

DO NOT OPEN THE SEAL OF THE BOOKLET UNTIL YOU ARE TOLD TO DO SO.

AC

1408556

KR 2012

Test Form No.

टेस्ट फॉर्म सं.

112 RH 5

Time Allowed : 2 Hours (For VH Candidates : 2 hrs. 40 min.)

निर्धारित समय : 2 घंटे (दृष्टिबाधित उम्मीदवारों के लिए : 2 घंटे 40 मिनट)

Maximum Marks : 200

अधिकतम अंक : 200

Read the following instructions carefully before you begin to answer the questions. This booklet contains questions in English as well as in Hindi

प्रश्नों के उत्तर देने से पहले निम्नलिखित अनुदेशों को ध्यान से पढ़ लें। इस पुस्तिका में प्रश्न अंग्रेजी तथा हिन्दी दोनों में दिये गये हैं।

INSTRUCTIONS TO CANDIDATES

- This Booklet contains 200 questions in all comprising the following four parts :
Part - A : General Intelligence and Reasoning (50 Questions)
Part - B : General Awareness (50 Questions)
Part - C : Quantitative Aptitude (50 Questions)
Part - D : English Comprehension (50 Questions)
- In questions set bilingually in English and Hindi, in case of discrepancy, the English version will prevail.
- All questions are compulsory and carry equal marks.
- The paper carries negative marking. 0.25 marks will be deducted for each wrong answer.
- Before you start to answer the questions you must check up this Booklet and ensure that it contains all the pages (1-40) and see that no page is missing or repeated. If you find any defect in this Booklet, you must get it replaced immediately.
- You will be supplied the Answer-Sheet separately by the Invigilator. You must complete and code the details of Name, Roll Number, Ticket Number, Name of the Examination as mentioned in the Admission Certificate, Date of birth and Test Form Number on Side-I of the Answer-Sheet carefully. You must also put your signature and Left-Hand thumb impression on the Answer-Sheet at the prescribed place before you actually start answering the questions. These instructions must be fully complied with, failing which, your Answer-Sheet will not be evaluated and you will be awarded "ZERO" mark. (For VH candidates these details will be filled in by the scribe. However all VH candidates must put their left-hand thumb impression at the space provided in the Answer-Sheet. In addition, those VH candidates who can sign should also put their signatures in addition to thumb impression.)
- Answers must be shown by completely blackening the corresponding rectangles on Side-II of the Answer-Sheet against the relevant question number by Black/Blue Ball-point Pen only. Answers which are not shown by Black/Blue Ball-point Pen will not be awarded any mark.
- A machine will read the coded information in the OMR Answer-Sheet. In case the information is incomplete/different from the information given in the application form, the candidature of such candidate will be treated as cancelled.
- The Answer-Sheet must be handed over to the Invigilator before you leave the Examination Hall.
- Failure to comply with any of the above instructions will render a candidate liable to such action/penalty as may be deemed fit.
- The manner in which the different questions are to be answered has been explained at the back of this Booklet (Page No. 40), which you should read carefully before actually answering the questions.
- Answer the questions as quickly and as carefully as you can. Some questions may be difficult and others easy. Do not spend too much time on any question.
- In lieu of Questions No. 46 to 50 and 146 to 150 relating to figural and graph portions, alternate questions have been provided to be attempted by VH candidates only.
- No rough work is to be done on the Answer-Sheet. Space for rough work has been provided below the questions in Part A and Part C of this Booklet.
- "Mobile phones and wireless communication devices are completely banned in the examination halls/rooms. Candidates are advised not to keep mobile phones/any other wireless communication devices with them even switching it off, in their own interest. Failing to comply with this provision will be considered as using unfair means in the examination and action will be taken against them including cancellation of their candidature."

उम्मीदवारों के लिए अनुदेश

- इस पुस्तिका में कुल 200 प्रश्न हैं, जिनमें निम्नलिखित चार भाग शामिल हैं :
भाग - क : सामान्य बुद्धि एवं तर्क (50 प्रश्न)
भाग - ख : सामान्य जानकारी (50 प्रश्न)
भाग - ग : मात्रात्मक अभिधमता (50 प्रश्न)
भाग - घ : अंग्रेजी परिज्ञान (50 प्रश्न)
- अंग्रेजी और हिन्दी भाषा में तैयार किए गए द्विभाषी प्रश्नों में कोई विसंगति होने की स्थिति में अंग्रेजी विवरण मान्य होगा।
- सभी प्रश्न अनिवार्य हैं तथा सबके दरावर अंक हैं।
- प्रश्न पत्र में नकारात्मक अंकन होगा। हर गलत उत्तर के लिए 0.25 अंक काटा जाएगा।
- प्रश्नों के उत्तर देने से पहले आप इस पुस्तिका की जाँच करके देख लें कि इसमें पूरे पृष्ठ (1-40) हैं तथा कोई पृष्ठ कम या दुबारा तो नहीं आ गया है। यदि आप इस पुस्तिका में कोई त्रुटि पाएँ, तो तत्काल इसके बदले दूसरी पुस्तिका ले लें।
- निरीक्षक द्वारा आपको उत्तर-पत्रिका अलग से दी जाएगी। उत्तर-पत्रिका के Side-I में नियमावली के अनुसार ध्यानपूर्वक अपना नाम, रोल नम्बर, टिकट नम्बर, परीक्षा का नाम जैसे प्रवेश पत्र में दिखाया गया है, जन्म तिथि और टेस्ट फॉर्म संख्या अवश्य लिखें। प्रश्नों के उत्तर वारसव में शुरू करने से पहले उत्तर-पत्रिका पर निर्धारित स्थान में आप अपने हस्ताक्षर एवं बाएँ हाथ के अंगूठे का निशान भी अवश्य लगाएँ। उपर्युक्त अनुदेशों का पूरी तरह अनुपालन किया जाए, अन्यथा आपकी उत्तर-पत्रिका को जाँचा नहीं जाएगा और 'शून्य' अंक दिया जाएगा। (दृष्टिबाधित उम्मीदवारों के लिए यह विवरण लिपिक द्वारा भरा जाए। परन्तु सभी दृष्टिबाधित उम्मीदवार उत्तर-पत्रिका में निर्धारित स्थान पर अपने बाएँ हाथ के अंगूठे का निशान अवश्य लगाएँ। इसके अतिरिक्त, जो दृष्टिबाधित उम्मीदवार हस्ताक्षर कर सकते हैं, वे अंगूठे के निशान के अलावा अपने हस्ताक्षर भी कर दें।)
- उत्तर-पत्रिका में सभी उत्तर Side-II में प्रश्न संख्या के सामने दिये गये सम्बन्धित आयताकार खानों को केवल काला/नीला बॉल-पॉइंट पेन से पूरी तरह काला करके दिखाएँ। जो आयताकार खाने काला/नीला बॉल-पॉइंट पेन से नहीं भरे जाएँगे, उनके लिए कोई अंक नहीं दिया जाएगा।
- ओ.एम.आर. उत्तर-पत्रिका में भरी गई कूट सूचना को एक मशीन पढ़ेगी। यदि सूचना अपूर्ण है अथवा आवेदन प्रपत्र में दी गई सूचना से भिन्न है, तो ऐसे अभ्यर्थी की अभ्यर्थिता निरस्त समझी जाएगी।
- परीक्षा-भवन छोड़ने से पहले परीक्षार्थी को उत्तर-पत्रिका निरीक्षक के हवाले कर देनी चाहिए।
- ऊपर के अनुदेशों में से किसी एक का भी पालन न करने पर उम्मीदवार पर विवेकानुसार कार्यवाही की जा सकती है या दण्ड दिया जा सकता है।
- विभिन्न प्रश्नों के उत्तर देने की विधि इस पुस्तिका के पीछे (पृष्ठ संख्या 40) में छपे हुए निर्देशों में दे दी गई हैं, इसे आप प्रश्नों के उत्तर देने से पहले ध्यानपूर्वक पढ़ लें।
- प्रश्नों के उत्तर जितनी जल्दी हो सके तथा ध्यानपूर्वक दें। कुछ प्रश्न आसान तथा कुछ कठिन हैं। किसी एक प्रश्न पर बहुत अधिक समय न लगाएँ।
- आकृति और आलेख से सम्बन्धित प्रश्न संख्या 46 से 50 एवं 146 से 150 के बदले में केवल दृष्टिबाधित उम्मीदवारों द्वारा हल किए जाने के लिए वैकल्पिक प्रश्न दिए गए हैं।
- कोई रफ़ कार्य उत्तर-पत्रिका पर नहीं करना है। रफ़ कार्य के लिए स्थान इसी पुस्तिका के भाग क तथा भाग ग के प्रश्नों के नीचे दिया गया है।
- "परीक्षा हॉलों/कमरों में मोबाइल फोन तथा बेतार संचार साधन पूरी तरह निषिद्ध हैं। प्रत्याशियों को उनके अपने हित में सलाह दी जाती है कि मोबाइल फोन/किसी अन्य बेतार संचार साधन को सिच ऑफ़ करके भी अपने पास न रखें। इस प्रावधान का अनुपालन न करने को परीक्षा में अनुचित उपायों का प्रयोग माना जाएगा और उनके विरुद्ध कार्यवाही की जाएगी, उनकी अभ्यर्थिता रद्द कर देने सहित।"

PART - A : GENERAL INTELLIGENCE AND REASONING

Directions : In questions no. 1 to 9, select the related letters/word/number from the given alternatives.

1. 8 : 12 :: 6 : ?
(A) 8 (B) 11
(C) 5 (D) 7
2. 13 : 19 :: 21 : ?
(A) 41 (B) 81
(C) 141 (D) 14
3. Eagle : Swoops :: Duck : ?
(A) waddles
(B) floats
(C) swims
(D) flits
4. APPLE : 50 :: ORANGE : ?
(A) 60 (B) 69
(C) 61 (D) 63
5. Accommodation : Rent :: Journey : ?
(A) Freight (B) Octroi
(C) Fare (D) Expense
6. Fire : Smoke :: ?
(A) Children : School
(B) Cloud : Rain
(C) Moon : Sky
(D) Shoe : Polish
7. Grenade : Gun :: ?
(A) Sister : Brother
(B) Father : Mother
(C) Man : Woman
(D) Head : Brain

8. TSH : IRQ :: QPK : ?
(A) LNO (B) LON
(C) PWK (D) PON

9. AEZ : FPY :: BGX : ?
(A) HWW (B) IYY
(C) HTX (D) HYW

Directions : In questions no. 10 to 17, find the odd number/letters/word/number pair from the given alternatives.

10. (A) SP (B) NL
(C) ZW (D) TQ
11. (A) Major (B) Colonel
(C) Brigadier (D) Admiral
12. (A) Life Insurance Corporation
(B) New India Assurance Company Ltd.
(C) United India Insurance Company Ltd.
(D) National Insurance Company Ltd.
13. (A) Hurdle (B) Disease
(C) Barrier (D) Obstacle
14. (A) Mar (B) Remedy
(C) Maim (D) Mutilate
15. (A) Socrates (B) Beethoven
(C) Mozart (D) Bach

16. (A) (132, 5) (B) (125, 8)
 (C) (124, 7) (D) (112, 4)
17. (A) 6246 - 6296 (B) 7137 - 7267
 (C) 4344 - 4684 (D) 5235 - 5465

Directions : In questions no. 18 to 22, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

18. YX, UTS, ONML, ?
 (A) FEDCB (B) GFEDC
 (C) IHGFE (D) HGFED
19. DA, HE, LI, ? , TN
 (A) PJ (B) PT
 (C) PM (D) PK
20. B E I N T ?
 (A) X (B) Y
 (C) A (D) Z
21. AZ, CX, EV, ?
 (A) HT (B) HU
 (C) GS (D) GT
22. D9Y, J27S, P81M, V243G, ?
 (A) A324B (B) C729B
 (C) B729A (D) A729B

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

 _c _bd _cbcd_a _a _db _a

- (A) daabbc (B) bdbcba
 (C) adabcd (D) cdbbca

Directions : In questions no. 24 to 27, identify wrong number in the series.

24. 9, 19, 40, 83, 170, 340
 (A) 83 (B) 40
 (C) 340 (D) 170
25. 21, 28, 33, 35, 37, 36
 (A) 21 (B) 36
 (C) 33 (D) 35
26. 5, 13, 29, 61, 120, 253
 (A) 120 (B) 253
 (C) 61 (D) 29
27. 0, 7, 28, 63, 124, 215
 (A) 28 (B) 215
 (C) 7 (D) 63
28. Some relationships have been expressed through symbols which are explained below
- o = greater than
 Δ = not equal to
 \times = not less than
 $+$ = equal to
 ϕ = not greater than
 ∇ = less than
- $a \nabla b \nabla c$, implies
- (A) $a \Delta b \phi c$ (B) $a \phi b + c$
 (C) $a o b + c$ (D) $a o b \times c$
29.

2	3
4	5

 = ?
- (A) 14400 (B) 15600
 (C) 23040 (D) 17400

30. If PEAR is written as GFDN, how is REAP written in this code ?

- (A) FDNG (B) NFDG
(C) DNGF (D) NDFG

31. If $54 + 43 = 2$, $60 + 51 = 10$, then $62 + 72 = ?$

- (A) 30 (B) 18
(C) 20 (D) 9

32. If L denotes \times
M denotes \div
P denotes $+$
Q denotes $-$

then $16 P 24 M 8 Q 6 M 2 L 3 = ?$

- (A) 10 (B) 9
(C) 12 (D) 11

33. In this question, from the given alternatives select the word which *cannot* be formed by using the letters of the given word.

APPROPRIATE

- (A) PIRATE (B) APPROVE
(C) PROPER (D) RAPPORT

34. If FLATTER is coded as 7238859 and MOTHER is coded as 468159, then how is MAMMOTH coded ?

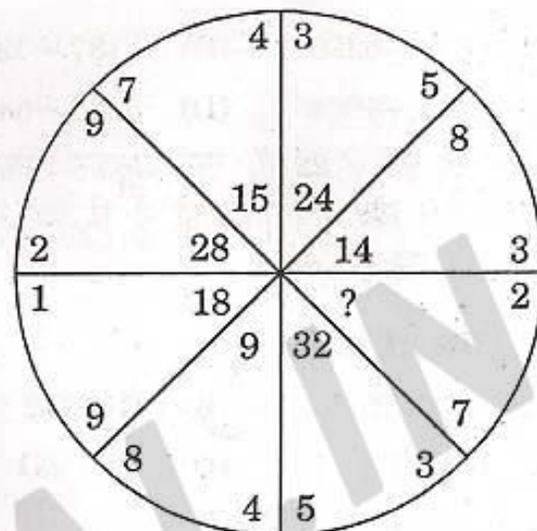
- (A) 4344681 (B) 4344651
(C) 4146481 (D) 4346481

35. If $16 - 2 = 2$, $9 - 3 = 0$, $81 - 1 = 8$, then what is $64 - 4$?

- (A) 4 (B) 2
(C) 6 (D) 8

Directions : In questions no. 36 and 37, select missing number from the given responses.

36.



- (A) 20 (B) 25
(C) 10 (D) 15

37.

10	11	15
12	12	8
4	12	10
10	5	13
18	20	?

- (A) 21 (B) 20
(C) 23 (D) 22

38. Four aeroplanes of Airforce viz, A, B, C, started for a demonstration flight towards east. After flying 50 km planes A and D flew towards right, planes B and C flew towards left. After 50 km, planes B and C flew towards their left, planes A and D flew towards their left. In which directions the aeroplanes A, B, D, C respectively fly now ?

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

39. Satish start from A and walks 2 km east upto B and turns southwards and walks 1 km upto C. At C he turns to east and walks 2 km upto D. He then turns northwards and walks 4 km to E. How far is he from his starting point ?
- (A) 5 km (B) 6 km
(C) 3 km (D) 4 km

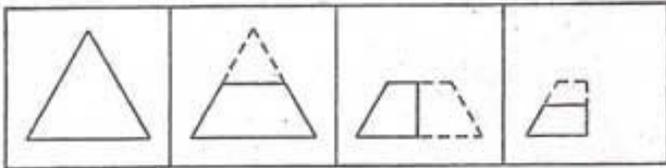
Directions : In questions no. 40 and 41, one/two statements are given, followed by two conclusions I and II. You have to consider the statements to be true, even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follow from the given statements.

40. **Statements :**
1. Temple is a place of worship.
 2. Church is also a place of worship.
- Conclusions :**
- I. Hindus and Christians use the same place for worship.
 - II. All churches are temples.
- (A) Neither conclusion I nor II follows
(B) Both conclusions I and II follow
(C) Only conclusion I follows
(D) Only conclusion II follows

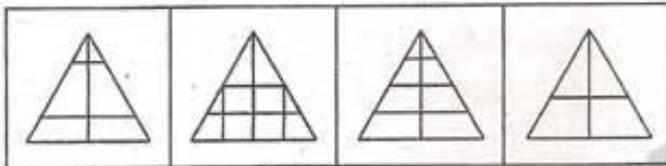
41. **Statement :**
- The human organism grows and develops through stimulation and action.
- Conclusions :**
- I. Inert human organism cannot grow and develop.
 - II. Human organisms do not react to stimulation and action.
- (A) Neither conclusion I nor II follows
(B) Both conclusions I and II follow
(C) Only conclusion I follows
(D) Only conclusion II follows
42. If the first four letters of a term HIPPNOWADIASM are written in reverse order, the next five letters are written without changing their order and then, the remaining letters are again written in reverse order, then which letter is in the middle of the word ?
- (A) O (B) W
(C) A (D) I
43. In the following letter series how many times do PQR occur in such away that Q is in the middle of P and R.
- QMPNPQRROPQNOPPPQRPMQRÖPQRPPRRPQRP
- (A) 5 (B) 6
(C) 4 (D) 3
44. Volume of a sphere is equal to the volume of a hemisphere. If the radius of the hemisphere is $3\sqrt[3]{2}$ cm, then the radius of the sphere is equal to
- (A) $9\sqrt[3]{2}$ cm (B) $6\sqrt[3]{2}$ cm
(C) 27 cm (D) 3 cm

45. A sheet of paper has been folded as shown by the question figure. You have to figure out from amongst the four answer figures how it will appear when opened ?

Question figures :



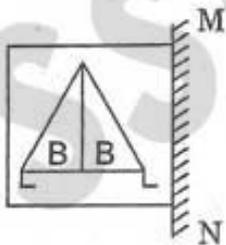
Answer figures :



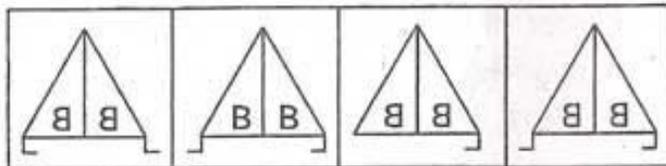
(A) (B) (C) (D)

46. Which of the answer figures is exactly the mirror image of the question figure if a mirror is placed on the line MN ?

Question figure :



Answer figures :



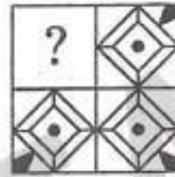
(A) (B) (C) (D)

47. If SEARCH is coded as TFBSDI, how will PENCIL be coded ?

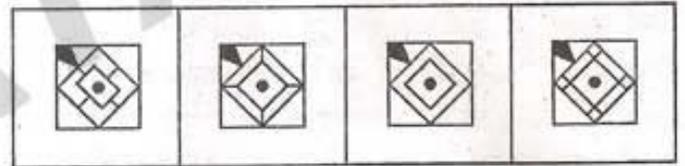
(A) RGPEN (B) LICNEP
(C) QFODJM (D) QDMBHK

48. Which answer figure completes the form in the question figure ?

Question figure :



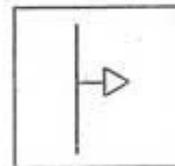
Answer figures :



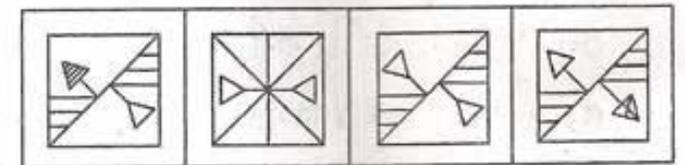
(A) (B) (C) (D)

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

Question figure :



Answer figures :



(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 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 10, 33, etc., and H can be represented by 59, 78, etc. Similarly, you have to identify the set for the word GUIDE.

MATRIX I

	0	1	2	3	4
0	I	E	A	O	U
1	A	O	U	I	E
2	E	I	O	U	A
3	O	U	E	A	I
4	U	A	I	E	O

MATRIX II

	5	6	7	8	9
5	F	D	B	G	H
6	B	G	H	F	D
7	D	F	G	H	B
8	G	H	D	B	F
9	H	B	F	G	D

- (A) 85, 23, 21, 87, 32
 (B) 58, 31, 12, 57, 41
 (C) 77, 13, 42, 99, 32
 (D) 66, 31, 43, 78, 14

PART - B : GENERAL AWARENESS

51. The National Commission for Minorities was constituted in the year
(A) 1990 (B) 1992
(C) 1980 (D) 1989
52. The first Indian who was chosen as the Secretary-General of Commonwealth is
(A) Rakesh Verma
(B) Gopalaswami
(C) Krishna Murthy
(D) Kamalesh Sharma
53. In which of the following systems of government is bi-cameralism an essential feature ?
(A) Federal system
(B) Unitary system
(C) Parliamentary system
(D) Presidential system
54. Kuldip Nayar, a journalist, was appointed as a High Commissioner in
(A) Sri Lanka (B) Australia
(C) UK (D) Pakistan
55. Which king is referred to as Devanampiya Piyadassi (Beloved of the Gods) in the inscriptions ?
(A) Asoka
(B) Harsha
(C) Bindusara
(D) Chandragupta Maurya
56. Socialism succeeds in achieving
(A) higher standard of living of the people
(B) equal distribution of income in the society
(C) higher individual welfare in the society
(D) maximum social welfare in the society
57. Monopolist resorts to price discrimination depending upon the
(A) Elasticity of supply
(B) Elasticity of demand
(C) Law of demand
(D) Law of supply
58. Economic planning is an essential feature of
(A) Socialist economy
(B) Capitalist economy
(C) Mixed economy
(D) Dual economy
59. The HYV programme in India is also called as
(A) Traditional Agriculture
(B) New Agricultural Strategy
(C) White Revolution
(D) Blue Revolution
60. The National Policy for Empowerment of Women was adopted in the year
(A) 2001 (B) 2005
(C) 1991 (D) 1995
61. Ballots were first used in
(A) Australia
(B) USA
(C) Ancient Greece
(D) England

62. The Rashtriya Barh Ayog (RBA) is related with
- (A) Droughts and Floods
(B) Poverty Alleviation
(C) Floods
(D) Disaster Management
63. Which of the following criteria is *not* used for the classification of human races ?
- (A) Nose (B) Hair
(C) Eyes (D) Ear
64. Railway coaches are manufactured at
- (A) Jamshedpur (B) Chittaranjan
(C) Perambur (D) Varanasi
65. Fertilization occurs normally in the
- (A) Cervix
(B) Vagina
(C) Fallopian tube
(D) Uterus
66. People consuming alcohol in heavy quantities generally die of
- (A) liver or stomach cancer
(B) weakening of heart muscles leading to cardiac arrest
(C) blood cancer
(D) cirrhosis
67. The organisms at the base of the grazing food-chain are
- (A) Carnivores (B) Decomposers
(C) Producers (D) Herbivores
68. Who among the following was credited with the destruction of 'Chihalgani', a group of powerful nobles ?
- (A) Balban
(B) Qutb-ud-din Aibak
(C) Iltutmish
(D) Razia Sultan
69. Bombay was given away as dowry to the English King Charles II for marrying the Princess of
- (A) France (B) Portugal
(C) Holland (D) Denmark
70. The Grand Trunk Road built by Shershah connected Punjab with
- (A) Agra (B) East Bengal
(C) Lahore (D) Multan
71. Name the Maratha Saint who was a contemporary of Shivaji.
- (A) Saint Eknath
(B) Saint Tukaram
(C) Saint Dhyaneswar
(D) Namdev
72. The study of lakes is called
- (A) Topology (B) Hydrology
(C) Limnology (D) Potomology
73. A series of lines connecting places having a quake at the same time are called
- (A) Homoseismal lines
(B) Seismolines
(C) Coseismal lines
(D) Isoseismal lines

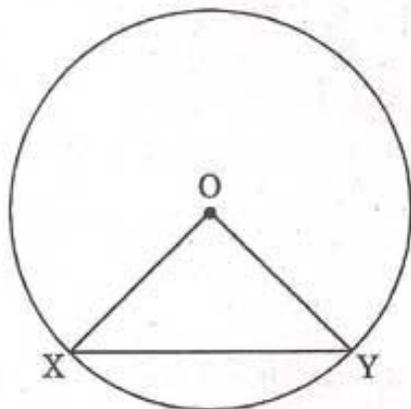
74. 'Lumen' is the unit of
(A) Illuminance
(B) Brightness
(C) Luminous flux
(D) Luminous intensity
75. The transfer of data from a CPU to peripheral devices of computer is achieved through
(A) interfaces
(B) buffer memory
(C) modems
(D) computer ports
76. Which of the following items is *not* used in Local Area Networks (LANs)?
(A) Interface Card (B) Cable
(C) Computer (D) Modem
77. The mass of 10 moles of water is
(A) 90 g (B) 45 g
(C) 18 g (D) 180 g
78. Vitamin A is rich in
(A) Carrot (B) Lime
(C) Beans (D) Rice
79. The high boiling point of water compared to hydrogen sulphide or hydrogen chloride is due to
(A) Dipole insulation
(B) Van der Waal's attraction
(C) Polar covalent bonding
(D) Hydrogen bonding
80. Which of the following determines the chemical properties of an element?
(A) Number of electrons
(B) Number of neutrons
(C) Number of protons
(D) All of the above
81. The Central Drug Research Institute of India is located at
(A) Madras (B) Lucknow
(C) Delhi (D) Bangalore
82. Which of the following cereals was among the first to be used by man?
(A) Rye (B) Wheat
(C) Barley (D) Oat
83. Which of the following wheat species are being cultivated in India?
(A) Club wheat
(B) Durum wheat
(C) Emmer wheat
(D) Bread wheat
84. Which one of the following forces is a 'dissipative force'?
(A) Electrostatic force
(B) Magnetic force
(C) Gravitational force
(D) Frictional force
85. If a resistive wire is elongated, its resistance
(A) decreases
(B) remains constant
(C) increases
(D) All of the above
86. If a magnet has a third pole, then the third pole is called
(A) defective pole
(B) consequent pole
(C) extra pole
(D) arbitrary pole

87. How many spokes are there in the Dharmachakra of the National Flag ?
(A) 14 (B) 18
(C) 22 (D) 24
88. The latest official language of the U.N. is
(A) Russian (B) Arabic
(C) Chinese (D) Spanish
89. Srikrishna Committee Report, which was made public in 2011, is related to
(A) rejuvenation of higher education
(B) demand for a separate Telangana State
(C) ragging in educational institutions
(D) impeachment of Justice Dinakaran
90. The latest book '*Kurukshetra to Kargil*' is written by
(A) Suryanath Singh
(B) Kunal Bhardwaj
(C) Karan Singh
(D) Kuldip Singh
91. The Educational Development Index (EDI) Report, released in 2011, is led by
(A) Tamil Nadu (B) Puducherry
(C) Kerala (D) Lakshadweep
92. Shunglu Committee, which submitted its report in 2011, is related to
(A) Commonwealth Games scandal
(B) reforms in the Insurance sector
(C) revamp of Defence management
(D) management of Co-operative Sector
93. The 65th National Football Championship (Santosh Trophy 2011) was won by
(A) Bengal (B) Punjab
(C) Manipur (D) Goa
94. The organisation involved primarily with environmental planning is
(A) CIFRI (B) ICAR
(C) CSIR (D) NEERI
95. What would be the impact of global warming on mangrove forests ?
(A) They will grow more luxurious
(B) Large areas of mangroves will be submerged
(C) Their role as carbon sinks will become more important
(D) Both (A) and (C) above
96. The sweet taste of fruits is due to
(A) Lactose (B) Fructose
(C) Maltose (D) Ribose
97. The most endangered Asiatic top predator on the edge of extinction is
(A) Black Bear
(B) Asiatic Lion
(C) Siberian Tiger
(D) Dhole
98. Analects is the sacred book of
(A) Confucianism
(B) Judaism
(C) Shintoism
(D) Taoism
99. The seat of Madhya Pradesh High Court is located at
(A) Gwalior (B) Indore
(C) Bhopal (D) Jabalpur
100. The brightest planet is
(A) Venus (B) Mercury
(C) Jupiter (D) Mars

PART - C : QUANTITATIVE APTITUDE

101. P and Q are two points observed from the top of a building $10\sqrt{3}$ m high. If the angles of depression of the points are complementary and $PQ = 20$ m, then the distance of P from the building is
- (A) 25 m (B) 45 m
(C) 30 m (D) 40 m
102. If A and B are complementary angles, then the value of $\frac{\sin A \cos B + \cos A \sin B}{\tan A \tan B + \sec^2 A - \cot^2 B}$ is
- (A) 2 (B) 0
(C) 1 (D) -1
103. The least value of $2 \sin^2 \theta + 3 \cos^2 \theta$ is
- (A) 3 (B) 5
(C) 1 (D) 2
104. A, O, B are three points on a line segment and C is a point not lying on AOB. If $\angle AOC = 40^\circ$ and OX, OY are the internal and external bisectors of $\angle AOC$ respectively, then $\angle BOY$ is
- (A) 70° (B) 80°
(C) 72° (D) 68°
105. If $4x = \sec \theta$ and $\frac{4}{x} = \tan \theta$, then $8\left(x^2 - \frac{1}{x^2}\right)$ is
- (A) $\frac{1}{16}$ (B) $\frac{1}{8}$
(C) $\frac{1}{2}$ (D) $\frac{1}{4}$
106. If $2 - \cos^2 \theta = 3 \sin \theta \cos \theta$, $\sin \theta \neq \cos \theta$, then $\tan \theta$ is
- (A) $\frac{1}{2}$ (B) 0
(C) $\frac{2}{3}$ (D) $\frac{1}{3}$
107. If $\sin \theta + \cos \theta = \sqrt{2} \cos (90 - \theta)$, then $\cot \theta$ is
- (A) $\sqrt{2} + 1$ (B) 0
(C) $\sqrt{2}$ (D) $\sqrt{2} - 1$
108. If $x \sin^3 \theta + y \cos^3 \theta = \sin \theta \cos \theta$ and $x \sin \theta = y \cos \theta$, $\sin \theta \neq 0$, $\cos \theta \neq 0$, then $x^2 + y^2$ is
- (A) $\frac{1}{\sqrt{2}}$ (B) $\frac{1}{2}$
(C) 1 (D) $\sqrt{2}$

109. In the following figure, O is the centre of the circle and XO is perpendicular to OY. If the area of the triangle XOY is 32, then the area of the circle is



- (A) 64π (B) 256π
 (C) 16π (D) 32π
110. The side BC of $\triangle ABC$ is produced to D. If $\angle ACD = 108^\circ$ and $\angle B = \frac{1}{2} \angle A$, then $\angle A$ is
- (A) 36° (B) 72°
 (C) 108° (D) 59°
111. Two circles of radii 4 cm and 9 cm respectively touch each other externally at a point and a common tangent touches them at the points P and Q respectively. Then the area of a square with one side PQ, is
- (A) 97 sq. cm (B) 194 sq. cm
 (C) 72 sq. cm (D) 144 sq. cm

112. Two tangents are drawn from a point P to a circle at A and B. O is the centre of the circle. If $\angle AOP = 60^\circ$, then $\angle APB$ is
- (A) 120° (B) 90°
 (C) 60° (D) 30°
113. If each interior angle is double of each exterior angle of a regular polygon with n sides, then the value of n is
- (A) 8 (B) 10
 (C) 5 (D) 6
114. If the length of the side PQ of the rhombus PQRS is 6 cm and $\angle PQR = 120^\circ$, then the length of QS, in cm, is
- (A) 4 (B) 6
 (C) 3 (D) 5
115. The angle formed by the hour-hand and the minute-hand of a clock at 2 : 15 p.m. is
- (A) $27\frac{1}{2}^\circ$ (B) 45°
 (C) $22\frac{1}{2}^\circ$ (D) 30°
116. Two sides of a triangle are of length 4 cm and 10 cm. If the length of the third side is 'a' cm, then
- (A) $a > 5$ (B) $6 \leq a \leq 12$
 (C) $a < 6$ (D) $6 < a < 14$

117. If $x = (0.08)^2$, $y = \frac{1}{(0.08)^2}$ and $z = (1 - 0.08)^2 - 1$, then out of the following, the true relation is
- (A) $y < x$ and $x = z$
 (B) $x < y$ and $x = z$
 (C) $y < z < x$
 (D) $z < x < y$

118. In xy -plane, P and Q are two points having co-ordinates (2, 0) and (5, 4) respectively. Then the numerical value of the area of the circle with radius \overline{PQ} , is
- (A) 16π (B) 32π
 (C) 14π (D) 25π

119. If $x^4 + \frac{1}{x^4} = 23$, then the value of $\left(x - \frac{1}{x}\right)^2$ will be
- (A) 7 (B) -7
 (C) -3 (D) 3

120. The value of $\sqrt{6 + \sqrt{6 + \sqrt{6 + \dots \text{upto } \infty}}}$ is equal to
- (A) 3 (B) 10
 (C) 8 (D) 2

121. If $x + \frac{1}{x} = 3$, the value of $x^5 + \frac{1}{x^5}$ is
- (A) 123 (B) 126
 (C) 113 (D) 129

122. $\sec^4 \theta - \sec^2 \theta$ is equal to
- (A) $\tan^2 \theta - \tan^4 \theta$
 (B) $\tan^2 \theta + \tan^4 \theta$
 (C) $\cos^4 \theta - \cos^2 \theta$
 (D) $\cos^2 \theta - \cos^4 \theta$

123. In ΔABC , AD is the median and $AD = \frac{1}{2} BC$. If $\angle BAD = 30^\circ$, then measure of $\angle ACB$ is
- (A) 90° (B) 45°
 (C) 30° (D) 60°

124. If $\sqrt{6} \times \sqrt{15} = x\sqrt{10}$, then the value of x is
- (A) 3 (B) ± 3
 (C) $\sqrt{3}$ (D) $\sqrt{6}$

125. $3 - \frac{3 + \sqrt{5}}{4} - \frac{1}{3 + \sqrt{5}}$ is equal to
- (A) 0 (B) $\frac{3}{2}$
 (C) $\frac{\sqrt{5}}{2}$ (D) $\sqrt{5}$

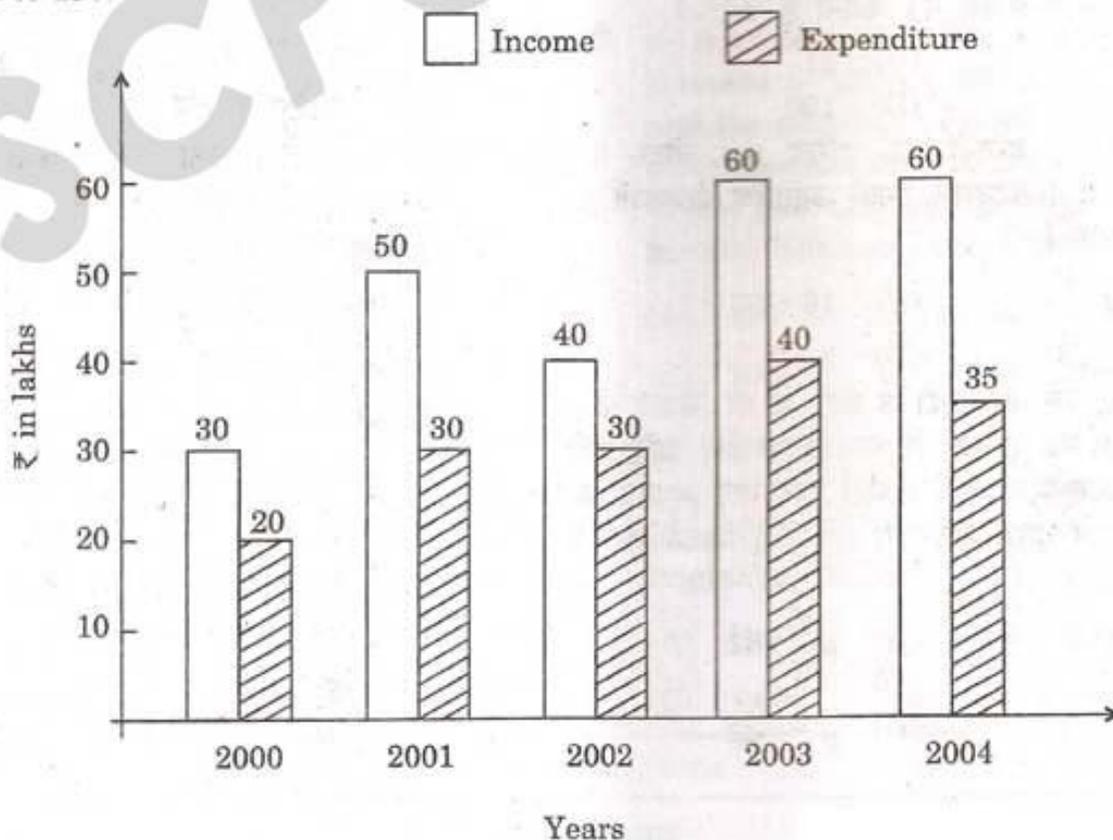
126. If $a + b + 1 = 0$, then the value of $(a^3 + b^3 + 1 - 3ab)$ is
- (A) 3 (B) 0
 (C) -1 (D) 1

127. In the xy -coordinate system, if (a, b) and (a + 3, b + k) are two points on the line defined by the equation $x = 3y - 7$, then $k =$
- (A) $\frac{7}{3}$ (B) 1
 (C) 9 (D) 3

28. The average age of four boys, five years ago was 9 years. On including a new boy, the present average age of all the five is 15 years. The present age of the new boy is
 (A) 14 years (B) 6 years
 (C) 15 years (D) 19 years
29. If the average of 39, 48, 51, 63, 75, 83, x and 69 is 60, then the value of x is
 (A) 52 (B) 53
 (C) 50 (D) 51
30. The cost of a piece of diamond varies with the square of its weight. A diamond of ₹ 5,184 value is cut into 3 pieces whose weights are in the ratio 1 : 2 : 3. Find the loss involved in the cutting.
 (A) ₹ 3,068 (B) ₹ 3,088
 (C) ₹ 3,175 (D) ₹ 3,168
31. A discount of 30% on the marked price of a toy reduces its selling price by ₹ 30. What is the new selling price (in ₹) ?
 (A) 70 (B) 21
 (C) 130 (D) 100
32. The capacities of two hemispherical vessels are 6.4 litres and 21.6 litres. The ratio of their inner radii is
 (A) 4 : 9 (B) 16 : 81
 (C) $\sqrt{2} : \sqrt{3}$ (D) 2 : 3
33. Pipe A alone can fill a tank in 8 hours. Pipe B alone can fill it in 6 hours. If both the pipes are opened and after 2 hours Pipe A is closed, then the other pipe will fill the tank in
 (A) 6 hours (B) $3\frac{1}{2}$ hours
 (C) 4 hours (D) $2\frac{1}{2}$ hours
134. If $(a - b) = 3$, $(b - c) = 5$ and $(c - a) = 1$, then the value of $\frac{a^3 + b^3 + c^3 - 3abc}{a + b + c}$ is
 (A) 17.5 (B) 20.5
 (C) 10.5 (D) 15.5
135. The population of a town is 15000. If the number of males increases by 8% and that of females by 10%, then the population would increase to 16300. Find the number of females in the town.
 (A) 4000 (B) 6000
 (C) 3000 (D) 5000
136. If ₹ 5,000 becomes ₹ 5,700 in a year's time, what will ₹ 7,000 become at the end of 5 years at the same rate of simple interest ?
 (A) ₹ 10,500 (B) ₹ 11,900
 (C) ₹ 12,700 (D) ₹ 7,700
137. A thief is noticed by a policeman from a distance of 200 m. The thief starts running and the policeman chases him. The thief and the policeman run at the rate of 10 km and 11 km per hour respectively. The distance (in metres) between them after 6 minutes is
 (A) 190 (B) 200
 (C) 100 (D) 150
138. 'A' sells an article to 'B' at a profit of 20% and 'B' sells it to 'C' at a profit of 25%. If 'C' pays ₹ 1,200, the cost price of the article originally (in ₹) is
 (A) 700 (B) 600
 (C) 1,000 (D) 800

139. The number nearest to 75070 which is divisible by 65, is
 (A) 75070 (B) 75075
 (C) 75010 (D) 75065
140. The number 20% more than 80 is
 (A) 36 (B) 30
 (C) 90 (D) 96
141. A tree is broken by the wind. If the top of the tree struck the ground at an angle of 30° and at a distance of 30 m from the root, then the height of the tree is
 (A) $25\sqrt{3}$ m (B) $30\sqrt{3}$ m
 (C) $15\sqrt{3}$ m (D) $20\sqrt{3}$ m
142. If $\cos A + \cos^2 A = 1$, then $\sin^2 A + \sin^4 A$ is equal to
 (A) 1 (B) $\frac{1}{2}$
 (C) 0 (D) -1
143. A farmer divides his herd of n cows among his four sons, so that the first son gets one-half the herd, the second one-fourth, the third son $\frac{1}{5}$ and the fourth son 7 cows. Then the value of n is
 (A) 240 (B) 100
 (C) 180 (D) 140
144. By what least number should 675 be multiplied to obtain a number which is a perfect cube?
 (A) 7 (B) 8
 (C) 5 (D) 6
145. The least number which when divided by 35, 45, 55 leaves the remainder 18, 28, 38 respectively is
 (A) 3448 (B) 3482
 (C) 2468 (D) 3265

Directions : The graph shows Income and Expenditure of a company. Study the graph and answer the questions no. 146 to 150.



146. The expenditure from 2002 to 2003 increased by

(A) $33\frac{1}{3}\%$ (B) 40%

(C) 10% (D) 20%

147. The income in 2002 was equal to the expenditure in the year

(A) 2003 (B) 2004

(C) 2000 (D) 2001

148. The profit was maximum in the year

(A) 2003 (B) 2004

(C) 2001 (D) 2002

149. The difference in profit between 2001 and 2002 is

(A) ₹ 25 lakhs (B) No difference

(C) ₹ 10 lakhs (D) ₹ 20 lakhs

150. The number of years in which the income exceeds the average income is

(A) three (B) four

(C) one (D) two

PART - D : ENGLISH COMPREHENSION

Directions : In questions no. 151 to 155, some parts of the sentences have errors and some have none. Find out which part of a sentence has an error and blacken the rectangle [■] corresponding to the appropriate letter (A, B, C). If a sentence is free from error, blacken the rectangle [■] corresponding to (D) in the Answer Sheet.

151. You do not / look as / your brother. / No error.

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

152. My elder brother / is six / foot high. / No error.

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

153. Without no proof of your guilt / the only course open to me / is to dismiss the case. / No error.

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

154. As we see it, / she appears to be unreasonable / anxious about pleasing her husband. / No error

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

155. The scissor is / lying on / the table. / No error.

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

Directions : In questions no. 156 to 160, sentences are given with blanks to be filled in with an appropriate word(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four and indicate it by blackening the appropriate rectangle [■] in the Answer Sheet.

156. The Union Budget is likely to be presented on February 26, two days ahead of the _____ date.

- (A) critical
(B) conventional
(C) suitable
(D) convenient

157. I am sorry _____ the mistake.

- (A) from
(B) with
(C) for
(D) at

158. He _____ her that she would pass.

- (A) insured (B) ensured
(C) assumed (D) assured

159. Your father _____ worry. I'm a very careful driver.

- (A) needn't
(B) none
(C) can't
(D) doesn't

160. The _____ chosen for construction of the building is in the heart of the city.

- (A) cite (B) slight
(C) sight (D) site

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. Nexus
(A) connection (B) distance
(C) deficit (D) difference
162. Mammoth
(A) straight (B) huge
(C) wild (D) greedy
163. Hyperbole
(A) expansion (B) imitation
(C) decoration (D) exaggeration
164. Eulogy
(A) apology (B) address
(C) speech (D) praise
165. Menacingly
(A) dangerously (B) threateningly
(C) harmfully (D) hideously

Directions : In questions no. 166 to 170, choose the word opposite in meaning to the given word and mark it in the Answer Sheet.

166. Impeccable
(A) faulty (B) tedious
(C) flashy (D) boring
167. Amalgamate
(A) separate (B) combine
(C) assimilate (D) integrate
168. Zenith
(A) climax (B) crisis
(C) acme (D) nadir
169. Influx
(A) reflex (B) deflection
(C) effluent (D) exodus
170. Orderly
(A) semitic (B) colic
(C) democratic (D) chaotic

Directions : In questions no. 171 to 175, 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.

171. Ram is very calculative and always has an axe to grind.
(A) has no result
(B) works for both sides
(C) has a private agenda
(D) fails to arouse interest
172. The police looked all over for him but drew a blank.
(A) did not find him
(B) put him in prison
(C) arrested him
(D) took him to court
173. On the issue of marriage, Sarita put her foot down.
(A) stood up
(B) was firm
(C) got down
(D) walked fast
174. His investments helped him make a killing in the stock market.
(A) lose money quickly
(B) plan a murder quickly
(C) murder someone quickly
(D) make money quickly
175. There is no gainsaying the fact that the country is in difficulties.
(A) ignoring
(B) hiding
(C) forgetting
(D) denying

Directions : In questions no. 176 to 180, a part of the sentence is underlined. Below are given alternatives to the underlined part at (A), (B) and (C) which may improve the sentence. Choose the correct alternative. In case no improvement is needed, your answer is (D).

176. Sordid and sensational books tend to vitiate the public taste.
(A) divide
(B) distract
(C) distort
(D) No improvement
177. By studying AIDS has engaged many researchers in the last decade.
(A) Important study
(B) Now that the study
(C) The study of
(D) No improvement
178. His Master's thesis was highly estimated and is now being prepared for publication.
(A) was highly discussed
(B) was highly commended
(C) is highly appraised
(D) No improvement
179. No sooner had she realized her blunder than she began to take corrective measures.
(A) then she began to take
(B) than she began taking
(C) when she began to take
(D) No improvement
180. A good scholar must be precise and possess originality.
(A) must be precise and original
(B) must be possess precision and original
(C) must be precision and possess originality
(D) No improvement

Directions : In questions no. 181 to 185, out of the four alternatives, choose the one which can be substituted for the given words / sentence.

181. One who loves books
(A) Bibliophile
(B) Bibliophagist
(C) Bibliophoebe
(D) Bibliographer
182. Speaking without preparation
(A) Deliberate
(B) Fluent
(C) Loquacious
(D) Extempore
183. Special trial of the Head of State by Parliament
(A) Impingement
(B) Infringement
(C) Impeachment
(D) Impediment
184. Someone able to use both hands with equal skill
(A) Ambivalent
(B) Amphibious
(C) Ambiguous
(D) Ambidextrous
185. Cure for all diseases
(A) Curable
(B) Panacea
(C) Incurable
(D) Curative

Directions : In questions no. 186 to 190, there are four different words out of which one is correctly spelt. Find the correctly spelt word and indicate it by blackening the appropriate rectangle [■] in the Answer Sheet.

186. (A) pleintive
(B) sustein
(C) villain
(D) alleince
187. (A) comissioner
(B) commissionar
(C) commisioner
(D) commissioner
188. (A) aprentice
(B) advertise
(C) treatice
(D) sencitive
189. (A) suprintendent
(B) supirentendent
(C) superintendent
(D) superentendent
190. (A) symetry
(B) symmitry
(C) symatry
(D) symmetry

Directions : In questions 191 to 200, you have two brief passages with 5 questions following each passage. Read the passages carefully and choose the best answer to each question out of the four alternatives and mark it in the Answer-Sheet.

Passage I (191 - 195)

Two years later, in November 1895, he signed his final will. He left the bulk of his fortune, amounting to about £ 1,75,000 to a trust fund administered by Swedish and Norwegian trustees. The annual interest shall be awarded as prizes to those persons who during the previous year have rendered the greatest services to mankind. The interest shall be divided into five equal parts — now amounting to about £ 8,000 each — one of which shall be awarded to the person who has made the most important discovery or invention in the realm of physics, one to the person who has made the most important chemical discovery or improvement, one to the person who has made the most important physiological or medical discovery, one to the person who has produced the most outstanding work of literature, idealistic in character, and one to the person who has done the best work for the brotherhood of nations, the abolition or reduction of standing armies, as well as for the formation or popularization of peace congress.

191. The said prize is awarded

- (A) once in 5 years
- (B) every year
- (C) once in 4 years
- (D) once in 2 years

192. Which is the prize that is referred to in the passage ?

- (A) Nobel Prize
- (B) Magsaysay Award
- (C) Pulitzer Prize
- (D) Booker Prize

193. The number of prizes in the field of science are

- (A) Four
- (B) One
- (C) Three
- (D) Five

194. Total annual prize money amounts to

- (A) £ 8,000
- (B) £ 1,750,000
- (C) £ 350,000
- (D) £ 40,000

195. Prize is awarded for outstanding work in

- (A) Chemistry
- (B) Literature
- (C) Physics
- (D) All the above

Passage II (196 - 200)

If an opinion contrary to your own makes you angry, that is a sign that you are subconsciously aware of having no good reason for thinking as you do. If someone maintains that two and two are five, or that Iceland is on the Equator, you feel pity rather than anger, unless you know so little of arithmetic or geography that his opinion shakes your own contrary conviction.

196. If someone else's opinion makes us angry, it means that

- (A) we are subconsciously aware of having no good reason for becoming angry
- (B) there may be good reasons for his opinion but we are not consciously aware of them
- (C) our own opinion is not based on good reason and we know this subconsciously
- (D) we are not consciously aware of any reason for our own opinion

197. "Your own contrary conviction" refers to

- (A) the fact that you feel pity rather than anger
- (B) the opinion that two and two are four and that Iceland is a long way from the Equator
- (C) the opinion that two and two are five and that Iceland is on the Equator
- (D) the fact that you know so little about arithmetic or geography

198. Conviction means

- (A) persuasion
- (B) disbelief
- (C) strong belief
- (D) ignorance

199. The writer says if someone maintains that two and two are five you feel pity because you

- (A) have sympathy
- (B) don't agree with him
- (C) want to help the person
- (D) feel sorry for his ignorance

200. The second sentence in the passage

- (A) builds up the argument of the first sentence by restating it from the opposite point of view
- (B) makes the main point which has only been introduced by the first sentence
- (C) simply adds a further point to the argument already stated in the first sentence
- (D) illustrates the point made in the first sentence