

General Intelligence

Directions—(Q. 1–6) Select the related letters/word number from the given alternatives.

- Sapling : Tree :: Girl : ?
(A) Woman (B) Wife
(C) Man (D) Child
- Doctor : Hospital :: Chef : ?
(A) Cook (B) Knife
(C) Kitchen (D) Food
- CHAIR : RIAHC :: TABLE : ?
(A) SJBID (B) UBCMF
(C) ELTAB (D) ELBAT
- Food : hunger :: sleep : ?
(A) dream (B) weariness
(C) night (D) health
- XXIV : 48 :: XIV : ?
(A) 30 (B) 28
(C) 24 (D) 14
- 6, 20, 8, 14, 10, 8, 12 ?
(A) 14 (B) 2
(C) 4 (D) 10

Directions—(Q. 7–10) Select the one which is different from the other three responses.

- (A) root (B) stem
(C) leaf (D) flower
- (A) student (B) ward
(C) mentor (D) pupil
- (A) 11 (B) 17
(C) 14 (D) 3
- (A) 53, 69 (B) 65, 80
(C) 62, 78 (D) 50, 66

Directions—(Q. 11–13), Which one of the given responses would be a meaningful order of the following ?

- (i) Study
(ii) Employment
(iii) Pass
(iv) Admission
(v) Examination

- (A) (iv), (v) (iii), (i), (ii)
(B) (iv), (i), (v), (iii), (ii)
(C) (i), (iii), (iv), (v), (ii)
(D) (iv), (i), (ii), (v), (iii)
- (i) Sowing (ii) Manuring
(iii) Ploughing (iv) Harvesting
(v) Watering
(A) (i), (v) (ii), (iv), (iii)
(B) (iii), (i), (v), (ii), (iv)
(C) (i), (iii), (ii), (iv), (v)
(D) (i), (ii), (iv), (iii), (v)
- (i) Leaf (ii) Fruit
(iii) Stem (iv) Roots
(v) Flower
(A) (ii), (iv), (v), (i), (ii)
(B) (iv), (iii), (i), (v), (ii)
(C) (iv), (i), (iii), (v), (ii)
(D) (iv), (iii), (i), (ii), (v)
- Which will appear fourth in the dictionary ?
(A) Miracle (B) Minority
(C) Mistake (D) Mission
- Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it ?
g _ _ g _ _ g h _ g _ i
(A) h i h i h (B) h h i i h h
(C) j k l j k l (D) h i j k l i

Directions—(Q. 16–18) A series given, with one number/letter missing. Choose the correct alternative from the given ones that will complete the series.

- C A G E K I O M _ _
(A) SQ (B) US
(C) QS (D) OQ
- 36, 34, 30, 28, 24, ?
(A) 20 (B) 22
(C) 23 (D) 26
- 1, 4, 9, 16, 25,, 49
(A) 27 (B) 36
(C) 64 (D) 81
- There are twelve dozens of apples in a basket. Two dozens

are added later. Ten apples got spoiled and are removed. The remaining are transferred equally into two baskets. How many are there in each ?

- (A) 89 (B) 168
(C) 158 (D) 79
- Shyama says that father of Rajiv's father is my father. How Shyama is related to Rajiv ?
(A) Sister
(B) Mother
(C) Father's sister (aunt)
(D) Niece
- The average age of husband, wife and their child 3 year ago was 27 year and that of wife and the child 5 year ago was 20 year. The present age of husband is—
(A) 35 year (B) 40 year
(C) 50 year (D) 45 year

Directions—(Q. 22 and 23) From the given alternatives select the word which cannot be formed using the letters of the given word.

- "GRASSHOPPER"
(A) HOPE (B) SHOP
(C) GRAM (D) ROSE
- "THUNDERBOLT"
(A) BEND (B) HUNTER
(C) BOTHER (D) BOWLED
- If LAME is written as ODPH, how can MALE be written in that code ?
(A) PDOH (B) HOPD
(C) DOPH (D) OPDH
- If 'Madagascar' can be written as 4727879670, then 'Madras' can be written as—
(A) 472490 (B) 424290
(C) 427409 (D) 472079
- If 35674 is written as 57896, how will 4213 be written as ?
(A) 5376 (B) 6435
(C) 5397 (D) 5389

27. If $5 = 5$, $6 = 12$, $7 = 21$, $8 = 32$, then $9 = ?$

- (A) 9 (B) 27
(C) 36 (D) 45

28. Which among the following is a leap year ?

- (A) 1600 (B) 1900
(C) 1800 (D) All of these

Directions—(Q. 29 and 30) Select the missing number from the given responses.

29.

7	9	6
8	6	7
3	5	?
168	270	126

(A) 6 (B) 5
(C) 4 (D) 3

30.

15	11	7
7	9	12
8	6	?
840	594	420

(A) 9 (B) 70
(C) 60 (D) 5

31. If '+' means 'x', '-' means '÷', 'x' means '+' and '÷' means '-', then,
 $25 \times 5 + 3 \div 2 + 5 = ?$

- (A) 40 (B) 20
(C) 50 (D) 30

32. If $20 + 3 = 15$ and $15 + 4 = 30$, then $12 + 6 = ?$

- (A) 36 (B) 27
(C) 60 (D) 9

33. A man walks 4 km to the east, turns left walks 4 km and turns left and walks 4 km. Which direction is he facing ?

- (A) North (B) South
(C) East (D) West

34. In a double track rail route, two trains start simultaneously from the opposite stations, 200 km apart. The train A runs westwards at a speed of 50 kmph and the opposite train B runs eastwards at 40 kmph. After 3 hour. What will be the distance between these two trains ?

- (A) 70 km (B) 30 km
(C) 50 km (D) 80 km

Directions—(Q. 35–37) Two/three statements are given followed by two/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 have to decide which of the given conclusions, if any, follow from the given statements.

35. **Statements :**

1. All teachers are experienced.
2. Some teachers are spinsters.

Conclusions :

- I. Some experienced are spinsters.
 - II. Some spinsters are experienced.
- (A) Only conclusion I follows.
(B) Only conclusion II follows.
(C) Either conclusion I or II follows.
(D) Both conclusion I and II follows.

36. **Statements :**

1. There are books in all the boxes which are kept in a container.
2. Some boxes also have note books.
3. Some others have writing pads.

Conclusions :

- I. Some boxes have only writing pads.
 - II. All boxes have note-books.
 - III. Some boxes have books and note-books.
 - IV. Some boxes have books, note-books and writing pads.
- (A) Only conclusion IV is correct.
(B) Only conclusion III is correct.
(C) Only conclusion II is correct.
(D) Only conclusion I is correct.

37. **Statements :**

1. All the benches are desks.
2. No desk is chair.

Conclusions :

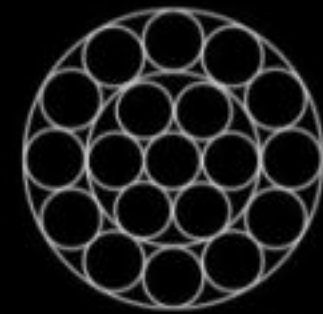
- I. All the benches are chairs.
 - II. All the desks are benches.
 - III. No desk is bench.
 - IV. No bench is chair.
- (A) Only conclusion I is correct.
(B) Only conclusion II is correct.
(C) Only conclusion III is correct.
(D) Only conclusion IV is correct.

38. A plane mirror is kept on line MN. Word of which option is the correct image of the question ?



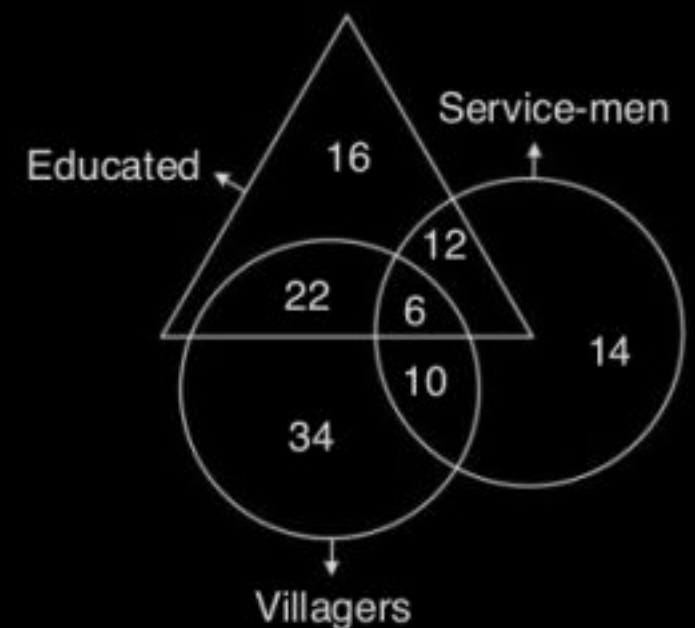
- (A) $\text{NOI}??\text{IM}$ (B) $\text{NOI}??\text{IM}$
(C) NOISSIW (D) $\text{NOI}??\text{IW}$

39. How many are the circles in the following figure ?



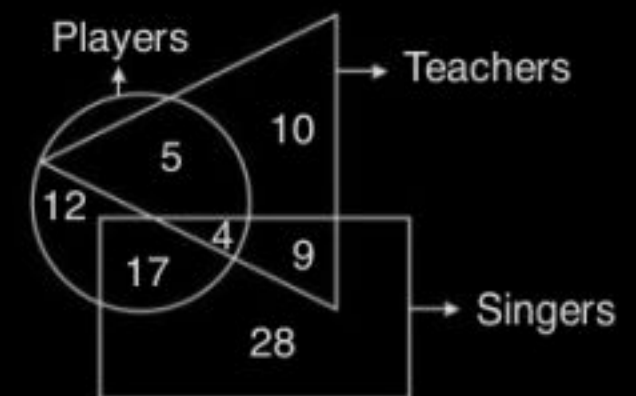
- (A) 21 (B) 19
(C) 18 (D) 17

40. How many villagers are educated ?



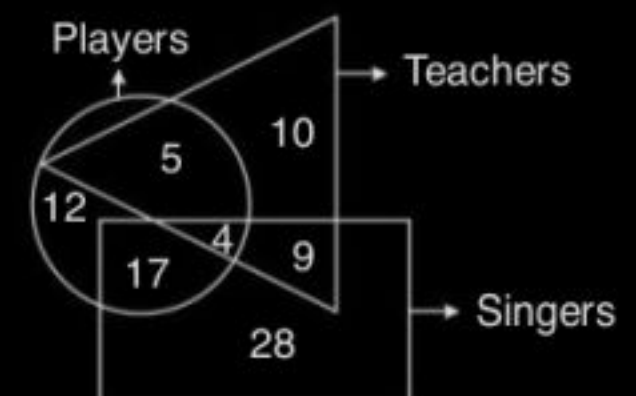
- (A) 44 (B) 28
(C) 56 (D) 16

41. How many are such teachers who are neither players nor singers ?



- (A) 5 (B) 10
(C) 4 (D) 9

42. How many are such players who are neither teachers nor singers ?



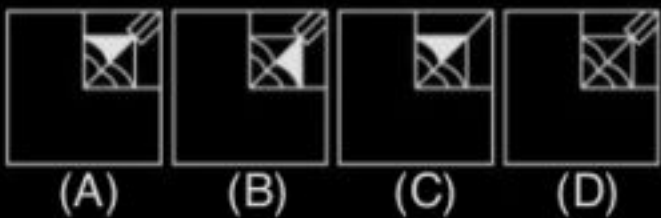
- (A) 5 (B) 17
(C) 12 (D) 4

Directions—(Q. 43 and 44)
Which answer figure fulfils the image of problem figure ?

43. **Question figure :**



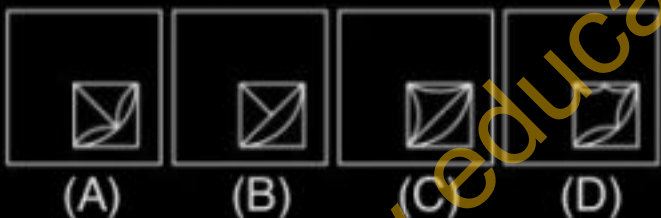
Answer figures :



44. **Question figure :**

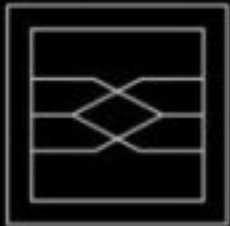


Answer figures :



45. Which answer figure is the part of the following complete form of question figure ?

Question figure :



Answer figures :

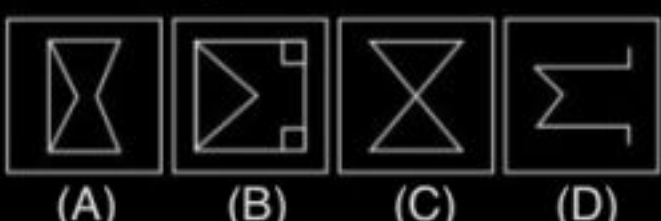


Directions—(Q. 46 and 47)
Select the answer figure in which the question figure is hidden/embedded.

46. **Question figure :**



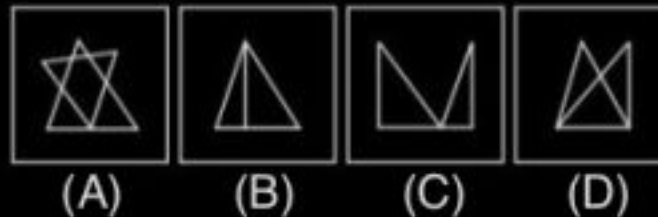
Answer figures :



47. **Question figure :**

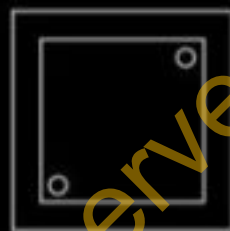


Answer figures :

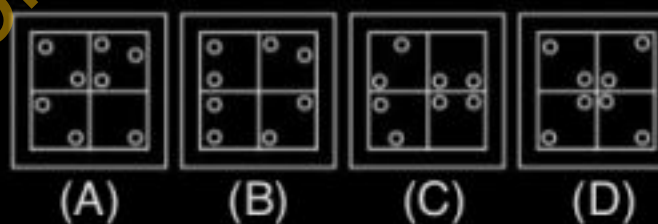


Directions—(Q. 48 and 49) A piece of paper is folded and cut as shown below in the question figure. From the given answer figures, indicate how it will appear when opened.

48. **Question figure :**



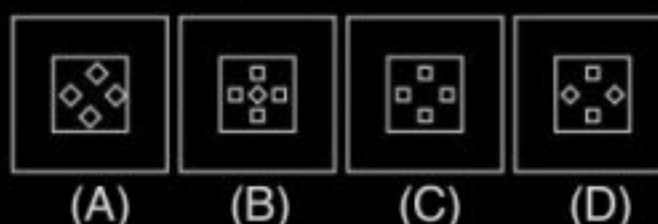
Answer figures :



49. **Question figure :**



Answer figures :



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 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., 'A' can be represented by 55, 67 etc., and 'R' can be represented 23, 30 etc.* Similarly, identify the set for the word DART.

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) 69, 67, 11, 86
(B) 76, 86, 03, 87
(C) 57, 55, 04, 56
(D) 95, 98, 42, 65

For Visually Handicapped Candidates Only

Directions—(Q. 38–40) Select the related letter/word/number from the given alternatives.

38. House : Wall :: Wall : ?
(A) Cement (B) Brick
(C) Sand (D) Paint
39. CAMP : XZNK :: ? : HZOG
(A) ARMY (B) SALT
(C) ALSO (D) SOUR
40. ZYXW : VUTS :: RQPO : ?
(A) NMLK (B) ABCD
(C) PQRS (D) KLMN
41. Arrange the following words as per order in the dictionary.
(i) Allot (i) Allure
(iii) Allege (iv) Alter
(v) Allow
(A) (ii), (iii), (v), (iv), (i)
(B) (iii), (i), (v), (ii), (iv)
(C) (i), (ii), (iii), (v), (iv)
(D) (v), (iii), (i), (ii), (iv)

Directions—(Q. 42 and 43)
Select the word which will appear third in the English Dictionary.

42. 1. Consort 2. Console
3. Consult 4. Consent
(A) Consort (B) Console
(C) Consult (D) Consent
43. 1. Plane 2. Plain
3. Plenty 4. Player
5. Place
(A) Place (B) Plane
(C) Plenty (D) Plain
44. Which word will appear second in the dictionary.
(A) Attempt (B) Abdomen
(C) Academy (D) Affection

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

... op...mo... n.....pnmop ...

- (A) m n p m o n
- (B) m n p o m n
- (C) m p m n o p
- (D) m p n o m n

46. A and B are of equal height. C is taller than B. B is shorter than D. C and A are not taller than D. Who is the tallest ?

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

47. From the given alternative words, select the word which cannot be formed using the letters of the given word.

“EMERGENCY”

- (A) EMERGE
- (B) EMERGENCE
- (C) MERGE
- (D) YEN

48. In certain code, ‘METRONOME’ is written as ‘EEMNNOORT’. How ‘MICROCOSM’ can be written in that code ?

- (A) MMCCOOIRS
- (B) CCIMMOORS
- (C) MMCCIRSOO
- (D) CCIRSOOMM

49. If RESOURCEFUL can be written as SOURCEFULRE, then how can REGARDLESS be written in this code form ?

- (A) GARDLESRES
- (B) GARDLESERS
- (C) GARDLESSRE
- (D) GARDLESSER

50. Some equations are solved on the basis of certain system. Find the correct answer for the unsolved equation ?

$7 \times 9 \times 5 = 597$, $3 \times 6 \times 4 = 463$,
 $8 \times 7 \times 9 = ?$

- (A) 504 (B) 789
- (C) 879 (D) 978

and some have none. Find out which part of a sentence has an error and blacken the oval (●) corresponding to the appropriate letter (A, B, C). If a sentence is free from error, blacken the oval corresponding to (D) in the Answer Sheet.

51. Being very dark, / the visitors
(A) (B)
found it difficult / to locate the
(C)
switch. No error
(D)

52. Nalini says / she is living in
(A) (B)
Chennai / since 1991. No error
(C) (D)

53. We get / excellent furnitures / in
(A) (B)
this shop. No error
(C) (D)

54. We should arrange / for a porter
(A) (B)
as / the luggages are heavy.
(C) No error
(D)

55. My father / has returned back / to
(A) (B)
Chennai yesterday. No error
(C) (D)

56. Everyone are expected / to come/
(A) (B)
to school tomorrow. No error
(C) (D)

Directions—(Q. 57–61) 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 oval (●) in the Answer Sheet.

57. I visit Shimla frequently; however, I have never Kufri.
(A) visited to (B) been too
(C) been to (D) went to

58. He was junior me in college and we have been friends since then
(A) than (B) from
(C) to (D) with

59. The in the region has been pleasant recently.
(A) weather (B) whether
(C) season (D) climate

60. While he was working at the construction site, the block of wood suddenly his right shoulder.

- (A) was hit (B) had hitted
- (C) hit (D) was hitted

61. following all the instructions closely, he missed out an important guideline.

- (A) Although (B) In spite of
- (C) Otherwise (D) Instead of

Directions—(Q. 62–64) Out of the four alternatives, choose the one which best expresses the meaning of the given word and mark it in the Answer Sheet.

62. Thrive
(A) Flourish (B) Raise
(C) Create (D) Destroy

63. Dissuade
(A) Worry (B) Disturb
(C) Discourage (D) Encourage

64. Anguish
(A) Conflict (B) Anger
(C) Agony (D) Trouble

Directions—(Q. 65–67) Choose the word opposite in meaning to the given word and mark it in the Answer Sheet.

65. Permit
(A) Approve (B) Certify
(C) Forbid (D) Endorse

66. Lead
(A) Guide (B) Follow
(C) Direct (D) Conduct

67. Insolent
(A) Arrogant (B) Overbearing
(C) Disdainful (D) Submissive

Directions—(Q. 68–72) 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.

68. In black and white
(A) In writing
(B) In short
(C) In full swing
(D) Useless

69. Hand and glove
(A) Open enemy
(B) Very intimate

Part-II

English Language

Directions—(Q. 51–56) Some parts of the sentences have errors

- (C) Very rude
(D) Very difficult
70. A hard nut to crack
(A) A difficult problem
(B) An easy question
(C) Expensive thing
(D) A foolish search
71. At a loss
(A) Unable (B) Able
(C) Defeat (D) Expert
72. A lame excuse
(A) Good explanation
(B) Useless talk
(C) Ill feelings
(D) Unsatisfactory explanation
- Directions**—(Q. 73–79) A part of the sentence is **bold**. Below are given alternatives to the **bold** part at (A), (B), (C) which may improve the sentence. Choose the correct alternative. In case no improvement is needed, your answer is (D). Mark your answer in the Answer Sheet
73. The offer is **very good so it just can't** be true.
(A) So good to
(B) Rather good to
(C) Too good to
(D) No improvement
74. The bell **was ringing and ringing** but no one picked up the phone.
(A) Rang and rang
(B) Rang repeatedly
(C) Was ringing repeatedly
(D) No improvement
75. Sujata was **junior to** me in college.
(A) Junior than
(B) Junior most to
(C) Junior of
(D) No improvement
76. One of **my teacher** has received the Sahitya Akademi award.
(A) The teacher
(B) My teachers
(C) Teacher
(D) No improvement
77. If I had gone to Mumbai, I **would surely bring** your books ?
(A) Would have surely brought
(B) Could have surely brought
(C) Might have brought
(D) No improvement

78. Sachin Tendulkar has completed hundred centuries, **hasn't he** ?
(A) has he ?
(B) isn't it ?
(C) didn't he ?
(D) No improvement
79. My friend **went** abroad last week.
(A) Has gone
(B) Went to
(C) Had gone
(D) No improvement

Directions—(Q. 80–83) Out of the four alternatives choose the one which can be substituted for the given words/sentence.

80. Fit to be eaten
(A) Credible (B) Audible
(C) Edible (D) Legible
81. Unfair advantages for members of one's own family—
(A) Plagiarism (B) Nepotism
(C) Regionalism (D) Optimism
82. A proficient public speaker—
(A) Orator (B) Narrator
(C) Arbitrator (D) Curator
83. Always ready to attack or quarrel—
(A) Impatient (B) Aggressive
(C) Malicious (D) Creative

Directions—(Q. 84 and 85) There are four different words out of which one is correctly spelt. Find the correctly spelt word and indicate it by blackening the appropriate oval (●) in the Answer Sheet.

84. (A) Diesel (B) Dezel
(C) Desal (D) Deesal
85. (A) Vilage (B) Vilege
(C) Village (D) Villege

Directions—(Q. 86–100) You have following two brief passages with 10 questions in **Passage-I** and 5 questions in **Passage-II**. Read the passages carefully and fill in the blanks with suitable words out of the four alternatives given.

Passage-I

(Q. 86–95)

In Buddha's days rough rectangular coins ...(86)... issued by various economic and political authorities ...(87)... it was not until the fourth century before Christ that India

arrived at a coinage guaranteed by the state. Sher Shah ...(88)... well-designed pieces of copper, silver and gold. In medieval India the growth of industry and commerce was impeded ...(89)... a religious antipathy to the taking of interest. The Indians ...(90)... put out money at usury nor knew how to borrow. When the Hindu ...(91)... not invest his savings in his own economic enterprises he ...(92)... to hoard them, or to buy jewellery as conveniently ...(93)... wealth. Perhaps this failure to develop a facile credit system ...(94)... the industrial revolution to establish the European domination of Asia. Slowly, however despite the ...(95)... of the Brahmans, money-lending grew.

86. (A) was (B) had
(C) were (D) have
87. (A) and (B) or
(C) since (D) but
88. (A) issued (B) started
(C) made (D) put forth
89. (A) on (B) in
(C) by (D) as
90. (A) either (B) whether
(C) therefore (D) neither
91. (A) should (B) must
(C) could (D) would
92. (A) decided (B) declared
(C) asked (D) preferred
93. (A) precious (B) hoardable
(C) respectable (D) usable
94. (A) aided (B) insisted
(C) confirmed (D) summoned
95. (A) oppression
(B) hostility
(C) compassion
(D) affability

Passage-II

(Q. 96–100)

One rainy day I watched a neighbour ...(96)... to push her toddler in a pram with one hand and control her Doberman with the other. The dog didn't want to get its feet wet and was refusing to walk. I was about to put on my jacket and offer ...(97)... help when the trio disappeared ...(98)... some hedges. When they reappeared, she ...(99)... to have

sorted out her problem : the toddler, attached to the dog's leash, was ...**(100)**... running through mud puddles, and the dog was in the pram.

96. (A) struggling
(B) struggle
(C) being struggle
(D) was struggling
97. (A) lot (B) the
(C) some (D) few
98. (A) on (B) above
(C) to (D) behind
99. (A) was (B) seemed
(C) looked (D) seem
100. (A) generally (B) hardly
(C) fiercely (D) joyously

Part-III

Quantitative Aptitude

101. If p and q are two relatively prime positive integers such that $p + q = 10$, $p < q$, then the number of possible values of p is—
(A) 1 (B) 2
(C) 3 (D) 4
102. The greatest number of four digits which when divided by 3, 5, 7, 9 leaves remainders 1, 3, 5, 7 respectively is—
(A) 9765 (B) 9763
(C) 9764 (D) 9766
103. If $\sqrt{18225} = 135$, then the value of $\sqrt{18225} + \sqrt{182.25} + \sqrt{1.8225} + \sqrt{0.018225}$ is—
(A) 1.49985 (B) 14.9985
(C) 149.985 (D) 1499.85
104. A alone can do a piece of work in 20 day and B alone in 30 day. They begin to work together. They will finish half of the work in—
(A) 6 day (B) 8 day
(C) 9 day (D) 12 day
105. P is thrice as good a workman as Q and therefore became able to finish a job in 48 days less than Q. Working together, they can do it in—
(A) 12 day (B) 18 day
(C) 24 day (D) 30 day
106. A trader marks his goods 25% above his cost price but allows

his customers a discount of 10% on the marked price at the time of selling. By this, the trader gains—

- (A) 15% (B) 13.5%
(C) 12.5% (D) 12%

107. A trader allows two successive discount of 30% and 15% on selling an article. If he gets ₹ 324 for that article, find its marked price—

- (A) ₹ 800 (B) ₹ 700
(C) ₹ 400 (D) ₹ 900

108. Mr. A bought a refrigerator with $16\frac{2}{3}\%$ discount on the labelled price. Had he bought it with 25% discount, he would have saved ₹ 600. At what price did he buy the refrigerator ?

- (A) ₹ 5000 (B) ₹ 6000
(C) ₹ 7200 (D) ₹ 7500

109. The total number of students of a school was 660. The ratio between boys and girls was 13 : 9. After some days, 30 girls joined the school and some boys left the school and new ratio between boys and girls became 6 : 5. The number of boys who left the school is—

- (A) 60 (B) 50
(C) 40 (D) 30

110. 94 is divided into two parts in such a way that the fifth part of the first and the eighth part of the second are in the ratio 3 : 4. The first part is—

- (A) 28 (B) 30
(C) 36 (D) 40

111. Two vessels A and B contain milk and water mixed in the ratio 8 : 5 and 5 : 2 respectively. The ratio in which these two mixtures be mixed to get a new mixture containing $69\frac{3}{13}\%$ milk is—

- (A) 2 : 7 (B) 3 : 5
(C) 5 : 2 (D) 5 : 7

112. The speed of a train going from Nagpur to Allahabad is 100 km/hr while its speed is 150 km/hr when coming back from Allahabad to Nagpur. Then the average speed during the whole journey is—

- (A) 135 km/hr (B) 120 km/hr
(C) 125 km/hr (D) 140 km/hr

113. Ram aims to score an average of 80 marks in quarterly and half yearly exams. But his average in quarterly is 3 marks less than his target and that in half yearly is 2 marks more than his aim. The difference between the total marks scored in both the exams is 25. Total marks aimed by Ram is—

- (A) 380 (B) 400
(C) 410 (D) 420

114. A library has an average number of 510 visitors on Sunday and 240 on other days. The average number of visitors per day in a month of 30 days beginning with Sunday is—

- (A) 290 (B) 285
(C) 295 (D) 300

115. A book vendor sold a book at a loss of 20%. Had he sold it for ₹ 108 more, he would have earned a profit of 30%. Find the cost price of the book—

- (A) ₹ 432 (B) ₹ 216
(C) ₹ 648 (D) ₹ 240

116. A retailer buys a radio for ₹ 225. His overhead expenses are ₹ 15. He sells the radio for ₹ 300. The profit per cent of the retailer is—

- (A) $33\frac{1}{3}$ (B) 25
(C) $26\frac{2}{3}$ (D) 20

117. A shopkeeper bought 200 articles, each costing the same. He sold 30% of the articles at 20% profit and the remaining at 10% profit. If the total profit made by him is ₹ 2600, find the cost price of one article—

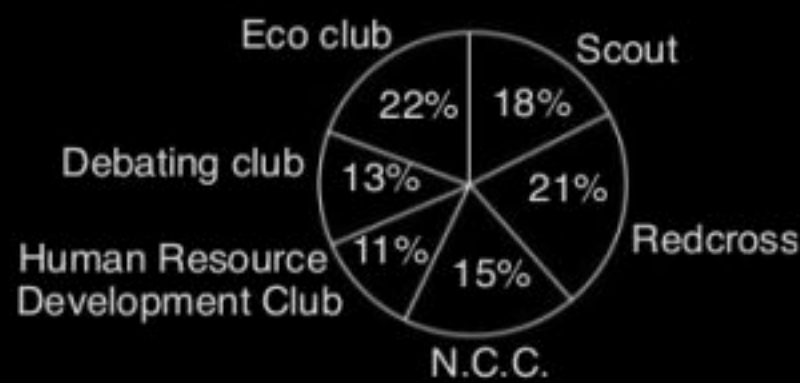
- (A) ₹ 100 (B) ₹ 200
(C) ₹ 1300 (D) ₹ 2600

118. Two candidates contested in an election. One got 60% of the votes and won by 1600 votes. What is the no. of votes polled ?

- (A) 7500 (B) 9000
(C) 8000 (D) 10000

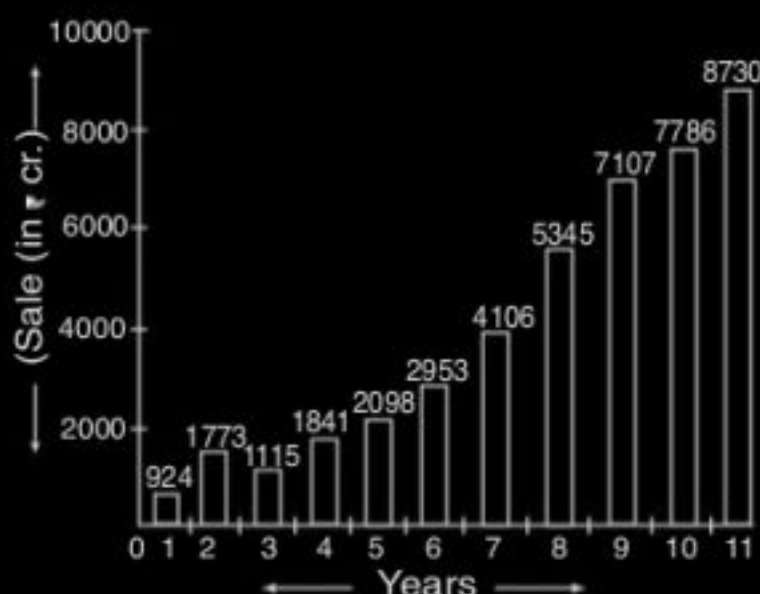
119. While purchasing one item costing ₹ 400, one has to pay sales tax at 7% and on another costing ₹ 6400, the sales tax was 9%. The per cent of sales tax one has to pay, taking these items together on an average is—

- (A) 8 (B) $8\frac{13}{17}$
(C) $8\frac{15}{17}$ (D) $8\frac{1}{2}$
120. A car covers a certain distance going at a speed of 60 kmph and returns to the starting point at a speed of 40 kmph. The average speed for the whole journey is—
(A) 48 kmph (B) 50 kmph
(C) 45 kmph (D) 40 kmph
121. The speed of a stream is 3 km/hr and the speed of a man in still water is 5 km/hr. The time taken by the man to swim 26 km downstream is—
(A) $5\frac{1}{5}$ hr (B) $8\frac{2}{3}$ hr
(C) $3\frac{1}{4}$ hr (D) 13 hr
122. A certain scheme of investment in simple interest declares that it trebles the investment in 8 year. If you want to quadruple your money through that scheme, you have to invest it for—
(A) 12 year
(B) 11 year 6 month
(C) 10 year 8 month
(D) 10 year
123. If the population of a town is 64000 and its annual increase is 10%, then its correct population at the end of 3 years will be—
(A) 85100 (B) 80000
(C) 85184 (D) 85000
124. If the slant height of a right pyramid with square base is 4 metre and the total slant surface of the pyramid is 12 square metre, then the ratio of total slant surface and area of the base is—
(A) 12 : 3 (B) 16 : 3
(C) 24 : 5 (D) 32 : 9
125. A hemispherical cup of radius 4 cm is filled to the brim with coffee. The coffee is then poured into a vertical cone of radius 8 cm and height 16 cm. The percentage of the volume of the cone that remains empty is—
(A) 88.2% (B) 87.5%
(C) 80.5% (D) 81.6%
126. The radius of the base of a right circular cone is doubled keeping its height fixed. The volume of the cone will be—
(A) double of the previous volume
(B) three times of the previous volume
(C) four times of the previous volume
(D) $\sqrt{2}$ times of the previous volume
127. A sphere and a hemisphere have the same volume. The ratio of their curved surface areas is—
(A) $2^{1/3} : 1$ (B) $2^{-3/2} : 1$
(C) $2^{2/3} : 1$ (D) $4^{-2/3} : 1$
128. The ratio of sides of a triangle is 3 : 4 : 5. If area of the triangle is 72 square unit, then the length of the smallest side is—
(A) $3\sqrt{3}$ unit (B) $4\sqrt{3}$ unit
(C) $5\sqrt{3}$ unit (D) $6\sqrt{3}$ unit
129. The radii of two circles are 5 cm and 12 cm. The area of a third circle is equal to the sum of the areas of the two circles. The radius of the third circle is—
(A) 17 cm (B) 13 cm
(C) 21 cm (D) 30 cm
130. An equation whose graph passes through the origin, out of the given equations $2x + 3y = 2$, $2x - 3y = 3$, $-2x + 3y = 5$ and $2x + 3y = 0$ is—
(A) $2x + 3y = 2$
(B) $2x - 3y = 3$
(C) $-2x + 3y = 5$
(D) $2x + 3y = 0$
131. If $x - y = 2$, $xy = 24$, then the value of $(x^2 + y^2)$ is—
(A) 52 (B) 25
(C) 36 (D) 63
132. If $a^3 - b^3 = 56$ and $a - b = 2$, then value of $a^2 + b^2$ will be—
(A) 5 (B) 48
(C) 20 (D) 22
133. The value of $(x + y + z)^3 - (y + z - x)^3 - (z + x - y)^3 - (x + y - z)^3$ is—
(A) 0 (B) $12xyz$
(C) $24xyz$ (D) $36xyz$
134. A unique circle can always be drawn through x number of given non-collinear points, then x must be—
(A) 1 (B) 2
(C) 3 (D) 4
135. If $\triangle ABC$ is similar to $\triangle DEF$, such that $\angle A = 47^\circ$, $\angle E = 63^\circ$ then $\angle C$ is equal to—
(A) 37° (B) 40°
(C) 70° (D) 65°
136. ABCD is a quadrilateral inscribed in a circle with centre O. If $\angle COD = 120^\circ$ and $\angle BAC = 30^\circ$, then $\angle BCD$ is—
(A) 60° (B) 75°
(C) 90° (D) 120°
137. ABCD is a trapezium whose side \overline{AD} is parallel to \overline{BC} . Diagonals \overline{AC} and \overline{BD} intersect at O. If $\overline{AO} = 3$, $\overline{CO} = x - 3$, $\overline{BO} = 3x - 19$ and $\overline{DO} = x - 5$, the value(s) of x will be—
(A) 8, 9 (B) 7, 6
(C) 12, 6 (D) 7, 10
138. The value of $\frac{\cot 30^\circ - \cot 75^\circ}{\tan 15^\circ - \tan 60^\circ}$ is—
(A) -1 (B) 0
(C) 1 (D) $\sqrt{3} - 1$
139. The value of $\cot \theta \cdot \tan (90^\circ - \theta) - \sec (90^\circ - \theta) \operatorname{cosec} \theta + (\sin^2 25^\circ + \sin^2 65^\circ) + \sqrt{3} (\tan 5^\circ \cdot \tan 15^\circ \cdot \tan 30^\circ \cdot \tan 75^\circ \cdot \tan 85^\circ)$ is—
(A) 0 (B) 1
(C) -1 (D) 2
140. There are two temples, one on each bank of a river, just opposite to each other. One temple is 54 m high. From the top of this temple, the angles of depression of the top and the foot of the other temple are 30° and 60° respectively. The height of the temple is—
(A) $18\sqrt{3}$ m (B) 18 m
(C) 36 m (D) $36\sqrt{3}$ m
- Directions**—The pie-chart given below shows the number of students enrolled in a school in different activities. Total number of students in the school is 1200. Study the chart and answer the questions 141 to 145.



141. What is the total number of students enrolled in Debating Club and HRD Club ?
 (A) 72 (B) 144
 (C) 216 (D) 288
142. What is the ratio of number of students enrolled in Scout and Redcross activities together to those enrolled in Debating Club activities ?
 (A) 1 : 3 (B) 3 : 1
 (C) 4 : 1 (D) 1 : 4
143. How many students are enrolled in N. C. C. activities ?
 (A) 240 (B) 180
 (C) 120 (D) 72
144. The number of students enrolled in Eco-club is what per cent of those enrolled in Redcross activities ?
 (A) 104.76 (B) 94.24
 (C) 95.45 (D) 82.45
145. Which two clubs have the enrolment in the ratio of 2 : 1 ?
 (A) Debating club, Eco club
 (B) Eco club, HRD club
 (C) Eco club, N.C.C.
 (D) HRD club, Eco club

Directions—The following Bar chart shows the sales of a company XYZ (in ₹ cr.). Study the chart and answer the following questions 146 to 150.



146. Total sales in 2nd and 3rd years together is—
 (A) 2488 crore
 (B) 2688 crore

- (C) 2888 crore
 (D) 2788 crore
147. The 2nd least sale is in year—
 (A) 4 (B) 2
 (C) 3 (D) 6
148. The 2nd highest sale is in the year—
 (A) 7 (B) 10
 (C) 9 (D) 8
149. The sale in the year 4 is less than the sale in the year 8, by—
 (A) 3608 crore (B) 3504 crore
 (C) 3127 crore (D) 3427 crore

150. The mean of the highest and the lowest sale (in ₹ crore) is—
 (A) 4922 (B) 4922.5
 (C) 4827 (D) 4365

For Visually Handicapped Candidates Only

141. In an examination, it is required to get 36% of maximum marks to pass. A student got 113 marks and was declared failed by 85 marks. The maximum marks was—
 (A) 500 (B) 550
 (C) 640 (D) 1008
142. The mean age of a group of persons is 40. Another group has mean age 48. If the ratio of number of persons in two groups is 5 : 3; then mean age of all the persons in two groups is—
 (A) 42 (B) 43
 (C) 44 (D) 45

143. A man buys 10 articles for ₹ 8 and sells them at the rate of ₹ 1.25 per article. His gain per cent is—
 (A) 55% (B) 56 $\frac{1}{4}$ %
 (C) 40% (D) 60%

144. A man rows upstream 11 km and down-stream 26 km taking 5 hours each time. The velocity of the current is—
 (A) 1 km/hr (B) 1.5 km/hr
 (C) 2.5 km/hr (D) 7.5 km/hr

145. The value of $(\sqrt{a^2 + 2b\sqrt{a^2 - b^2}} + \sqrt{a^2 - 2b\sqrt{a^2 - b^2}})$ is—
 (A) a (B) 2a
 (C) b (D) 2b

146. The average ages of three persons is 10 years. Their ages are proportional to 2 : 3 : 5. What is the age in years of the youngest one among them ?
 (A) 3 year (B) 6 year
 (C) 9 year (D) 15 year

147. The value of $\frac{1}{1 + \cos^2 20^\circ} + \frac{1}{1 + \operatorname{cosec}^2 70^\circ}$ is—
 (A) $\frac{3}{2}$ (B) 0
 (C) 1 (D) 2

148. The value of $(\frac{1}{\sqrt{4 + \sqrt{5}} + \sqrt{5 + \sqrt{6}} + \sqrt{6 + \sqrt{7}}} + \dots + \frac{1}{\sqrt{80 + \sqrt{81}}})$ is—
 (A) 9 (B) 7
 (C) 5 (D) 4

149. The chord of a circle subtends an angle 120° at its centre. The length of the chord is—
 (A) $\frac{\sqrt{3}}{2}$ times the radius
 (B) $2\sqrt{2}$ times the radius
 (C) $\sqrt{3}$ times the radius
 (D) None of the above
150. Ratio of the area of the incircle and circumcircle of an equilateral triangle is—
 (A) 1 : 2 (B) 2 : 1
 (C) 1 : 4 (D) 2 : $\sqrt{3}$

Part-IV

General Awareness

151. Monetary policy in India is formulated by—
 (A) RBI
 (B) SEBI
 (C) CLB
 (D) Finance Ministry
152. Consumer's surplus is the highest in the case of—
 (A) Luxuries
 (B) Comforts
 (C) Necessities
 (D) Durable goods

153. Real wage is—
 (A) $\frac{\text{Rent}}{\text{Price level}}$
 (B) $\frac{\text{Interest}}{\text{Price level}}$
 (C) $\frac{\text{Money wage}}{\text{Price level}}$
 (D) $\frac{\text{Profit}}{\text{Price level}}$
154. Which one of the following pairs of goods is an example for Joint Supply ?
 (A) Ink and Pen
 (B) Tooth brush and Paste
 (C) Wool and Mutton
 (D) Coffee and Tea
155. Who appoints the Chief Election Commissioner of India ?
 (A) President
 (B) Parliament
 (C) Prime Minister
 (D) Chief Justice of India
156. Who is the Presiding Officer of the Rajya Sabha ?
 (A) President of India
 (B) Speaker of Lok Sabha
 (C) Prime Minister of India
 (D) Vice-President of India
157. Who founded the Republican Party of India ?
 (A) Mulji Vaishya
 (B) Dr. B. R. Ambedkar
 (C) Sripad Dange
 (D) Namboo Dripad
158. Non-alignment basically implies—
 (A) Neutrality towards power blocks
 (B) Bringing peace and unity to the world
 (C) being a third world power
 (D) choosing its own policy
159. According to Preamble, the ultimate power lies in the hands of—
 (A) Constitution
 (B) President
 (C) People
 (D) Parliament
160. The High Court which has the distinction of having the first woman Chief Justice is—
 (A) Allahabad High Court
 (B) Delhi High Court
 (C) Himachal Pradesh High Court
 (D) Guwahati High Court
161. Who was the first Muslim President of Indian National Congress ?
 (A) Maulana Abul Kalam Azad
 (B) Hassan Imam
 (C) M. A. Ansari
 (D) Badruddin Tyabji
162. Who among the following was defeated by Prithvi Raj Chauhan in the first battle of Tarain ?
 (A) Muhammad Ghori
 (B) Muhammad of Ghazni
 (C) Iltutmish
 (D) Balban
163. Who among the following was the last Delhi Sultan ?
 (A) Daulat Khan Lodi
 (B) Rana Sanga
 (C) Ibrahim Lodi
 (D) Sikandar Lodi
164. The policy of racial discrimination followed in South Africa was called—
 (A) Civil Rights Movement
 (B) Apartheid
 (C) Suffrage
 (D) Non-Aligned
165. Krishnadevaraya built the Krishnaswami temple in Hampi, which is situated in the present state of—
 (A) Calcutta
 (B) Jammu and Kashmir
 (C) Kerala
 (D) Karnataka
166. Which countries are separated by the 49th parallel ?
 (A) USA and Mexico
 (B) France and Germany
 (C) Russia and China
 (D) USA and Canada
167. Gurushikhar is a/the—
 (A) Great guru of sikhs
 (B) Famous hunting spot of Himalayas
 (C) Highest peak of the Aravallis
 (D) Shipping Yard of Andhra Pradesh
168. Amount of water vapour (gaseous) in a given volume of air (cubic metre) is known as—
 (A) Relative humidity
 (B) Absolute humidity
 (C) Specific humidity
 (D) Mixing ratio
169. 'Tidal forest' is otherwise called as—
 (A) Monsoon forest
 (B) Mangrove forest
 (C) Coniferous forest
 (D) Evergreen forest
170. In which state is Jog Falls located ?
 (A) Maharashtra
 (B) Karnataka
 (C) Tamil Nadu
 (D) Kerala
171. Flowerless plants are termed as—
 (A) Bryophytes
 (B) Thallophytes
 (C) Cryptogams
 (D) Phanerogams
172. What is sponge ?
 (A) A plant (B) An animal
 (C) A fungus (D) A fossil
173. Excess amount of absorbed water by plants is liberated out by—
 (A) Osmosis
 (B) Diffusion
 (C) Transpiration
 (D) Evaporation
174. Type of vertebrate animal which creep and crawl are called—
 (A) Amphibians
 (B) Mollusks
 (C) Reptilians
 (D) Mammalians
175. The only plant cells without nuclei among the following are—
 (A) Root hairs
 (B) Companion cells
 (C) Tracheid cells
 (D) Cambium cells
176. Which of the following enzymes aids in coagulation of blood ?
 (A) Pepsin (B) Rennin
 (C) Amylase (D) Trypsin
177. Which of the following is a good conductor of heat but bad conductor of electricity ?
 (A) Asbestos
 (B) Celluloid

- (C) Paraffin wax
(D) Mica
178. For which of the following substances, the resistance decreases with increase in temperature ?
(A) Copper (B) Nichrome
(C) Platinum (D) Pure silicon
179. When a running car stops suddenly, the passengers tends to lean forward because of—
(A) Inertia of rest
(B) Inertia of motion
(C) Gravitational force
(D) Centrifugal force
180. A Floppy Disc can store data.
(A) 1.44 MB (B) 1.44 KB
(C) 1.44 GB (D) 1.44 byte
181. The rate at which scanning is repeated in a CRT is called—
(A) Resolution
(B) Pitch
(C) Bandwidth
(D) Refresh rate
182. Pick the **odd** one out—
(A) Worms (B) Trojan Horse
(C) Virus (D) Java clients
183. Substances which are used to bring down the temperature in high fever condition are called—
(A) Pyretics (B) Antipyretics
(C) Antibiotics (D) Antiseptics
184. Substance used as an anti-freeze in radiators of automobiles is—
(A) Methyl alcohol
(B) Ethyl alcohol
(C) Ethyl alcohol and H₂O
(D) Methyl alcohol and H₂O
185. Alcohol prepared by the distillation of wood is—
(A) Methyl alcohol
(B) Ethyl alcohol
(C) Glycerol
(D) Propyl alcohol
186. All the ecosystems taken together in a geographical area form a bigger unit called—
(A) Territory
(B) Biome
(C) Community
(D) Biosphere
187. Environmental pollution can be controlled by—
(A) Checking atomic blasts
(B) Manufacturing electric vehicles
(C) Sewage treatment
(D) All of the above
188. Least audible sound of most of the human ear is—
(A) 0.0002 μ bar
(B) 0.005 μ bar
(C) 5.0 μ bar
(D) 10.0 μ bar
189. Bio-diesel is mostly produced by—
(A) Malvaceae
(B) Liliaceae
(C) Euphorbiaceae
(D) Myrtaceae
190. The function of sedimentation tank in sewage treatment is to—
(A) Remove water content
(B) Aerate the sewage
(C) Remove suspended solids
(D) Disinfect the sewage
191. The spice-garden of India is—
(A) Karnataka
(B) Kerala
(C) Assam
(D) Himachal Pradesh
192. Nurjahan's real name was—
(A) Mumtaz Mahal
(B) Ladli Begum
(C) Jahanara
(D) Mehr-un-Nisaa
193. Which of the following is the Third largest country in population after China and India ?
(A) United States of America
(B) Indonesia
(C) Japan
(D) Bangladesh
194. The most popular festival in Tamil Nadu is—
(A) Onam (B) Bihu
(C) Pongal (D) Gudipadwa
195. As per 2011 Census data, the child sex ratio has come down from 927 to—
(A) 920 (B) 917
(C) 914 (D) 904
196. Who advocated the adoption of 'PURA' model to eradicate rural poverty ?
(A) Maulana Abul Kalam Azad
(B) Dr. A.P.J. Abdul Kalam
(C) A.M. Khusro
(D) M.S. Swaminathan
197. Who made history by winning 8 gold medals in the Beijing Olympics in one event ?
(A) Marcus Michael of France
(B) Michael Phelps of USA
(C) Ian Kraken of USA
(D) Van Lee Chu of China
198. Which of the following countries is not a member of the Nuclear Suppliers Group (NSG) ?
(A) Russia (B) USA
(C) Iran (D) France
199. Capital Market Regulator is—
(A) RBI (B) SEBI
(C) IRDA (D) NSE
200. 'Give me blood, I will give you freedom'. These words are attributed to—
(A) Khudiram Bose
(B) Bhagat Singh
(C) Veer Savarkar
(D) Subhash Chandra Bose