Test Form No.

BK 2011 32 SC
PAPER I 4790 18
~ प्रश्नपत्र I

Time Allowed : 2 Hours
निर्धारित समय : 2 घण्टे

Maximum Marks :
अधिकतम अंक : 200

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

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

INSTRUCTIONS TO CANDIDATES

This Booklet contains 200 questions in all comprising the following **four** parts :

Part A : General Intelligence and Reasoning	(50 Questions)
Part B : General Knowledge and General Awareness	(50 Questions)
Part C : Numerical Aptitude	(50 Questions)
Part D : English Comprehension	(50 Questions)

2. All questions are compulsory and carry equal marks.

3. Before you start to answer the questions you must check up this Booklet and ensure that it contains all the pages (1-40) and see that no page is missing or repeated. If you find any defect in this Booklet, you must get it replaced *immediately.*

4. The paper carries negative marking. 0·25 marks will be deducted for each wrong answer.

5. You will be supplied the Answer-Sheet separately by the Invigilator. You must complete and code the details of *Ticket Number, Roll Number and Test Form Number* on Side-I of the Answer-Sheet carefully before you actually start answering the questions. You must also put your signature on the Answer-Sheet at the prescribed place. These instructions must be fully complied with, failing which, your Answer-Sheet will not be evaluated and you will be awarded 'ZERO' mark.

6. Answers must be shown by completely blackening the corresponding rectangles on Side-II of the Answer-Sheet against the relevant question number by HB pencil only. Answers which are *not* shown by HB pencil will *not* be awarded any mark.

7. A machine will read the coded information in the OMR Answer-Sheet. In case the information is incomplete/different from the information given in the application form, the candidature of such candidate will be treated as cancelled.

8. The Answer-Sheet must be handed over to the Invigilator before you leave the Examination Hall.

9. Failure to comply with any of the above instructions will render a candidate liable to such action/penalty as may be deemed fit.

10. The manner in which the different questions are to be answered has been explained at the back of this Booklet (Page No. 40), which you should read carefully before actually answering the questions.

11. 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.

12. No rough work is to be done on the Answer-Sheet. Space for rough work has been provided below the questions in Part A and Part C of this Booklet.

उम्मीदवारों के लिए अनुदेश

1. इस पुस्तिका में कुल 200 प्रश्न हैं, जिनमें निम्नलिखित चार भाग शामिल हैं :

भाग क : सामान्य बुद्धि एवं तर्क	(50 प्रश्न)
भाग ख : सामान्य ज्ञान एवं सामान्य जानकारी	(50 प्रश्न)
भाग ग : सांख्यिकीय अभिक्षमता	(50 प्रश्न)
भाग घ : अंग्रेजी परिज्ञान	(50 प्रश्न)

2. सभी प्रश्न अनिवार्य हैं तथा सबके बराबर अंक हैं ।

3. प्रश्नों के उत्तर देने से पहले आप इस पुस्तिका की जाँच करके देख लें कि इसमें पूरे पृष्ठ (1-40) हैं तथा कोई पृष्ठ कम या दुबारा तो नहीं आ गया है । यदि आप इस पुस्तिका में कोई त्रुटि पाएँ, तो *तत्काल* इसके बदले दूसरी पुस्तिका ले लें ।

4. प्रश्न-पत्र में नकारात्मक अंकन होगा । हर ग़लत उत्तर के लिए 0·25 अंक काटा जाएगा ।

5. निरीक्षक द्वारा आपको उत्तर-पत्रिका अलग से दी जाएगी । प्रश्नों के उत्तर वास्तव में शुरू करने से पहले आप उत्तर-पत्रिका के Side-I में नियमावली के अनुसार ध्यानपूर्वक अपना *टिकट नम्बर, रोल नम्बर तथा टेस्ट फॉर्म संख्या* अवश्य लिखें और उत्तर-पत्रिका पर निर्धारित स्थान में आप अपने हस्ताक्षर भी अवश्य करें । उपर्युक्त अनुदेशों का पूरी तरह अनुपालन किया जाए, अन्यथा आपकी उत्तर-पत्रिका को जाँचा नहीं जाएगा और 'शून्य' अंक दिया जाएगा ।

6. उत्तर-पत्रिका में सभी उत्तर Side-II में प्रश्न संख्या के सामने दिये गये सम्बन्धित आयताकार खानों को केवल HB पेंसिल से पूरी तरह काला करके दिखाएँ । जो आयताकार खाने HB पेंसिल से *नहीं* भरे जाएँगे, उनके लिए कोई अंक *नहीं* दिया जाएगा ।

7. ओ.एम.आर. उत्तर-पत्रिका में भरी गई कूट सूचना को एक मशीन पढ़ेगी । यदि सूचना अपूर्ण है अथवा आवेदन प्रपत्र में दी गई सूचना से भिन्न है, तो ऐसे अभ्यर्थी की अभ्यर्थिता निरस्त समझी जाएगी ।

8. परीक्षा-भवन छोड़ने से पहले परीक्षार्थी को उत्तर-पत्रिका निरीक्षक के हवाले कर देनी चाहिए ।

9. 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 ।

10. विभिन्न प्रश्नों के उत्तर देने की विधि इस पुस्तिका के पीछे (पृष्ठ संख्या 40 में) छपे हुए निर्देशों में दी गई है, इसे आप प्रश्नों के उत्तर देने से पहले ध्यानपूर्वक पढ़ लें ।

11. 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 ।

12. कोई रफ़ कार्य उत्तर-पत्रिका पर नहीं करना है । रफ़ कार्य के लिए स्थान इसी पुस्तिका के भाग क तथा भाग ग के प्रश्नों के नीचे दिया गया है ।
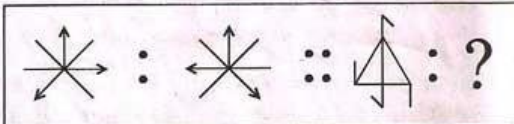
PART A
GENERAL INTELLIGENCE AND REASONING

Directions : *In questions no. 1 to 4, select the statement rs/word/number/figure from the given suggested* lives.

Directions : *In questions no. 5 to 9, find the odd word/letters/number pair from the given alternatives.*
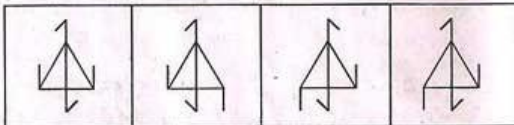
1. RIDE : LNBE : : HELP : ?

   (A) NINP   (B) BAJP

   (C) JPCH   (D) BJJP

2. 1 : 6 : : 8 : ?

   (A) 11   (B) 13

   (C) 12   (D) 14

3. Question figures :

   Answer figures :

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

4. N × M : 14 × 13 : : X × Z : ?

   (A) 24 × 23   (B) 23 × 24

   (C) 24 × 26   (D) 26 × 23

5. (A) Gallon   (B) Ton

   (C) Quintal   (D) Kilogram

6. (A) 120 – 560   (B) 91 – 299

   (C) 78 – 169   (D) 104 – 429

7. (A) Ring   (B) Tyre

   (C) Plate   (D) Bangle

8. (A) Eyes   (B) Ears

   (C) Throat   (D) Skin

9. (A) DFIMR   (B) CEHLQ

   (C) GILPU   (D) HJMPT

Directions : *In question no. 10, which one of the given responses would be a meaningful order of the following ?*

10. 1. Birth   2. Death   3. Childhood

     4. Infancy   5. Adolescence   6. Adulthood

     7. Old age

   (A) 2, 6, 7, 5, 4, 3, 1

   (B) 1, 4, 3, 5, 6, 7, 2

   (C) 1, 4, 3, 6, 5, 7, 2

   (D) 2, 7, 6, 4, 5, 3, 1

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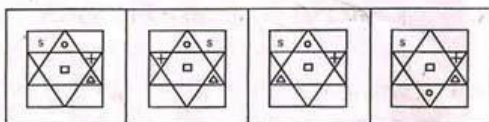
qbbbaaabbbaqqbbbaq

(A) abbaaba   (B) ababbaa

(C) babaaba   (D) baabaab

Directions : *In questions no. 12 to 14, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.*

12. Question figures :
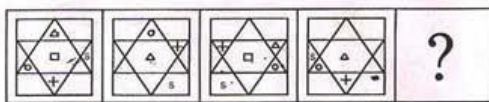
Answer figures :

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

13. WORLD, XPSME, ?, ZRUOG

(A) YQTNF   (B) YRTNF

(C) YTQNF   (D) YQNTF

14. 100, 50, 52, 26, 28, ?, 16, 8

(A) 30   (B) 36

(C) 14   (D) 32

15. In a family Mr. Prakash has his wife and his two married brothers of whom one has two children and another has no issue. How many members are there in the family ?

(A) 12 members

(B) 8 members

(C) 6 members

(D) 10 members

16. In a group of equal number of cows and herdsmen the number of legs was 28 less than four times the number of heads. The number of herdsmen was

(A) 7   (B) 28

(C) 21   (D) 14

17. If P is the husband of Q and R is the mother of S and Q, what is R to P ?

(A) Mother   (B) Sister

(C) Aunt   (D) Mother-in-law

18. The average age of 19 boys in a class is 21 years. If the teacher's age is included, the average increases to 22 years. What is the teacher's age ?

(A) 39 years   (B) 41 years

(C) 40 years   (D) 44 years

19. Hari remembers that his father's birthday is between 13th and 16th of June, whereas his sister remembers that their father's birthday is between 14th and 18th of June. On which day is their father's birthday, which both agree ?

(A) 14th June   (B) 15th June

(C) 16th June   (D) 17th June

20. If CAT is coded as 3120, what code number can be given to NAVIN ?

    (A) 14122914   (B) 49274654

    (C) 73957614   (D) None of these

21. If $\alpha\,\delta\,\gamma\,\chi\,\epsilon$ is decoded as ARGUE and $\sigma\,\phi\,\lambda\,\pi\,\epsilon$ is SOLVE, what is $\pi\,\alpha\,\gamma\,\chi\,\epsilon\,\lambda\,\omega$?

    (A) VAGUELY   (B) VAGRANT

    (C) VAGUELE   (D) VAGUER

22. In a code language, the following alphabets are coded in a particular way :

A B C D E F G H I P R S T O
? ! ; : • > < △ □ ⊚ ⊕ ★ ω +

Which word can be decoded as

    ? ⊚ ⊚ ⊕ + ? ; △

    (A) ABOLISH

    (B) APPROVAL

    (C) ACCOMPLISH

    (D) APPROACH

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

    'DETERMINATION'

    (A) DETENTION

    (B) DESTINATION

    (C) TERMINATE

    (D) DOMINATE

24. Some letters are given with numbers from 1 to 7. Select the sequence of numbers which arranges the letters into a meaningful word.

    S O U B R C E
    1 2 3 4 5 6 7

    (A) 4216573   (B) 2416537

    (C) 2146357   (D) 2416357

25. Arrange the given words in the sequence in which they occur in the Dictionary and locate the last word.

    (A) Frankenstein

    (B) Frankincense

    (C) Frankalmoign

    (D) Frauendienst

26. If 'MERCURY' is written as 'FGIECAB' in a code, how can 'CURE' be written in that code ?

    (A) GCFI   (B) ECAB

    (C) ECAG   (D) EAGC

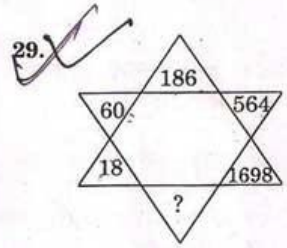**Directions :** *In questions no. 27 to 32, select the missing number/letters from the given responses.*

27.

    (A) 72   (B) 720

    (C) 7200   (D) 38

28.

6	9	12
36	81	144
24	63	?

(A) 120   (B) 80

(C) 94   (D) 102

29.

(A) 5052   (B) 5100

(C) 5094   (D) 4860

30.

AZ	BY	CX
DW	EV	FU
GT	?	IR
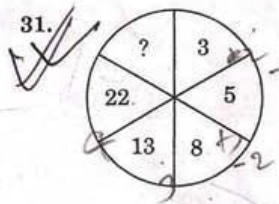
(A) HR   (B) HS

(C) HV   (D) HU

31.

(A) 1   (B) 26

(C) 39   (D) 45

32.
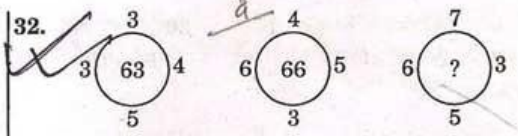
(A) 57   (B) 53

(C) 105   (D) 111

33. If

$16 \div 4 = 74$

$21 \div 7 = 33$

$81 \div 9 = 99$

then $55 \div 5 = ?$

(A) 110   (B) 1001

(C) 11   (D) 1011

34. If $+, -, \times, \div, =, >$ and $<$ are represented as δ, •, γ, η, ω, β and α respectively, then which of the following is correct ?

(A) 3 γ 6 η 2 δ 8 • 4 ω 5

(B) 3 η 6 γ 2 δ 8 • 4 β 5

(C) 3 γ 6 • 2 δ 8 η 4 α 5

(D) 3 δ 6 • 2 γ 8 η 4 ω 5

35. If ⬡ = 6, △ = 3, ⬠ = 5, ◇ = 4, □ = 8, ☐ = 10, then (□ × △) ÷ ◇ = ?

(A) ⬡   (B) ◇

(C) □   (D) △

36. Four children, Akram, Bopsi, Priya and Tulsi are on a ladder. Akram is further up the ladder than Bopsi. Bopsi is in between Akram and Priya. If Tulsi is still further than Akram, who is the second person from the bottom ?

(A) Tulsi   (B) Akram

(C) Priya   (D) Bopsi

37. Jaya started from house with son Rakesh and moved to North. Before signal point, Rakesh's school bus took him to the right side. Jaya continued in the same line and got petrol filled in the scooter. Then she turned to her left and entered a supermarket. In which direction is the supermarket located from the petrol pump ?

(A) East   (B) South

(C) North   (D) West

38. Rama left home and walked 5 km southwards, turned right and walked 2 km and turned right and walked 5 km and turned left and walked 5 km. How many kilometers will she have to walk to reach her home straight ?

(A) 5   (B) 7

(C) 17   (D) 15

39. Which one of the following Venn diagrams represents the best relationship between Snake, Lizard, Reptiles ?

(A)   (B)

(C)   (D)

40. In the following figure, which number represents the Women Doctors who are not Employed ?
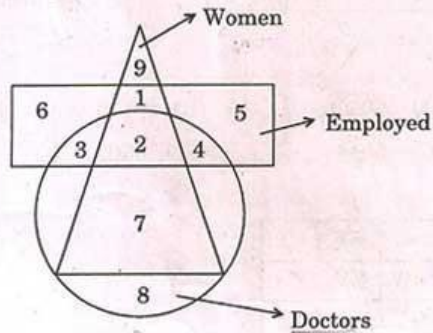
(A) 7   (B) 3

(C) 1   (D) 8

41. Daily in the morning the shadow of Gol Gumbaz falls on Bara Kaman and in the evening the shadow of Bara Kaman falls on Gol Gumbaz exactly. So in which direction is Gol Gumbaz to Bara Kaman ?

(A) Eastern side
(B) Western side
(C) Northern side
(D) Southern side

42. Among the four answer figures, which one can be formed from the cut out pieces given below in the question figure ?

Question figure :

Answer figures :

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

43. How many squares are there in the given figure ?

(A) 10   (B) 11
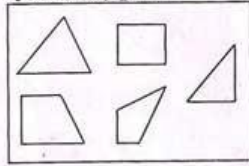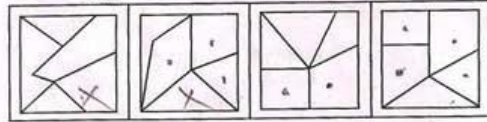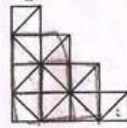(C) 12   (D) 14

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

Question figure :
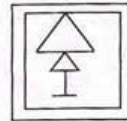
Answer figures :
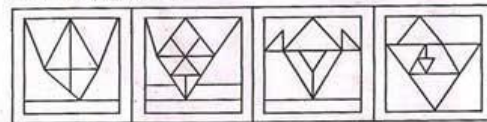
(A)   (B)   (C)   (D)

45. There are two statements followed by two conclusions I and II. Assuming the statements are true, decide which one of the conclusions logically follows, disregarding commonly known facts.

Statements :

1. All poets are intelligent.
2. All singers are intelligent.

Conclusions :

I. All singers are poets.
II. Some intelligent persons are not singers.

(A) Only conclusion I follows
(B) Only conclusion II follows
(C) Either conclusion I or II follows
(D) Neither conclusion I nor II follows

46. Three statements are given followed by four conclusions I, II, III and IV. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follow from the given statements.

Statements :
Some books are novels.
All novels are magazines.
Some magazines are journals.

Conclusions :
I.   Some novels are journals.
II.   Some books are magazines.
III. All books are magazines.
IV.   No novel is a journal.

(A) Only conclusion II follows
(B) Only conclusion III follows
(C) Either conclusion I or II follows
(D) Either conclusion I or IV and conclusion II follow

47. Which answer figure will complete the pattern in the question figure ?

Question figure :

Answer figures :

(A)   (B)   (C)   (D)
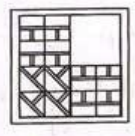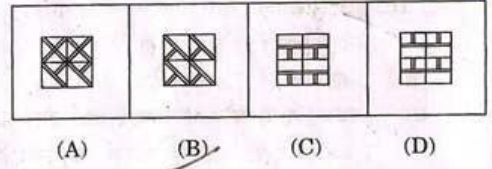
48. The following small letters are coded by capital letters in a certain way :

s   u   m   l   a   d

R   A   P   M   S   O

Now, which small letters can be decoded from the letters given below :

M A P S R O

(A) lumdas

(B) lumsda

(C) lumasd

(D) lumsad

49. A piece of paper is folded and punched 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)
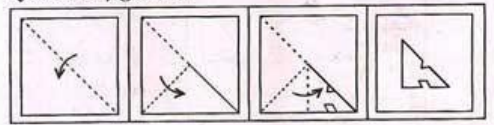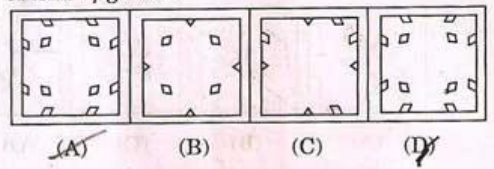
Directions : (Question No. 50) In the following question, there is an address which has been reproduced against (A), (B), (C) and (D), three of which have some mistake or the other. The one without any mistake is your answer.

50. Meenakshi Sundaram
MIG 17, Housing Board Colony
Near Airport, Amrutsar – 252793

(A) Meenakshi Sundaram
MIG 17, Housing Board Colony
Near Airport, Amrutsar – 252973

(B) Meenakshi Sundaram
MIG 17, Housing Board Colony
Near Airport, Amrutsar – 252793

(C) Meenakshi Sundaram
MIG 71, Housing Board Colony
Near Airport, Amrutsar – 252793

(D) Meenakshi Sundaram
MIG 17, Housing Board Colony
Near Airport, Anrutsar – 252793

PART B
GENERAL KNOWLEDGE AND GENERAL AWARENESS

51. The three-tier Panchayat Raj system in India was proposed by the

    (A) Balwant Rai Mehta Committee

    (B) Ashok Mehta Committee

    (C) Royal Commission

    (D) None of the above

52. Under which Article of the Constitution is the President's Rule introduced in a State due to the failure of the constitutional machinery ?

    (A) 352

    (B) 356

    (C) 360

    (D) 350

53. Through which principle/device did Mahatma Gandhi strive to bridge economic inequalities ?

    (A) Abolition of machinery

    (B) Establishment of village industries

    (C) Adoption of non-violence

    (D) Trusteeship theory

54. Who said that "Oh! Disrespectable democracy! I love you!" ?

    (A) G.B. Shaw

    (B) Carpenter

    (C) Lord Bryce

    (D) Appa Dorai

55. The adoption of High Yielding Variety Programme in Indian Agriculture started in

    (A) 1968   (B) 1967

    (C) 1966   (D) 1965

56. 'Brown Revolution' is

    (A) growth of fodder industry

    (B) growth of sea products

    (C) growth of milk and milk products

    (D) growth of food processing and soft drinks industries in India

57. The total value of goods and services produced in a country during a given period is

    (A) Disposable income

    (B) National income

    (C) Per capita income

    (D) Net national income

58. Mechanization of Indian agriculture on a considerable scale is *not* possible due to

    (A) small holdings

    (B) lack of tractors

    (C) poverty of the peasants

    (D) indifference of the people

59. Which one of the following is *not* a function of the central bank in an economy ?

    (A) Dealing with foreign exchange

    (B) Controlling monetary policy

    (C) Controlling government spending

    (D) Acting as a banker's bank

60. Which one of the following was the first English ship that came to India ?

   (A) Elizabeth

   (B) Bengal

   (C) Red Dragon

   (D) Mayflower

61. The member-states of the U.N.O. have delegated the primary responsibility for maintaining world peace and security to the

   (A) General Assembly

   (B) Economic and Social Council (EcoSoc)

   (C) Security Council

   (D) International Court of Justice

62. Which one of the following was the last Buddhist text produced in India ?

   (A) *Divya Vandana*

   (B) *Dohakosa*

   (C) *Vajrachedika*

   (D) *Vamsathapakasini*

63. *Arthasastra* was written by

   (A) Dhanananda

   (B) Kautilya

   (C) Bimbisara

   (D) Pushyamitra

64. Who translated *Ramayana* into Persian ?

   (A) Abul Fazl

   (B) Badauni

   (C) Abdul Latif

   (D) Isar Das

65. Which one of the following is a major port on the East Coast of India ?

   (A) Kandla

   (B) Vishakhapatnam

   (C) Karikal

   (D) Pondicherry (Puducherry)

66. The approximate circumference of the Earth is

   (A) 13,000 km

   (B) 20,000 km

   (C) 25,000 km

   (D) 30,000 km

67. When did India join the International Tsunami Warning System ?

   (A) 2004   (B) 2005

   (C) 2006   (D) 2007

68. 'Cod' is a variety of

   (A) Goat

   (B) Fish

   (C) Crop

   (D) Coral

69. The All India Muslim League was founded by

   (A) Maulana Ahmed Ali

   (B) Mohammad Ali Jinnah

   (C) Agha Khan

   (D) Hakim Ajmal Khan

70. Golden Revolution refers to

   (A) Sericulture   (B) Horticulture

   (C) Apiculture   (D) Viticulture

71. A balloon filled with helium rises in air because

    (A) air exerts an upward force on the balloon

    (B) the balloon is weightless

    (C) helium is less dense than air

    (D) helium pushes down on the air below the balloon

72. One can distinguish a telescope from a microscope by observing

    (A) length

    (B) colour

    (C) size of the lens

    (D) length and size of the lens

73. The sound produced by a bat is

    (A) audible

    (B) subsonic

    (C) infrasonic

    (D) ultrasonic

74. When a bar magnet is cut into two equal halves, the pole strength of each piece

    (A) becomes double

    (B) becomes half

    (C) becomes zero

    (D) remains the same

75. Cooking oil is converted into vegetable ghee by the process of

    (A) Crystallisation

    (B) Condensation

    (C) Hydrogenation

    (D) Oxidation

76. A large number of identical plants can be obtained in a short span of time through

    (A) large number of seeds of a single plant

    (B) stem cuttings

    (C) tissue culture technique

    (D) hydroponics method

77. The smallest flowering plant is

    (A) Wolffia

    (B) Lemma

    (C) Azolla

    (D) Ficus

78. Leukaemia or blood cancer is characterised by abnormal increase of the

    (A) Red blood cells

    (B) White blood cells

    (C) Blood platelets

    (D) Blood plasma

79. The total number of bones in our body is

    (A) 226   (B) 206

    (C) 256   (D) 236

80. The poison of honey bee is

    (A) Acidic

    (B) Alkaline

    (C) Saltish

    (D) Protein

81. Birds which swim in water have

    (A) webbed feet

    (B) broad wings

    (C) long beaks

    (D) toes with claws

82. A new technology which provides the ability to create an artificial world and have people interact with it is called

(A) Televirtuality

(B) Virtual reality

(C) Alternate reality

(D) 3-D reality

83. A parallel port is most often used by a

(A) Printer

(B) Monitor

(C) Mouse

(D) External storage device

84. Kuchipudi is a dance-drama associated with the State of

(A) Assam

(B) Andhra Pradesh

(C) Orissa

(D) Manipur

85. X-rays were discovered by

(A) Faraday

(B) Roentgen

(C) H. Davy

(D) Lavoisier

86. Who among the following is *not* a recipient of Dadasaheb Phalke Award ?

(A) V. Shantaram

(B) Raj Kapoor

(C) Mukesh Bhatt

(D) Lata Mangeshkar

87. Rusting of iron requires

(A) oxygen and carbon dioxide

(B) oxygen and water

(C) carbon dioxide only

(D) oxygen only

88. Glass is a

(A) pure solid

(B) supercooled liquid

(C) gel

(D) polymer

89. Uranium eventually decays into a stable isotope of

(A) Radium   (B) Thorium

(C) Lead   (D) Polonium

90. Which of the toxic heavy metals is found in modern tannery industries ?

(A) Nickel   (B) Zinc

(C) Chromium   (D) Lead

91. Which of the following contains high content of lead ?

(A) Coal

(B) Cooking gas

(C) High octane fuel

(D) Low octane fuel

92. Electrostatic precipitator is used to control

(A) Air pollution

(B) Water pollution

(C) Solid waste

(D) Noise pollution

93. National Environmental Engineering Research Institute is located at

(A) Pune   (B) Delhi

(C) Nagpur   (D) Chennai

94. The government set up a committee headed by the Chairman, Central Board of Direct Taxes some time back to go into

(A) codification of tax laws

(B) the entire structure of tax laws including the question of imposition of bank tax

(C) the concerns of the foreign investors in India with regard to taxation matters

(D) aspects of generation of black money, its transfer abroad and bringing back such money into India's legitimate financial system

95. Who got the 'Purple Cap' for taking maximum number of wickets in IPL-4 series ?

(A) Harbhajan Singh

(B) Lasith Malinga

(C) Daniel Vettori

(D) Albie Morkel

96. At which place did the Union Finance Minister, Pranab Mukherjee lay the foundation stone for a new banknote paper mill some time back ?

(A) Surat

(B) Aurangabad

(C) Mysore

(D) Guntur

97. The book 'Great Soul : Mahatma Gandhi and His Struggle with India' was in news some time back and was banned in some Indian States including Gujarat. The author of the book is

(A) Joseph Lelyveld

(B) Michael Ondaatje

(C) Jack Welch

(D) Duncan Green

98. The secret operation carried out successfully by the US Navy Seals, in which Osama Bin Laden, the world's most wanted terrorist was killed, was codenamed as

(A) Jasmine   (B) Rose

(C) Geronimo   (D) Cobra

99. As per the latest 'Sample Registration Survey Report' released some time back by the Census Office at New Delhi, there has been a significant improvement in the 'Infant Mortality Rate' per 1000 live births in India during the period 1999 – 2009. What has been the percentage change during this period ?

(A) 15%   (B) 29%

(C) 35%   (D) 42%

100. Premlata Agarwal has become the oldest Indian woman to scale Mount Everest at the age of 45. She belongs to the State of

(A) Jharkhand

(B) Uttar Pradesh

(C) Rajasthan

(D) Bihar

PART C
NUMERICAL APTITUDE

101. Rani's weight is 25% that of Meena's and 40% that of Tara's. What percentage of Tara's weight is equal to Meena's weight ?

   (A) 160%   (B) 140%

   (C) 120%   (D) 100%

102. If $(2000)^{10} = 1 \cdot 024 \times 10^k$, then the value of k is

   (A) 33   (B) 30

   (C) 34   (D) 31

103. If $(10 \cdot 15)^2 = \sqrt{103 \cdot 0225}$, then the value of $\sqrt{1 \cdot 030225} + \sqrt{10302 \cdot 25}$ is

   (A) 1025·15   (B) 103·515

   (C) 102·515   (D) 102·0515

104. If $\sqrt{0 \cdot 04 \times 0 \cdot 4 \times a} = 0 \cdot 004 \times 0 \cdot 4 \times \sqrt{b}$, then the value of $\dfrac{a}{b}$ is

   (A) 16×10^{-3} (B) 16×10^{-4}

   (C) 16×10^{-5} (D) 16×10^{-6}

105. The smallest among $\sqrt[6]{12}$, $\sqrt[3]{4}$, $\sqrt[4]{5}$, $\sqrt{3}$ is

   (A) $\sqrt[6]{12}$ (B) $\sqrt[3]{4}$

   (C) $\sqrt{3}$ (D) $\sqrt[4]{5}$

106. When a number is divided by 36, the remainder is 19. What will be the remainder when the number is divided by 12 ?

   (A) 7   (B) 5

   (C) 3   (D) 0

107. By selling 60 articles a vendor gains the selling price of 15 articles. Find his gain percentage.

   (A) 25   (B) $33\dfrac{1}{3}$

   (C) 20   (D) $28\dfrac{4}{7}$

108. A shopkeeper marks an article at ₹ 60 and sells it at a discount of 15%. He also gives a gift worth ₹ 3. If he still makes 20% profit, the cost price, in rupees, is

   (A) 22   (B) 32

   (C) 40   (D) 42

109. On a certain sum of money lent out at 16% p.a. the difference between the compound interest for 1 year, payable half yearly, and the simple interest for 1 year is ₹ 56. The sum is

   (A) ₹ 1080   (B) ₹ 7805

   (C) ₹ 8750   (D) ₹ 5780

110. Out of 2500 people, only 60% have the saving habit. If 30% save with bank, 32% with post office and the rest with shares, the number of shareholders are

   (A) 450   (B) 570

   (C) 950   (D) 1250

111. A person bought 50 pens for ₹ 50 each. He sold 40 of them at a loss of 5%. He wants to gain 10% on the whole. Then his gain percent on the remaining pens should be

   (A) 15   (B) 40

   (C) 50   (D) 70

112. The average of the three numbers x, y and z is 45. x is greater than the average of y and z by 9. The average of y and z is greater than y by 2. Then the difference of x and z is

(A) 3   (B) 5

(C) 7   (D) 11

113. If x : y = 3 : 4, 4x + 5y : 5x − 2y =

(A) 7 : 32   (B) 32 : 7

(C) 4 : 3   (D) 5 : 2

114. The incomes of A and B are in the ratio 2 : 3 and their expenditures are in the ratio 1 : 2. If each saves ₹ 24,000, find A's income.

(A) ₹ 24,000   (B) ₹ 72,000

(C) ₹ 19,200   (D) ₹ 48,000

115. In a mixture of 25 litres, the ratio of acid to water is 4 : 1. Another 3 litres of water is added to the mixture. The ratio of acid to water in the new mixture is

(A) 5 : 2   (B) 2 : 5

(C) 3 : 5   (D) 5 : 3

116. A and B working together, can do a piece of work in $4\frac{1}{2}$ hours. B and C working together can do it in 3 hours. C and A working together can do it in $2\frac{1}{4}$ hours. All of them begin the work at the same time. Find how much time they will take to finish the piece of work.

(A) 3 hours   (B) 2 hours

(C) 2·5 hours   (D) 3·25 hours

117. On a certain sum, the simple interest at the end of $6\frac{1}{4}$ years becomes $\frac{3}{8}$ of the sum. The rate of interest is

(A) 5%   (B) 6%

(C) 7%   (D) 8%

118. A shopkeeper lists the price of an article as ₹ 500. But he gives a certain discount which allows the buyer to pay ₹ 500 for the article including 10% sales tax. The rate of discount is

(A) 10%   (B) $10\frac{1}{11}$%

(C) $9\frac{1}{11}$%   (D) 11%

119. After allowing a discount of 16%, there was still a gain of 5%. Then the percentage of marked price over the cost price is

(A) 15%   (B) 18%

(C) 21%   (D) 25%

120. Mean of 10 numbers is 30. Later on it was observed that numbers 15, 23 are wrongly taken as 51, 32. The correct mean is

(A) 25·5   (B) 32

(C) 30   (D) 34·5

121. Of the three numbers, the first number is twice of the second and the second is thrice of the third number. If the average of these 3 numbers is 20, then the sum of the largest and smallest numbers is

(A) 24   (B) 42

(C) 54   (D) 60

122. A and B together can do $\frac{11}{19}$ of a work. In the same time B and C together can do $\frac{14}{19}$ of the same work. The ratio of work done by A, B and C is

(A) 3 : 4 : 5   (B) 4 : 5 : 7

(C) 5 : 6 : 8   (D) 5 : 7 : 8

123. The speed of the current is 5 km/hour. A motorboat goes 10 km upstream and back again to the starting point in 50 minutes. The speed, in km/hour, of the motorboat in still water is

(A) 20   (B) 26

(C) 25   (D) 28

124. A man has to be at a certain place at a certain time. He finds that he shall be 20 minutes late if he walks at 3 km/h speed and 10 minutes earlier if he walks at a speed of 4 km/h. The distance he has to walk is

(A) 24 km   (B) 12·5 km

(C) 10 km   (D) 6 km

125. Pipes P and Q can fill a tank in 10 and 12 hours respectively and C can empty it in 6 hours. If all the three are opened at 7 a.m., at what time will one-fourth of the tank be filled ?

(A) 10 a.m.   (B) 10 p.m.

(C) 11 p.m.   (D) 11 a.m.

126. The radius of the incircle of a triangle is 2 cm. If the area of the triangle is 6 cm², then its perimeter is

(A) 2 cm   (B) 3 cm

(C) 6 cm   (D) 9 cm

127. The total surface area of a solid right circular cylinder is twice that of a solid sphere. If they have the same radii, the ratio of the volume of the cylinder to that of the sphere is given by

(A) 9 : 4   (B) 2 : 1

(C) 3 : 1   (D) 4 : 9

128. The base of a solid right prism is a triangle whose sides are 9 cm, 12 cm, and 15 cm. The height of the prism is 5 cm. Then, the total surface area of the prism is

(A) 180 cm²   (B) 234 cm²

(C) 288 cm²   (D) 270 cm²

129. If the sum of three dimensions and the total surface area of a rectangular box are 12 cm and 94 cm² respectively, then the maximum length of a stick that can be placed inside the box is

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

(C) 6 cm   (D) $2\sqrt{5}$ cm

130. Each interior angle of a regular polygon is 18° more than eight times an exterior angle. The number of sides of the polygon is

(A) 10   (B) 15

(C) 20   (D) 25

131. The length of each side of an equilateral triangle is $14\sqrt{3}$ cm. The area of the incircle, in cm^2, is

(A) 450   (B) 308

(C) 154   (D) 77

132. Three circles of diameter 10 cm each, are bound together by a rubber band, as shown in the figure.

The length of the rubber band, in cm, if it is stretched as shown, is

(A) 30   (B) $30 + 10\pi$

(C) 10π (D) $60 + 20\pi$

133. The ratio of the areas of two isosceles triangles having the same vertical angle (i.e. angle between equal sides) is 1 : 4. The ratio of their heights is

(A) 1 : 4   (B) 2 : 5

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

134. If a chord of length 16 cm is at a distance of 15 cm from the centre of the circle, then the length of the chord of the same circle which is at a distance of 8 cm from the centre is equal to

(A) 10 cm   (B) 20 cm

(C) 30 cm   (D) 40 cm

135. The minimum value of $2\sin^2\theta + 3\cos^2\theta$ is

(A) 0   (B) 3

(C) 2   (D) 1

136. If the sum of $\dfrac{a}{b}$ and its reciprocal is 1 and $a \neq 0$, $b \neq 0$, then the value of $a^3 + b^3$ is

(A) 2   (B) -1

(C) 0   (D) 1

137. If $x^2 + y^2 + \dfrac{1}{x^2} + \dfrac{1}{y^2} = 4$, then the value of $x^2 + y^2$ is

(A) 2   (B) 4

(C) 8   (D) 16

138. If $x^2 = y + z$, $y^2 = z + x$, $z^2 = x + y$, then the value of $\dfrac{1}{x+1} + \dfrac{1}{y+1} + \dfrac{1}{z+1}$ is

(A) -1 (B) 1

(C) 2   (D) 4

139. If $x + \dfrac{1}{x} = \sqrt{3}$, then the value of $x^{18} + x^{12} + x^6 + 1$ is

(A) 0   (B) 1

(C) 2   (D) 3

140. If $a^2 + b^2 = 2$ and $c^2 + d^2 = 1$, then the value of $(ad - bc)^2 + (ac + bd)^2$ is

(A) $\dfrac{4}{9}$ (B) $\dfrac{1}{2}$

(C) 1   (D) 2

141. Two medians AD and BE of ΔABC intersect at G at right angles. If AD = 9 cm and BE = 6 cm, then the length of BD, in cm, is

(A) 10   (B) 6

(C) 5   (D) 3

142. If $\cosec 39° = x$, the value of

$$\frac{1}{\cosec^2 51°} + \sin^2 39° + \tan^2 51° - \frac{1}{\sin^2 51° \sec^2 39°} \text{ is}$$

(A) $\sqrt{x^2-1}$ (B) $\sqrt{1-x^2}$

(C) x^2-1 (D) $1-x^2$

143. The value of
$\tan 4° . \tan 43° . \tan 47° . \tan 86°$ is

(A) 2 (B) 3

(C) 1 (D) 4

144. If $\dfrac{\tan\theta + \cot\theta}{\tan\theta - \cot\theta} = 2$, $(0 \le \theta \le 90°)$, then the value of $\sin\theta$ is

(A) $\dfrac{2}{\sqrt{3}}$ (B) $\dfrac{\sqrt{3}}{2}$

(C) $\dfrac{1}{2}$ (D) 1

145. If the angle of elevation of the Sun changes from 30° to 45°, the length of the shadow of a pillar decreases by 20 metres. The height of the pillar is
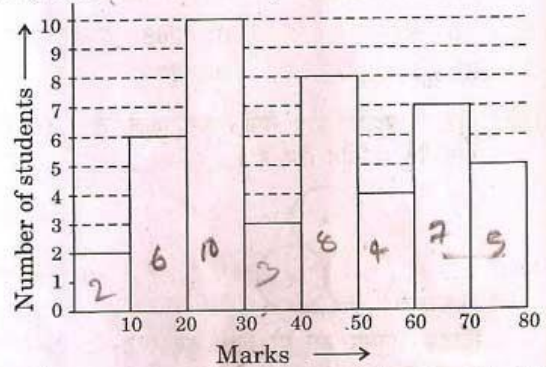
(A) $20\left(\sqrt{3}-1\right)$ m

(B) $20\left(\sqrt{3}+1\right)$ m

(C) $10\left(\sqrt{3}-1\right)$ m

(D) $10\left(\sqrt{3}+1\right)$ m

Directions : The histogram shows the marks obtained by 45 students of a class. Look at the histogram and answer the questions no. 146 to 150.

146. How many students have obtained marks 50 and above ?

(A) 9 (B) 10

(C) 11 (D) 16

147. If the pass mark be 30, what is the number of failures ?

(A) 2 (B) 6

(C) 18 (D) 20

148. If the pass mark be 30, what is the percentage of successful students ?

(A) 75% (B) 60%

(C) 50% (D) 40%

149. How many students have obtained marks less than 10 ?

(A) 2 (B) 10

(C) 1 (D) 4

150. How many students have obtained 30 or more marks but less than 40 ?

(A) 3 (B) 4

(C) 5 (D) 6

PART D
ENGLISH COMPREHENSION

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

151. The way to increase the production of the food / is to bring more land / under cultivation. / No error.
     (A)   (B)   (C)   (D)

152. The girls watched intently / as the model applied her make-up / with a practiced hand. / No error.
     (A)   (B)   (C)   (D)

153. If he is a millionaire / he would help / the millennium project. / No error.
     (A)   (B)   (C)   (D)

154. The Prime Minister along with his Cabinet colleagues /
                              (A)

     have been welcomed by the Chief Minister / at a formal ceremony. / No error.
                (B)   (C)   (D)

155. The political candidate talked / as if she has already been elected / to the presidency. / No error.
     (A)   (B)   (C)   (D)

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

156. She made her stepson her _____ to her large fortune.

     (A) hare
     (B) heir
     (C) hair
     (D) here

157. The stewardess showed the passenger _____

     (A) when to start travelling
     (B) where to land the plane
     (C) how to fasten the seat belt
     (D) how to judge the altitude of the plane

158. Many people reported _____ a noise in the night.

     (A) to hear
     (B) having heard
     (C) to have heard
     (D) been hearing

159. I am exhausted, let's _____ a day.

     (A) call it
     (B) call at
     (C) call off
     (D) call in

160. The worker used _____ to patch up the hole in the wall.

     (A) sand
     (B) cement
     (C) soil
     (D) grass

161. Flaunt

   (A) cut   (B) deceive
   (C) exhibit   (D) blame

162. Subjugate

   (A) capitulate   (B) conquer
   (C) strike   (D) confuse

163. Behaviour

   (A) conduct   (B) blessing
   (C) character   (D) response

164. Stringent

   (A) flexible   (B) inflexible
   (C) staunch   (D) tough

165. Deliberately

   (A) spontaneously (B) inadvertently
   (C) intentionally (D) naturally

166. Brittle

   (A) weak   (B) strong
   (C) fragile   (D) bright

167. Callous

   (A) rude   (B) insensitive
   (C) indifferent   (D) sympathetic

168. Dishevelled

   (A) composed   (B) tidy
   (C) confident   (D) jovial

169. Impede

   (A) obstruct   (B) advance
   (C) linger   (D) guarantee

170. Perilous

   (A) carefree   (B) impetuous
   (C) safe   (D) impure

171. The teacher's announcement to conduct a snap test came as a bolt from the blue to many students.

   (A) imaginary
   (B) unexpected
   (C) forbidden
   (D) heavenly

172. He and his friend are sailing in the same boat.

   (A) sailing together in the same boat
   (B) sharing the financial and social condition
   (C) being in the same difficult situation
   (D) getting rid of the difficult situation

173. To be successful in today's world, we require the gift of the gab.

   (A) ability to speak well
   (B) good interpersonal skills
   (C) divine help and guidance
   (D) a fierce competitive spirit

174. Winter was so bad that the nomadic tribesmen found it difficult to keep the wolf from the door.

   (A) hunt wild animals
   (B) escape starvation
   (C) get woollen clothes
   (D) walk on ice

175. There is no soft option to the crisis now.

   (A) popular opinion
   (B) popular solution
   (C) easy and agreeable option
   (D) difficult choice

176. With these extra people you can work easily with this job.

    (A) deal

    (B) improve

    (C) cope ✓

    (D) No improvement

177. I visited my aunt just before a week.

    (A) a week before

    (B) a week earlier

    (C) a week ago

    (D) No improvement

178. Foreigners often come across with serious difficulties in studying English.

    (A) have to come across with

    (B) come cross with

    (C) come across ✓

    (D) No improvement

179. He work hard will succeed.

    (A) who will work hard

    (B) who will be working hard

    (C) who works hard

    (D) No improvement

180. It is high time you started revising your lessons.

    (A) start

    (B) had started

    (C) will start

    (D) No improvement

181. Speed of an object in one direction

    (A) pace

    (B) tempo

    (C) velodrome

    (D) velocity

182. The place where public, government or historical records are kept

    (A) Coffer

    (B) Pantry

    (C) Archives ✓

    (D) Scullery

183. Theft of another person's writings or ideas and passing them off as one's own

    (A) plagiarism

    (B) burglary ✓

    (C) piracy

    (D) pilferage

184. The study of insects

    (A) Anthropology

    (B) Zoology

    (C) Etymology

    (D) Entomology

185. List of issues to be discussed at a meeting

    (A) schedule

    (B) agenda ✓

    (C) time-table

    (D) plan

Directions : In questions no. 186 to 190, groups of four words are given. In each group, one word is correctly spelt. Find the correctly spelt word and mark your answer in the Answer Sheet.

186. (A) separetion   (B) seperation
     (C) seperetion   (D) separation

187. (A) discrepancy   (B) descrepancy
     (C) discripancy   (D) discrepansy

188. (A) adviceable   (B) advicable
     (C) advisable   (D) adviseable

189. (A) millenium   (B) millennium
     (C) milennium   (D) milenium

190. (A) embarass   (B) embarrass
     (C) embaras   (D) embarras

Directions : In the following passage (191 to 200), some of the words have been left out. First read the passage over and try to understand what it is about. Then fill in the blanks with the help of the alternatives given. Mark your answer in the Answer Sheet.

PASSAGE (Questions No. 191 – 200)

Martin Luther King, Jr., was born Michael Luther King, Jr., __191__ his grandfather had his name __192__ to Martin. Martin Luther attended segregated public schools in Georgia, __193__ from high school at the age of fifteen; he received the B.A. degree in 1948 __194__ Morehouse College, a distinguished Negro institution of Atlanta from which both his father and grandfather had graduated. After three years of __195__ study at Crozer Theological Seminary in Pennsylvania where he was elected president of a __196__ white senior class, he was awarded the B.D. in 1951. __197__ a fellowship won at Ebenezer he enrolled in graduate studies at Boston University, completing his residence __198__ the doctorate in 1953 and receiving the degree in 1955. In Boston he __199__ and married Coretta Scott, a young woman of __200__ intellectual and artistic attainments.

191. (A) and   (B) so
     (C) since   (D) but

192. (A) given   (B) changed
     (C) become   (D) made

193. (A) graduating   (B) finishing
     (C) graduated   (D) finished

194. (A) in   (B) from
     (C) by   (D) with

195. (A) theological   (B) intellectual
     (C) educational   (D) psychological

196. (A) predetermined
     (B) predominantly
     (C) significantly
     (D) somewhat

197. (A) From   (B) By
     (C) With   (D) Through

198. (A) for   (B) of
     (C) about   (D) to

199. (A) saw   (B) eloped
     (C) met   (D) watched

200. (A) common   (B) particular
     (C) uncommon (D) general