SSC Combined Higher Secondary Level Exam Question Paper Held on 11-12-2011

PART – I
GENERAL INTELLIGENCE

Directions : In question nos. **1** and **2**, which one of the given responses would be a meaningful order of the following words in ascending order ?

1. 1. Atomic Age   2. Metallic Age
   3. Stone Age   4. Alloy Age
   (A) 1, 3, 4, 2   (B) 3, 2, 4, 1
   (C) 2, 3, 1, 4   (D) 4, 3, 2, 1

2. 1. Cure   2. Doctor   3. Disease
   4. Diagnosis   5. Medicine
   (A) 2, 4, 3, 5, 1   (B) 3, 2, 4, 5, 1
   (C) 4, 2, 3, 5, 1   (D) 4, 3, 2, 1, 5

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

   a b cdd a bcd d abc d dab c
   (A) b a d d c   (B) a b d d c
   (C) b a d c d   (D) b d a d c

Directions : In question nos. **4** to **7**, a series is given, with one/two term missing. Choose the correct alternative from the given ones that will complete the series.

4. Y, S, U, O, Q, ? ?
   (A) N O   (B) L M
   (C) J K   (D) H I

5. EAC, GCE, IEG, ?
   (A) JHI   (B) KGI
   (C) JGI   (D) KIJ

6. 1, 9, 25, ?, 81
   (A) 36   (B) 49
   (C) 64   (D) 28

7. 3, 6, 12, 21, ?, 48
   (A) 31   (B) 33
   (C) 34   (D) 38

8. Find the wrong number in the given series.
   3, 6, 11, 16, 27, 38.
   (A) 6   (B) 38
   (C) 16   (D) 27

9. Showing a man a woman said, "his brother's father is the only son of my grandfather". How is the woman related to the man ?
   (A) Aunt   (B) Sister
   (C) Daughter   (D) Mother

10. F has less money than H but more than G. E has more than F but less than H. Who is the poorest ?
    (A) F   (B) E
    (C) H   (D) G

11. From the given alternatives select the word which **cannot** be formed using the letters of the given word.
    SPECTRUM
    (A) SEPTUM   (B) RECTUM
    (C) CUSTOM   (D) SPECT

12. A group of alphabets are given with each being assigned a number. These have to be unscrambled into a meaningful word and correct order of letters may be indicated from the given responses.

    U   B   A   N   R
    1   2   3   4   5
    (A) 1 4 2 3 5   (B) 1 5 2 3 4
    (C) 4 1 5 3 2   (D) 5 3 4 2 1

13. APPRECIATION is coded as 177832419465. How will you code PERCEPTION ?
    (A) 7382379465   (B) 7392378465
    (C) 7292378465   (D) 7383297465

14. Select the correct combination of mathematical signs to replace * signs and to balance the given equation.
    16 * 2 * 24 * 3 * 6
    (A) + = – ÷   (B) × – + =
    (C) + ÷ = ÷   (D) – – ÷ =

15. Some equations are solved on the basis of a certain system. On the same basis, find out the correct answer for the unsolved equation.

6-9-2 = 926, 3-2-1 = 213, 0-4-8 = ?
(A) 840   (B) 48
(C) 84   (D) 480

16. Which interchange of signs will make the following equation correct ?
$30 - 6 \div 4 + 2 \times 3 = 7.$
(A) + and ×   (B) − and +
(C) − and ÷   (D) + and −

Directions : In question nos. 17 and 18, select the missing number from the given responses.

17.
16   4   4
81   3   27
?   25   5
(A) 97   (B) 12
(C) 125   (D) 30

18.

6	4	5
3	6	5
2	3	4
36	72	?

(A) 100   (B) 175
(C) 125   (D) 120

19. A taxi driver commenced his journey from a point and drove 10 km towards North and turned to his left and drove another 5 km. After waiting to meet one of his friends, he turned to his right and continued to drive another 10 km. He has covered a distance of 25 km so far but in which direction he now may be ?
(A) North   (B) East
(C) West   (D) South

20. Sita cycled 8 km southward from her home, turned right and cycled 5 km, turned right and cycled 8 km, turned left and cycled 10 km. How many kms will she have to cycle to reach straight home ?
(A) 8 km   (B) 10 km
(C) 15 km   (D) 13 km

21. If in a code MASTER is written as SAMRET then how CARROT be written in the same code ?
(A) RACTOR   (B) RCATRO
(C) RCATOR   (D) ARMTOR

22. Six friends A, B, C, D, E and F are sitting in a row facing East. C is between A and E. B is just to the right of E but left of D. F is not at the right end. Who is at the right end ?
(A) D   (B) B
(C) E   (D) C

23. A solid cube of 4 inches has been painted red, green and black on pair of opposite faces. It has been cut into one inch cubes. How many cubes have only Red and Green faces ?
(A) 4   (B) 8
(C) 16   (D) 24

24. One statement is 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.

Statement   : Many people feel nervous when giving a talk before a group.

Conclusions I : Many people can talk confidently before a group.

            II : Very few people can talk confidently before a group.

(A) Only I follows
(B) Only II follows
(C) Neither I nor II follow
(D) Both I and II follow

Directions : In question nos. 25 to 33, select the related word/letters/number from the given alternatives.

25. Defy : Obey :: Rest : ?
   (A) Lazy   (B) Idle
   (C) Labour   (D) Work

26. Water : Swim :: Land : ?
   (A) Walk   (B) Stand
   (C) Sit   (D) Move

27. Patient : Doctor :: ?
   (A) Student : Advisor
   (B) Scissor : Iron
   (C) Apple : Knife
   (D) Nurse : Surgeon

28. AN : BO :: CP : ?
   (A) DQ   (B) FS
   (C) DS   (D) FQ

29. DDW : ECV :: FBU : ?
   (A) GAW   (B) GAV
   (C) VAG   (D) GAT

30. BCDZ : CDEV :: DEFT : ?
   (A) FFGQ   (B) EGFR
   (C) EFGP   (D) EFGS

31. 196 : 169 :: 81 : ?
   (A) 64   (B) 72
   (C) 100   (D) 144

32. 30 : ? :: 130 : 222
   (A) 30   (B) 40
   (C) 66   (D) 68

33. 4, 16, 4 : 2, 4, 2 :: ? : 3, 9, 3
   (A) 6, 9, 6   (B) 9, 81, 9
   (C) 9, 27, 9   (D) 9, 18, 9

Directions : In question nos. 34 to 42, select the one which is different from the other three responses.

34. (A) Pen   (B) Crayon
    (C) Eraser   (D) Pencil

35. (A) Moon   (B) Mars
    (C) Venus   (D) Jupiter

36. (A) Democracy   (B) Parliament
    (C) Uncivil   (D) Election

37. (A) B   (B) C
    (C) D   (D) E

38. (A) EBD   (B) IFH
    (C) QNO   (D) YVX

39. (A) QRST   (B) BECD
    (C) FIGH   (D) LOMN

40. (A) 10   (B) 26
    (C) 24   (D) 21

41. (A) 22 – 30   (B) 44 – 36
    (C) 52 – 62   (D) 77 – 85

42. (A) 78 – 87   (B) 49 – 94
    (C) 96 – 68   (D) 56 – 65

Directions : Arrange the following words according to English Dictionary.

43. 1. Banal   2. Banana   3. Banish
    4. Bandage 5. Bandit
   (A) 1, 3, 2, 4, 5   (B) 1, 2, 4, 3, 5
   (C) 1, 2, 4, 5, 3   (D) 1, 3, 2, 5, 4

44. Two statements are given followed by four conclusions I, II, III and IV. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You are to decide which of the given conclusions, if any, follow from the given statements. Indicate your answer.

Statements (1) : Blue is Black and some Black is Red.

(2) : All red is Green but not Yellow.

Conclusions I : Some Blue is Green.

II : No Black is Yellow.

III : Some Black is not Yellow.

IV : No Black is Green.

(A) Only I and II follow

(B) Only II and IV follow

(C) Only I and III follow

(D) Only I, II and IV follow

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

Question figure
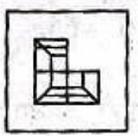
Answer figures
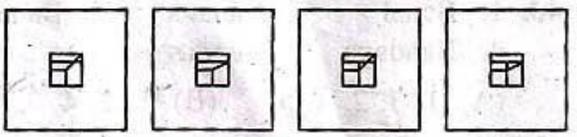
(A)   (B)   (C)   (D)

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

Question figure
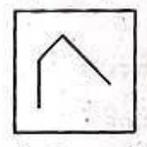
Answer figures
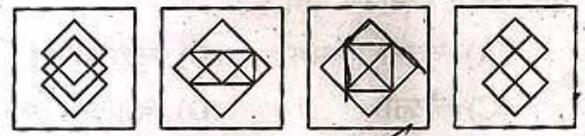
(A)   (B)   (C)   (D)

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

Question figures
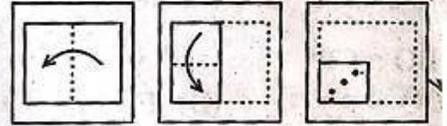
Answer figures
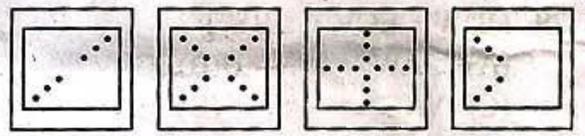
(A)   (B)   (C)   (D)

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
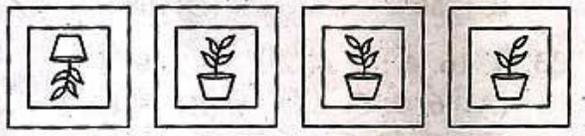
(A)   (B)   (C)   (D)

19. Which one of the following diagrams best depicts the relationship among Honey-bee, Insect and Housefly ?

   (A)   (B)   (C)   (D)
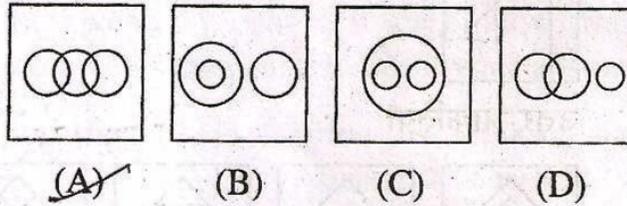
50. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix I are numbered from 0 to 3 and that of Matrix II are numbered from 4 to 7. A letter from these matrices can be represented first by its row and next by its column, e.g., 'A' can be represented by 00, 12, 21, etc. and 'T' can be represented by 02, 10, 23, etc. Identify the set for the word LAMB.

MATRIX I	0	1	2	3
0	A	M	T	I
1	T	I	A	M
2	I	A	M	T
3	M	T	I	A

MATRIX II	4	5	6	7
4	E	B	L	U
5	L	U	E	B
6	U	E	B	L
7	B	L	U	E

(A) 75, 21, 13, 45   (B) 46, 12, 23, 57

(C) 67, 33, 31, 66   (D) 46, 32, 01, 74

PART – II

ENGLISH LANGUAGE

Directions : In question nos. 51 to 55, choose the word opposite in meaning to the given word and mark it in the Answer-Sheet.

51. Contradiction
    - (A) opposition
    - (B) adjustment
    - (C) confirmation
    - (D) agreement

52. Relinquish
    - (A) reinstate
    - (B) displace
    - (C) reclaim
    - (D) retain

53. Unpredictable
    - (A) dependable
    - (B) nature
    - (C) laudable
    - (D) compliant

54. Stern
    - (A) lenient
    - (B) crabby
    - (C) polite
    - (D) unreasonable

55. Suspicion
    - (A) doubt
    - (B) whim
    - (C) indifference
    - (D) trust

Directions : In question nos. 56 to 60, 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 mark it in the Answer-Sheet.

56. He put across his ideas to the Minister.
    - (A) made available
    - (B) effectively conveyed
    - (C) strongly expressed
    - (D) laid aside

57. George and I are neighbours, but we don't see eye to eye with each other.
    - (A) like
    - (B) interact
    - (C) agree
    - (D) fight

58. The question of unemployment is a hard nut to crack.
    - (A) difficult task
    - (B) different matter
    - (C) impossible task
    - (D) inexplicable problem

59. The rat race among the leaders is revolting.
    - (A) corruption
    - (B) nepotism
    - (C) favouritism
    - (D) fierce competition for power

60. People were dropping like flies in the intense heat.
    - (A) collapsing in large numbers
    - (B) getting infected with many diseases
    - (C) taking leave in large numbers
    - (D) sitting down in the shade

Directions : In question nos. 61 to 65, 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).

61. All the students have passed out of the final examination.
    - (A) passed on
    - (B) passed away
    - (C) passed
    - (D) No improvement

62. The greater part of the building has been destroyed.
    - (A) spoiled
    - (B) demolished
    - (C) disturbed
    - (D) No improvement

63. This is one of the best novels that have appeared this year.
    - (A) that
    - (B) that has
    - (C) to have
    - (D) No improvement

64. This course does not have any requirements.
    - (A) reason
    - (B) technique
    - (C) prerequisite
    - (D) No improvement

65. You abstained to speak ill of others.
    - (A) to speaking
    - (B) from speaking
    - (C) to speak to
    - (D) No improvement

Directions : In question nos. 66 to 70, 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.

66. Large number of insects, birds etc. moving about
    (A) crowd   (B) group
    (C) pack   (D) swarm
67. A person who readily believes others
    (A) sensible   (B) credulous
    (C) sensitive   (D) credible
68. Dry weather with no rainfall
    (A) summer   (B) desert
    (C) drought   (D) autumn
69. Unrelated to the subject
    (A) irrelevant   (B) superficial
    (C) specific   (D) general
70. Complete change of form
    (A) transgression (B) translation
    (C) transformation (D) transmigration

Directions : In question nos. 71 to 75, 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.

71. (A) circuitous   (B) circuitus
    (C) circutous   (D) circutious
72. (A) asassinate   (B) asasinite
    (C) assassinate   (D) assasinate
73. (A) malleable   (B) maleable
    (C) maliable   (D) malliable
74. (A) plateau   (B) plataeu
    (C) plataue   (D) plateue
75. (A) embbarass   (B) embarrass
    (C) embarass   (D) embarras

Directions : In the following passage (76 to 85), 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.

PASSAGE (Question Nos. 76 to 85)

Just sixty-five million years ago our ancestors were the most unprepossessing of mammals-creatures with the size and intelligence of moles or tree shrews. The earth then __76__ full of awesome, nightmarish lizards which __77__ virtually every ecological niche. Some of __78__ had very large brains, an upright __79__ and two little front legs very much __80__ hands, which they used dexterously to __81__ small animals for dinner. But then __82__ did not survive, sadly, in one __83__ event every one of them was __84__ . And no one knows what wiped __85__ the dinosaurs.

76. (A) was   (B) is   (C) being   (D) been
77. (A) created   (B) emptied   (C) filled   (D) threatened
78. (A) which   (B) whom   (C) them   (D) who
79. (A) posture   (B) pose   (C) position   (D) posterior
80. (A) as   (B) like   (C) than   (D) about
81. (A) frighten   (B) catch   (C) drive   (D) chase
82. (A) monkeys   (B) moles   (C) tree shrews (D) dinosaurs
83. (A) insignificant (B) catastrophic (C) unpleasant (D) enlivening
84. (A) survived   (B) participated (C) destroyed (D) separated
85. (A) out   (B) on   (C) of   (D) away

86. You are   always doing   this mistake.
   (A)   (B)   (C)

   No error.
   (D)

87. He has   a large family   to care.
   (A)   (B)   (C)

   No error.
   (D)

88. These poisonous gases   will effect
   (A)   (B)

   our health.   No error.
   (C)   (D)

89. The only Indian
   (A)

   to win the Nobel Prize for the Literature
                          (B)

   was Rabindranath Tagore.   No error.
   (C)   (D)

90. After his illness,   the patient was
   (A)   (B)

   sick with life.   No error.
   (C)   (D)

91. The old gentleman _____ to be a very good friend of my grand-father.
   (A) turned in   (B) turned over
   (C) turned out   (D) turned up

92. Its a _____, that young people are inspired by celebrities.
   (A) lie   (B) myth
   (C) bluff   (D) mistake

93. Had I saved money, I _____ a new car.
   (A) will purchase
   (B) would purchase
   (C) would have purchased
   (D) purchased

94. He decided to _____ his matric examination in order to get a higher score.
   (A) redo   (B) reappear
   (C) rewrite   (D) remake

95. The police pushed the people back to make _____ for Prime Minister's car to pass.
   (A) passage   (B) way
   (C) place   (D) area

96. Diligent
   (A) intelligent   (B) eminent
   (C) hardworking   (D) reliable

97. Tempest
   (A) drama   (B) temperature
   (C) temptation   (D) storm

98. Instant
   (A) constant   (B) distant
   (C) immediate   (D) sudden

99. Disaster
   (A) death   (B) epidemic
   (C) misfortune   (D) derailment

100. Adverse
   (A) unequal   (B) unfavourable
   (C) unwanted   (D) undue

PART – III
QUANTITATIVE APTITUDE

101. If $x = a(b-c)$, $y = b(c-a)$ and

$z = c(a-b)$, then $\left(\dfrac{x}{a}\right)^3 + \left(\dfrac{y}{b}\right)^3 + \left(\dfrac{z}{c}\right)^3 =$

(A) $\dfrac{xyz}{3abc}$

(B) $3xyzabc$

(C) $\dfrac{3xyz}{abc}$

(D) $\dfrac{xyz}{abc}$

102. In a quadrilateral $ABCD$, with unequal sides if the diagonals AC and BD intersect at right angles, then

(A) $AB^2 + BC^2 = CD^2 + DA^2$

(B) $AB^2 + CD^2 = BC^2 + DA^2$

(C) $AB^2 + AD^2 = BC^2 + CD^2$

(D) $AB^2 + BC^2 = 2\left(CD^2 + DA^2\right)$

103. The tangents are drawn at the extremities of a diameter AB of a circle with centre P. If a tangent to the circle at the point C intersects the other two tangents at Q and R, then the measure of the $\angle QPR$ is

(A) 45°   (B) 60°

(C) 90°   (D) 180°

104. Let O be the in-centre of a triangle ABC and D be a point on the side BC of $\triangle ABC$, such that $OD \perp BC$. If $\angle BOD = 15°$, then $\angle ABC =$

(A) 75°   (B) 45°

(C) 150°   (D) 90°

105. AB is a chord to a circle and PAT is the tangent to the circle at A. If $\angle BAT = 75°$ and $\angle BAC = 45°$, C being a point on the circle, then $\angle ABC$ is equal to

(A) 40°   (B) 45°

(C) 60°   (D) 70°

106. D is any point on side AC of $\triangle ABC$. If P, Q, X, Y are the mid-points of AB, BC, AD and DC respectively, then the ratio of PX and QY is

(A) $1:2$ (B) $1:1$
(C) $2:1$ (D) $2:3$

107. If $2\cos\theta - \sin\theta = \frac{1}{\sqrt{2}}$, $(0° < \theta < 90°)$ the value of $2\sin\theta + \cos\theta$ is

(A) $\frac{1}{\sqrt{2}}$ (B) $\sqrt{2}$
(C) $\frac{3}{\sqrt{2}}$ (D) $\frac{\sqrt{2}}{3}$

108. If $\frac{\sin\theta + \cos\theta}{\sin\theta - \cos\theta} = 3$, then the value of $\sin^4\theta - \cos^4\theta$ is

(A) $\frac{1}{5}$ (B) $\frac{2}{5}$
(C) $\frac{3}{5}$ (D) $\frac{4}{5}$

109. The value of $\tan 1° \cdot \tan 2° \cdot \tan 3° \cdot \tan 4° \ldots \tan 87° \cdot \tan 88° \cdot \tan 89°$ is

(A) $\frac{1}{\sqrt{3}}$ (B) $\sqrt{3}$
(C) 1 (D) undefined

110. Two poles of equal heights are standing opposite to each other on either side of a road which is 100 m wide. From a point between them on road, angles of elevation of their tops are $30°$ and $60°$. The height of each pole in m, is

(A) $25\sqrt{3}$ (B) $20\sqrt{3}$
(C) $28\sqrt{3}$ (D) $30\sqrt{3}$

111. If $\sec^2\theta + \tan^2\theta = 7$, then the value of θ, when $0° \leq \theta \leq 90°$, is

(A) $60°$ (B) $30°$
(C) $0°$ (D) $90°$

112. From each of the two given unequal numbers, half the smaller number is subtracted. Then, of the resulting numbers, the larger one is five times than the smaller one. Then the ratio of the larger to smaller one is

(A) $2:1$ (B) $3:2$
(C) $3:1$ (D) $1:4$

113. The largest number among $\sqrt{2}, \sqrt[3]{3}, \sqrt[4]{4}$ is

(A) $\sqrt{2}$ (B) $\sqrt[3]{3}$
(C) $\sqrt[4]{4}$ (D) All are equal

114. A got married 8 years ago. A's present age is $1\frac{1}{4}$ times his age at the time of marriage. A's son's age is $\frac{1}{10}$ times his present age. His son's age in years, is

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

115. When an integer K is divided by 3, the remainder is 1, and when $K + 1$ is divided by 5, the remainder is 0. Of the following, a possible value of K is

(A) 62 (B) 63
(C) 64 (D) 65

116. A farmer has 945 cows and 2475 sheep. He farms them into flocks, keeping cows and sheep separate and having the same number of animals in each flock. If these flocks are as large as possible, then the maximum number of animals in each flock and total number of flocks required for the purpose are respectively

(A) 15 and 228   (B) 9 and 380
(C) 45 and 76   (D) 46 and 75

117. The number of sides in two regular polygons are in the ratio 5 : 4 and the difference between each interior angle of the polygons is 6°. Then the number of sides are
(A) 15, 12   (B) 5, 4
(C) 10, 8   (D) 20, 16

118. If the length of each side of a regular tetrahedron is 12 cm, then the volume of the tetrahedron is
(A) $144\sqrt{2}$ cu. cm. (B) $72\sqrt{2}$ cu. cm.
(C) $8\sqrt{2}$ cu. cm.   (D) $12\sqrt{2}$ cu. cm.

119. If the radii of the circular ends of a truncated conical bucket which is 45 cm high be 28 cm and 7 cm, then the capacity of the bucket in cubic centimetre is $\left(\text{use } \pi = \frac{22}{7}\right)$
(A) 48510   (B) 45810
(C) 48150   (D) 48051

120. A cone, a hemisphere and a cylinder stand on equal base and have the same height. Their volumes are in the ratio
(A) 1 : 3 : 2   (B) 2 : 3 : 1
(C) 1 : 2 : 3   (D) 3 : 1 : 2

121. A metal wire when bent in the form of a square encloses an area 484 cm². If the same wire is bent in the form of a circle, then $\left(\text{taking } \pi = \frac{22}{7}\right)$ its area is
(A) 308 cm²   (B) 506 cm²
(C) 600 cm²   (D) 616 cm²

122. Sides of a parallelogram are in the ratio 5 : 4. Its area is 1000 sq. units. Altitude on the greater side is 20 units. Altitude on the smaller side is
(A) 30 units   (B) 25 units
(C) 10 units   (D) 15 units

123. A circus tent is cylindrical up to a height of 3 m and conical above it. If its diameter is 105 m and the slant height of the conical part is 63 m, then the total area of the canvas required to make the tent is $\left(\text{take } \pi = \frac{22}{7}\right)$
(A) 11385 m²   (B) 10395 m²
(C) 9900 m²   (D) 990 m²

124. B and C can complete a piece of work in 12 days, C and A can do it in 8 days. All the three can do it in 6 days. A and B together can complete it in
(A) 4 days   (B) 6 days
(C) 8 days   (D) 10 days

125. A can do a work in 9 days, if B is 50% more efficient to A, then in how many days can B do the same work ?
(A) 13·5   (B) 4·5
(C) 6   (D) 3

126. The successive discounts of 10% and 20% are equivalent to a single discount of
(A) 30%   (B) 28%
(C) 25%   (D) 27%

127. A dealer marks his goods at 40% above the cost price and allows a discount of 20% on the marked price. The dealer has a
(A) loss of 20%   (B) gain of 25%
(C) loss of 12%   (D) gain of 12%

128. If 120% of a is equal to 80% of b, then $\frac{b+a}{b-a}$ is equal to
(A) 5   (B) 6
(C) 7   (D) 8

129. The ratio of spirit and water in two mixtures of 20 litre and 36 litre is 3 : 7 and 7 : 5 respectively. Both the mixtures are mixed together. Now the ratio of the spirit and water in the new mixture is

(A) 25 : 29   (B) 9 : 10

(C) 27 : 29   (D) 27 : 31

130. The average of n numbers $x_1, x_2, ..., x_n$ is $\bar{x}$ then the value of $\sum_{i=1}^{n}(x_i - \bar{x})$ is equal to

(A) n (B) 0

(C) $n\bar{x}$ (D) $\bar{x}$

131. The average of six numbers is 32. If each of the first three numbers is increased by 2 and each of the remaining three numbers is decreasing by 4, then the new average is

(A) 35   (B) 34

(C) 31   (D) 30

132. The cost price : selling price of an article is $a : b$. If b is 200% of a then the percentage of profit on cost price is

(A) 75%   (B) 125%

(C) 100%   (D) 200%

133. A person sells 400 mangoes at the cost price of 320 mangoes. His percentage of loss is

(A) 10   (B) 15

(C) 20   (D) 25

134. A person ordered 4 shirts of brand A and some shirts of brand B. The price of one shirt of brand A was twice that of brand B. When the order was executed, it was found that the numbers of the two brands has been interchanged. This increased the bill by 40%. The ratio of the number of brand A shirts to that of brand B shirts in the original order was

(A) 1 : 2   (B) 1 : 3

(C) 1 : 4   (D) 1 : 5

135. A litre of pure alcohol is added to 6 litres of 30% alcohol solution. The percentage of water in the solution is

(A) 50%   (B) 65%

(C) 60%   (D) 40%

136. A man can row 30 km downstream and return in a total of 8 hours. If the speed of the boat in still water is four times the speed of the current, then the speed of the current is

(A) 1 km/hour   (B) 2 km/hour

(C) 4 km/hour   (D) 3 km/hour

137. The difference between the simple and compound interest on a certain sum of money for 2 years at 4% per annum, is ₹ 1. Find the sum.

(A) ₹ 630   (B) ₹ 620

(C) ₹ 625   (D) ₹ 635

138. If $x^2 + 2 = 2x$, then the value of $x^4 - x^3 + x^2 + 2$ is

(A) 0   (B) 1

(C) -1 (D) $\sqrt{2}$

139. If $2^x = 3^y = 6^{-z}$, then $\left(\frac{1}{x} + \frac{1}{y} + \frac{1}{z}\right)$ is equal to

(A) 0   (B) 1

(C) $\frac{3}{2}$ (D) $-\frac{1}{2}$

140. If $\frac{1}{x+y} = \frac{1}{x} + \frac{1}{y}$ $(x \neq 0, y \neq 0, x \neq y)$ then the value of $x^3 - y^3$ is

(A) 0   (B) 1

(C) -1 (D) 2

141. For real a, b, c if $a^2 + b^2 + c^2 = ab + bc + ca$, then the value of $\frac{a+c}{b}$ is

(A) 1   (B) 2

(C) 3   (D) 0

The bar diagram given below shows the productions (in the unit of thousand pieces) of three types of biscuits by a company in the five consecutive years. Study the diagram and answer the questions 142 to 146.
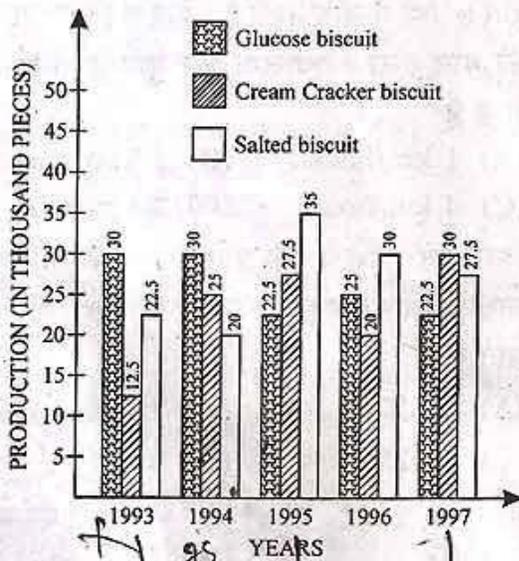
141. The percentage drop in the number of glucose biscuit manufactured from 1994 to 1995 is
(A) 10
(B) 15
(C) 25
(D) 20

142. The difference (in the unit of thousand pieces) between the total number of cream cracker biscuits manufactured in the years 1993, 1995 and 1997 and the total number of the biscuit of same type in the years 1994 and 1996 is
(A) 15
(B) 25
(C) 30
(D) 20

144. Total production of all the three types of biscuits was the least in the year
(A) 1993
(B) 1997
(C) 1996
(D) 1995

145. The production of all the three types of biscuits was maximum in the year
(A) 1995
(B) 1994
(C) 1996
(D) 1993

146. The ratio of production of glucose biscuits and total production of biscuits in that year was maximum in
(A) 1994
(B) 1993
(C) 1996
(D) 1997

Study the following table which shows the number of students appeared and passed in different streams in a University and answer the questions 147 to 150 :

YEAR	Engineering		Medical		Management		Commerce	
	Appeared	Pass	Appeared	Pass	Appeared	Pass	Appeared	Pass
2001	324	289	469	246	96	69	1467	1310
2002	386	312	430	364	74	62	1246	1129
2003	284	212	384	326	124	102	1387	1176
2004	310	246	395	298	106	92	1180	1074
2005	426	382	424	382	92	74	1562	1326
2006	380	286	466	405	78	63	1374	1207

147. Approximately what per cent of students appearing in medical, passed in 2003 ?
(A) 75%
(B) 85%
(C) 78%
(D) 88%

148. Approximately what per cent of total students appearing in 2004, appeared in commerce stream ?
(A) 55·3%
(B) 64·4%
(C) 52·5%
(D) 59·3%

149. The number of students appearing in all streams was minimum in the year
(A) 2002
(B) 2003
(C) 2004
(D) 2006

150. The number of students passing in all streams was maximum in the year
(A) 2001
(B) 2005
(C) 2006
(D) 2004

PART – IV

GENERAL AWARENESS

151. Minimum temperature required for trees to grow in an area is
(A) 10°C   (B) 15°C
(C) 4°C   (D) 6°C

152. Which one of the following is the largest lagoon in India ?
(A) Vembanad lagoon
(B) Chilka lagoon
(C) Pulicat lagoon
(D) Kolleru

153. Which one of the peaks did Phu Dorjee, the First Indian woman climb without oxyzen ?
(A) Mt. Makalu
(B) Mt. Kanchenjunga
(C) Mt. Anna Purna
(D) Mt. Everest

154. Which of the following places is associated with copper mining ?
(A) Kolar   (B) Khetri
(C) Gaya   (D) Mayurbhanj

155. The Kurinji-flower blooms once in 12 years because of
(A) Light period   (B) Dark period
(C) Florigen secretion (D) All the above

156. The fastest growing plant in the world is
(A) Bamboo   (B) Rice
(C) Money plant   (D) Teak

157. Which one of the following is an egg laying mammal ?
(A) Kangaroo   (B) Monotreme
(C) Bat   (D) Whale

158. From which animal is 'Rh' factor derived its name ?
(A) Monkey   (B) Dragon fly
(C) Drosophila   (D) Gorilla

159. Normal haemoglobin content per 100 ml of blood of an adult man is
(A) 11·5 gm   (B) 12·5 gm
(C) 13·5 gm   (D) 14·5 gm

160. Fibrous bone joint is found in the
(A) Leg   (B) Jaw
(C) Skull   (D) Brain

161. A liquid drop tends to assume a spherical shape because of
(A) surface tension   (B) viscous force
(C) gravitational force (D) elastic force

162. A wheel rolls on ground with uniform translatory speed. The point on the wheel having maximum linear velocity is
(A) the point of contact of the wheel with the ground
(B) the top most point of the wheel
(C) the front end point of the horizontal diameter
(D) the back end point of the horizontal diameter

163. The temperature of water at the bottom of a waterfall is higher than that at the top because
(A) water at the bottom has greater potential energy
(B) the surface at the bottom provides heat
(C) kinetic energy of falling water is converted into heat
(D) falling water absorbs heat from the surroundings

164. A laser beam is always
(A) a convergent beam
(B) a divergent beam
(C) a parallel beam
(D) divergent to start with and parallel later on

165. Which company developed the first graphical user interface ?
(A) Microsoft   (B) AT & T
(C) IBM   (D) Xerox

166. An identification field for a record is
(A) Main field   (B) Flex field
(C) Key field   (D) Cell

167. On Dec. 3, 1984, due to leakage of a poisonous gas from the Union Carbide factory in Bhopal, thousands of people died. The poisonous gas responsible for this was
(A) methyl cyanide
(B) hydrogen cyanide
(C) methyl isocarbide
(D) methyl isocyanate

168. One component of an amalgam is always
(A) iron   (B) copper
(C) zinc   (D) mercury

169. A petrol fire will be best put off by
(A) Baking powder (B) Carbon dioxide
(C) Sand   (D) Water

170. Stainless steel usually contains about 14% or more of
(A) Nickel   (B) Carbon
(C) Manganese   (D) Chromium

171. Genes, the hereditary units are located in the
(A) nuclear membrane
(B) chromosomes
(C) lysosomes
(D) cell membrane

172. Ground water in the Bengal basin is mostly contaminated by
(A) chromium   (B) lead
(C) cadmium   (D) arsenic

173. The permissible upper limit of Arsenic in water is
(A) 0·005 gm/litre (B) 0·005 mg/litre
(C) 0·05 mg/litre   (D) 0·05 gm/litre

174. Where was the painful bone disease 'itai-itai' reported first
(A) Japan   (B) India
(C) USA   (D) China

175. Who discovered the X-rays ?
(A) Ross Ronald   (B) H. C. Urey
(C) W. K. Roentgen (D) G. Marconi

176. Who was the Hindu king shown playing on the Veena, on ancient coins ?
(A) Vikramaditya
(B) Samudragupta
(C) Harshavardhana
(D) Chandragupta Maurya

177. Who of the following won the Wimbledon Men's Doubles title ?
(A) Horia Tecau and Robert Lindstedt
(B) Bob Bryan and Mike Bryan
(C) Rafael Nadal and Bob Bryan
(D) Mahesh Bhupathi and Novak Djokovic

178. The Vice-President Hamid Ansari presented the prestigious Sangeet Natak Akademi fellowships and awards for the year 2010 on July 22, 2011. Of the following, the highest honour of Akademi Ratna Sadasyata was conferred on
(A) Chhanu Lal Mishra
(B) Malabika Mitra
(C) Atamjit Singh
(D) T. K. Murthy

179. As per Budget 2011-12, the tax contributing least in rupee collection is
(A) Customs   (B) Union Excise
(C) Income Tax   (D) Corporate Tax

180. The minimum support price per quintal of paddy (A-grade) for the year 2011-12 declared by the Government is
(A) ₹ 1050   (B) ₹ 1080
(C) ₹ 1110   (D) ₹ 1150

181. What is the number (up to the end of May, 2011) of 'Maharatna' and 'Navratna' public undertakings in India ?
(A) 4 and 15   (B) 4 and 17
(C) 5 and 16   (D) 5 and 17

182. The literacy rate during census 2001-11 has been recorded at
(A) 66%   (B) 74·04%
(C) 77·13%   (D) 78·24%

183. What name was given to the joint Army-IAF Exercise which was conducted in Rajasthan in May, 2011 ?
(A) Neel Gagan   (B) Vijayee Bhava
(C) Vijay   (D) Dust-storm

184. Which one of the following is a fundamental right under the Constitution ?
(A) Right to education
(B) Right to work
(C) Right to property
(D) Right to information

185. Bombay Stock Exchange is situated in
    (A) Wall Street
    (B) Dalal Street
    (C) Needle Thread Street
    (D) Gandhi Street

186. State ownership of means of production is a characteristic feature of
    (A) Socialist economy
    (B) Capitalist economy
    (C) Mixed economy
    (D) Welfare economy

187. The main objective of a firm is to maximise
    (A) Investment
    (B) Production
    (C) Profit
    (D) Employment

188. Which one of the following is an example for variable capital ?
    (A) Machinery   (B) Raw Materials
    (C) Building   (D) Land

189. The first Indian Economist who won the Nobel Prize was
    (A) Rajachellaiah (B) Rangarajan
    (C) Amartya Sen   (D) K N Raj

190. In which year was the first non-congress government formed at the centre ?
    (A) 1977   (B) 1978
    (C) 1979   (D) 1980

191. The Federal System was first proposed by the Government of India Act
    (A) 1909   (B) 1919
    (C) 1935   (D) None of the above

192. How many members are nominated by the President of India to the Rajya Sabha ?
    (A) 14 Members   (B) 12 Members
    (C) 02 Members   (D) 08 Members

193. The right to have a family life is a
    (A) Moral right   (B) Political right
    (C) Civil right   (D) Natural right

194. A set of Fundamental Duties invariably form the part of a
    (A) Unitary Constitution
    (B) Democratic Constitution
    (C) Socialist Constitution
    (D) Federal Constitution

195. Who presided over the third session of the Indian National Congress at Madras ?
    (A) W. C. Banerjee
    (B) Mahatma Gandhi
    (C) Badruddin Tyabji
    (D) A. O. Hume

196. Abhinava Bharat was set up by V. D. Savarkar in 1904 as a
    (A) Workers forum
    (B) Revolutionary association
    (C) Secret society
    (D) Reader's forum

197. Gandhiji participated in
    (A) All the three Round Table Con-
        ferences
    (B) Second Round Table Conference only
    (C) Second and Third Round Table
        Conferences
    (D) None of the three Round Table
        Conferences

198. Harsha Vardhana died in the year
    (A) 647 AD   (B) 648 AD
    (C) 640 AD   (D) 635 AD

199. Who among the following was the religious guru of Shivaji ?
    (A) Jnanadeva   (B) Tukaram
    (C) Ramdas   (D) Eknatha

200. Which one of the following steel plant was started in 1965 in India with West German collaboration ?
    (A) Jamshedpur-Tata Steel Plant
    (B) Bokaro Steel Plant
    (C) Durgapur Steel Plant
    (D) Rourkela Steel Plant