (D) 81

105. If $\sqrt[3]{185193} = 57$, then $\sqrt[3]{185193} + \sqrt[3]{185.193} + \sqrt[3]{.000185193} =$

(A) 6.3275 (B) 63.275

(C) 632.75 (D) 62.757

106. A & B can do a piece of work in 12 days. B and C in 15 days. C and A in 20 days. A alone can finish the work in

(A) 10 days (B) 5 days

(C) 30 days (D) 12 days

107. If the ratio of the volumes of two cubes is given by $v_1 : v_2$, the ratio of the total surface areas of these cubes would be

(A) $v_1^{1/3} : v_2^{1/3}$

(B) $v_1^{2/3} : v_2^{2/3}$

(C) $v_1^{1/2} : v_2^{1/2}$

(D) $v_1^{3/2} : v_2^{3/2}$

108. If the radius of a right circular cylinder is doubled and the height is halved, then the ratio between the new volume and the previous volume of the cylinder is

(A) $2 : 1$ (B) $1 : 2$

(C) $\pi : 2$ (D) $2 : \pi$

109. A, B and C can do a piece of work in 40, 60 and 120 days respectively. In how many days can A do the work if he is assisted by B and C on every third day ?

(A) 10 days (B) 30 days

(C) 32 days (D) 60 days

SPACE FOR ROUGH WORK

110. The length of a diagonal of a cube with volume 729 cm³ is
    (A) $4\sqrt{3}$ cm
    (B) $9\sqrt{3}$ cm
    (C) $\sqrt{3}$ cm
    (D) 1 cm

111. Radius of a circle is equal to diagonal of a square. If the area of the square is 18 sq. units, then the area of the circle is
    (A) 9π sq. units
    (B) 16π sq. units
    (C) 36π sq. units
    (D) 64π sq. units

112. If the surface area and volume of a sphere are equal in magnitude, then the radius of the sphere is
    (A) 4 units
    (B) 2 units
    (C) 3 units
    (D) 5 units

113. If diagonal of a square is 3 cm, then the area of an equilateral triangle drawn on a side of the square will be
    (A) $\frac{11\sqrt{3}}{8}$ sq. cm.
    (B) $\frac{9\sqrt{3}}{8}$ sq. cm
    (C) $\frac{8\sqrt{3}}{9}$ sq. cm
    (D) $\frac{5\sqrt{3}}{8}$ sq. cm.

114. The altitude of a solid right pyramid standing on a square of side 12 cm is 12 cm. Its total surface area is 144x square cm. Then x is equal to
    (A) $\sqrt{5}$
    (B) $\sqrt{5}+1$
    (C) $2\sqrt{5}$
    (D) $2\sqrt{5}+1$

115. A retailer got a discount of 10% on the marked price of a watch from the whole saler. In turn he sells it at its marked price. Then his gain percent is
    (A) 10
    (B) $11\frac{1}{9}$
    (C) $27\frac{7}{9}$
    (D) 26

116. If $15(2A^2 - B^2) = 7AB$ and A, B both positive then $A : B = ?$
    (A) 3 : 5
    (B) 5 : 3
    (C) 5 : 6
    (D) 6 : 5

117. 36 men can complete a work in 32 days working 7 hours a day. Then the number of men that should be employed to finish that work in 24 days working 6 hours a day is
    (A) 64
    (B) 56
    (C) 49
    (D) 27

118. A person travels three equal distances at a speed of a km/h, b km/h and c km/h respectively. His average speed during the whole journey is
    (A) 2 abc
    (B) (3 abc)/ (ab + bc + ca)
    (C) (ab + bc + ca) abc
    (D) abc / (ab + bc + ca)

119. If a discount of 10% is given on the marked price of an article, the gain is 20%. If the discount is increased to 20%, the gain is
    (A) $6\frac{2}{3}$%
    (B) $7\frac{1}{4}$%
    (C) $12\frac{1}{2}$%
    (D) $13\frac{1}{3}$%

SPACE FOR ROUGH WORK

120. If the cost price of 15 articles is equal to the selling price of 12 articles, then how much is the gain or loss percent in the transaction?
    (A) 30% gain   (B) 15% loss
    (C) 25% gain   (D) 10% loss

121. By selling an article for ₹ 81.60, there is a loss of 4%. When the article is sold for ₹ 102, the net result in the transaction is
    (A) 20% loss   (B) 12% gain
    (C) 12% loss   (D) 20% gain

122. If 50% of (A − B) = 30% of (A + B) then what percent of A is B?
    (A) 25   (B) 60
    (C) 400   (D) 100

123. A number is first reduced by 10% and then it is again increased by 10%. The original number is finally
    (A) reduced by 2%
    (B) reduced by 1%
    (C) increased by 1%
    (D) not changed

124. 3 years ago the average age of a family of 5 members was 17 years. With a birth of a new baby, the average remains the same even today. Find the age of the baby
    (A) 1 year   (B) 3 years
    (C) 2½ years   (D) 2 years

125. The compound interest on ₹ 480 at $16\frac{2}{3}$% p.a. for $2\frac{3}{4}$ years is
    (A) ₹ 260   (B) ₹ 252
    (C) ₹ 255   (D) ₹ 263.33

126. If $3^x - 3^{x-1} = 18$, then the value of x^x is
    (A) 3   (B) 8
    (C) 27   (D) 216

127. If $a + b + c = 2$ and $ab + bc + ca = -1$ then value of $(a + b)^2 + (b + c)^2 + (c + a)^2$ is
    (A) 5   (B) 10
    (C) 15   (D) 25

128. If $p^3 - q^3 = (p - q) \{(p + q)^2 - xpq\}$, then the value of x for $p \neq q$, is
    (A) 1   (B) 2
    (C) 3   (D) 4

129. If $y + \frac{1}{4y} = 1$, then the value of $8y^3 + \frac{1}{8y^3}$ is
    (A) 2   (B) 4
    (C) 6   (D) 8

130. If a train runs at 30 km/hour, it reaches its destination late by 10 min. but if it runs at 45 km/hour, it is late by 5 min. only. Then the correct time for the train to complete its journey is
    (A) 5 min.   (B) 7 min.
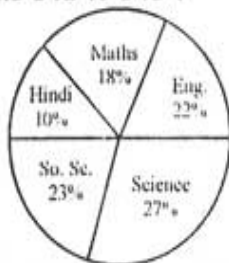   (C) 10 min   (D) 15 min.

SPACE FOR ROUGH WORK

131. The circumcentre of a right angled triangle lies
    (A) outside the triangle
    (B) at the right angular point
    (C) within the triangle
    (D) on its hypotenuse

132. If $5x°$ be the supplementary angle of $x°$, then the value of x is
    (A) 45°
    (B) 36°
    (C) 30°
    (D) 15°

133. ABC and DEF are two triangles, under which of the following conditions the triangles are congruent ?
    (A) AB = DE, BC = EF, ∠C = ∠F
    (B) ∠A = ∠D, ∠B = ∠E, ∠C = ∠F
    (C) ∠B = ∠E, ∠C = ∠F, BC = EF
    (D) ∠A = ∠D, ∠B = ∠E, BC = DF

134. G is the centroid of ΔABC. If AG = BC, then ∠BGC will be
    (A) 60°
    (B) 45°
    (C) 90°
    (D) 75°

135. In ΔABC, 0 is the point of intersection of external bisectors of ∠B and ∠C and ∠BOC = 45°, then ∠A =
    (A) 45°
    (B) 60°
    (C) 90°
    (D) 110°

136. If $x + \dfrac{1}{x} = 5$, $x \neq 0$, then the value of
    $$\dfrac{2x}{3x^2 - 5x + 3}$$ is
    (A) $\dfrac{1}{2}$
    (B) $\dfrac{1}{3}$
    (C) $\dfrac{1}{4}$
    (D) $\dfrac{1}{5}$

137. From the top of a 50 m high building, the angle of depression of a car on the road is 30°. The distance of the car from the building, in metres, is
    (A) $50\sqrt{3}$
    (B) $50/\sqrt{3}$
    (C) $25\sqrt{3}$
    (D) $100/\sqrt{3}$

138. In ΔABC, ∠C = 90° and AC : BC = 3 : 4, then value of cosec B is
    (A) $\dfrac{3}{5}$
    (B) $\dfrac{5}{3}$
    (C) $\dfrac{3}{4}$
    (D) $\dfrac{4}{3}$

139. If $\cos^2\theta - \sin^2\theta = 1/3$ then the value of $\cos^4\theta - \sin^4\theta$ is equal to
    (A) $\dfrac{1}{3}$
    (B) $\dfrac{2}{\sqrt{3}}$
    (C) $\dfrac{1}{2}$
    (D) $\sqrt{3}$

140. If $\sin x \sin y = 1$, $0 \leq x \leq \dfrac{\pi}{2}$ and $0 \leq y \leq \dfrac{\pi}{2}$, then the value of $\cos\left(\dfrac{x+y}{2}\right)$ is
    (A) 1
    (B) −1
    (C) 0
    (D) 2

141. If θ be acute angle, tan (4θ − 50°) = cot (50° − θ), then the value of θ (in degrees) is
    (A) 20
    (B) 30
    (C) 40
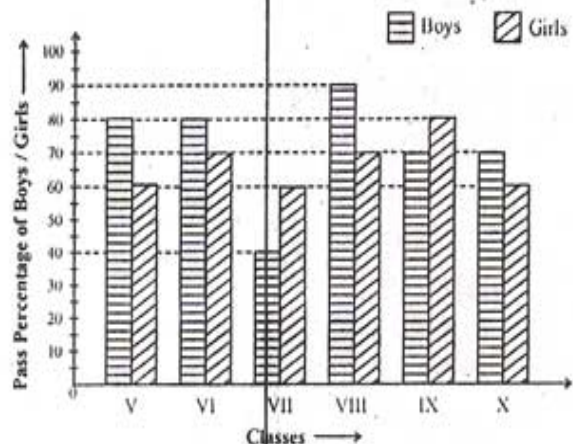   (D) 50

SPACE FOR ROUGH WORK

The following pie chart shows the distribution of teachers of various subjects in a school :

Examine the pie chart and answer the questions 142 to 145 :

142. Which two subjects together account for an angle of measure 144° at the centre of the pie chart ?
 (A) Maths and English
 (B) Maths and Hindi
 (C) Science and Social Science
 (D) Science and Maths

143. The difference between the number of teachers in Science and Social Science is half the difference between the number of teachers in
 (A) Hindi and Social Science
 (B) Hindi and Maths
 (C) Maths and English
 (D) English and Science

144. If the total number of teachers in the school is 480, then the total number of teachers in Maths and Science is
 (A) 144 (B) 188
 (C) 216 (D) 240

145. Which two subjects together account for half the total number of teachers in the school ?
 (A) Science and Social Science
 (B) English and Maths
 (C) English and Science
 (D) Science and Maths

Study the following bar graph which shows pass percentages of boys and girls in an examination in a school from classes V to X and answer questions 146 to 150 :

146. In which class failure of the girls is the lowest ?
 (A) V (B) VII
 (C) VIII (D) IX

147. In which class the pass percentage of girls is more than average pass percentage of the boys of all the classes ?
 (A) IX (B) X
 (C) V (D) VI

148. The performances of boys and girls are in the reverse proportion in
 (A) VII and IX (B) VI and IX
 (C) VIII and IX (D) X and IX

149. The number of classes in which the performance of girls is better than that of boys ?
 (A) 1 (B) 2
 (C) 3 (D) 4

150. In which class the performance of boys is the worst as compared to the girls ?
 (A) V (B) VI
 (C) VII (D) VIII

SPACE FOR ROUGH WORK

PART – (d)

ENGLISH LANGUAGE

Directions : In Question Nos. 151 to 155, some part of the sentences 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. Due to me being a new comer /
　　　　　(A)
I was unable / to get a good house. /
　　　(B)　　　　　　　(C)
No error.
　　(D)

152. The circulation of The Statesman /
　　　　　　　(A)
is greater than / that of any newspaper. /
　　　(B)　　　　　　　(C)
No error.
　　(D)

153. In the garden /
　　　(A)
were the more beautiful flowers /
　　　　　　　　(B)
and silver bells. / No error.
　　(C)　　　　　(D)

154. The poet / describes about /
　　　(A)　　　　(B)
the spring season. / No error.
　　(C)　　　　　(D)

155. Neither of them / are / good. /
　　　(A)　　　　(B)　(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. How much longer _____ this book ?
　　(A)　you are needing
　　(B)　will you be needing
　　(C)　will you have needed
　　(D)　have you needed

157. _____ you hear the President's speech ?
　　(A)　Have
　　(B)　Has
　　(C)　Had
　　(D)　Did

158. I _____ to the movies with some friends last night.
　　(A)　have gone
　　(B)　went
　　(C)　am gone
　　(D)　am going

159. She has only _____ friends.
　　(A)　fewer
　　(B)　less
　　(C)　more
　　(D)　a few

160. The news was _____ good to be true.
　　(A)　very
　　(B)　too
　　(C)　so
　　(D)　as

36

Directions : In Question Nos. 161 to 165, out of the four alternatives, choose the one which best expresses the meaning of the given word and mark it in the Answer Sheet.

161. spirited
(A) heated
(B) drunk
(C) enthusiastic
(D) possessed

162. gloomy
(A) misty
(B) obscure
(C) murky
(D) shadowy

163. grumble
(A) to scold
(B) to complain
(C) to sheer
(D) to fight

164. crude
(A) unrefined
(B) cruel
(C) rude
(D) savage

165. magnificent
(A) magnanimous
(B) modest
(C) generous
(D) splendid

Directions : In Question Nos. 166 to 170, choose the word opposite in meaning to the given word and mark it .in the Answer Sheet.

166. intentional
(A) accidental
(B) undecided
(C) concentrated
(D) broken

167. commence
(A) start
(B) schedule
(C) conclude
(D) dissolve

168. expand
(A) contract
(B) contrast
(C) consist
(D) controvert

169. prosperity
(A) propriety
(B) property
(C) adversity
(D) perspicacity

170. detest
(A) test
(B) dislike
(C) like
(D) interest

Directions : In Question Nos. 171 to 175, four alternatives are given for the Idiom/Phrase. Choose the alternative which best expresses the meaning of the Idiom/Phrase and mark it in the Answer Sheet.

171. to make a mountain of a molehill
(A) to make advantage of a small thing
(B) to give great importance to little things
(C) to get into trouble
(D) to see a thing with prejudiced mind

172. hand in glove
(A) in close relationship
(B) non-cooperative
(C) critical
(D) on bad terms

173. to add fuel to the fire
(A) to make matters bright
(B) to cause additional anger
(C) to bring matters to a conclusion
(D) to start a revolt

174. Wear and tear
(A) a brand name
(B) damage
(C) lot of sorrow
(D) a warning

175. to speak one's mind.
(A) To be frank and honest
(B) To think aloud
(C) To talk about one's ideas
(D) To express one's thoughts

Directions : In Question Nos. 176 to 180, 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. When I shall go to Agra, I shall visit the Taj Mahal.
(A) have gone
(B) shall travel
(C) go
(D) no improvement

177. You must apologise with him for this.
(A) to
(B) of
(C) for
(D) no improvement

178. Since he worked hard he failed to secure good grades.
(A) As
(B) When
(C) Though
(D) No improvement

179. The minister agreed will answer questions on television.
(A) to answer
(B) for answering
(C) with answering
(D) no improvement

180. A pair of shoes have been purchased by me.
(A) has been
(B) has being
(C) would been
(D) no improvement

Directions : In Question Nos. 181 to 185, out of the four alternatives, choose the one which can be substituted for the given sentence and indicate it by blackening the appropriate rectangle [■] in the Answer Sheet.

181. State of anxiety or dismay causing mental confusion.
(A) Constriction
(B) Consternation
(C) Concentration
(D) Contracti-

182. A person who is fluent in two languages.
(A) Versatile
(B) Expert
(C) Bilingual
(D) Knowledgeable

183. One who eats human flesh.
(A) Maneater
(B) Cannibal
(C) Beast
(D) Savage

184. The quality of being politely firm and demanding.
(A) assertive
(B) bossy
(C) aggressive
(D) lordy

185. A person who loves wealth and spends as little money as possible.
(A) Curmudgeon
(B) Money-grabber
(C) Scrimp
(D) Miser

Directions : In Question Nos. 186 to 190, groups of four words are given. In each group, one word is correctly spelt. Find the correctly spelt word and mark your answer in the Answer Sheet.

186. (A) hypocrisy   (B) hypocresy
     (C) hipocrisy   (D) hipocrecy

187. (A) aeroplane   (B) airoplane
     (C) aeroplain   (D) airoplain

188. (A) loanly   (B) lonly
     (C) lonelie   (D) lonely

189. (A) cerimony   (B) ceremoney
     (C) ceremony   (D) cerimoncy

190. (A) independance
     (B) independence
     (C) independens
     (D) indepandance

Directions : In the following passage 191 to 200, 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.

"Quit India" came not from the lips but the aching hearts of millions. In this open rebellion, the Indian __191__ reached its climax. The British were not only __192__ by it, but also were obliged to quit unilaterally. The importance of Quit India can be __193__ from Lord Linlithgow's statement, "I am engaged here in meeting by far the most __194__ rebellion since that of 1857, the gravity and extent of which we have so far

__195__ from the world for reasons of military security." Still more significant was Churchill's gloomy disclosure to the King Emperor that, "the idea of __196__ of power had become an admitted __197__ in the minds of British party leaders," although his public statements were diametrically opposite. The __198__ created by Quit India made the British __199__ that they could no longer keep India in __200__ .

191. (A) freedom   (B) patriotism
     (C) liberation   (D) revolution

192. (A) threatened   (B) inspired
     (C) attacked   (D) impressed

193. (A) diffused   (B) gauged
     (C) established (D) determined

194. (A) trivial   (B) magnificent
     (C) serious   (D) auspicious

195. (A) excluded   (B) elicited
     (C) prevented   (D) concealed

196. (A) transfer   (B) seizure
     (C) grabbing   (D) retainment

197. (A) tactics   (B) fantasy
     (C) inevitability (D) occurrence

198. (A) violence   (B) taboos
     (C) vengeance   (D) anarchy

199. (A) imagine   (B) pretend
     (C) realise   (D) anxious

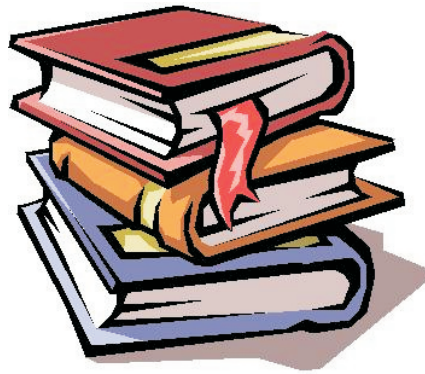200. (A) power   (B) bondage
     (C) exile   (D) suspense

Answer

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

Guidance Programme For SSC Combined Graduate Level 2012

For Any Help Call Our Course Director
Mr. Balmukund Singh
at +91 8800734161 or 011-45151781