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

Test Form No. टेस्ट फार्म संख्या **000 KG 1**	**CY-2013**	GK – 1185881

Time Allowed : 2 Hours (For V.H. Candidates : 2 hrs. 40 min.)   Maximum Marks : 200

निर्धारित समय : 2 घण्टे (दृष्टिबाधित उम्मीदवारों के लिए : 2 घण्टे 40 मिनट)   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 अंग्रेज़ी तथा हिन्दी दोनों में दिये गये हैं।

INSTRUCTIONS TO CANDIDATES

1. This Booklet contains 200 questions in all comprising the following four parts :
   - Part – A : General Intelligence & Reasoning (50 Questions)
   - Part – B : General Awareness (50 Questions)
   - Part – C : Quantitative Aptitude (50 Questions)
   - Part – D : English Comprehension (50 Questions)
2. In questions set bilingually in English and Hindi, in case of discrepancy, the English version will prevail.
3. All questions are compulsory and carry equal marks.
4. The paper carries negative marking. 0.25 marks will be deducted for each wrong answer.
5. Before you start to answer the questions you must check up this Booklet and ensure that it contains all the pages (1-32) and see that no page is missing or repeated. If you find any defect in this Booklet, you must get it replaced *immediately*.
6. You will be supplied the Answer-Sheet separately by the Invigilator. You must complete and code the details of *Name, Roll Number, Ticket Number 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. (V.H. candidates will have to ensure that these details are filled in by the scribe. However, all V.H. candidates must put their left-hand thumb impression at the space provided in the Answer-Sheet. Those V.H. candidates who can sign should also put their signatures in addition to thumb impression.)
7. Answers must be shown by completely blackening the corresponding ovals 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.
8. A machine will read the coded information in the OMR Answer-Sheet. In case the information is incomplete or different from the information given in the application form, such candidate will be awarded 'ZERO' mark.
9. The Answer-Sheet must be handed over to the Invigilator before you leave the Examination Hall.
10. Failure to comply with any of the above Instructions will render a candidate liable to such action/penalty as may be deemed fit.
11. The manner in which the different questions are to be answered has been explained at the back of this Booklet (Page No. 32), which you should read carefully before actually answering the questions.
12. 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.
13. In lieu of Question Nos. 39 to 50 and 144 to 150, relating to figural portions, alternate questions have been provided to be attempted by V.H. Candidates only.
14. No rough work is to be done on the Answer-Sheet. Space for rough work has been provided below the questions.
15. "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

1. इस पुस्तिका में कुल 200 प्रश्न हैं, जिनमें निम्नलिखित चार भाग शामिल हैं :
   - भाग-क : सामान्य बुद्धिमत्ता एवं तर्कशक्ति (50 प्रश्न)
   - भाग-ख : सामान्य जानकारी (50 प्रश्न)
   - भाग-ग : परिमाणात्मक अभिरुचि (50 प्रश्न)
   - भाग-घ : अंग्रेजी परिज्ञान (50 प्रश्न)
2. अंग्रेजी और हिन्दी भाषा में तैयार किए गए द्विभाषी प्रश्नों में कोई विसंगति होने की स्थिति में अंग्रेजी विवरण मान्य होगा।
3. सभी प्रश्न अनिवार्य हैं तथा सबके बराबर अंक हैं।
4. प्रश्न पत्र में नकारात्मक अंकन होगा। हर गलत उत्तर के लिए 0.25 अंक काटा जाएगा।
5. प्रश्नों के उत्तर देने से पहले आप इस पुस्तिका की जाँच करके देख लें कि इसमें पूरे पृष्ठ (1-32) 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।
6. 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 और टेस्ट फार्म संख्या अवश्य लिखें। प्रश्नों के उत्तर वास्तव 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 उम्मीदवार सुनिश्चित करें कि 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। जो दृष्टिबाधित उम्मीदवार हस्ताक्षर कर सकते हैं, वे अंगूठे के निशान के अलावा अपने हस्ताक्षर भी कर दें।)
7. उत्तर-पत्रिका में सभी उत्तर Side-II में प्रश्न संख्या के सामने दिये गये सम्बन्धित अण्डाकार खानों को केवल काले/नीले बॉल-पॉइंट पेन से पूरी तरह काला करके दिखाएँ। जो अण्डाकार खाने काले/नीले बॉल-पॉइंट पेन से नहीं भरे जाएँगे, उनके लिए कोई अंक नहीं दिया जाएगा।
8. 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 को 'शून्य' अंक दिया जाएगा।
9. परीक्षा-भवन छोड़ने से पहले परीक्षार्थी को उत्तर-पत्रिका निरीक्षक के हवाले कर देनी चाहिए।
10. 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।
11. विभिन्न प्रश्नों के उत्तर देने की विधि इस पुस्तिका के पीछे (पृष्ठ संख्या 32) में छपे हुए निर्देशों में दे दी गई है, इसे आप प्रश्नों के उत्तर देने से पहले ध्यानपूर्वक पढ़ लें।
12. 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।
13. आकृति से सम्बन्धित प्रश्न संख्या 39 से 50 एवं 144 से 150 के बदले में केवल दृष्टिबाधित उम्मीदवारों द्वारा हल किए जाने के लिए वैकल्पिक प्रश्न दिए गए हैं।
14. कोई रफ कार्य उत्तर-पत्रिका पर नहीं करना है। रफ कार्य के लिए स्थान प्रश्नों के नीचे दिया गया है।
15. ''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 स्विच ऑफ करके भी अपने पास न रखें। इस प्रावधान का अनुपालन न करने को परीक्षा में अनुचित उपायों का प्रयोग माना जाएगा और उनके विरुद्ध कार्रवाई की जाएगी, उनकी अभ्यर्थिता रद्द कर देने सहित।''

SEAL

इस पुस्तिका की सील तब तक न खोलें जब तक कहा न जाए।

     000 KG 1

PART - A

GENERAL INTELLIGENCE & REASONING

Directions : In question nos. 1 to 6, select the related word/letters/number from the given alternatives.

1. 11 : 132 : : ____?____.

    (A) 10 : 100   (B) 9 : 90

    (C) 13 : 169   (D) 15 : 250

2. $\dfrac{1}{9}$: $\dfrac{1}{81}$, $\dfrac{1}{13}$: ____?____.

    (A) $\dfrac{1}{169}$ (B) $\dfrac{1}{125}$

    (C) $\dfrac{1}{120}$ (D) $\dfrac{1}{127}$

3. AB : ZY : : CD : ____?____.

    (A) WX   (B) UV   (C) XW   (D) VU

4. Sheep : mutton : : Deer : ____?____.

    (A) meat   (B) flesh

    (C) venison   (D) veal

5. Cobbler : Leather : : Tailor : ____?____.

    (A) Cloth   (B) Shirt

    (C) Draper   (D) Thread

6. FLOWER : REWOLF : FRUITS : ____?____.

    (A) STUIRF   (B) STIURF

    (C) STUIFR   (D) STRUIF

Directions : In question nos. 7 to 12, find the odd number/letters/number pair from the given alternatives.

7. (A) TPDC   (B) BKDF

    (C) OLTF   (D) BJLQ

8. (A) Distribution   (B) Dispersion

    (C) Diversion   (D) Dilution

9. (A) 6   (B) 24   (C) 64   (D) 120

10. (A) Bachelor   (B) Widow

    (C) Spinster   (D) Wife

11. (A) 88   (B) 97   (C) 132   (D) 121

12. (A) I   (B) E   (C) B   (D) O

13. Arrange the following words as per order in the dictionary.

    (1) necrology

    (2) necromancy

    (3) necropolis

    (4) necrophilia

    (A) (1), (2), (3), (4)   (B) (1), (2), (4), (3)

    (C) (2), (1), (3), (4)   (D) (2), (1), (4), (3)

14. Which one of the given responses would be a meaningful order of the following ?

    (1) Plant

    (2) Seed

    (3) Fruit

    (4) Seedling

    (A) (4), (2), (3), (1)   (B) (2), (3), (1), (4)

    (C) (4), (1), (3), (2)   (D) (3), (2), (4), (1)

SPACE FOR ROUGH WORK

Directions : In question nos. 15 to 18, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

15. 2, 3, 5, 9, 17, __?__ .

   (A) 31   (B) 32   (C) 33   (D) 34

16. 7, 12, 22, 42, 82, __?__ .

   (A) 173   (B) 162   (C) 183   (D) 143

17. ACE, BDF, CEG, __?__

   (A) DEF   (B) DFH   (C) DEH   (D) DFE

18. ABC PQR DEF STU __?__ .

   (A) VWX   (B) GHI   (C) IJK   (D) GKL

19. From the given alternatives select the word which cannot be formed using the letters given in the word.

   MERCHANDISE

   (A) MESH   (B) DICE

   (C) CHARM   (D) CHANGE

20. Select the correct combination of mathematical signs to replace * signs and to balance the given equation.

   2 * 4 * 3 * 4 * 9

   (A) + × = −   (B) × ÷ − =

   (C) × − + =   (D) + − = ÷

21. In a retail shop, there were 54 cupboards. In each cupboard, 28 racks were made. In each rack 10 boxes were kept. In each box 4 shirts were packed. One day 500 boxes were sold and 250 boxes were purchased. How many shirts were there on that day ?

   (A) 59,360   (B) 59,580

   (C) 59,480   (D) 60,380

22. If > denotes +, < denotes −, + denotes ÷, ^ denotes ×, − denotes =, × denotes > and = denotes <, choose the correct statement of the following :

   (A) 13 > 7 < 6 + 2 = 3 ^ 4

   (B) 9 > 5 > 4 − 18 + 9 > 16

   (C) 9 < 3 < 2 > 1 × 8 ^ 2

   (D) 28 + 4 ^ 2 = 6 ^ 4 + 2

23. Mahesh is '60' years old. Ram is '5' years junior to Mahesh and '4' years senior to Raju. The youngest brother of Raju is Babu and he is '6' years junior to him. What is the age difference between Mahesh and Babu ?

   (A) 18   (B) 15   (C) 13   (D) 06

24. In a certain code language Sue Re Nik means She is brave, Pi Sor Re Nik means She is always smiling and Sor Re Zhi means Is always cheerful. What is the code used for the word smiling ?

   (A) Nik   (B) Re   (C) Pi   (D) Sor

25. $\frac{15}{20} \div \frac{4}{5} \times \frac{2}{3} \times \frac{8}{5} = ?$

   (A) 0   (B) 1   (C) 3   (D) 5

26. If 1 + 4 = 9, 2 + 8 = 18, 3 + 6 = 15 then 7 + 8 = ?

   (A) 41   (B) 23   (C) 30   (D) 32

27. If PKROK is coded as 72962 and KRRPK as 29972 then how can NJMLZ be coded ?

   (A) 74314   (B) 91572

   (C) 51430   (D) 45176

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28. If 'FATHER' is coded as 'HCVJGT' then how can 'SHIP' be coded as :

(A) TIJQ   (B) UJKR

(C) THKR   (D) UKJR

29. From the given alternative words, select the word which can be formed using the letters of the given word.

REPUTATION

(A) PONDER   (B) REQUIRE

(C) RETIRE   (D) TUTOR

30. Find the hidden meaningful word from the coded alphabets if the alphabets are in reverse order.

(A) 11, 15, 26, 13, 22   (B) 15, 11, 22, 26, 13

(C) 11, 22, 15, 13, 26   (D) 26, 22, 15, 13, 11

31. Looking at a woman sitting next to him, Amit said, "She is the sister of the husband of my wife". How is the woman related to Amit ?

(A) Daughter   (B) Sister

(C) Wife   (D) Niece

Directions : In question nos. **32** to **34**, select the missing number from the given responses :

32.

24	20	37
31	25	?.
26	36	19

(A) 26   (B) 30   (C) 25   (D) 23

33.

6	5	4
7	6	5
5	7	6
37	23	?

(A) 10   (B) 12   (C) 13   (D) 14

34.

8	12	13
6	5	10
2	8	?
4	15	18

(A) 15   (B) 5   (C) 6   (D) 3

35. Sharada started to move in the direction of south. After moving 15 meters, she turned to her left - twice and moved 15 meters each time. Now how far is she and in which direction from her starting point ?

(A) 15 m. East   (B) 15 m. South

(C) 30 m. East   (D) 20 m. West

36. Sonia started from her house and travelled 4 km towards east. Then she turned left and travelled 6 km. Then she turned right and travelled 4 km. At what distance is she from starting point ?

(A) 14 km   (B) 8 km

(C) 5 km   (D) 10 km

37. In each of the following question, there are two statements labelled as Assertion (A) and Reason (R).

(A) Autism is a developmental disability.

(R) Heridity and lower development of brain are the causes of the Autism.

(A) Both (A) and (R) are false

(B) Both (A) and (R) are true

(C) (A) is true and (R) is false

(D) (A) is false and (R) is true

One Statement is given followed by two Conclusions I and II. You have to consider the statement to be true, even if it seems to be at variance from commonly known facts. You are to decide which of the given conclusions can definitely be drawn from the given statement. Indicate your answer.

38. Most Indians are aware that they have a great heritage, but few would include science in it.

Conclusion : I Many Indians consider science to have made Indian heritage great.

II Many Indians are not aware that India has a great scientific heritage.

(A) Only Conclusion I follows

(B) Only Conclusion II follows

(C) Both Conclusions I and II follow

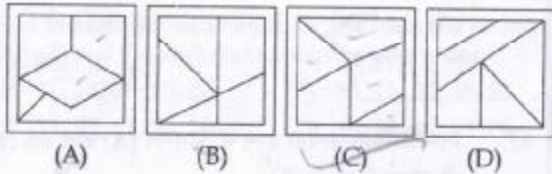(D) Neither Conclusions I nor II follow

SPACE FOR ROUGH WORK

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39. Identify the answer figure from which the pieces given in the question figures have been cut.
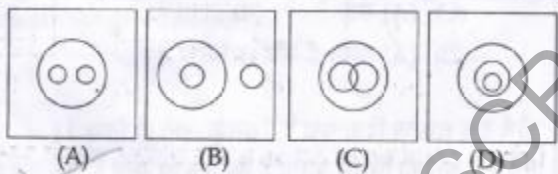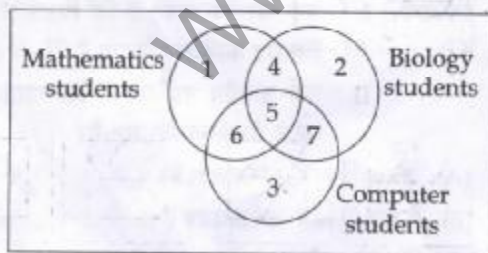
Question figures

Answer figures

(A)   (B)   (C)   (D)
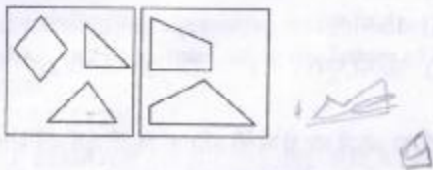
40. Which of the following diagrams represents the correct relationship between Herbivores, Tigers and Animals ?

Answer figures

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

41. Identify the region that represents students studying Biology and Computer not Mathematics.

Question figure

(A) 2   (B) 7   (C) 4   (D) 6

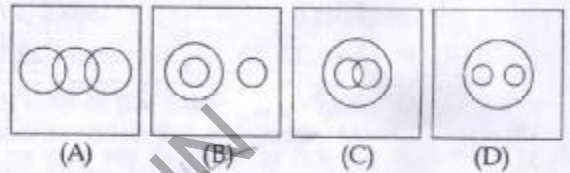**42.** Find out the number of triangles in this figure.

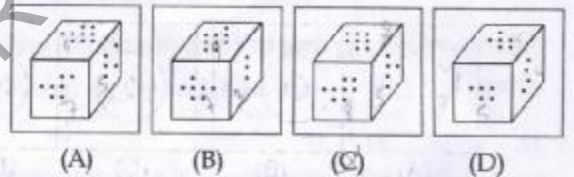**Question figure**
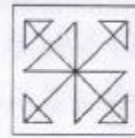
(A) 12   (B) 14   (C) 16   (D) 18

43. Which of the following diagrams represents the correct relationship between Books, Novels and Dictionaries ?

Answer figures

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

44. If the difference between the no. of dots on the opposite faces is 3, find out the figure which is correct?

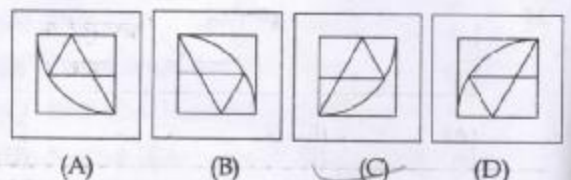**Answer figures**

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

Directions : In questions nos. 45 and 46, which answer figure will complete the pattern in the question figure ?
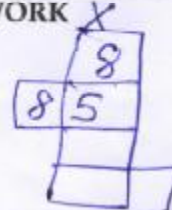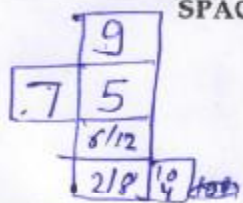
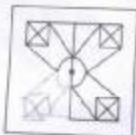**45.** **Question figure**

Answer figures

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

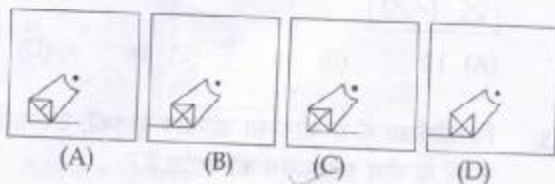**SPACE FOR ROUGH WORK**

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46. Question figure

Answer figures

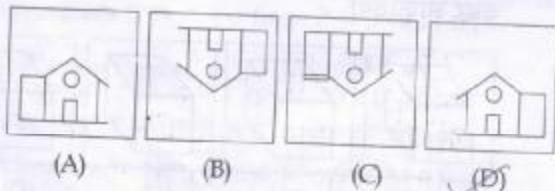(A)   (B)   (C)   (D)

47. Which of the answer figure is exactly the water image of the given figure?
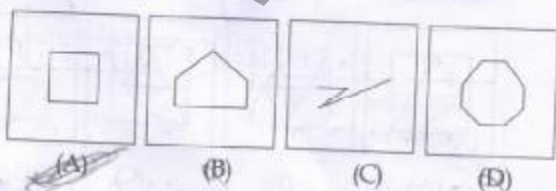Question figure

Answer figures

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

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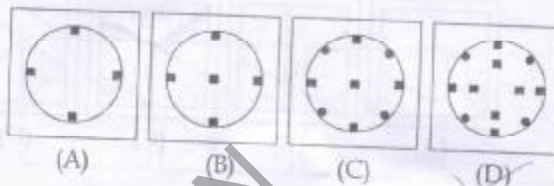

Answer figures

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

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

Question figure

Answer figures

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

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., 'M' can be represented by 42, 31. etc. and 'P' can be represented by 95, 88 etc. Similarly, you have to identify the set for the word given 'ROST'.

Matrix - I

	0	1	2	3	4
4	K	L	M	N	O
3	L	M	K	O	N
2	N	O	L	M	K
1	M	N	O	K	L
0	O	K	N	L	M

Matrix - II

	5	6	7	8	9
9	P	Q	R	S	T
8	T	S	Q	P	R
7	R	T	S	Q	P
6	S	P	T	R	Q
5	Q	R	P	T	S

(A) 56, 44, 67, 40

(B) 97, 21, 66, 29

(C) 75, 00, 10, 92

(D) 68, 33, 65, 58

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PART - B

GENERAL AWARENESS

51. Where does the cabbage store food ?
    (A) Root   (B) Leaves
    (C) Stem   (D) Fruit

52. The compound that has the least value for octane number is :
    (A) n - heptane   (B) 2 - methyl heptane
    (C) Iso - octane   (D) 2, 2 - dimethyl hexane

53. Which body is constituted by the President of India to advise on the decision of Central Resources between the centre and the state ?
    (A) Taxation Enquiry Commission
    (B) Tariff Commission
    (C) Finance Commission
    (D) Planning Commission

54. An increase in the quantity supplied suggests :
    (A) a rightward shift of the supply curve
    (B) a leftward shift of the supply curve
    (C) a movement up along the supply curve
    (D) a movement down along the supply curve

55. Obsidian, Andesite, Gabbro and Peridite are :
    (A) Extrusive rocks   (B) Metamorphic rocks
    (C) Intrusive rocks   (D) Sedimentary rocks

56. Which of the following books is not written by Jawaharlal Nehru ?
    (A) Glimpses of World History
    (B) Discovery of India
    (C) My Experiments with Truth
    (D) An Autobiography

57. Coupling and repulsion are the two states of :
    (A) crossing over   (B) linkage
    (C) chiasma   (D) mutation

58. The production, marketing, storage, advertisement and consumption of smokeless tobacco is banned in :
    (A) Meghalaya   (B) Assam
    (C) Arunachal Pradesh   (D) Nagaland

59. Sir C. V. Raman was awarded Nobel Prize for h work on :
    (A) Sonometer   (B) Light Scattering
    (C) Radio activity   (D) Cryogenics

60. Section of IPC, which deals with LGBT (Lesbia Gay, Bisexual and Transgender) community is :
    (A) 377   (B) 376
    (C) 370   (D) None of these

61. The type of fruit obtained from a multicarpillary apocarpous gynoecium is :
    (A) multiple   (B) composite
    (C) aggregate   (D) simple

62. Who among the following is the founder of th "Azad Hind Fauj" ?
    (A) Chandrashekhar Azad
    (B) Lala Har Dayal
    (C) Subash Chandra Bose
    (D) Vir Savarkar

63. The percentage of carbon in cast iron is :
    (A) 3 to 5   (B) 0.1 to 0.25
    (C) 0.5 to 1.5   (D) 6 to 8

64. The pair of compounds used as anaesthetic i medicines :
    (A) Nitrogen dioxide, ether
    (B) Ether, Ammonia
    (C) Nitrous oxide, Chloroform
    (D) Chloroform, Nitrogen dioxide

65. Which one of the following is used as secondar storage system in computer ?
    (A) ROM   (B) RAM
    (C) Floppy   (D) EPROM

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66. Which of the followings is **not** correct ?
(A) MSP - Minimum Support Price
(B) NMA - National Monuments Authority
(C) PIL - Public Interest Litigation
(D) NGT - National Growth Tribunal

67. The plants, which grow under water stress conditions of deserts are :
(A) Sciophytes
(B) Epiphytes
(C) Xerophytes
(D) Heliophytes

68. Preparation of butter, ghee by a household for their own use is a part of :
(A) consumption
(B) own-account production
(C) household capital formation
(D) industrial production

69. Who was the Delhi Sultan to impose Jizya even on the Brahmins ?
(A) Balban
(B) Ala-ud-din Khilji
(C) Firuz Tughluq
(D) Muhammad Tughluq

70. Total assembly segments in Delhi are :
(A) 40
(B) 50
(C) 60
(D) 70

71. Flywheel is an important part of a steam engine because it :
(A) gives strength to the engine
(B) accelerates the speed of the engine
(C) helps the engine in keeping the speed uniform
(D) decreases the moment of inertia

72. The freezing point of fresh water is
(A) 0°C
(B) 4°C
(C) 3°C
(D) 5°C

73. In relation to the State Government, local government exercises :
(A) Independent Authority
(B) Co-ordinate Authority
(C) Delegated Authority
(D) Superior Authority

74. Which National Highway is called Shershah Suri Marg ?
(A) National Highway No : 1
(B) National Highway No : 3
(C) National Highway No : 8
(D) National Highway No : 7

75. Potato was introduced to Europe by :
(A) Dutch
(B) Portuguese
(C) Germans
(D) Spanish

76. Which of the following **does not** have a Stupa ?
(A) Dhamek
(B) Ranchi
(C) Sanchi
(D) Barhut

77. Deficiency of iron causes :
(A) Scurvy
(B) Goitre
(C) Polio
(D) Rickets

78. Who said that "Where there is no Law there will not be Liberty" ?
(A) John Locke
(B) Karl Marx
(C) Plato
(D) Machiavelli

79. Consumer Protection Act 1986, was amended in :
(A) 1991
(B) 1992
(C) 1993
(D) 1994

80. The damage of the human body due to radiation (X-rays or γ-rays etc,) is measured in :
(A) Rads
(B) Rems
(C) Roentgen
(D) Curie

81. The Constitution of India, describes India as :
(A) Union of states
(B) A Federation
(C) A quasi-federal
(D) Unitary

82. Soil factors are otherwise known as :
(A) Climatic factors
(B) Edaphic factors
(C) Biotic factors
(D) Physiographic factors

83. The UNIX operating system is suitable for :
(A) Single user
(B) Multi user
(C) Real-Time Processing
(D) Distributed Processing

84. 'Democratic Centralism' is an important feature of a :
(A) Socialist state
(B) Communist state
(C) Democratic state
(D) Totalitarian state

85. The current spell of cold wave in the US has been a fall out of the :
(A) political administration
(B) polar vortex
(C) biodiversity and habitats
(D) climate and energy

86. The Minimum Support Price for food grains was introduced in the year :
(A) 1954
(B) 1944
(C) 1964
(D) 1974

87. The site of birth [nativity] of Gautam Buddha is marked by :
(A) a Peepal Tree
(B) a monastery
(C) a "Rummindei Pillar" of Ashok Maurya
(D) a statue

88. The threshold frequency is the frequency below which :
(A) photo current is constant
(B) photo current increases with voltage
(C) photo current decreases with voltage
(D) photo electric emission is not possible

89. Stamens are fused with each other by their anthers and also with the petals in :
(A) Euphorbiaceae
(B) Leguminosae
(C) Liliaceae
(D) Compositae

90. Transition ions absorb light in :
(A) visible region
(B) infrared region
(C) ultraviolet region
(D) microwave region

91. 'Shadow Cabinet' is the feature of Administrative system of :
(A) Japan
(B) Britain
(C) USA
(D) France

92. "Ryder Cup" is awarded to the players of :
(A) Golf
(B) Baseball
(C) Basket ball
(D) Cards

93. The unit of noise pollution (level) is :
(A) decibel
(B) decimal
(C) ppm
(D) None of the above

94. Virtually treeless, sparse vegetation is found in :
(A) Chapparal
(B) Taiga
(C) Alpine
(D) Tundra

95. Tesla is a unit of magnetic :
(A) field
(B) flux
(C) induction
(D) moment

96. "Krishi Karman Award" 2012-13 for all time recor in food grain production was given to :
(A) Odisha
(B) Madhya Pradesh
(C) Haryana
(D) Tamil Nadu

97. Who is known as the Father of 'Indian Unrest' ?
(A) Bipin Chandrapal
(B) Bal Gangadhar Tilak
(C) Lalalajpat Rai
(D) Aurobindo Ghosh

98. Dactylogram is related with :
(A) finger print
(B) teleprinter
(C) perumbulator
(D) cereals

99. Who benefits the most during the inflationar period ?
(A) government servants
(B) corporate servants
(C) creditors
(D) entrepreneurs

100. Study of organisms in relation to their environmen is called :
(A) Palynology
(B) Ecology
(C) Zoology
(D) Entomology

PART - C
QUANTITATIVE APTITUDE

101. A can do a piece of work in 16 days and B in 24 days. They take the help of C and three together finish the work in 6 days. If the total renumeration for the work is ₹ 400. The amount (in rupees) each will receive, in proportion, to do the work is :
    (A) A : 150, B : 100, C : 150
    (B) A : 100, B : 150, C : 150
    (C) A : 150, B : 150, C : 100
    (D) A : 100, B : 150, C : 100

102. When 75 is added to 75% of a number, the answer is the number. Find 40% of that number :
    (A) 100　　(B) 80　　(C) 120　　(D) 160

103. A train 50 metres long passes a platform of length 100 meters in 10 seconds. The speed of the train in meters/ second is :
    (A) 50　　(B) 10　　(C) 15　　(D) 20

104. What will come in place of the question mark (?) in the series ?
    3, 8, 27, 112, (?), 3396
    (A) 565　　(B) 452　　(C) 560　　(D) 678

105. The difference between the compound interest and simple interest on a certain sum for 2 years at 10% per annum is ₹ 300. Find the sum.
    (A) ₹ 31,000　　(B) ₹ 31,500
    (C) ₹ 30,000　　(D) ₹ 30,500

106. What number should be subtracted from both the terms of the ratio 11 : 15 so as to make it as 2 : 3 ?
    (A) 2　　(B) 3　　(C) 4　　(D) 5

107. Value of
$$\left(\sin^2 7\frac{1^\circ}{2} + \sin^2 82\frac{1^\circ}{2} + \tan^2 2^\circ \cdot \tan^2 88^\circ\right) \text{ is :}$$
    (A) 1　　(B) 2　　(C) 0　　(D) 4

108. Find the value of $1 - 2\sin^2\theta + \sin^4\theta$.
    (A) $\sin^4\theta$　　(B) $\cos^4\theta$
    (C) $\text{cosec}^4\theta$　　(D) $\sec^4\theta$

109. Jasmine allows 4% discount on the marked price of her goods and still earns a profit of 20%. What is the cost price of a shirt if its marked price is ₹ 850 ?
    (A) ₹ 650　　(B) ₹ 720
    (C) ₹ 700　　(D) ₹ 680

110. Selling an item for ₹ 1800 at a discount of 10% a shopkeeper had a gain of ₹ 200. Had he sold the item without discount the percentage of profit would have been :
    (A) 10%　　(B) 20%　　(C) 25%　　(D) 30%

111. A table with marked price ₹ 1200 was sold to a customer for ₹ 1100. Find the rate of discount allowed on the table.
    (A) 9%　　(B) $8\frac{1}{3}$%　　(C) $9\frac{1}{3}$%　　(D) 10%

112. Each of the two circles of equal radii with centres at A and B pass through the centre of one another. If they cut at C and D then ∠DBC is equal to :
    (A) 60°　　(B) 100°　　(C) 120°　　(D) 140°

113. A man, a woman and a boy together finish a piece of work in 6 days. If a man and a woman can do the work in 10 and 24 days respectively. The days it will take by a boy to finish the work is :
    (A) 30　　(B) 35　　(C) 40　　(D) 45

114. The average of 11 numbers is 63. If the average of first six numbers is 60 and the last six numbers is 65 then the 6th number is :
    (A) 57　　(B) 60　　(C) 62　　(D) 64

115. If $x^2 + \dfrac{1}{x^2} = 66$ then the value of
$$\frac{x^2 - 1 + 2x}{x} = ?$$
    (A) ± 8　　(B) 10, −6
    (C) 6, −10　　(D) ± 4

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116. If I be the incentre of $\triangle ABC$ and $\angle B = 70°$ and $\angle C = 50°$, then the magnitude of $\angle BIC$ is :
(A) 130°
(B) 60°
(C) 120°
(D) 105°
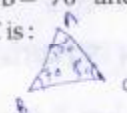
117. For a triangle ABC, D, E, F are the mid-points of its sides. If $\triangle ABC = 24$ sq. units then $\triangle DEF$ is :
(A) 4 sq. units
(B) 6 sq. units
(C) 8 sq. units
(D) 12 sq. units

118. If $a^2 + a + 1 = 0$, then the value of a^9 is :
(A) 2
(B) 3
(C) 1
(D) 0

119. For a triangle circumcentre lies on one of its sides. The triangle is :
(A) right angled
(B) obtused angled
(C) isosceles
(D) equilateral

120. If $x + \dfrac{2}{x} = 1$, then the value of $\dfrac{x^2 + x + 2}{x^2(1-x)}$ is :
(A) 1
(B) −1
(C) 2
(D) −2

121. In $\triangle PQR$, the line drawn from the vertex P intersects QR at a point S. If $QR = 4.5$ cm and $SR = 1.5$ cm then the ratios of the area of triangle PQS and triangle PSR is :
(A) 4:1
(B) 3:1
(C) 3:2
(D) 2:1

122. The angle in a semi-circle is :
(A) a reflex angle
(B) an obtuse angle
(C) an acute angle
(D) a right angle

123. If $x = k^3 - 3k^2$ and $y = 1 - 3k$, then for what value of k, will be $x = y$?
(A) 0
(B)
(C) −1
(D) 2

124. The marked price of an article is ₹ 500. A shopkeeper gives a discount of 5% and still makes a profit of 25%. The cost price of the article is :
(A) ₹ 384
(B) ₹ 380
(C) ₹ 300
(D) ₹ 376

125. A can do a piece of work in 12 days and B in 15 days. They work together for 5 days and then B left. The days taken by A to finish the remaining work is :
(A) 3
(B) 5
(C) 10
(D) 12

126. The simplest value of cot 9° cot 27° cot 63° cot 8... is :
(A) 0
(B) 1
(C) −1
(D) $\sqrt{3}$

127. $55^3 + 17^3 - 72^3 + 201960$ is equal to :
(A) −1
(B) 0
(C) 1
(D) 17

128. If $(1 + \sin A)(1 + \sin B)(1 + \sin C) = (1 - \sin A)$ $(1 - \sin B)(1 - \sin C), 0 < A, B, C < \dfrac{\pi}{2}$ then each side is equal to :
(A) sin A sin B sin C
(B) cos A cos B cos C
(C) tan A tan B tan C
(D) 1

129. A sphere and a hemisphere have the same radii. Then the ratio of their respective total surface ar... is :
(A) 2:1
(B) 1:2
(C) 4:3
(D) 3:...

130. Find the value of :
$$\sqrt{(x^2 + y^2 + z)(x - y - 3z)} \div \sqrt[3]{xy^3 z^2}$$
when $x = +1$, $y = -3$, $z = -1$.
(A) 1
(B) 0
(C) −1
(D) $\dfrac{1}{2}$

131. The ratio of the ages of two persons is 4 : 7 and age of one of them is greater than that of the other 30 years. The sum of their ages (in years) is :
(A) 110
(B) 100
(C) 70
(D) 40

132. The value of θ, which satisfies the equat... $\tan^2 \theta + 3 = 3 \sec \theta, 0° \le \theta < 90°$ is :
(A) 15° or 0°
(B) 30° or 0°
(C) 45° or 0°
(D) 60° or 0°

133. A right pyramid 6 m high has a square base of wl... the diagonal is $\sqrt{1152}$ m . Volume of the pyra... is :
(A) 144 m³
(B) 288 m³
(C) 576 m³
(D) 1152 m³

134. A train running at the speed of 84 km/hr pass... man walking in opposite direction at the spee... 6 km/hr in 4 seconds. What is the length of... train (in metre) ?
(A) 150
(B) 120
(C) 100
(D) ...

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135. If $2^{x-1} + 2^{x+1} = 320$, then the value of x is :
    (A) 6   (B) 8   (C) 5   (D) 7

136. Among the angles 30°, 36°, 45°, 50° one angle cannot be an exterior angle of a regular polygon. The angle is :
    (A) 30°   (B) 36°   (C) 45°   (D) 50°

137. If $\sin \theta = 0.7$, then $\cos \theta, 0 \le \theta < 90°$, is :
    (A) 0.3   (B) $\sqrt{0.49}$
    (C) $\sqrt{0.51}$ (D) $\sqrt{.9}$

138. If $a = 4011$ and $b = 3989$ then value of $ab = ?$
    (A) 15999879   (B) 15899879
    (C) 15989979   (D) 15998879

139. The value of $\sin^2 65° + \sin^2 25° + \cos^2 35° + \cos^2 55°$ is :
    (A) 0   (B) 1   (C) 2   (D) $\frac{1}{2}$

140. In the following number series a wrong number is given. Find out that number.
    8, 18, 40, 86, 178, 370, 752
    (A) 178   (B) 180   (C) 128   (D) 156

141. If the ratio of volumes of two cones is 2 : 3 and the ratio of the radii of their bases is 1 : 2, then the ratio of their heights will be :
    (A) 8 : 3   (B) 3 : 8   (C) 4 : 3   (D) 3 : 4

142. 3 years ago, the average age of a family of 5 members was 17 years. A baby having been born, the average age of the family is same today. The present age of the baby is :
    (A) 1 year   (B) $1\frac{1}{2}$ years
    (C) 2 years   (D) 3 years

143. The three equal circles touches each other externally. If the centres of these circles be A, B, C then $\triangle ABC$ is :
    (A) a right angle triangle
    (B) an equilateral triangle
    (C) an isosceles triangle
   (D) a scalene triangle

The adjoining pie-chart shows the proportionate expenditure on various item of Amar's family. If the monthly income of Amar is ₹ 48,000/- then answer Question No. 144 to 147.
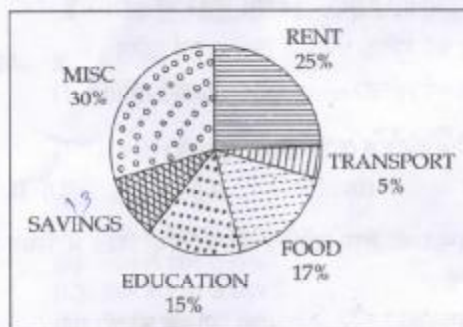
144. Had his income ₹ 40,000 /- how much would be spent on food ?
    (A) 14,960   (B) 1,360
    (C) 8,160   (D) 6,800

145. If 10% of miscellaneous expenditure is earmarked for clothing, how much amount is spent on clothes ?
    (A) ₹ 14,400   (B) ₹ 1,440
    (C) ₹ 2,880   (D) ₹ 15,840

146. How much does he save per month ?
    (A) 7,200   (B) 14,400
    (C) 3,840   (D) 2,400

147. How much does he spend more on rent than transport and education taken together ?
    (A) 2,400   (B) 9,600
    (C) 4,800   (D) 12,000

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Following histogram depicts the range of heights of students in a class of 60 students. Study the same and answer Question No. 148 to 150.
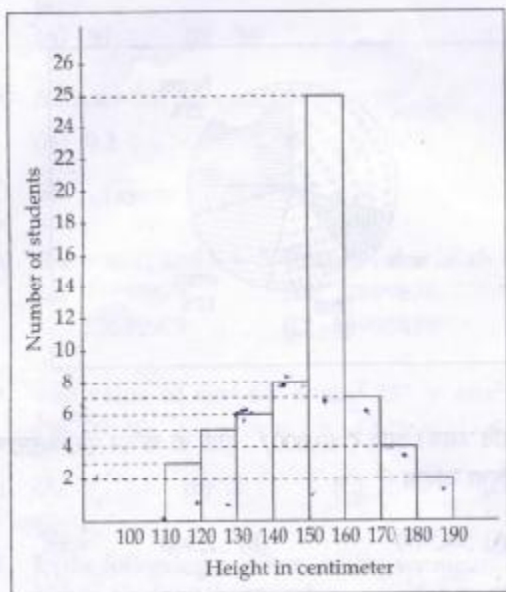
148. Number of students having height more than 150 cms :

(A) 25 (B) 8 (C) 38 (D) 13

149. Number of students with their heights between 130 to 150 cms :

(A) 8 (B) 6 (C) 14 (D) 22

150. Group which contains maximum number of students :

(A) 130-140 (B) 150-160

(C) 140-150 (D) 160-170

144. 16 children are to be divided into two groups A and B of 10 and 6 children respectively. The average marks obtained by the children of group A is 75 and that of all the children is 76. Then the average marks of the children of group B is :

(A) $77\frac{1}{3}$ (B) $77\frac{2}{3}$

(C) $78\frac{1}{3}$ (D) $78\frac{2}{3}$

145. Find three numbers in the ratio of $1 : 2 : 3$, so that the sum of their squares is equal to 504.

(A) 4, 8, 12 (B) 6, 12, 18
(C) 7, 14, 21 (D) 8, 16, 24

146. By selling salt at ₹55.80 per quintal a dealer lost 7%. At what price should he have sold it to gain 7% ?

(A) ₹65.40 (B) ₹64.00
(C) ₹64.20 (D) ₹65.20

147. The average marks of 36 students in section A is 86% and that of 24 students in section B is 96%. Find the average marks of all the students in section A and section B together.

(A) 90% (B) 88% (C) 92% (D) 91%

148. The outer circumference of a 1 cm thick pipe is 44 cm. How much water will 7 cm of the pipe hold ? $\left(\text{Take } \pi = \frac{22}{7}\right)$

(A) 1078 c.c (B) 1792 c.c
(C) 308 c.c (D) 792 c.c

149. If $P+Q+R+S=5$ and $(P+Q)(R+S)=6$, then the numerical value of $P+Q-R-S$ is :

(A) −1 (B) 0 (C) 1 (D) 2

150. The compound interest on a certain sum for 2 years at 12% per annum, compounded annually is ₹1272. The simple interest for that sum at the same rate and for the same period will be :

(A) ₹1296 (B) ₹1196
(C) ₹1220 (D) ₹1200

SPACE FOR ROUGH WORK

PART - D

ENGLISH COMPREHENSION

Directions : In Question nos. 151 to 155, some parts of the sentence have errors and some are correct. 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.

151. Suddenly they saw a car coming /
       (A)

    at a break neck speed. /
       (B)

    An old man were crossing the road at the zebra
    crossing. / No error.
       (C)   (D)

152. After tasting both / John prefers/
       (A)   (B)

    tea than coffee. / No Error.
       (C)   (D)

153. I sprained my ankle / when I was/
       (A)   (B)

    playing basketball. / No error.
       (C)   (D)

154. I loved / the drawings/
       (A)   (B)

    they were so real. / No error.
       (C)   (D)

155. It is time /
       (A)

    we should accept all our people as equals/
       (B)

    and as partners in the task of building a strong and
    united nation. / No error.
       (C)   (D)

Directions : In Question nos. 156 to 160, sentences are given with blanks to be filled in with an appropriate word(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four and indicate it by blackening the appropriate oval [●] in the Answer Sheet.

156. Leila said the new restaurant was nothing to write about. She thought it was _____ .

    (A) excellent   (B) just average

    (C) really terrible   (D) splendid

157. My Nigerian friend, Fela is having trouble finding work here in London, but he says if push comes to shove he can always _____ .

    (A) go back to Nigeria

    (B) go to jail

    (C) win the lottery

    (D) end of the journey that is life

158. If you say to someone "You're so full of yourself" they'll probably feel _____ .

    (A) proud   (B) upset

    (C) pleased   (D) calm

159. Bob and Jane decided to tie the knot because _____ .

    (A) it had come undone

    (B) they loved one another

    (C) they needed to save money

    (D) they wanted to make a long rope

160. The archer missed the _____ by an inch.

    (A) aim   (B) score

    (C) point   (D) blow

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Directions : In Question nos. 161 to 163, 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. CREDIBLE :
    (A) worthy
    (B) charming
    (C) serious
    (D) believable

162. OBSTREPEROUS :
    (A) Sullen
    (B) Unruly
    (C) Lazy
    (D) Awkward

163. EXTRICATE :
    (A) Pull
    (B) Free
    (C) Tie
    (D) Complicate

Directions : In Question nos. 164 to 166, choose the word opposite in meaning to the given word and mark it in the Answer Sheet.

164. GROUP :
    (A) solitary
    (B) singular
    (C) individual
    (D) alone

165. ACQUIT :
    (A) condemn
    (B) despair
    (C) mild
    (D) smart

166. DISSENT :
    (A) agreement
    (B) discord
    (C) disagreement
    (D) unacceptable

Directions : In Questions No. 167 to 171, 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.

167. The mention of her former husband's name still makes Rita foam at the mouth.
    (A) fall sick
    (B) angry
    (C) vomit
    (D) shy

168. The newly elected Chief Minister has promised to bring about changes in the state.
    (A) cause to happen
    (B) produce
    (C) make
    (D) carry

169. He gave vent to his pleasure with a smile.
    (A) enjoyed
    (B) shared
    (C) allowed
    (D) expressed

170. We must husband our resources against hard times.
    (A) concede
    (B) save
    (C) support
    (D) sing

171. After his business failed, he had to work very hard to keep the wolf from the door.
    (A) defend from enemies
    (B) keep away extreme poverty
    (C) earn an honest living
    (D) regain his lost position

Directions : In Question nos. 172 to 181, a sentence/ a part of the sentence is underlined. Below are given alternatives to the underlined 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.

172. Motor cars carry people from one place to another.
    (A) from place to place
    (B) about the place
    (C) for travel
    (D) No improvement

173. Then with all his loot he sailed inwards Scotland's shore.
    (A) onwards
    (B) towards
    (C) forward
    (D) No improvement

174. The teacher was very proficient in his subject.
    (A) expert
    (B) well versed
    (C) proficient
    (D) No improvement

175. The office is soon to be closed.
    (A) just to
    (B) about to
    (C) where to
    (D) No improvement

176. He found a wooden chair that has broken in the room.
    (A) wooden and broken chair
    (B) broken wooden chair
    (C) broken and wooden chair
    (D) No improvement

177. The robbers fled before the police came.
    (A) arrived
    (B) were coming
    (C) had come
    (D) No improvement

178. The hosts were taken aback when many guests who had been invited did not turn up for the party.
    (A) had been invited
    (B) had invited
    (C) was invited
    (D) No improvement

179. The master aimed a blow to Oliver's head with the ladle.
    (A) a throw at
    (B) a punch in
    (C) a blow at
    (D) No improvement

180. The athletes who have won prizes are being honoured.
    (A) The prize winning athletes
    (B) The athletes who are given prizes
    (C) The athletes who are winning prizes
    (D) No improvement

181. Can you please give me some leave ?
    (A) grant for me
    (B) grant me
    (C) grant from me
    (D) No improvement

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Directions : In Question nos. 182 to 188, out of the four alternatives, choose the one which can be substituted for the given words/sentences and indicate it by blackening the appropriate oval [⬭] in the Answer Sheet.

182. A word that reads the same backwards as forwards :

    (A) palindrome   (B) acrostic

    (C) homophone   (D) acronym

183. A principle or standard by which anything is or can be judged :

    (A) criterion   (B) manifesto

    (C) copyright   (D) epitome

184. A person who is self-centred :

    (A) eccentric   (B) egoist

    (C) masochist   (D) narcissist

185. The firing of many guns at the same time to mark an occasion :

    (A) volley   (B) fusillade

    (C) salvo   (D) attack

186. One living on vegetables :

    (A) barbarian   (B) vegetarian

    (C) herbivore   (D) carnivore

187. A person who supports or speaks in favour of something :

    (A) volunteer   (B) advocate

    (C) assistance   (D) adviser

188. An extract from a book of writing :

    (A) Preface   (B) Excerpt

    (C) Review   (D) Footnote

Directions : In Question nos. 189 and 190, four words are given in each question, out of which only one word is correctly spelt. Find the correctly spelt word and mark your answer in the Answer Sheet.

189. (A) Posessian

    (B) Possession

    (C) Possesian

    (D) Posseseon

190. (A) Imakulate

    (B) Immakulate

    (C) Immaculate

    (D) Immaculete

Directions : In Question nos. 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 by blackening the appropriate oval [⬭] in the Answer Sheet.

Passage - I (Q. No. 191-195)

We are living in the Age of Science. Everyday new inventions are being made for the good of humanity. The scientific inventions began after the Industrial Revolution of 1789. Within these 200 years, science has made a wonderful progress. The aeroplane is one of the most important inventions of science during the Modern Age. It is the fastest means of transport known so far. An aeroplane resembles a flying bird in shape. Inside there are seats for the passengers and a cabin for the pilot. This cabin is called a cockpit. It has an engine that is worked by petrol. It is all made up of metal and can fly at a very high speed. Before taking off it runs on the runway for some distance to gather speed. Then it suddenly hops up the earth and takes off.

191. An aeroplane has an engine that is worked by _____

    (A) gas   (B) diesel

    (C) petrol   (D) steam

192. We are living in the _____ .

(A) Age of science

(B) Age of inventions

(C) Age of industrialization

(D) Modern Age

193. The _____ is one of the most important inventions of science during the Modern Age.

(A) train   (B) ship

(C) aeroplane   (D) motor vehicle

194. The scientific invention began after the Industrial Revolution of _____ .

(A) 1779   (B) 1789

(C) 1889   (D) 1879

195. The cabin for the pilot is called a _____ .

(A) chamber   (B) cubicle

(C) cube   (D) cockpit

Passage - II (Q. No. 196 - 200)

The National Highways Network of India measures over 70,934 km as of 2010, including over 1,000 km of limited-access expressways. Out of 71,000 km of National Highways 15,000 plus km are 4 or 6 lanes and remaining 50,000 km are 2 lanes. The National Highways Authority of India (NHAI) is the nodal agency responsible for building, upgrading and maintaining most of the national highways network. The National Highways Development Project (NHDP) is a major effort to expand and upgrade the network of highways. NHAI often uses a public-private partnership model for highway development, maintenance and toll-collection. National highways constituted about 2% of all the roads in India, but carried about 40% of the total road traffic as of 2010. The majority of existing national highways are two-lane roads (one lane in each direction), though much of this is being expanded to four-lanes, and some to six or eight lanes. Some sections of the network are toll roads. Over 30,000 km of new highways are planned or under construction as part of the NHDP, as of 2011. This includes over 2,600 km of expressways currently under construction.

196. What is the current measurement of expressways under construction in India ?

(A) 1,000 km   (B) 15,000 km

(C) 30,000 km   (D) 2,600 km

197. What is the measurement of two-lane National Highways of India ?

(A) 71,000 km   (B) 15,000 km

(C) 61,000 km   (D) 50,000 km

198. The majority of National Highways in India have :

(A) four-lanes   (B) two-lanes

(C) six-lanes   (D) eight-lanes

199. What percentage of roads in India are National Highways ?

(A) 40%   (B) 2%

(C) 30%   (D) 4%

200. What is the responsibility of the NHAI ?

(A) expansion of National Highways

(B) planning of National Highways

(C) building, upgrading and maintaining of National Highways

(D) control of National Highways

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