TARA INSTITUTE

TEST BOOKLET

TARA/SSC-HS/T1/03

NAME :..

ROLL NO. :..

Time Allowed: Two Hours
Maximum Marks: 200

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET   DOES NOT HAVE ANY UN PRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.

2. ENCODE CLEARLY THE TEST BOOKLET SERIES **A**, **B**, **C** OR **D** AS THE CASE MAY BE IN THE APPROPRIATE PLACE IN THE ANSWER SHEET.

3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **Do NOT** write anything else on the Test Booklet.

4. This Test Booklet contains 200 items (Questions). Each item is printed in English and Hindi. Each item comprises FOUR responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response with you consider the best. In any case, choose **ONLY ONE** response for each item.

5. You have to mark all your responses **ONLY** on the separate Answer Sheet provided. See direction in the answers sheet.

6. All items carry equal marks.

7. Before you proceed to mark in the Answer sheet the response to various items in the Test booklet, you have to fill in some particulars in the answer sheets as per instruction sent to you with your Admission Certificate.

8. After you have completed filling in all responses on the answer sheet and the examination has concluded, you should hand over to Invigilator only the answer sheet. You are permitted to take away with you the Test Booklet.

9. Sheet for rough work are appended in the Test Booklet at the end.

10. **Penalty for Wrong answers**
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE
(i). There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-fourth (0.25)** of the marks assigned to that question will be deducted as penalty.
(ii). If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above to that question.
(iii). If a question is left blank, i.e., no answer is given by the candidate, there will be **no penalty** for that question.
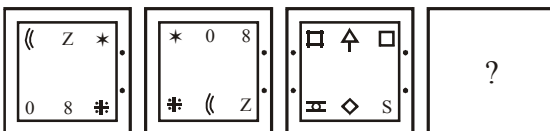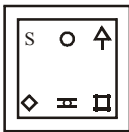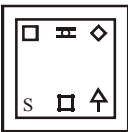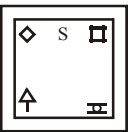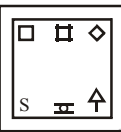
DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ASKED TO DO SO

PART - A

INTELLIGENCE AND REASONING

Directions : (Q. 1-9) *Select the related letters/word/number/figure from the given alternatives–*
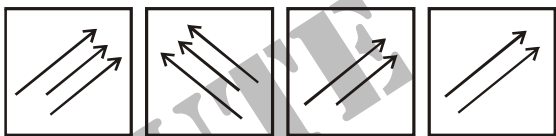
1. C 3 F 6 : I 9 L 12 : : K 11 N 14 : ?
   (a) O 15 R 18
   (b) R 18 U 21
   (c) Q 17 T 20
   (d) L 12 O 15

2. BELL : AFKM : : DOOR : ?
   (a) CNPQ
   (b) ENPS
   (c) EPNS
   (d) CPNS

3. JLNP : OMKI : : SUWY : ?
   (a) MLKJ
   (b) PLHD
   (c) XVTR
   (d) FGHI

4.

   (a)   (b)   (c)   (d)

5. NLO : RPS : : VTW : ?
   (a) XVY
   (b) VTR
   (c) TRP
   (d) VUW

6. FLRX : EJOT : : CKTY : ?
   (a) BIQV
   (b) DIPQ
   (c) DHQU
   (d) BIQU

7. BEHK : YVSP : : ADGJ : ?
   (a) ZUTR
   (b) ZVSP
   (c) ZWTQ
   (d) ZWXZ

8. $\dfrac{C}{L} : \dfrac{24}{27} :: \dfrac{E}{N} : ?$ 1

   (a) $\dfrac{54}{50}$
   (b) $\dfrac{56}{45}$

   (c) $\dfrac{125}{197}$
   (d) $\dfrac{56}{54}$

9. 68 : 130 : : ? : 350
   (a) 210
   (b) 222
   (c) 240
   (d) 282

Directions : (Q. 10-15) *Select the alternative which is different from other three.*

10. (a) 18/22
    (b) 11/13
    (c) 12/14
    (d) 17/19

11. (a) 121
    (b) 169
    (c) 225
    (d) 289

12. (a) ZX
    (b) TR
    (c) OM
    (d) IF

13. (a) BEDC
    (b) MPON
    (c) GIHJ
    (d) UXWV

14. (a) 1011
    (b) 11001
    (c) 1101
    (d) 11101

15.

    (a)   (b)   (c)   (d)

Directions : (Q. 16-20) *A series is given with one/two term missing. Choose the correct alternative from the given ones that will complete the series.*

16. C^3, F^6, I^9, L^{12}, $?^?$
    (a) O^{13}
    (b) Q^{17}
    (c) P^{15}
    (d) O^{15}

17. 1a, 4b, 9c, 16d, 25e, ?
    (a) 34f
    (b) 35f
    (c) f36
    (d) 36f

18. M2, P3, U7, X13 ?
    (a) C26
    (b) C27
    (c) C28
    (d) C25

19. XUROLI ? ?
    (a) HG
    (b) HE
    (c) FC
    (d) GE

20. 31, 37, 49, 67, ?
    (a) 87
    (b) 91
    (c) 89
    (d) 97

21. If roast is coded as PQYUR in a certain language, then how will be sloppy be coded in that language ?
    (a) MRNAQN
   (b) NRMNQA
    (c) QNMRNA
    (d) RANNMQ

22. If X is the brother of son of Y' son, how is X related to Y?
    (a) Son   (b) Brother
    (c) Cousin   (d) Grandson

23. Which of the following name will come last in a Telephone Directory ?
    (a) Mahender   (b) Mahendra
    (c) Mohinder   (d) Mohindra

24. Six persons A, B, C, D E and F are standing in a circle. B is between D and C. A is between E and C. F is to the right of D. Who is between A and F ?
    (a) B   (b) C
    (c) D   (d) E

25. A man is facing towards west and turns through 25° clockwise, again 180° clockwise and then turns through 270° anticlockwise. In which direction is he facing now ?
    (a) West   (b) North-west
    (c) South   (d) South-west

26. Pointing to a photograph, a man said, "I have no brother or sister but that man's father is my father's son." Whose photograph was it ?
    (a) His own   (b) His son's
    (c) His father's   (d) None of these

27. If you are facing north-east and move 10 m forward, turn left and move 7.5 m, then you are–
    (a) North of your initial position
    (b) South of your initial position
    (c) East of your initial position
    (d) 12.5 m from your initial position

28. A man is facing south. He turns 135° in the anticlockwise direction and then 180° in the clockwise direction. Which direction is the facing now ?
    (a) North-east   (b) North-west
    (c) South-east   (d) South-west

Directions : (Q. 29 and 30) *Insert the letters that complete the first word and begin the second.*
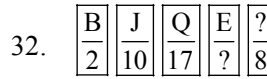
29. TOR (.............) AIR
    (a) CK   (b) CH
    (b) ESS   (d) KS

30. EX (........) ACLE
    (a) PERT   (b) TANT
    (c) TENT   (d) ENCE

Directions : (Q. 31-32) *Find the missing number.*

31. $\boxed{\frac{17}{14}}$ $\boxed{\frac{18}{13}}$ $\boxed{\frac{16}{15}}$ $\boxed{\frac{19}{12}}$ $\boxed{\frac{?}{?}}$
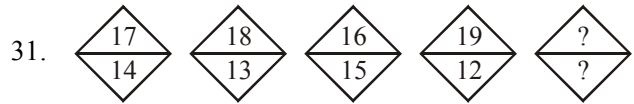
    (a) $\dfrac{20}{13}$ (b) $\dfrac{21}{25}$

    (c) $\dfrac{15}{16}$ (d) $\dfrac{17}{18}$

32. $\boxed{\frac{B}{2}}$ $\boxed{\frac{J}{10}}$ $\boxed{\frac{Q}{17}}$ $\boxed{\frac{E}{?}}$ $\boxed{\frac{?}{8}}$

    (a) H and 5   (b) F and 6
    (c) H and 6   (d) 5 and H
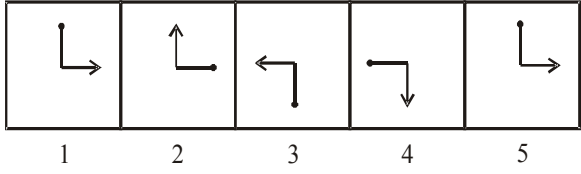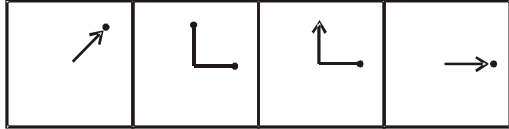
Directions : (Q. 33-34) *In the following diagram the triangle represents children, the circle represents rural population, the rectangle school going population and the square boys.*
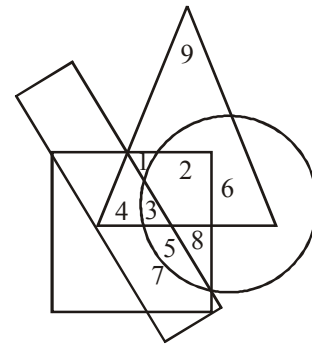
On the basis of above diagram, answer the questions.

33. What does number 4 denote ?
    (a) School going boys
    (b) Children who are boys
    (c) Non-rural children
    (d) Non-rural school going boys

34. Which number represents rural school going boys ?
    (a) 3   (b) 3, 5
    (c) 3, 4   (d) 3, 4, 5, 7

35. If $12 \times 23 \times 34 = 357$ and $32 \times 43 \times 54 = 579$ then what would be the value of $40 \times 52 \times 63$?

   (a) 468   (b) 369

   (c) 479   (d) 359

36. A stands for addition, B for subtraction, C for division and D for multiplication, then what would be value of:

   10A21C3D3B4

   (a) 6   (b) 27

   (c) 29   (d) 39

37. From the given alternatives select the word which can be formed using the letters given in the word–

   OPERATION

   (a) CAPTION   (b) ROTATION

   (c) OPTION   (d) NATION

38. Of the six members of a panel sitting in a row E is to the left of B, but on the right of A. F is on the right of B but is on the left of G who is to the left of C. Find the members sitting right in the middle–

   (a) A E   (b) B F

   (c) G C   (d) F G

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

   b a _ b _ a a b _ a _ b

   (a) a b a a   (b) a b b a

   (c) b a a b   (d) b a b b

40. Arrange the following in a logical order–

   1. Most   2. Petrol

   3. Cars   4. Without

   5. Will go

   (a) 3, 5, 4, 2, 1   (b) 1, 2, 5, 3, 4

   (c) 1, 3, 5, 4, 2   (d) 2, 5, 4, 1, 3

41. Rearrange the jumbled letters in meaningful words to identify the word which is not a colour.

   (a) LTEOIV   (b) ENGRAO

   (c) PELRUP   (d) REOWLF

42. If EXPANSION is written as 248537693 in a certain code, how would PENSION be written in that code ?

   (a) 8236793   (b) 8237639

   (c) 8237693   (d) 8233769

43. Which one of the following diagrams represents the relationship between Cows, Animals and Goats ?

   (a)   (b)   (c)   (d)

Directions : (Q. 44-45) *These consist of two statements followed by two conclusions numbered I and II. Take the two given statements to be true even if they seem absurd. Give your answer as –*

   (a) If only I follows

   (b) If only II follows

   (c) If neither I nor II follows

   (d) If both I and II follow

44. **Statements :**

   Some books are magazines.

   Some magazines are novels.

   Conclusions :

   I.   Some books are novels.

   II. Some novels are books.

45. **Statements :**

   All bulbs are birds.

   Some birds are butterflies.

   Conclusions :

   I.   All butterflies are bulbs.

   II. Some birds are butterflies.

Directions : (Q. 46-47) *These consist of five figures marked (1), (2), (3), (4) and (5) called the Problem Figures followed by four other Figures marked (A), (B), (C) and (D) called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.*

46. **Problem Figures**

   1   2   3   4   5

   Answer Figures

   (a)   (b)   (c)   (d)

47. **Problem Figures**

1	2	3	4	5

Answer Figures

(a)   (b)   (c)   (d)

48. Neither A is equal to B nor B is equal to C nor C is equal to D and $D = 3A = B + C$ (all are positive), then which of the following are equal ?

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

    (c) A and D   (d) B and C
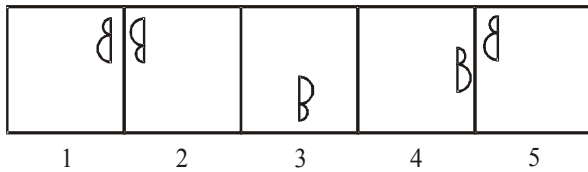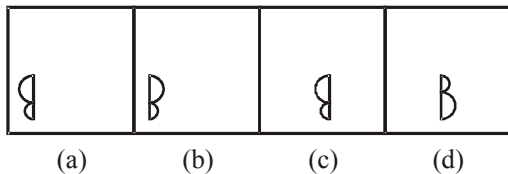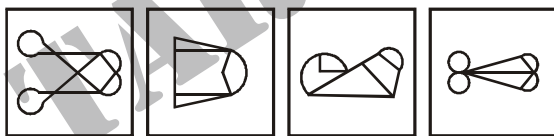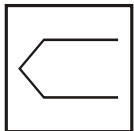
49. Out of 60 students of a class, 35 study mathematics and 20 study mathematics and chemistry both. Then how many students study only chemistry ?

    (a) 40   (b) 35

    (c) 25   (d) 15

50. From the given answer figures, select the one in which the question figure is hidden/embedded–

(a)   (b)   (c)   (d)

PART - B
GENERAL AWARENESS

51. 'Jhooming' agriculture of North-East India is called 'Ladang' in Malaysia and 'Masole' in the valley of Zaire. Then, which of the following is called Jhooming agriculture ?

    (a) Shifting Agriculture

    (b) Mixed Agriculture

    (c) Transplanting Agriculture

    (d) Livelihood Agriculture

52. Which of the following is the dominant probability of formation of the fog ?

    (a) Dry cool current blows over warm current

    (b) Warm air with moisture blows over cool current

    (c) Dry and cool air blows over cool current

    (d) Warm current with moisture blows over warm current

53. In which region does rainfall occur throughout the year ?

    (a) Mediterranean   (b) Equatorial

    (c) Tropical   (d) Temperate

54. Name the food crop which gives highest output in India–

    (a) Wheat   (b) Jowar

    (c) Maize   (d) Rice

55. The Zoji-La pass connects–

    (a) Srinagar and Leh

    (b) Arunachal Pradesh and Tibet

    (c) Chamba and Spiti

    (d) Kalimpong and Lhasa

56. In West Bengal, Raniganj is associated with–

    (a) Coalfields   (b) Iron ore

    (c) Manganese ore   (d) Copper

57. Match the following–

    Column I

    (a) Mahatma Gandhi

    (b) Ram Manohar Lohiya

    (c) Dr. Rajendra Prasad

    (d) Maulana Abul Kalam

    Column II

    1. India divided

    2. India wins Freedom

    3. Hind Swaraj

    4. The Wheels of History

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

58. Who of the following did not win Gold medal in commonwealth boxing Championship in Delhi in March 2010 ?
    - (a) Suranjoy Singh
    - (b) Harpreet Singh
    - (c) Jai Bhagwan
    - (d) Amandeep singh

59. Who wrote the 'Communist manifesto'?
    - (a) Lenin
    - (b) Karl Marx
    - (c) Stalin
    - (d) None of the above

60. Maria Montessori's name is associated with–
    - (a) Women's Rights
    - (b) Child Education
    - (c) Christian Mission
    - (d) Mission Hospitals

61. Which of the following states have only one representatives each in Lok Sabha :
    - (a) Manipur, Meghalaya
    - (b) Himachal Pradesh, Jammu and Kashmir
    - (c) Arunachal Pradesh, Tripura
    - (d) Mizoram, Nagaland

62. 'Boston Tea Party' is associated with–
    - (a) French Revolution
    - (b) Russian Revolution
    - (c) American Independence
    - (d) Independence of Egypt

63. Which of the following is a direct tax ?
    - (a) Excise
    - (b) Sales Tax
    - (c) Income tax
    - (d) None of the above

64. Who expounded "The Theory of Drain" ?
    - (a) Tilak
    - (b) Dadabhai Nauroji
    - (c) Gokhale
    - (d) Govinda Ranade

65. The last Governor-General of the East India Company and the first Viceroy under the crown was–
    - (a) Lord Elgin
    - (b) Lord Canning
    - (c) Lord Warren Hastings
    - (d) Lord Dalhousie

66. A rising Per Capita Income will indicate a better welfare if it is accompanied by–
    - (a) Unchanged Income distribution overall
    - (b) Changed Income distribution in favour of rich
    - (c) Changed Income distribution in favour of poor
    - (d) Changed Income distribution in favour of Industrial Labour

67. Indirect taxes by nature are–
    - (a) Degressive
    - (b) Regressive
    - (c) Progressive
    - (d) Proportional

68. Which one of the following is an example of optional money ?
    - (a) Currency note
    - (b) Coins
    - (c) Cheque
    - (d) Bond

69. Which of the following diseases spreads due to virus?
    - (a) Diphtheria
    - (b) Influenza
    - (c) Typhoid
    - (d) Cholera

70. Select the macro plant nutrients–
    - I. Phosphorus
    - II. Iron
    - III. Carbon
    - IV. Nitrogen
    - (a) I and IV
    - (b) I, II, III
    - (c) I, III, IV
    - (d) All of the above

71. A car engine coolant performs which of the following functions ?
    1. Raises the boiling point of water
    2. Lowers the freezing point of water
    3. Reduces rusting tendency
    4. Lubricates the water pump
    - (a) 1, 2 3
    - (b) 1, 3, 4
    - (c) 1 & 3 only
    - (d) 1, 2, 3, 4

72. The chief poisonous snakes in India are –
    - (a) See snake, pit viper, krait, cobra, rat-snake
    - (b) Russels viper, pit viper, cobra, krait, sea-snake
    - (c) Python, pit viper, russel's viper, cobra, krait
    - (d) Cobra, krait, wolf-snake, python

73. Which is not an insectivorous plant ?
    - (a) Pitcher plant
    - (b) Bladderwort
    - (c) Butterwort
    - (d) Hornwort

74. Tungska Fireball explosion took place in–
    - (a) 1908
    - (b) 1908
    - (c) 1945
    - (d) None of these

75. Directions of the currents of which of the following oceans change twice annually ?
    - (a) Pacific ocean
    - (b) Atlantic ocean
    - (c) Indian ocean
    - (d) Arctic ocean

76. Which of the following diseases is caused by the fishes polluted by industrial wastage mixed with mercury ?

    (a) Bronchitis   (b) Bright disease

    (c) Minimeta disease   (d) Hashimota disease

77. Which of the following statements is incorrect about mangrove forests ?

    (a) Wood of sundari trees is used as fuel and to make boats

    (b) During high tides, roots of sundari trees should be submerged in salty water

    (c) Sundari trees grow in lower littoral area

    (d) Wood of sundari trees is ideal for pulp making

78. Who among the following biologists used the statement 'Survival of the fittest' for the first time in his book, 'Principles of Biology' ?

    (a) Charles Darwin   (b) Jagdish Chandra Bose

    (c) Herbert Spencer   (d) Richard Licke

79. What age-limit has been fixed for child-artists by the National Children-rights Protection Commission ?

    (a) 14 years   (b) 10 years

    (c) 18 years   (d) 12 years

80. The Parliament and the Constitution are the instruments of–

    (a) Legal Justice   (b) Political Justice

    (c) Economic Justice   (d) Social Justice

81. The Council of Ministers is collectively responsible to the –

    (a) President   (b) Prime Minister

    (c) Lok Sabha   (d) Rajya Sabha

82. Under single transferable vote system each voter can–

    (a) Indicate only two preferences

    (b) Indicate only one preference

    (c) Indicate one preference less than the seats to be filled up

    (d) Indicate as many preferences as there are candidates to be elected

83. 'Zero Hour' in the working of he Indian Parliament means–

    (a) Hour before the Question Hour

    (b) The first Hour of the Session

    (c) Interval between Question Hour and next Agenda

    (d) When Privilege Motion is accepted

84. In which year the "House of the People" was named as "Lok Sabha" ?

    (a) 1954   (b) 1964

    (c) 1974   (d) 1984

85. A body absorbs heat most if it is–

    (a) Black and rough   (b) Black and smooth

    (c) White and rough   (d) White and smooth

86. Which one of the following appointments is not within the purview of the President of India ?

    (a) Chief Justice of India

    (b) Chairman, Finance Commission

    (c) Chief of Army Staff

    (d) Speaker of Lok Sabha

87. Which of the following relieves pain ?

    (a) Antibiotics   (b) Analgesic

    (c) Antipyretic   (d) Disinfectant

88. Jivaka, mentioned in the early Buddhist literature was–

    (a) Bodhisatva   (b) King

    (c) Merchant   (d) Physician

89. Kautilya's Arthashastra is a great treatise on–

    (a) Economic Policies   (b) Statecraft

    (c) Interstate Relations (d) Ethics

90. Heavy water project, Talcher and Paradeep fertilizer plant are famous industries of –

    (a) Orissa   (b) Tamil Nadu

    (c) Andhra Pradesh   (d) Kerala

91. Which of the following does not have a common boundary with Bangladesh ?

    (a) Meghalaya

    (b) Mizoram

    (c) Arunachal Pradesh

    (d) Tripura

92. Name of the author of the book "The future of India : Politics, Economics and Government"–

    (a) Bimal Jalan   (b) Deepak Chopra

    (c) Anurag Mathur   (d) Amitav Ghosh

93. Shivaji's war strategy used against the Mughals was–

    (a) alert army   (b) political supremacy

    (c) large army   (d) guerilla warfare

94. Pack animal of Peru is –
    (a) Camel   (b) Yak
    (c) Lama   (d) Ibex

95. Who built Panama Canal ?
    (a) Fredinend Megallan   (b) Ferdinend-de-lacepse
    (c) Lee Korbusear   (d) Edward Lutins

96. Who among the following is associated with Indian civilization ?
    (a) Sir Besant Smith
    (b) D. D. Goswami
    (c) Sir Alexandar Wingham
    (d) Martemer Camphell

97. Who was known as 'Little Corporal' ?
    (a) Adolf Hitler   (b) Napoleon Bonaparte
    (c) William Gladstone   (d) Sunil Gavaskar

98. Arrange in proper chronological order–
    1. Harshavardhan
    2. Samudragupta
    3. Chandragupta Maurya
    4. Rajendra Chola
    (a) 3, 1, 2, 4   (b) 3, 2, 1, 4
    (c) 2, 3, 4, 1   (d) 2, 3, 1, 4

99. Which country was the runner up in World Cup Hockey at New Delhi in March 2010 ?
    (a) Australia   (b) Germany
    (c) Netherlands   (d) England

100. Harappa is located on the bank of which of the following rivers ?
    (a) Ganga   (b) Ravi
    (c) Yamuna   (d) Indus

PART - C
NUMERICAL APTITUDE

101. Value of $\dfrac{5.4}{18} \times \dfrac{3}{5} \times \dfrac{16}{6} \times \dfrac{2}{3}$ is:
    (a) 2   (b) 4
    (c) 6   (d) 8

102. The simple interest accrued on a sum of certain principal is ₹ 1,200 in four years at the rate of 8 p.c.p.a. What would be the simple interest accrued on thrice of that principal at the rate of 6 p.c.p.a in 3 years ?
    (a) ₹ 2,025   (b) ₹ 3,025
    (c) ₹ 2,250   (d) ₹ 2,150

103. Value of $1\dfrac{3}{5} \times 1\dfrac{2}{7} \times 1\dfrac{1}{4}$ is:
    (a) $5\dfrac{18}{70}$ (b) $6\dfrac{1}{7}$
    (c) $3\dfrac{2}{9}$ (d) $4\dfrac{19}{140}$

104. Value of $\sqrt{\sqrt{3969} \times \sqrt{3364}}$ is:
    (a) 169   (b) 121
    (c) 141   (d) 11

105. What will come in place of question mark ?
    $$\sqrt{729} \times 32 \times 45 \times ? = 10502.4$$
    (a) 383   (b) 476
    (c) 547   (d) 651

106. The area of a square is 196 sq. cms. whose side is half the radius of a circle. The circumference of the circle is equal to breadth of a rectangle. If perimeter of the rectangle is 712 cm. What is the length of the rectangle ?
    (a) 196 cm   (b) 186 cm
    (c) 180 cm   (d) 190 cm

107. What will come in place of question mark ?
    $$35^2 \div (38)^2 \times ? \times 5$$
    (a) 503   (b) 543.6
    (c) 567.8   (d) 533.8

108. Value of $18.92^2 - \sqrt{121}$ is:
    (a) 386.9466   (b) 346.9664
    (c) 366.9646   (d) 333.6964

109. Value of $1000^{12} \div 10^{30}$ is:
    (a) 1000^2 (b) 10
    (c) 100^2 (d) 100

110. If $\sin\theta - \cos\theta = \dfrac{7}{13}$ and $0 < \theta < 90°$, then the value of $\sin\theta + \cos\theta$ is
    (a) $\dfrac{17}{13}$ (b) $\dfrac{13}{17}$
    (c) $\dfrac{1}{13}$ (d) $\dfrac{1}{17}$

111. If $\tan 15° = 2 - \sqrt{3}$, the value of $\tan 15°\cot 75° + \tan 75°\cot 15°$ is

(a) 14   (b) 12

(c) 10   (d) 8

112. If θ be acute angle and $\cos\theta = \dfrac{15}{17}$, then the value of $\cot(90° - \theta)$ is

(a) $\dfrac{2\sqrt{8}}{15}$ (b) $\dfrac{8}{15}$

(c) $\dfrac{\sqrt{2}}{17}$ (d) $\dfrac{8\sqrt{2}}{17}$

113. If θ be acute and $\tan\theta + \cot\theta = 2$, then the value of $\tan^5\theta + \cot^{10}\theta$ is

(a) 1   (b) 2

(c) 3   (d) 4

114. If $\tan(2\theta + 45°) = \cot 3\theta$ where $(2\theta + 45°)$ and 3θ are acute angles, then the value of θ is

(a) 5°   (b) 9°

(c) 12°   (d) 15°

115. A man is four times as old as his son. Twenty years later he will be just twice as old as his son. Find their present ages.

(a) 40–10 years   (b) 30–10 years

(c) 80–20 years   (d) 30–20 years

116. In a video library 1/4 videos are of movies, 2/3 of the remaining are of songs and the remaining 200 are religious. How many of them are video songs ?

(a) 400   (b) 600

(c) 800   (d) 1200

117. A class of 60 has 25% girls. If 20% of boys and 20% of girls attended a picnic, what % children of that class attended the picnic ?

(a) 20   (b) 22.5

(c) 25   (d) 40

118. Two cars travel in the same direction at 40 km/hour and 50 km/hour respectively. How many hours after these are alongside, will they be 18 km apart ?

(a) 0.25 hour   (b) 2.5 hour

(c) 0.4 hour   (d) 1.8 hour

119. An aeroplane travels distance of 2500 km, 1200 km and 500 km at the rate of 500 km/hour, 400 km/hour and 250 km/hour respectively. Find the average speed.

(a) 420 km/hour   (b) 450 km/hour

(c) 480 km/hour   (d) 400 km/hour

120. A number, the sum of whose fourth and fifth parts exceeds their third part by 28 is–

(a) 120   (b) 240

(c) 220   (d) 160

121. Area of a rectangular plot it 2400 square metres and its sides are in the ratio of 3 : 2. Its perimeter is–

(a) 60 m   (b) 40 m

(c) 100 m   (d) 200 m

122. A and B completes separately a piece of work in 10 and 15 days, respectively. A worked for 4 days alone and B for 5 days alone. Then C completed the rest portion of work alone in 8 days. How long will all the three take together to complete that work ?

(a) 4 days   (b) 5 days

(c) 6 days   (d) None of these

123. Ratio of the present age of A and that of B is 4 : 5 and after 5 years it will be 5 : 6. Then what is present age of A ?

(a) 10 yrs   (b) 20 yrs

(c) 25 yrs   (d) 40 yrs

124. The factors of $8x^2 - 18x + 9$ –

(a) $(4x-3)(2x+3)$ (b) $(8x-1)(x-9)$

(c) $(8x-3)(x-3)$ (d) $(2x-3)(4x-3)$

125. A contractor employs a labourer at ₹ 75 per day as remuneration, alongwith the condition that if he is absent, he will be fined ₹ 15 per day and will not get the remuneration of absent day/days. After 20 days the contractor paid ₹ 1140 to the labourer, for how many days had been the labourer absent from his work?

(a) 3   (b) 5

(c) 4   (d) 2

126. At 3 : 00 am the temperature was 13 degrees below zero. By noon it has risen to 32 degrees. What was the average hourly increase in temperature, in degrees?

(a) (19/9)   (b) 5

(c) (19/6)   (d) 7.5

127. A person went to the market and purchased a pen for ₹ 15. If he is still left with $\frac{2}{5}$ th of his total money, find the total amount of money he had initially–
    (a) ₹ 40
    (b) ₹ 37.50
    (c) ₹ 55
    (d) None of these

128. Find the distance covered by a man walking for 12 min. at a speed of 3.5 km/h–
    (a) 0.7 km
    (b) 7 km
    (c) 1.7 km
    (d) 7.7 km

129. Find the greatest number of 5 digits which is exactly divisible by 463–
    (a) 99082
    (b) 99545
    (c) 99568
    (d) 99999

130. What percentage is equivalent to $\frac{3}{5}$?
    (a) 15%
    (b) 85%
    (c) 65%
    (d) 60%

131. During one year the population of a locality increased by 5% but during the next year it decreased by 5%. If the total population at the end of the second year was 7,980, find the population at the beginning of the first year–
    (a) 7890
    (b) 8900
    (c) 9800
    (d) 8000

132. What quantity of water should be added to reduce 9 litres of 50% acidic liquid to 30% acidic liquid ?
    (a) 4.5 litres
    (b) 3 litres
    (c) 6 litres
    (d) 7.5 litres

133. Find the value of the missing figure in the question given below –
    6 : ? : : 5 : 35
    (a) 30
    (b) 36
    (c) 42
    (d) 48

134. What should come in place of the question marks (?) in the following expression ?
    $$\frac{28}{?} = \frac{?}{112}$$
    (a) 70
    (b) 56
    (c) 48
    (d) 64

135. What minimum amount should be added to ₹ 149250 so that the sum can be distributed equally among 4744 people ?
    (a) ₹ 2448
    (b) ₹ 2558
    (c) ₹ 2568
    (d) None of these

136. Foodgrains for 220 soldiers have been stored in a fort. Foodgrains will be consumed in 16 weeks, if each soldier is given 45 gm per day. The same foodgrains will last for 24 weeks if each soldier is given 33 gms per day and some soldiers are removed. How many soldiers should be removed ?
    (a) 44
    (b) 160
    (c) 20
    (d) 52

137. A man spends $\frac{1}{3}$ rd of his income on food, $\frac{1}{4}$ th of the rest on house rent and $\frac{1}{5}$ th of the rest on clothes. He still has ₹ 1,760 left with him. Find his income.
    (a) ₹ 8800
    (b) ₹ 6160
    (c) ₹ 4400
    (d) ₹ 2640

138. Find the value of –
    852.2019 + 106.78 – 59.157
    (a) 899.8249
    (b) 899.8429
    (c) 899.2849
    (d) 898.8249

Directions (139-143) : *Study the following table carefully to answer the questions that follow.*

Number of Soldiers (in thousands) retired during six different years

ACADEMICS				
Years	Air force	Army	Navy	Coast-Guard	BSF
2004	2.5	5.2	1.6	0.6	4.2
2005	3.7	6.1	1.9	1.8	5.1
2006	2.9	6.9	2.4	1.2	3.7
2007	5.4	7.2	2.8	2.7	5.2
2008	4.2	6.4	1.5	5.4	4.4
2009	5.6	8.4	3.5	3.6	6.3

139. What is the difference between the total number of Soldiers retired from Airforce in the year 2006, 2007 and 2008 and the number of Soldiers retired from Army in the year 2009 ?
    (a) 4,700
    (b) 4,100
    (c) 3,600
    (d) 36,000

140. Total number of Soldiers retired from BSF in the years 2005 and 2006 together was **approximately** what percent of the total number of Soldiers retired from Navy over all the years together ?

(a) 70   (b) 54

(c) 64   (d) 75

141. What was the average number of Soldiers retired together in the year 2007 ?

(a) 4,660   (b) 46,600

(c) 23,300   (d) 2,330

142. In which force the number of the soldiers retired continuously increased from the year 2004 to 2009 ?

(a) Air force   (b) Army & BSF only

(c) Coast Guard   (d) None of these

143. What was the respective ratio between the number of soldiers retired from Army in the year 2004 and number of soldiers retired from Coast guard in the year 2006 ?

(a) 13 : 4   (b) 13 : 6

(c) 3 : 26   (d) 13 : 3

144. From four corners of a square sheet of side 4 cm, four pieces, each in the shape of arc of a circle with radius 2 cm, are cut out. The area of the remaining portion is :

(a) $(8 - \pi)$ sq. cm   (b) $(16 - 4\pi)$ sq. cm

(c) $(16 - 8\pi)$ sq. cm   (d) $(4 - 2\pi)$ sq. cm

145. ABCD is a cyclic parallelogram. The angle $\angle B$ is equal to :

(a) 30°   (b) 60°

(c) 45°   (d) 90°

146. A straight line parallel to the base BC of the triangle ABC intersects AB and AC at the points D and E respectively. If the area of the ΔABE be 36 sq. cm, then the area of the ΔACD is

(a) 18 sq. cm   (b) 36 sq. cm

(c) 18 cm   (d) 36 cm

147. The point D and E ae taken on the sides AB and AC of ΔABC such that $AD = \frac{1}{3}AB$, $AE = \frac{1}{3}AC$. If the length of BC is 15 cm, then the length of DE is

(a) 10 cm   (b) 8 cm

(c) 6 cm   (d) 5 cm

148. A car covers a distance of 540 km in 9 hours. Speed of a train is **double** the speed of the car. Two-third the speed of the train is equal to the speed of a bike. How much distance will the bike cover in 5 hours ?

(a) 450 km   (b) 360 km

(c) 400 km   (d) 500 km

149. The ratio between the angles of a quadrilateral is 3 : 4 : 6 : 5. **Two-third** the largest angle of the quadrilateral is equal to the smaller angle of a parallelogram. What is the value of adjacent angle of the parallelogram ?

(a) 120°   (b) 110°

(c) 100°   (d) 130°

150. What profit/loss percent did Ravi earn if he purchased an item of ₹ 5,600/- and sold it at three-fourth of its cost price ?

(a) Loss of 20 percent

(b) Gain of 25 percent

(c) Neither gain nor loss

(d) Loss of 15 percent

PART - D
ENLGLISH COMPREHENSION

Directions: *In questions no. 151 to 155, some of the sentences have errors and some are correct. Find out which part of a sentence has an error and blacken the rectangle corresponding to the appropriate letter (A, B, C). If a sentence is free from errors, blacken the rectangle corresponding to (d) in the Answer Sheet.*

151. (a) Neeraj said

(b) that he would rather fail than copying

(c) in the examination

(d) No error.

152. (a) You will come

(b) to my party tomorrow,

(c) isn't it?

(d) No error.

153. (a) As much as I admire him for his sterling qualities.

(b) I cannot excuse him for

(c) being unfair to his friends.

(d) No error.

154. (a) All the furnitures have been
     (b) sent to the new house
     (c) located in a village.
     (d) No error.

155. (a) Though senior in age,
     (b) his father is junior than
     (c) my father in service.
     (d) No error.

Directions: *In questions no. 156 to 160, sentences are given with blanks to the filled in with an appropriate word. 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 most obvious reason for his lack of popularity was his_____ to find fault with others.
     (a) reluctance   (b) premonition
     (c) superiority   (d) propensity

157. Although he never learnt to read, his exceptional memory and enquiring mind eventually made him a very_____ man.
     (a) benevolent   (b) dedicated
     (c) pragmatic   (d) charismatic

158. The final electoral rolls have been intensively revised through house-to-house_____.
     (a) documentation   (b) categorisation
     (c) enumeration   (d) investigation

159. The Chairman will come here at 5 p.m. to_____ a lecture.
     (a) attain   (b) speak
     (c) talk   (d) deliver

160. Mountaineering institutes____to the young climbers the technical knowledge which has been accumulated over the years.
     (a) impart   (b) indicate
     (c) apply   (d) help

Directions: *In questions no. 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. GERMINATE
     (a) decay   (b) breed
     (c) produce   (d) sprout

162. EFFICACY
     (a) delicacy   (b) ruthlessness
     (c) efficiency   (d) solemnity

163. MAGNATE
     (a) tycoon   (b) senior executive
     (c) non-magnetic   (d) symbolic

164. FACET
     (a) sweet   (b) tap
     (c) deceit   (d) aspect

165. PERNICIOUS
     (a) deadly   (b) curious
     (c) gorgeous   (d) expensive

Directions: *In question no. 166 to 170, out of the four alternatives, choose the word opposite in meaning to the given word and mark it in the Answer Sheet.*

166. INGENUOUS
     (a) cunning   (b) stupid
     (c) naive   (d) young

167. EGREGIOUS
     (a) notorious   (b) splendid
     (c) abortive   (d) maturity

168. DISSIPATE
     (a) waste   (b) conserve
     (c) organise   (d) unite

169. STURDY
     (a) important   (b) rich
     (c) weak   (d) vigorous

170. SACROSANCT
     (a) irreligious   (b) unethical
     (c) irreverent   (d) open

Directions: *In questions no. 171 to 175, four alternatives are given for the meaning of the given Idiom/phrase. Choose the alternative which best expresses the meaning of the Indian/Phrase and mark in the Answer Sheet.*

171. *In the blues*
     (a) Being colourful
     (b) Melancholy and low spirited
     (c) Behave like a lord
     (d) Cheerful and happy

172. *See eye to eye*
     (a) State at each other
     (b) Agree

(c) Depend on

(d) Make an effort

173. *Talk shop*

   (a) Talk about one's profession

   (b) Talk about shopping

   (c) Ridicule

   (d) Treat lightly

174. *Bad blood*

   (a) Infected blood   (b) Ill-feeling

   (c) Unfaithful   (d) Suspicion

175. *Wear one's heart on one's sleeve*

   (a) Lure passionately

   (b) Do the right thing

   (c) Show one's feelings

   (d) Be intimate

Directions: *In questions no. 176 to 180, a sentence or underlined part thereof is given which may need improvement. Alternatives are given at (a), (b) and (c) below, which may be a better option. In case no improvement is needed, your answer is (d). Darken the appropriate rectangle in the Answer Sheet.*

176. Other countries have eradicated this disease ten years ago.

   (a) eradicated   (b) had eradicated

   (c) did eradicated   (d) No improvement

177. Why the dinosaurs died out is not known.

   (a) it is not known

   (b) the reason is not known

   (c) that is not known

   (d) No improvement

178. His father won't be able to leave for Varnasi until they have arrived.

   (a) until they arrive

   (b) until they will have arrived

   (c) until they will arrive

   (d) No improvement

179. I will not go to school, if it shall rain tomorrow.

   (a) it would rain tomorrow

   (b) it will rain tomorrow

   (c) it rains tomorrow

   (d) No improvement

180. He has not and can never be in the good books of his employer because he lacks honesty.

   (a) has not and cannot be

   (b) has not and can never been

   (c) has not been and can never be

   (d) No improvement

Directions: *In questions no. 181 to 185, out of 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. The right to vote

   (a) ballot   (b) electorate

   (c) franchise   (d) graffiti

182. A person who believes he is always ill

   (a) maverick   (b) metaphysics

   (c) neophyte   (d) hypochondriac

183. One who assails traditional beliefs

   (a) critic   (b) atheist

   (c) anthropologist   (d) iconoclast

184. A person who chooses to live in a foreign country

   (a) traveller   (b) explorer

   (c) immigrant   (d) refugee

185. An official inquiry into the cause of an unnatural death

   (a) inquest   (b) investigation

   (c) post-mortem   (d) instigation

Directions: *In question no. 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) Asspersion   (b) Voluptuous

    (c) Voguei   (d) Equestrain

187. (a) Hindrance   (b) Hinderrance

    (c) Hindrence   (d) Hinderence

188. (a) Parallelled   (b) Parralleled

    (c) Paralleled   (d) Paraleled

189. (a) Lckadaisicle   (b) Lackdaisical

    (c) Lackadisical   (d) Lackadaisical

190. (a) Inoculation   (b) Innoculation

    (c) Inocculation   (d) Inocullation

Directions: *In the following passage (question no. 191 to 200), some of the words have been left out. First read the passage over and try to understand what is about. Then fill in the blanks with the help of the alternatives given. Mark your answer in the Answer Sheet.*

PASSAGE(Q. Nos.191-200)

In the large shops ...(191)... for Diwali are begun ...(192)... or six weeks before ...(193)... actual day. Shop owners …(194)… Diwali because lots of ...(195)... are given, which means ...(196)... goods are bought than ...(197)...any other time of ...(198)... year. The main shops ...(199)... decorated many weeks before ...(200)... to tempt people to buy things.

191. (a) preparations   (b) shopping
      (c) purchases   (d) preparing

192. (a) two   (b) five
      (c) few   (d) couple

193. (a) a   (b) an
      (c) the   (d) which

194. (a) hate   (b) anticipate
      (c) recommend
      (d) like

195. (a) purchases   (b) prizes
      (c) presents   (d) presentation

196. (a) many   (b) more
      (c) few   (d) less

197. (a) at   (b) in
      (c) on   (d) for

198. (a) any   (b) a
      (c) the   (d) this

199. (a) were   (b) are
      (c) have been   (d) will be

200. (a) occasion   (b) festival
      (c) festivities   (d) Diwali