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

PC 1307.258 **DI 2014**

Time Allowed : 2 Hours

निर्धारित समय : 2 घंटे

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

1. This Booklet contains 200 questions in all comprising the following four Parts :
   Part – A : General Intelligence & Reasoning (50 Questions)
   Part – B : General Knowledge and 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, Date of birth and Test Form Number* on Side-1 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.
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. No rough work is to be done on the Answer Sheet. Space for rough work has been povided below the questions.
14. "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 and future debarrment from appearing in examinations conducted by Staff Selection Commission."

उम्मीदवारों के लिए अनुदेश

1. इस पुस्तिका में कुल 200 प्रश्न हैं, जिनमें निम्नलिखित चार भाग शामिल हैं :
   भाग – क : सामान्य बुद्धिमता एवं तर्कशक्ति (50 प्रश्न)
   भाग – ख : सामान्य ज्ञान एवं सामान्य जानकारी (50 प्रश्न)
   भाग – ग : संख्यात्मक 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 जांच 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 पायें, तो तत्काल इसके बदले दूसरी पुस्तिका से लें ।
6. निरीक्षक द्वारा आपको उत्तर-पत्रिका अलग से दी जायेगी । उत्तर-पत्रिका के Side-I में नियमावली के अनुसार ध्यानपूर्वक अपना नाम, रोल नम्बर, टिकट नम्बर, जन्म तिथि 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 बायें हाथ के अंगूठे का निशान भी अवश्य लगायें । उपर्युक्त अनुदेशों का पूरी तरह अनुपालन किया जाए, अन्यथा आपकी उत्तर-पत्रिका को जांचा नहीं जायेगी और 'शून्य' अंक दिया जाएगा ।
7. उत्तर-पत्रिका में सभी उत्तर Side-II में प्रश्न संख्या के सामने दिये गये सम्बन्धित अण्डाकार खानों को केवल काला/नीला बॉल-पांइट पेन से पूरी तरह काला करके दिखायें । जो अण्डाकार खाने काला/नीला बॉल-पांइट पेन से नहीं भरे जायेंगे, 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 परीक्षायी 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 लगाएं ।
13. कोई रफ कार्य उत्तर-पत्रिका पर नहीं करना है । रफ कार्य के लिए स्थान प्रश्नों के निचे दिया गया है ।
14. "परीक्षा हालों/कमरों में मोबाइल फोन तथा बेतार संचार साधन पूरी तरह निषिद्ध हैं । प्रत्याशियों को उनके अपने हित में सलाह दी जाति 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 कारवाई की जाएगी, उनकी अभ्यर्थिता रद्द कर देने सहित भविष्य में कर्मचारी चयन आयोग द्वारा आयोजित की जाने वाली परीक्षाओं में सम्मिलित होने से भी वंचित किया जायेगा ।"

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

PART – A : GENERAL INTELLIGENCE & REASONING

Directions : In question nos. 1 to 7, select the related word/letter/number/figure from the given alternatives.

1. Conventional : Modern :: Rebellious : ?
   (A) Aggressive   (B) Revolting
   (C) New   (D) Conforming

2. Botany : Plants :: Entomology : ?
   (A) Insects   (B) Brain
   (C) Blood   (D) Skull

3. BZDX : FIHG :: JRLP : ?
   (A) NMKL   (B) NNLO
   (C) NNPL   (D) NMLR

4. RADAR : RADAR :: WAR : ?
   (A) RWA   (B) WRA
   (C) WRR   (D) RAW

5. 12 : 245 :: 13 : ?
   (A) 265 (B) 270 (C) 275 (D) 280

6. 81 : 8 :: ?
   (A) 128 : 13   (B) 136 : 9
   (C) 124 : 5   (D) 144 : 11

7. Question figures

Answer figures

   (A)   (B)   (C)   (D)
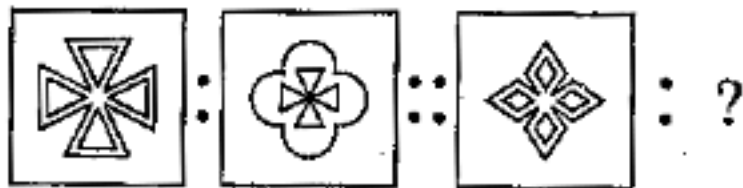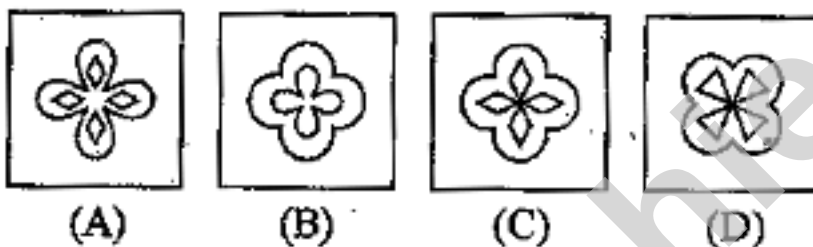
8. In the following group of letters, the number of letters skipped follow the pattern, of letters skipped after each letter as, one, two, one, two... Which of the following letter series observes the rule given above ?
   (A) ACFIKNP   (B) GIKMPSU
   (C) DFIKNPS   (D) JLOQSWY

9. How many 'M' are there in the following letter series which are not immediately preceded by 'H' but immediately followed by 'R' ?

   HPMXTMRHMRCKMHPTLMRNUSRMH
   (A) 4   (B) 3   (C) 2   (D) 1

Directions : In question nos. 10 to 14, find the odd word/letters/number/figure from the given alternatives.

10. (A) Sparrow   (B) Eagle
    (C) Bat   (D) Pigeon

11. (A) Equality   (B) Democracy
    (C) Justice   (D) Liberty

12. (A) 48   (B) 66
    (C) 82   (D) 99

13. (A) 90 : 14   (B) 156 : 12
    (C) 160 : 10   (D) 132 : 22

14.

    (A)   (B)   (C)   (D)
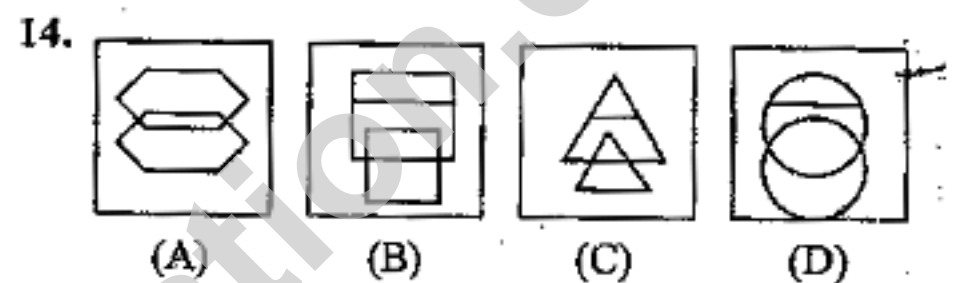
15. Which one of the given responses would be a meaningful order of the following ?
    1. District   2. Continent   3. Country
    4. State   5. Village
    (A) 3, 4, 5, 1, 2   (B) 3, 2, 4, 1, 5
    (C) 5, 1, 4, 3, 2   (D) 5, 1, 4, 2, 3

16. Arrange the following words as per order in the dictionary.
    1. Catapult   2. Cathedral   3. Catalogue
    4. Catenation 5. Catastrophe
    (A) 3, 1, 5, 2, 4   (B) 3, 1, 5, 4, 2
    (C) 3, 5, 1, 4, 2   (D) 3, 4, 2, 5, 1

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

    ad _ bac _ bd _ c _
    (A) b c a d   (B) b c d a
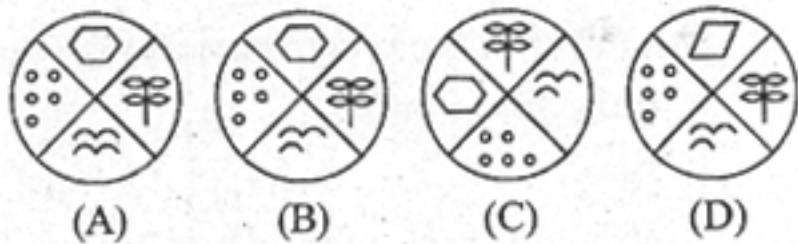   (C) b d c a   (D) b d a c

SPACE FOR ROUGH WORK

Directions : In question nos. **18** to **21**, a series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

18. SCD, TEF, UGH, _____, WKL

    (A) CMN   (B) VIJ
    (C) IJT   (D) UJI

19. 4, 9, 20, 43, 90, ?

    (A) 180   (B) 182
    (C) 179   (D) 185

20. 97, 96, 92, 83, _____, 42

    (A) 50   (B) 70   (C) 67   (D) 80

21. Question figures

    ?

    Answer figures

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

22. A mother's age is a square of her daughter's age. After 5 years, mother will be three times as old as her daughter. What is the present age of the mother ?

    (A) 29 years   (B) 25 years
    (C) 36 years   (D) 20 years

23. Anita is the mother of Bindu. Chinmay is the son of Anita. Devesh is the brother of Varsha. Varsha is the daughter of Bindu. Who is grandmother of Devesh ?

    (A) Anita   (B) Bindu
    (C) Chinmay   (D) Varsha

24. Bindu is elder then Nandu. Nandu is elder than Tarak. Tarak is younger than Oly. Prem is elder than Bindu. Kitu is elder than Prem. Who is the eldest ?

    (A) Bindu   (B) Prem
    (C) Kitu   (D) Nandu

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

    ENCOURAGEMENT

    (A) ENGAGEMENT
    (B) ENCOUNTER
    (C) GENERATION
    (D) GENERAL

26. From the given alternatives select the word which *cannot* be formed using the letters of the given word.

    DAUGHTER

    (A) DATE   (B) TOUGH
    (C) TEAR   (D) HEART

27. If NARGRUED is the code for GRANDEUR which word is coded as SERPEVRE ?

    (A) PERSEVER   (B) PRESERVE
    (C) PRESERVER   (D) PREVERSE

28. If GIVE is coded as 5137 and BAT is coded as 924, how is GATE coded ?

    (A) 5427   (B) 5724
    (C) 4527   (D) 5247

29. Find the missing number from the given responses.

    (A) 36   (B) 8   (C) 25   (D) 7

30. If > stands for division, < stands for addition, + stands for equals to, − stands for greater than, × stands for subtraction, = stands for multiplication and ∧ stands for less than, then which one of the following equation is correct ?

    (A) $7 \times 5 < 4 > 3 \wedge 2$ (B) $7 = 5 < 4 - 3 = 2$
    (C) $7 \times 5 + 4 = 3 < 2$ (D) $7 - 5 > 4 = 3 \wedge 2$

SPACE FOR ROUGH WORK

31. Some equations are solved on the basis of a certain system. Find the correct answer for the unsolved equation on that basis

    4 + 5 = 30, 7 + 4 = 40, 5 + 8 = 54, 9 + 7 = ?

    (A) 63   (B) 70   (C) 72   (D) 80

32. Select the correct combination of mathematical signs to replace * signs and to balance the following equation

    15 * 4 * 7 * 62 * 5

    (A) × + − =   (B) × − + =
    (C) + − × =   (D) = × − +

Directions : In question nos. 33 and 34, select the missing number from the given responses.

33.

8	7	4
3	4	5
5	4	6
29	32	?

    (A) 35   (B) 26   (C) 32   (D) 45

34.
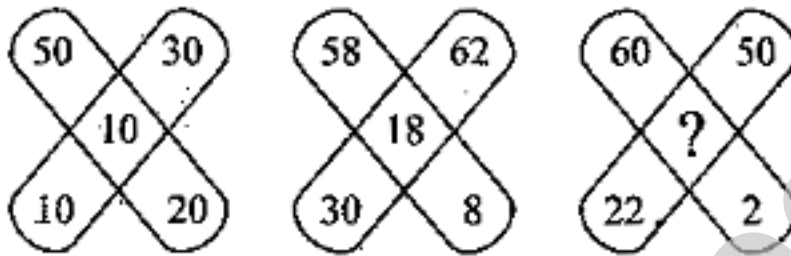
    (A) 25   (B) 30   (C) 35   (D) 40

35. A man is facing North-East. He turns 45° clockwise and then turns again clockwise 90°. What direction is he facing now ?
    (A) West   (B) East
    (C) South   (D) South-West

36. Two friends M and N start walking from a point A. M starts walking towards East and N towards South. They both walk 12 and 16 km respectively. How far are they from each other ?
    (A) 18 km   (B) 19 km
    (C) 20 km   (D) 21 km

37. In the figure given below how many tran are there ?
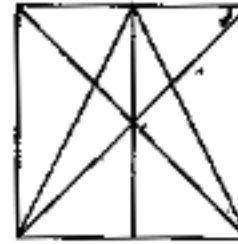
    (A) 10   (B) 25
    (C) 28   (D) 30 and above

38. Four positions of a dice are given bel Identify the number on the left side when right side is 4 and the number on the top is Question figures

    (A) 6   (B) 2   (C) 3   (D) 5

39. Identify the diagram that best represents relationship among classes given below :

    Ladies, Gents, Teachers

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

40. In the given figure, the triangle represe LD children, the square represents child with Autism and the circle represents ADI children. Identify the portion which represe the children with Autism and ADHD only
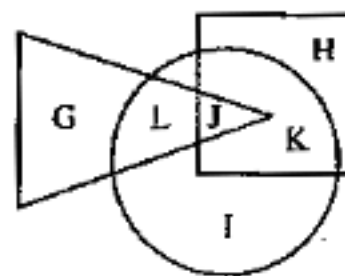
    (A) I   (B) J   (C) K   (D) L

SPACE FOR ROUGH WORK

Directions : In question nos. **41** and **42**, two statements are given followed by two (I, II) conclusions/assumptions respectively. You have to consider the two 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/assumptions if any, follow from the given statements.

41. Statement : All flowers are trees. No fruit is tree.
    Conclusions : I. No fruit is flower.
    II. Some trees are flowers.
    (A) Only conclusion I follows
    (B) Both conclusions I and II follow
    (C) Only conclusion II follows
   (D) Neither conclusion I nor II follows

42. Statement : A warning in a train compartment – "To stop train, pull chain, penalty for improper use ₹ 500."
    Assumptions : I. Some people misuse the alarm chain.
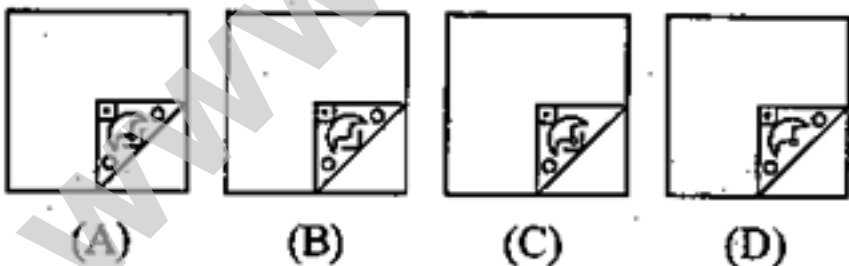   II. On certain occasions, people may want to stop a running train.
    (A) Only assumption I is implicit
    (B) Only assumption II is implicit
    (C) Both assumptions I and II are implicit
    (D) Neither assumption I nor II is implicit

43. Which answer figure will complete the pattern in the question figure?
    Question figure

    Answer figures

    (A)   (B)   (C)   (D)
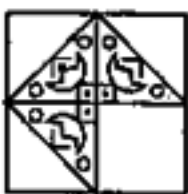
44. From the given answer figures, select the one in which the question figure is hidden embedded.
    Question figure

    Answer figures

    (A)   (B)   (C)   (D)
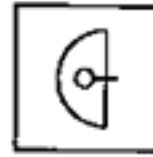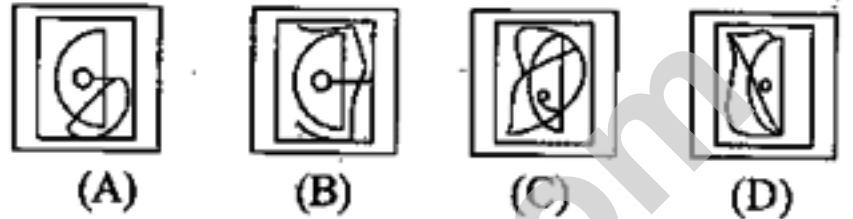
45. A piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.
    Question figures

    Answer figures

    (A)   (B)   (C)   (D)
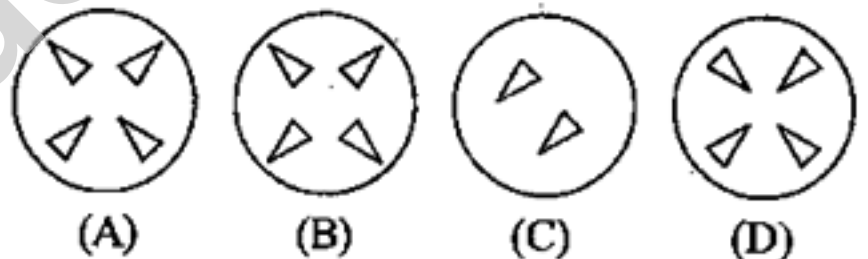
46. If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?

    Question figure

    M
    ////////
    SPNS
    N

    Answer figures

    (A) SИ9S   (B) SPNS

    (C) ƧИPS   (D) Ƨ�portNƧ
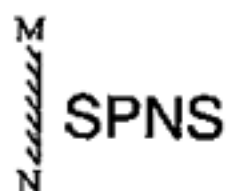
SPACE FOR ROUGH WORK

47. 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., 'S' can be represented by 00, 24, 43 etc., and 'L' can be represented by 58, 77, 89 etc. Similarly, you have to identify the number set for the letters given below :

KJAT

Matrix I

	0	1	2	3	4
0	S	A	R	Y	K
1	Y	K	S	A	R
2	A	R	Y	K	S
3	K	S	A	R	Y
4	R	Y	K	S	A

Matrix II

|	5	6	7	8	9
5	J	T	B	L	M
6	L	M	J	T	B
7	T	B	L	M	J
8	M	J	T	B	L
9	B	L	M	J	T

(A) 04, 79, 20, 87   (B) 11, 67, 23, 75

(C) 30, 86, 01, 67   (D) 23, 89, 20, 87

48. Anand and Vijaya have decided to apply for a mutual divorce due to conflicts in their marriage. What would you do as Vijaya's friend ?

(A) Scold her for taking this decision

(B) Give her support and listen to her problems

(C) Compare her with people who have lived full married lives

(D) Tell her it is going against our culture

49. An address has been given below, which has been reproduced against A, B, C and alternatives. Three of these have some mistake or the other. Identify the one without an mistake.

Ericsson Limited,
Ashbrook Court,
Central Boulevard
Prologis Park, Coventry.

(A) Ericson Limited,
Ashbrook Court,
Central Boulvard
Prologies Park, Coventry.

(B) Ericison Limited
Ashbrook Court
Central Boulveard
Prologis Park, Covenetry.

(C) Ericsson Limited,
Ashbrook Court,
Central Boulevard
Prologis Park, Coventry.

(D) Ericsson Limited,
Ashbrok Court,
Central Boulevarde
Prologis Park, Coventery.

50. Given below are capital letters in the fir line and numbers in the second lin Numbers and letters are code for each othe Choose the correct code for given letters.

C	F	Q	R	W	B	E	D	H	I
5	2	9	1	7	3	8	6	4	0

EQRDCEB

(A) 8 9 1 6 5 8 3   (B) 8 9 1 6 5 8 2

(C) 7 9 1 6 5 8 3   (D) 8 8 1 6 5 8 3

SPACE FOR ROUGH WORK

PART – B : GENERAL KNOWLEDGE AND GENERAL AWAREN[

51. Who was the first Chairperson of National Income Committee ?
    (A) M Vishwesharaiya
    (B) P C Mahalanobis
    (C) D R Gadgil
    (D) V K R V Rao

52. Which one of the following country as the 147th member, has occupied WTO currently ?
    (A) Bhutan   (B) Nepal
    (C) Uganda   (D) Bangladesh

53. Who was the first vice-chairman of Planning Commission ?
    (A) K T Shah
    (B) K C Pant
    (C) D R Gadgil
    (D) T T Krishnamachari

54. Family Planning as a Government programme at national level was first of all accepted in India in the year
    (A) 1951   (B) 1952
    (C) 1956   (D) 1957

55. The word 'Green Revolution' was used first time by
    (A) Dr William Gadd
    (B) Dr Ramaswami
    (C) Dr Lal Singh
    (D) Dr H G Khurana

56. Who is the chief exponent of liberalism ?
    (A) Milton   (B) Gettell
    (C) J S Mill   (D) H Laski

57. Which country is still not a member of World Trade Organisation (WTO) ?
    (A) China   (B) Sudan
    (C) Japan   (D) France

58. Which among the following is not a member of SAARC (South Asian Association of Regional Cooperation) ?
    (A) Afghanistan
    (B) Myanmar (Burma)
    (C) Maldives
    (D) Bhutan

59. While a resolution for the removal Speaker of the Lok Sabha is consideration, the Speaker
    1. will have right to speak
    2. shall not preside
    3. shall be entitled to vote only first instance
    4. shall not be present in the Hous
    (A) All of the above are true
    (B) 1, 2 and 3 are true
    (C) Only 1 is true
    (D) 2 and 4 are true

60. Which of the following Articles of I Constitution put limitations on legis powers of Parliament and State Le; tures ?
    (A) Article 13
    (B) Article 245
    (C) Article 246
    (D) All of the above

61. The system of Judicial Review is fou[
    (A) only in India
    (B) only in Britain
    (C) only in USA
    (D) in both India and USA

62. Which one of the following qualificatio[common to Presidential candidature in India and USA ?
    (A) Citizenship
    (B) Minimum age
    (C) Residential Requirement
    (D) Eligibility for the membership of popular house of the legislature

63. One common point of agreement betw Indian and US Federalism is that
    (A) residuary powers belong to the Ce
    (B) residuary powers belong to the St;
    (C) provision for concurrent jurisdictio[certain matters
    (D) the Supreme Court is the arbiter in event of conflict between the Ce[and the States

64. The partition of Bengal took place in 1905 is associated with
   (A) Lord Curzon
   (B) Lord Hardinge
   (C) Lord Chelmsford
   (D) None of the above

65. The name of the new religion introduced by Akbar was
   (A) Dhamma
   (B) Din-i-ilahi
   (C) Islam
   (D) Quran

66. The Governor General who introduced the Doctrine of Lapse is
   (A) Lord Canning
   (B) Lord Dalhousie
   (C) Lord Hardinge
   (D) Lord Curzon

67. Name the National Leader who voiced the slogan "Swaraj is my birthright and I will have it"
   (A) Gokhale
   (B) Tilak
   (C) Bipin Chandra Pal
   (D) Lala Lajpat Rai

68. The Commission which marked the Border Line between India and Pakistan was
   (A) Red India Commission
   (B) Pakistan Commission
   (C) India Pakistan Border Line Commission
   (D) Red-cliff Commission

69. Which one of the following is a drought resistant rice variety of India ?
   (A) Bela
   (B) IET-1444
   (C) IR8
   (D) Padma

70. The most northerly point of Canada is
   (A) Cape Columbia
   (B) Cape Town
   (C) Cape Verda
   (D) Capernaum

71. The largest solar plant in India is located at
   (A) Madhapur
   (B) Narora
   (C) Talcher
   (D) Chandrapur

72. EPZ stands for
   (A) Economic Promoting Zones
   (B) Export Promotion Zones
   (C) Economic Protecting Zones
   (D) Export Oriented Zones

73. Which one of the following is *not* the Union Territory of India ?
   (A) Puducherry
   (B) Lakshadeep Island
   (C) Chandigarh
   (D) Goa

74. The small intestine of man is descriptive divided into
   (A) Ileum, Jejunum, Coelom
   (B) Duodenum, Ileum, Jejunum
   (C) Duodenum, Jejunum, Ileum
   (D) Duodenum, Coelom, Rectum

75. Majority of Indian snakes are
   (A) poisonous
   (B) non-poisonous
   (C) sluggish
   (D) beautiful

76. One of the following has the capacity of rotating its eyes on all directions
   (A) owl
   (B) horse
   (C) chameleon
   (D) crow

77. Soya bean is used as a source of
   (A) carbohydrates
   (B) fiber
   (C) vitamins
   (D) proteins

78. The watermelon is a
   (A) drope
   (B) berry
   (C) pepo
   (D) pome

79. For a sound it is very difficult to draw a sharp line of demarcation between
   (A) musical sound and noise
   (B) tone and note
   (C) intensity and pitch
   (D) frequency and quality

80. The mechanical advantage in an inclined plane is
   (A) less than 1
   (B) greater than 1
   (C) equal to 1
   (D) equal to 0

81. van-de-Graff generator is used to
   (A) produce high voltage alternating current
   (B) produce high voltage direct current
   (C) measure high voltage A.C.
   (D) measure high voltage D.C.

82. An erect and virtual image for any position of the object can be formed by
   (A) convex lens
   (B) convex mirror
   (C) concave lens
   (D) concave mirror

PART – C : QUANTITATIVE APTITUDE

101. $\sqrt{248 + \sqrt{52 + \sqrt{144}}} = ?$

   (A) 14   (B) 16

   (C) 18   (D) 22

102. Find the greatest number of five digits which when divided by 3, 5, 8, 12 have 2 as remainder.

   (A) 99999   (B) 99958

   (C) 99960   (D) 99962

103. Find out the wrong number in the series

   4, 5, 15, 49, 201, 1011, 4073

   (A) 5   (B) 15

   (C) 49   (D) 201

104. The H.C.F. of $(a^2 + 7a + 12)$ and $(a^2 + 8a + 15)$ is

   (A) $(a+1)(a+3)$ (B) $(a+2)(a+3)$

   (C) $(a+4)(a+3)$ (D) $(a+3)$

105. Traffic lights at 3 different road-crossings change after 48 seconds, 50 seconds and 72 seconds respectively. If they change simultaneously at 9 a.m; at what next time will they together change again ?

   (A) 9·30 a.m.   (B) 10 a.m.

   (C) 10·40 a.m.   (D) 11·15 a.m.

106. Ram alone can finish a piece of work in 12 days. Ravi alone can finish the same work in 8 days. If Ram and Ravi work together they will finish the work in

   (A) 10 days   (B) 4 days

   (C) $4\frac{4}{5}$ days   (D) 20 days

107. A can do in 10 days a piece of work which B can do in 15 days. If both worked half time everyday, how long would they take to do it working together ?

   (A) $12\frac{1}{2}$ days   (B) 12 days

   (C) 20 days   (D) 25 days

108. A profit of 20% is earned when 10% discount is given on marked price for an article. If 20% discount is allowed then the profit or loss will be

   (A) $6\frac{1}{3}$% profit   (B) $6\frac{2}{3}$% loss

   (C) $6\frac{2}{3}$% profit   (D) $6\frac{1}{3}$% loss

109. A shopkeeper earns a profit of 15% on selling a book at 10% discount on the printed price. The ratio of the cost price and the printed price of the book is

   (A) 17 : 23   (B) 18 : 23

   (C) 18 : 25   (D) 17 : 25

110. A fraction becomes $\frac{1}{3}$ when 1 is subtracted from its numerator as well as from its denominator. If 1 is added to both its numerator and denominator it becomes $\frac{1}{2}$. Find the fraction

   (A) $\frac{1}{7}$ (B) $\frac{3}{7}$

   (C) $\frac{5}{7}$ (D) None of these

111. The fourth proportional to the numbers 16, 9 and 8 is

   (A) 4·5   (B) 8·5

   (C) 11   (D) 15

SPACE FOR ROUGH WORK

112. The average price of three items of furniture is ₹ 15000. If their prices are in the ratio 3 : 5 : 7, the price of the cheapest item is (in Rupees)

(A) 3000   (B) 9000

(C) 5000   (D) 6000

113. The average weight of 10 men is decreased by 3 kg when one of them whose weight is 80 kg is replaced by a new person. The weight in kg of the new person is

(A) 60   (B) 50

(C) 70   (D) 73

114. A person spends equal amount of money in buying two kinds of guavas, one at 3 for a rupee and the other at 2 for a rupee. If he sells these guavas at 5 for ₹ 2 then he will bear

(A) no loss no gain   (B) 4% gain

(C) 4% loss   (D) $3\frac{1}{3}$% gain

115. Hari buys 50 chairs for ₹ 5000 but 20 of them were damaged. He decided to sell each damaged one at three-fourth the sale price of the normal one. What should the sale price of each normal chair be in order that he may make profit of 35% on the whole ?

(A) ₹ 150   (B) ₹ 160

(C) ₹ 125   (D) ₹ 140

116. If the radius of a circle is increased by 100%, then its area is increased by

(A) 400%   (B) 200%

(C) 500%   (D) 300%

117. Out of 600 pupils in a school 45% are boys and the rest are girls. If 20% of the boys and 30% of girls wear spectacles then the percentage of the total number of pupils wearing spectacles is

(A) 50   (B) 25

(C) 25·5   (D) 20

118. A man can cover a certain distance in 3 hours 36 minutes if he walks at the rate of 5 km/hr. If he covers the same distance on cycle at the rate of 24 km/hr, then the time taken by him (in minutes) is

(A) 50   (B) 45

(C) 40   (D) 55

119. The trains are running at a speed of 50 km and 30 km/hr respectively in the same direction. The train running at 50 km/hr crosses a man in the other train in 18 seconds. The length of the first train is

(A) 66 metre   (B) 86 metre

(C) 92 metre   (D) 100 metre

120. In how many years will ₹ 1000 when invested at compound interest at the rate of 5% per annum, amount to ₹ 1102·50 ?

(A) 3 years   (B) 2 years

(C) 5 years   (D) 2·5 years

121. If the interest on a sum of money for n years at the rate of r% simple interest per annum is $\dfrac{pnr}{25}$, then the principal will be

(A) $2p$ (B) $4p$

(C) $\dfrac{p}{2}$ (D) $\dfrac{p}{4}$

SPACE FOR ROUGH WORK

Study the following bar-diagram and answer the question nos. **122** to **125**.

Number of students passed from two disciplines (Science and Arts) of a school over the years :
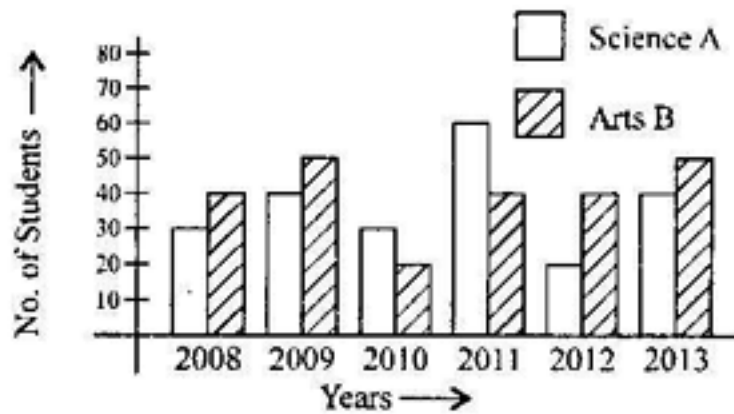
122. The total number of the students passed from science stream 'A' in the years 2008, 2010, 2012 and 2013 is

(A) 150   (B) 120

(C) 80   (D) 140

123. The ratio of the number of students passed from science stream 'A' in the year 2011 and that from Arts stream 'B' in the year 2013 is

(A) 3 : 2   (B) 4 : 5

(C) 6 : 5   (D) 1 : 1

124. The difference between the total number of students passed from the school in the year 2011 and the total number of students passed in the year 2013 is

(A) 50   (B) 20

(C) 30   (D) 10

125. The ratio among the number of students passed in the year 2011, 2009 and 2013 from the arts stream 'B' is

(A) 4 : 5 : 5   (B) 5 : 4 : 5

(C) 5 : 5 : 4   (D) 6 : 5 : 5

126. The area of the largest circle that can be drawn inside a rectangle with sides 7 metres and 6 metres is (Take $\pi = \frac{22}{7}$)

(A) $59\frac{2}{3}$ sq.mt.   (B) $28\frac{2}{7}$ sq.mt.

(C) $64\frac{8}{9}$ sq.mt.   (D) $39\frac{5}{3}$ sq.mt.

127. 50 circular plates each of radius 7 cm and thickness 0·5 cm are placed one above the other to form a right circular cylinder. Then the volume of the cylinder in sq. cm is ($\pi = \frac{22}{7}$)

(A) 385   (B) 1100

(C) 7700   (D) 3850

128. A triangle has sides of lengths 6 cm, 8 cm and 10 cm. The area of the circle inscribed in the triangle is

(A) 4π cm²   (B) 6π cm²

(C) 8π cm²   (D) 2π cm²

129. A rectangular block of volume 6 cm × 42 cm × 45 cm is cut up into exact number of equal cubes. The least possible number of cubes will be

(A) 420   (B) 330

(C) 210   (D) 300

SPACE FOR ROUGH WORK

130. If the volumes of two cones are in the ratio $1:4$ and their diameters are in the ratio $4:5$, then the ratio of their heights is (Take $\pi = \frac{22}{7}$)

(A) $25:64$ (B) $5:4$

(C) $1:5$ (D) $5:16$

131. If $a = 9$, $b = 16$, then the value of

$$\frac{a+2\sqrt{ab}+b}{\sqrt{a}+\sqrt{b}}+\frac{a-2\sqrt{ab}+b}{\sqrt{a}-\sqrt{b}} \text{ is}$$

(A) 6 (B) 8

(C) 12 (D) 10

132. If $a \circ b$ is defined by $\dfrac{a^2-b^2}{a^2+b^2}$, then $4 \circ 3$ is equal to

(A) $\frac{7}{25}$ (B) $\frac{25}{7}$

(C) $\frac{4}{3}$ (D) $\frac{16}{9}$

133. If $\sqrt{a}+\sqrt{b}+\sqrt{c}=0$, then the value of

$$\frac{(a+b-c)^2}{ab} \text{ is}$$

(A) 2 (B) 0

(C) 4 (D) 8

134. If $x = 2\dfrac{\sqrt{10}}{7}$, then the value of

$$\frac{\sqrt{1+x}-\sqrt{1-x}}{\sqrt{1+x}+\sqrt{1-x}} \text{ is}$$

(A) $\frac{2}{\sqrt{5}}$ (B) $\frac{\sqrt{2}}{5}$

(C) $\frac{\sqrt{2}}{\sqrt{5}}$ (D) $\frac{1}{\sqrt{10}}$

135. If $\dfrac{1}{x}+\dfrac{1}{y}+\dfrac{1}{z}=0$ and $x^2+y^2+z^2=25$, then the value of $x+y+z$ is/are

(A) 0 (B) ± 1

(C) -2 (D) ± 5

136. Let AD be a median of the $\triangle ABC$ and G be the centroid. If $AG = 4$ cm, then the length of AD is

(A) 6 cm   (B) 10 cm

(C) 12 cm   (D) 15 cm

137. The orthocentre of a triangle $\triangle ABC$ is O. if $\angle BAC = 52°$, then the measurement of $\angle BOC$ is

(A) $116°$ (B) $38°$

(C) $128°$ (D) $126°$

138. In $\triangle ABC$, D, E and F are the mid-points of the sides AB, AC and BC respectively. If L and M are the mid-points of DF and EF respectively. then $LM:BC$ is

(A) $1:4$ (B) $4:1$

(C) $1:3$ (D) $3:1$

139. Let O be a circumcentre of a $\triangle ABC$. If $\angle BAC = 85°$, $\angle BCA = 75°$, then $\angle OAC$ is

(A) $40°$ (B) $140°$

(C) $35°$ (D) $70°$

140. The circles touch each other externally at a point P. The straight line QR touches the two circles at Q & R respectively. Then the value of $\angle QPR$ is

(A) $60°$ (B) $90°$

(C) $75°$ (D) $120°$

SPACE FOR ROUGH WORK

141. If $x = \dfrac{1+\sin\theta}{\cos\theta}$, then $\dfrac{1}{x} = ?$

(A) $\dfrac{\cos\theta}{1-\sin\theta}$ (B) $\dfrac{1+\cos\theta}{\sin\theta}$

(C) $\dfrac{1-\cos\theta}{\sin\theta}$ (D) $\dfrac{1-\sin\theta}{\cos\theta}$

142. For all real A, the simplified value of the expression $\sin^6 A + \cos^6 A + 3\sin^2 A \cos^2 A$ is

(A) 5   (B) 3

(C) 2   (D) 1

143. If $\tan\theta + \dfrac{1}{\tan\theta} = 2$, then the value of

$\tan^2\theta + \dfrac{1}{\tan^2\theta}$ is

(A) 1   (B) 2

(C) 3   (D) 4

144. From the top of a tower 180 m high, it was observed that the angle of depression of a cat sitting on the ground was 30°. Find the distance of the cat from the foot of the tower

(A) 180 m   (B) $180\sqrt{3}$ m

(C) 170 m   (D) $170\sqrt{3}$ m

145. If the shadow of a tree of 60 m height is 18 m, then the height of the tree whose shadow is 24 m at the same time of the day is

(A) 60 m   (B) 70 m

(C) 80 m   (D) 90 m

The following pie-chart shows the collection of revenue of the Govt. of India in different departments. Study the chart and answer the question nos. 146 to 150.
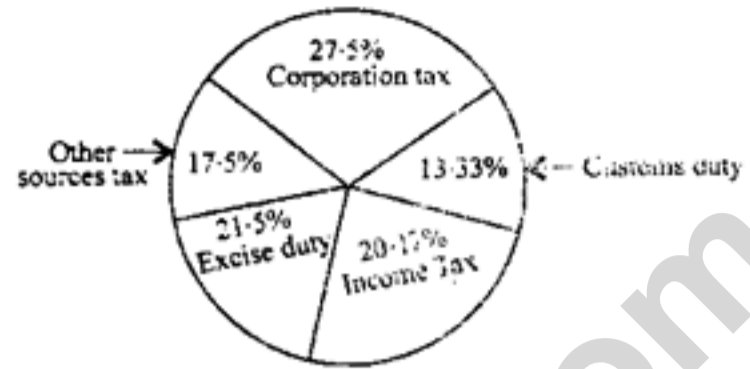
146. Ratio of Corporation tax and Excise duty is
(A) 41 : 61   (B) 52 : 43
(C) 55 : 43   (D) 27 : 29

147. Central angle in pie-chart made by Customs duty is
(A) 40° (approx.)   (B) 45° (approx.)
(C) 46° (approx.)   (D) 48° (approx.)

148. If the total revenue collected by Govt. of India is ₹ 1200 crore, then the amount of income tax earned by the Govt. is
(A) ₹ 240 crore (approx.)
(B) ₹ 241 crore (approx.)
(C) ₹ 242 crore (approx.)
(D) ₹ 245 crore (approx.)

149. The average revenue earned by Govt. of India is
(A) Corporation tax
(B) Income tax
(C) Excise duty
(D) Other taxes

150. The total percentage of Corporation tax, Customs duty and Income tax is greater than the total percentage of Excise duty and other taxes by
(A) 21%   (B) 20%
(C) 22%   (D) 19%

SPACE FOR ROUGH WORK

PART – D : ENGLISH COMPREHENSION

Directions : In question nos. 151 to 155, some parts of the sentences 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. I'm not satisfied with
     (A)

     your explanation of where
     (B)

     you was last night.   No error.
     (C)   (D)

152. I came into   the room when
     (A)   (B)

     Mary played the piano.   No error.
     (C)   (D)

153. The man   was driving   herds of cattle.
     (A)   (B)   (C)

     No error.
     (D)

154. There is   some sheep   in the field.
     (A)   (B)   (C)

     No error.
     (D)

155. Playing   the drums and
     (A)   (B)

     singing are difficult.   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. The police were _____ people aside to make way for the President's car.
     (A) shoving   (B) poking
     (C) nudging   (D) shifting

157. He scored very low marks in the exam because of his _____ knowledge of the subject.
     (A) outward   (B) superficial
     (C) thorough   (D) deep

158. W B Yeats made several _____ to Indian mythology in his poems.
     (A) allusions   (B) illusions
     (C) collusions   (D) infusion

159. The board's meeting has been _____ to Saturday next.
     (A) differed   (B) deferred
     (C) deterred   (D) dittered

160. Eight scientists have _____ the national awards for outstanding contribution and dedication to their profession.
     (A) picked   (B) conferred
     (C) bagged   (D) discovered

Directions : In question nos. 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. Devilish
     (A) mischievous   (B) unrighteous
     (C) unholy   (D) sinful

162. Aromatic
     (A) herbal   (B) flowery
     (C) pungent   (D) fragrant

163. Morose
- (A) calm
- (B) disappointed
- (C) gloomy
- (D) furious

164. Denounce
- (A) remove
- (B) accuse
- (C) resign
- (D) arrest

165. Insolent
- (A) dishonest
- (B) oppressive
- (C) rude
- (D) mischievous

Directions : In question nos. **166** to **170**, choose the word opposite in meaning to the given word and mark it in the Answer Sheet.

166. Frequent
- (A) avid
- (B) less
- (C) late
- (D) seldom

167. Declines
- (A) admits
- (B) accepts
- (C) refuses
- (D) improves

168. Juvenile
- (A) childish
- (B) experienced
- (C) senior
- (D) adolescent

169. Bonus
- (A) drawback
- (B) penance
- (C) punishment
- (D) fine

170. Eternal
- (A) timeless
- (B) change
- (C) transient
- (D) ancient

Directions : In question nos. **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. Mina did something <u>out of character</u> today; she gave a beggar some money.
- (A) did not act according to a script
- (B) did not behave in one's usual nature
- (C) acted beyond what was required
- (D) behaved like a hypocrite

172. People say that the banker is <u>on his last legs</u>.
- (A) on the verge of ruin
- (B) on his deathbed
- (C) at the end of his wits
- (D) at the end of his journey

173. You cannot rely upon <u>a greenhorn</u> like James.
- (A) an inexperienced person
- (B) a notorious fraud
- (C) a boastful person
- (D) a careless worker

174. When they called out his name as the winner of the grand prize, <u>his jaw dropped</u>.
- (A) he fainted
- (B) he screamed in joy
- (C) he was happy
- (D) he was astonished

175. A <u>hole and corner</u> policy is never welcomed in a democratic society.
- (A) corrupted
- (B) secret
- (C) frail
- (D) degraded

Directions : In question nos. **176** to **180**, 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.

176. Many accidents at the factory <u>are caused of</u> workers who do not read warning signs.
- (A) is the cause of
- (B) are caused by
- (C) are caused because
- (D) No improvement

177. The government seems to have <u>no idea for</u> the welfare of the common man.
- (A) no interest in
- (B) no account for
- (C) no credibility in
- (D) No improvement

178. The world community has expressed <u>critical concern</u> over recent attacks on minorities.

(A) active concern   (B) firm concern

(C) grave concern   (D) No improvement

179. The wound on his hand <u>is close now.</u>

(A) is healing now   (B) is repairing now

(C) is cleaning now   (D) No improvement

180. Too much worry <u>is not good</u> for our health.

(A) is beneficial   (B) is harmful

(C) is hurtful   (D) No improvement

Directions : In question nos. **181** to **185**, 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.

181. A cluster of houses in a village

(A) Stack   (B) Hamlet

(C) Truss   (D) Claque

182. Thoughtful and sad

(A) Vicarious   (B) Pensive

(C) Tenacious   (D) Scrupulous

183. A number of monkeys

(A) Rookery   (B) Troop

(C) Pride   (D) Flight

184. Lasting for two years

(A) Perennial   (B) Biennial

(C) Centennial   (D) Diurnal

185. A speech in praise of

(A) An ode for   (B) A tribute for

(C) A eulogy for   (D) An accolade for

Directions : In question nos. **186** to **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.

186. (A) Flamboyent   (B) Flambayant

      (C) Flemboyant   (D) Flamboyant

187. (A) Pneumonia   (B) Pnewmonia

      (C) Pnuemonia   (D) Neumonia

188. (A) Granduer   (B) Grendeur

      (C) Grandeir   (D) Grandeur

189. (A) Pecturesge   (B) Picturesque

      (C) Picturecque   (D) Pecturesque

190. (A) Aneasthesia   (B) Anesthesia

      (C) Anaisthesia   (D) Anaesthesia

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
(Question Nos. 191 to 195)

One of the main reasons of corruption in elections today is the lure of power which haunts the politicians so much that they feel no qualms of conscience in adopting any underhand method to come out successful. Corruption thrives in elections because those in the field play on the psychology of the electorate. The voters are swayed by the tall promises of the candidates to whose machinations they fall an easy prey. They are also susceptible to fall an easy prey to the adulations of the politicians due to their illiteracy. Besides anti-corruption laws are honoured more in their breach than in their observance. Moreover, some constituencies are so big that it becomes difficult to discover and check corrupt practices.

191. The politicians indulge in corruption in elections now-a-days because

(A) of the lure of power

(B) of the lure of money

(C) elections can be won only by corrupt means

(D) corrupt practices in elections go un-noticed

192. How does corruption thrive in elections ?
   (A) The people themselves are corrupt
   (B) A sizeable part of the society is corrupt
   (C) The politicians exploit the electorate psychologically
   (D) The politicians cheat the electorate economically

193. According to the writer, why do the voters fall an easy prey to the machinations of the politicians ?
   (A) They want to sell their votes due to poverty
   (B) They are illiterate and do not understand what designs the politicians have on them
   (C) They are indifferent to what happens on the political horizon
   (D) They have no political knowledge

194. Why do the corrupt practices indulged in during elections go unnoticed ?
   (A) Because nobody is interested in discovering corrupt practices
   (B) Because vested interests shield those who indulge in corrupt practices
   (C) Because the law enforcing authorities themselves are in collusion with the politicians
   (D) Because the constituencies are so big that it becomes difficult to discover the corrupt practices

195. What happens to the anti-corruption laws ?
   (A) There is actually no such thing as anti-corruption laws
   (B) Anti-corruption laws are certainly honoured but in a limited way
   (C) The government does not want to enforce anti-corruption laws
   (D) Anti-corruption laws are honoured more in their breach than in their observance

PASSAGE II
(Question Nos. 196 to 200)

The modern man, who is given to endless materialistic pursuits and competition, lives a fast life. Most of his time and energy are consumed by the strenuous hours of work followed by equally strenuous social anxiety and tension, because a prolonged strike anywhere can lead to scarcity of certain commodities of daily use. Given to multifarious stresses and strains, man hardly gets any time to enjoy the beauties of nature.

196. The passage talks about
   (A) materialistic pursuits
   (B) life of the modern man
   (C) work related strain
   (D) man and nature

197. Social anxiety and tension refers to
   (A) difficulties related to maintaining relationships
   (B) domestic violence
   (C) social enmity
   (D) None of the above

198. The meaning of "prolonged" is
   (A) enlarged   (B) increased
   (C) expanded   (D) enhanced

199. The antonym of scarcity
   (A) ferocity   (B) density
   (C) abundance   (D) limited

200. Strike in the passage means
   (A) to hit someone
   (B) an agitation
   (C) both (A) and (B)
   (D) None of the above