PART-I
GENERAL INTELLIGENCE

1. **Directions:** A statement followed by two assumptions I & II is given. Which of the four given alternatives is correct?
   Statement: Imprisonment for 27 years made Nelson Mandela the 'President.
   Assumptions:
   I. One who will be imprisoned for 27 years will become The President
   II. To become The President imprisonment is a qualification.
   (1) Only I is implicit.
   (2) Only II is implicit.
   (3) Both I & II are implicit.
   (4) Neither I nor II is implicit.

2. From the given alternative words, I select the word which **cannot** be formed using the letters of the given word.
   CONVERSATION
   (1) Nation   (2) Version
   (3) Station   (4) Reason

Directions (3-4) : Given below are letters A to Z. Under each capital letter a small letter is written which its to be used as a code for the capital letter.

A	B	C	D	E	F	G	H	I	J	K	L	M
r	n	g	s	x	f	g	w	v	h	u	t	d

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
e	z	y	l	i	a	j	k	b	m	c	p	o

With the help of the given codes (small letters) select the equivalent capital letters for the following

3. irdxaw
   (1) RAMSEH   (2) RAEMSH
   (3) RAJESH   (4) RAMESH

4. uvegszd
   (1) KNIGDOM   (2) KINGDAM
   (3) KINGDOM   (4) KINGRAM

5. If the word 'STOVE' can be written as 'FNBLK' how can the word VOTES' be written in that code?
   (1) LBNKF   (2) LNBKF
   (3) LKNBF   (4) FLKBN

6. If 'PAPER' is written as 'OZODQ', how 'PENCIL' can be written in that code?
   (1) QFODJM   (2) OFOBHM
   (3) ODMDJM   (4) ODMBHK

7. There are five friends – S, K, M, A, R, S is shorter than K, but taller than R. M is the tallest. A is a little shorter than K and little taller than S. Who has two persons taller and two persons shorter than him?
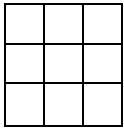   (1) R   (2) S   (3) K   (4) A

8. Rajiv is the brother of Atul. Sonia is the sister of Sunil. Atul is the son of Sonia. How is Rajiv related to Sonia?
   (1) Nephew   (2) Son
   (3) Brother   (4) Father

9. Of the five members of a panel sitting in a row, A is to the left of B, but on the right of C, D is on the right of B but is on the left of E. Find the member who Is sitting in the middle.
   (1) B   (2) D   (3) A   (4) C

10. There are some boys and dogs at a place. If total number of heads is 7 and total number of legs is 20, how many boys and how many dogs are there ?
    (1) 2 boys and 5 dogs   (2) 3 boys, and 4 dogs
    (3) 4 boys and 3 dogs   (4) 5 boys and 2 dogs

11. P, Q & R are educated, P, R & S are hardworking, R, S & T are employed, P, Q, S & T are polite. Who is educated, hardworking, polite but not employed?
    (1) P   (2) Q   (3) R   (4) T

12. Rama travels 10 km towards the north, turns left and travels 4 km and then again turns right and covers another 5 km and then turns right and travels another 4 km. How far is from the starting point?
    (1) 5 km   (2) 10 km   (3) 15 ion   (4) 19km

Directions (13-14) : In each qf the questions given below there is an address which has been reproduced against (1), (2), (3) and (4). Of them three have some mistakes or the other: while, one is EXACTLY the same as given below- You are to choose the one as your answer which is EXACTLY the same reproduction of the given address.

13.   Mr, Mussolini Ram
      House no. 25/292
      Baidhan Road
      Bhaisa Lotan-230057
      (1)   Mr. Mussolini Ram
            House no. 25/292
            Baidhan Road
            Bhaisa Lotan-230057
      (2)   Mr. Musolini Ram
            House no. 25/292
            Baidhan Road
            Bhaisa Lotan-230057
      (3)   Mr. Mussolini Ram
            House no. 25/292
            Baidhan Road
            Bhaisa Lutan-230057
      (4)   Mr. Mussolini Ram
            House no. 52/292
            Baidhan Road
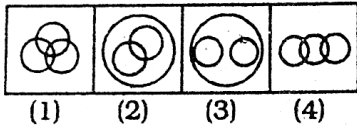   Bhaisa Lootan-230057

14. Mr. Nanak, Dukhiya
'Rimjhim'
Buddha Road
Laxminagar, Delhi-110392

    (1)   Mr. Nanak Dukhiya
        'Rimjhim'
        Budha Road
        Laxminagar, Delhi-110392

    (2)   Mr. Nanak Dukhiya
        'Rimjhim'
        Buddha Road
        Lasminagar, Delhi-110392

    (3)   Mr. Nanak Dukhiya
        'Rimjhim'
        Buddha Road
        Laxminagar, Delhi-110392

    (4)   Mr. Nanak Dukhiya
        'Rimjhim'
        Buddha Road
        Laxmanagar, Delhi-110392

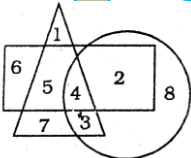15. The maximum number of squares in the given figure is

(1) 9   (2) 10   (3) 13   (4) 14

16. Which one of the following figures represents family, sons and daughters?
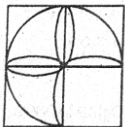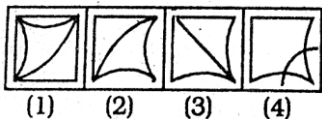

17. Which number is in all the geometrical figures?

(1) 8   (2) 3   (3) 4   (4) 5

18. Which one of the answer figures shall complete the given question figure?
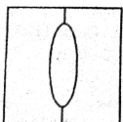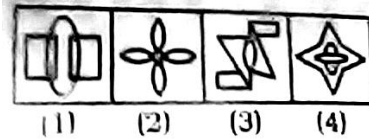
Question figure:

Answer figures:

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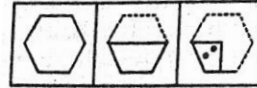
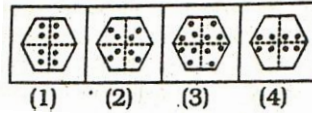**Question figure**

Answer figures:

Directions: In question no 20, a piece of paper is folded and punched as shown below. From the given responses indicate how it will appear when opened
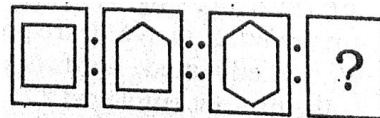
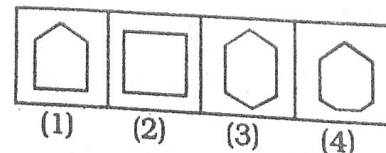20. **Question Figures**

Answer figures:

Directions (21-27) : In the following questions select the related letters / word / number / figure from the given alternatives.

21. Mother : Child : : Cloud : ?
(1) Shine   (2) Water
(3) Rain   (4) Weather

22. Mountain : Hill: : Tree : ?
(1) Forest   (2) Shrub
(3) Leaf   (4) Ground

23. ADBC : WZXY : : EHFG : ?
(1) STUV   (2) TUSV
(3) STVU   (4) SVTU

24. JLNP : OMKI : : SUWY : ?
(1) MLKJ   (2) PLHD
(3) XVTR   (4) FGHI

25. 42 : 56 : : 72 : ?
(1) 81   (2) 90   (3) 92   (4) 100

26. 3265 : 4376 : : 4673 : ?
(1) 2154   (2) 5487
(3)3562   (4)5784

27. **Question Figures**

Answer figures:

Direction (28 – 29): The name of a town and a date is given followed by four alternatives (1), (2), (3) and (4). Of these alternatives, only one matches the town and the date given below while others have some mistake or the other. You are to choose the alternative as your answer which is **EXACTLY** the same as the given one.
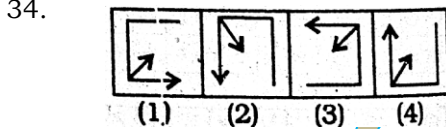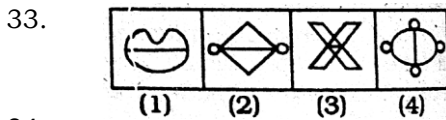
28. **Mauritania**
13th December, 1931
    (1)   Mauritania
        13th December, 1913

(2) Mauretania
13th December, 1931

(3) Mauritania
13th December, 1931

(4) Mauritania
31th December, 1931

29. Jagdalpuram
12th August,. 1972

(1) Jadgalpuram
12th August, 1972

(2) Jagdalpuram
12th August, 1827

(3) Jagdalpuram
12th August, 1972

(4) Jagdalpunram
12th August, 1972

Directions (30-34): In the following questions select the one which is different from the other three responses.

30. (1) Foreward   (2) Text
    (3) Index   (4) Preface

31. (1) CEFG   (2) DFGH
    (3) GIJK   (4) ABCD

32. (1) OQTX   (2) IMNQ
    (3) EGJN   (4) XZCG

33.
(1)   (2)   (3)   (4)

34.
(1)   (2)   (3)   (4)

Directions (35-36): In the table given below, the first two digits from the left form the employment exchange numbers and the last four digits candidate numbers. Now answer the following questions.

303150	362732	282595	363592
364323	322959	302732	328303
322958	387801	366791	287000
382591	305132	383982	303080
403610	363218	322808	386119
382599	282600	282959	403582

35. Which of the following exchange has least number of candidates?
(1) 38   (2) 32   (3) 28   (4) 30

36. Which exchange is represented minimum number of times?
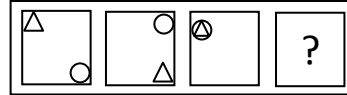(1) 28   (2) 40   (3) 30   (4) 32

Directions (37-38): Which one of the given responses would be a meaningful order of the following?

37. 1. Stem   2. Flower
3. Root   4. Leaves   5. Fruit
(1) 3, 1, 4, 2, 5   (2) 3, 1, 5, 2, 4
(3) 5, 2, 1, 4, 3   (4) 4, 3, 1, 5, 2

38. 1. Doctor   2. Fever
3. Prescribe   4. Diagnose   5. Medicine
(1) 2, 1, 3, 4, 5   (2) 1, 4, 3, 2, 5
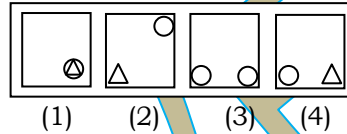(3) 2, 1, 4, 3, 5   (4) 2, 4, 3, 5, 1

Directions (39-43): In the following questions a series is given with one word / number / figure missing. Choose the correct alternative from the given ones that will complete the series.

39. CAT, FDW, IGZ, ?
(1) KTC   (2) KJA   (3) LHD   (4) LJC

40. 2, 5, 9, 19, 37, ?
(1) 73   (2) 75   (3) 76   (4) 78

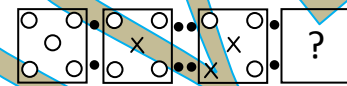41. 0, ?, 8, 15, 24, ?
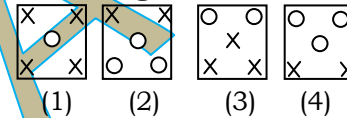(1) 1   (2) 3   (3) 5   (4) 2

42. **Question figures:**

Answer figures:

(1)   (2)   (3)   (4)

43. **Question figures:**

Answer figures:

(1)   (2)   (3)   (4)

Directions: Which one set of letter when sequentially placed at the gaps in the given letter series shall complete it?

44. a – ba – bb – ab – a
(1) aabb   (2) baaa   (3) abab   (4) baab

Directions (45 – 46): In the following questions select the missing number from the given responses.

45.
(1) 12   (2) 21   (3) 24   (4) 35

46.
(1) 223   (2) 224   (3) 225   (4) 227

Directions (47-48): Some numbers are given in different Rows / Columns. Which one of the given Rows / Columns are connected / related with each other in some way?

47.

Rows	Columns				
	I	II	III	IV	V
1	4	6	7	8	9
2	13	33	46	61	85
3	21	41	51	69	62
4	7	27	45	55	48
5	33	53	76	81	95

(1) Columns II, IV & V   (2) Columns I, III & V
(3) Columns II, III, & IV   (4) Columns I, II & IV

48.

Rows	Columns				
	I	II	III	IV	V
1	5	40	140	280	460
2	2	16	64	128	256
3	8	64	256	508	1004
4	5	40	160	320	640
5	3	24	96	192	384

(1) Rows 1, 4 & 5   (2) Rows 2, 4 & 5
(3) Rows 2, 3 & 5   (4) Rows 2, 3 & 4

49. In the following question, numbers of letters skipped in reverse order in between adjacent letters in the series is constant. Which of the following series observe this rule?
(1) SPMJG   (2) SQOLJ
(3) SPNLJ   (4) WUTRQ

Directions: In question no 50 two statements are given followed by two conclusions I and II. 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 can definitely be drawn from the given statements indicated your answer.

50. **Statements:**
There are many Indians who are honest.
Mohan is an Indian
Conclusions:
I. Mohan is honest.
II. Mohan is not honest.
(1) Only I follows
(2) Neither I nor II follows
(3) Only II follows
(4) Both I and II follow

PART-II
ENGLISH LANGUAGE

Directions (51 – 55): In these questions, 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.

51. There were two small rooms in the beach house, _____ served as a kitchen.
(1) the smaller of which
(2) the smallest of which
(3) the smaller of them
(4) smallest of that

52. Madhu has not been able to recall where _____
(1) does she live   (2) she lived
(3) did she live   (4) lived the girl

53. You _____ mad if you think I'm going to show my answer-sheet
(1) are supposed to be (2) must be
(3) will be   (4) ought to be

54. If I hadn't come along at that moment, Rahim _____ the one arrested instead of the real thief.
(1) might been   (2) may have been
(3) can have been   (4) could have been

55. Wheat is not native to India and barley _____
(1) Isn't either   (2) Is either
(3) Is neither   (4) Isn't neither

Directions (56-60) : In the following questions, four alternatives are given for the idiom/phrase given in **bold** in the sentence. Choose the alternative which best expresses the meaning of the idiom/phrase given in **bold**.

56. Ramesh **takes after** his father.
(1) Follows   (2) Imitates
(3) Obeys   (4) Resembles

57. They **made no bones about** acknowledging their debt to his genius
(1) Did not have any hesitation in
(2) Did not have any faith in
(3) Demanded compensation for
(4) Had problems in

58. It is evident from the minister's statement that **heads will roll** in the Secretariat.
(1) Transfers will take place
(2) Heads will be cut off
(3) People will die
(4) Dismissals will occur

59. During the last moments of his life, the criminal **made a clean breast of** everything he had done.
(1) Showed his breast
(2) Fought like a hero
(3) Confessed without reserve
(4) Faced bravely

60. She tries very hard **to keep up** with her rich neighbours.
(1) To imitate   (2) To keep in touch
(3) To avoid   (4) To be on par

Directions (61-65)-: In these questions, out of the four alternatives, choose the one which can be substituted-for the given words/sentence.

61. A person who breaks into a house in order to steal
(1) Poacher   (2) Bandit
(3) Intruder   (4) Burglar

62. The study of maps
(1) Cartography   (2) Geography
(3) Geology   (4) Atlas

63. Tough tissues In joints
(1) Ligaments   (2) Endoderm
(3) Muscles   (4) Fibre

64. The first model of a new device
(1) Prototype   (2) Sculpture
(3) Icon   (4) Photograph

65. A building where an audience sits
(1) Aquarium   (2) Gymnasium
(3) Auditorium   (4) Stadium

Directions (66-70): In each of the following questions, a sentence has been given in Direct/Indirect Speech. Out of the four alternatives suggested select the one which best expresses the same sentence in Indirect/Direct Speech. .

66. **The teacher said, "Be quiet, boys."**
(1) The teacher said that the boys should be quiet.
(2) The teacher called, the boys and ordered them to be quiet.
(3) The teacher urged the boys to be quiet.
(4) The teacher commanded the boys that they be quiet.

67. **My friend said to me, "Has your father returned from Kolkata?"**
(1) My friend said to me that my father has returned from Kolkata.
(2) My friend asked me if my father had returned from Kolkata.
(3) My friend told me that his father had returned from Kolkata.
(4) My friend enquired me if his father had returned from Kolkata!

68. **He said, "Where shall I be this time next year!"**
(1) He asked that where should he be that time next year.
(2) He wondered where he should be that time the next year.
(3) He contemplated where shall he be that time the following year.
(4) He wondered where he would be that time the following year.

69. **Rajesh said, "I bought a car yesterday."**
(1) Rajesh said that I have bought a car the previous day.
(2) Rajesh told that he had bought a car yesterday.
(3) Rajesh said that he bought a car the previous day.
(4) Rajesh said that he had bought a car the previous day.

70. **The employer said to the workman, "I cannot pay you higher wages"**
(1) The employer told the man that he could not be paid higher wages.
(2) The employer told the work man that he could not pay him higher wages.
(3) The employer forbade the workman to pay higher wages.
(4) The employer warned the workman that he cannot pay him higher wages.

Directions (71-75): In the following questions, a part of the sentence is printed in **bold**. Below are given alternatives to the **bold** part as 1, 2 and 3 which may improve the sentenced Choose the correct alternative. In case no improvement is needed, your answer is 4.

71. Her angry words jolted him out of the belief **that she loves** him.
(1) of that she loved
(2) how she loves
(3) that she loved
(4) No improvement

72. He came out of the water and **gasped for** breath.
(1) gasped with
(2) started gasping with
(3) gasped over
(4) No improvement

73. **Unless you don't be** persistent; in your efforts you will not be able to succeed.
(1) Unless you should be
(2) Until you don't be
(3) Unless you are
(4) No improvement '

74. Travellers met **with a lone** forest and agreed to travel through together.
(1) in lone
(2) in a lonely
(3) a lonely
(4) No improvement

75. For keeping good health one **must abstain of** smoking.
(1) must abstain from
(2) should abstain of
(3) should be abstained of
(4) No improvement

Directions (76-80): In these questions you have four brief passages with five questions following each passage. Read the passages carefully and choose the best answer to each question out of the four alternatives.

In an effort to produce the largest fastest and most luxurious ship afloat, the British built the S.S. Titanic. It was so superior to anything else on the seas that it was dubbed un-sinkable. So sure of this were the owners that they provided only twenty life boats and rafts, less than one-half the number needed for the 2,227 passengers on board.

Many passengers were aboard the night it rammed an iceberg only two days at sea and more than halfway between England and its New-York destination. Because the luxury liner was travelling so fast, it was impossible to avoid the ghostly looking iceberg. An unextinguished fire also contributed to the ship's submersion. Panic increased the number of casualties as people jumped into the icy water or fought to be among the few to board the life boats. Four hours after the mishap, another ship, the Carpathia, rescued 705 survivors.

The infamous S. S. Titanic had enjoyed only two days of sailing glory on its maiden voyage in 1912 before plunging Into 12,000 feet of water near the coast of Newfoundland where it lies today-

76. All of the following are true except that—
(1) Only a third of those aboard perished
(2) The Carpathia rescued the survivors
(3) The S.S. Titanic sank near Newfoundland
(4) The S.S. Titanic was the fastest ship afloat in 1912

77. All of the following contributed to the large death toll except—
(1) Panic
(2) Fire
(3) Speed
(4) The Carpathia

78. How many days was the S.S. Titanic at sea before sinking?

(1) 2   (2) 4   (3) 6   (4) 12

78. 'Maiden voyage" Is closest In meaning to--

(1) inaugural   (2) most elegant

(3) longest   (4) Final

80. What does this passage convey?

(1) The S-S. Titanic proved itself the most seaworthy vessel in 1912

(2) Attempts to rescue the S.S. Titanic's survivors were not successful

(3) Overconfidence by builders and owners was greatly responsible for the sinking of the vessel

(4) A fire and panic were the only causes for the sinking of the ship

Directions (81-85): In the following questions, choose the word OPPOSITE in meaning to the given word given in bold in each of the following questions:

81. **EASE**

(1) tackle   (2) improve

(3) want   (4) Instigate

82. **VENERATE**

(l) alter   (2) abuse

(3) reverse   (4) veer

83. **DOUR**

(1) teeming   (2) confined

(3) cheerful   (4) congested

84. **DEFIANCE**

(1) subordination   (2) honour

(3) love   (4) favour

85. **VAGUE**

(1) Intelligent   (2) required

(3) distant   (4) clear

Directions (86-90) : In the following questions, out of the four alternatives choose the one which best expresses the meaning of the word given in bold in each of the following questions:

86. **IMPASSE**

(1) deadlock   (2) firmness

(3) ability   (4) readiness

87. **VITIATE**

(1) accord   (2) Impair

(3) split   (4) punish

88. **TRANSCEND**

(1) attend   (2) install

(3) warrant   (4) surpass

89. **AVER**

(1) declare   (2) implicate

(3) dedicate   (4) discover

90. **FRUGAL**

(1) thrifty   (2) intolerant

(3) eager   (4) durable

Directions (91-95): In the following questions some of the sentences have errors and some have none.

Find out which part of sentence has an error and Indicate appropriate number (1, 2,. 3). If there is no error, indicate corresponding number (4) as your answer
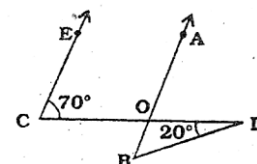
91. One of the questions (1)/ he asked me was (2) / "Who did you travel with (3)? /No error (4)

92. I know (l)/a doctor (2)/you are referring to (3) /No error (4)

93. The Introduction of job-oriented courses (1)/in the self-financed colleges (2)/ attract many students (3)./ No error (4)

94. It is better (1) /to keep one's head in the face of danger than (2) / losing one's courage (3) /No error (4)

95. The short story (l)/should not exceed (2)/more than two hundred words (3). /No error (4)

Directions (96-100): In each of the following questions, four sentences are given. Choose the one which is grammatically correct.

96. (1) He is wiser than brave.

(2) February has less days than January.

(3) He takes no less than two kilos of milk.

(4) It Is the most unique piece

97. (1) The principal and Secretary are on leave.

(2) A number of students has failed in the examination.

(3) It is I who has committed this crime.

(4) Many a man runs after money.

98. (1) I was asked to stop writing.

(2) She denied to go with me.

(3) My hairs stood on end.

(4) 1 am reading this novel for four days.

99. (1) I forbid you not to meet him again.

(2) He is seeking for an employment.

(3) Being a wet day, were remainded indoors.

(4) He is more learned but not as responsible as his father.

100. (1) I have not and shall not bear this trouble,

(2) Running down the street, the clock struck ten

(3) He lost not only his ticket but also his luggage,

(4) I am very obliged to you.

<div align="center">

PART-III

QUANTITATIVE APTITUDE

</div>

101. For what value of k, $(2x^4 + 3x^3 + 2kx^2 + 3x + 6)$ is exactly divisible by (x+ 2)?

(1) 1   (2) 2   (3) -2   (4) - 1

102. Find In degrees the angle through which a pendulum swings if Its length is 50 cm and its tip describes an arc of length 10 cm.

(1) $11°27'$ (2) $\left(11\frac{5}{11}\right)^\circ$ (3) $\left(12\frac{5}{12}\right)^\circ$ (4) $\left(12\frac{7}{12}\right)^\circ$

103. In the given figure if EC || AB. ∠ECD = 70°, ∠BDO = 20° then ∠OBD is equal to :

(1) 70°   (2) 60°   (3) 50°   (4) 20°

104. In a group of students, 70% can speak English and 65% can speak Hindi. If 27% of the students can speak none of the two languages, then what per cent of the group can speak both the languages?
(1) 38%   (2) 62%   (3) 28%   (4) 23%

105. $\dfrac{1}{1+\sqrt{2}}+\dfrac{1}{\sqrt{2}+\sqrt{3}}+\dfrac{1}{\sqrt{3}+\sqrt{4}}+\ldots\ldots$

$\dfrac{1}{\sqrt{7}+\sqrt{8}}+\dfrac{1}{\sqrt{8}+\sqrt{9}}=?$
(1) 0   (2) 1   (3) 2   (4) 4

106. Two pipes A and B can fill a cistern in $37\dfrac{1}{2}$ minutes and 45 minutes respectively. Both pipes are opened. The cistern will be filled just in half an hour, if the pipe B is turned off after
(1) 15 minutes   (2) 10 minutes
(3) 5 minutes   (4) 9 minutes

107. A certain number of men can do a work in 60 days. If there were eight more men, it could be completed in 10 days less. How many men were there in the beginning?
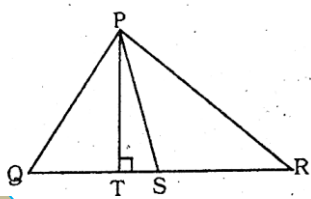(1) 70   (2) 55   (3) 45   (4) 40

108. Bananas are bought at the rate of 6 for Rs.5 and sold at the rate of 5 for Rs 6. Profit per cent is
(1) 36%   (2) 42%   (3) 44%   (4) 48%

109. If HCF and LCM of two terms x and y are a and b respectively and $x + y = a + b$, then $x^2 + y^2 =$?
(1) $a^2 - b^2$ (2) $2a^2 + b^2$
(3) $a^2 + b^2$ (4) $a^2 + 2b^2$

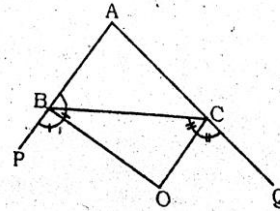110. In ΔPQR, PS is the bisector of ∠P and PT ⊥ QR then ∠TPS is equal to:

(1) ∠Q + ∠R   (2) $90°+\dfrac{1}{2}∠Q$
(3) $90° - \dfrac{1}{2}∠R$ (4) $\dfrac{1}{2}(∠Q - ∠R)$

111. The average of 20 numbers is 12. The average of the first 12 numbers is 11 and that of the next 7 numbers is 10. The last number is
(1) 40   (2) 38   (3) 48   (4) 50

112. In the adjoining figure, sides AB and AC of a ΔABC are produced to P and Q respectively. The bisectors of ∠PBC and ∠QCB intersect at O. Then ∠BOC is equal to
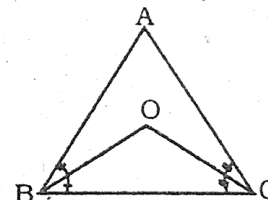

(1) $90°-\dfrac{1}{2}∠BAC$ (2) $\dfrac{1}{2}(∠PBC + ∠QCB)$
(3) $90°+\dfrac{1}{2}∠BAC$ (4) None of these

113. If A, B, C are the interior angles of a triangle ABC, then $\tan\dfrac{B+C}{2}=$?
(1) cot A   (2) $\cot\dfrac{A}{2}$
(3) tan A   (4) $\tan\dfrac{A}{2}$

114. OB and OC are respectively the bisectors of ∠ABC and ∠ACB. Then ∠BOC is equal to:

(1) $90° - \dfrac{1}{2}∠A$ (2) $90° + ∠A$
(3) $90° + \dfrac{1}{2}∠A$ (4) $180°- \dfrac{1}{2}∠A$

115. $\dfrac{\left(a^2-b^2\right)^3+\left(b^2-c^2\right)^3+\left(c^2-a^2\right)^3}{\left(a-b\right)^3+\left(b-c\right)^3+\left(c-a\right)^3}=?$
(1) 3 (a - b) (b - c) (c - a)
(2) 3 (a + b) (b + c) (c + a)
(3) (b - a) (b - c) (c - a)
(4) (a + b) (b + c) (c + a)

116. If $x+\dfrac{1}{x}=2$, then find value of $x^6 +\dfrac{1}{x^6}$
(1) 2   (2) 4   (3) 6   (4) 8

117. A well 20 m In diameter is dug 14 m deep and the earth taken out Is spread all around it to a width of 5 m to form an embankment. The height of the embankment is
(1) 10 m   (2) 11 m   (3) 11.2 m   (4) 11.5 m

118. The difference between the compound interest (compounded annually) and the simple interest on a sum of Rs.1000 at a certain rate of interest for 2 years is Rs.10. The rate of interest per annum is
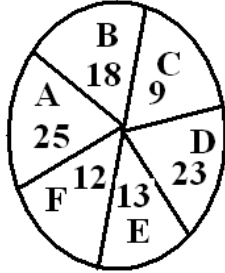(1) 5%   (2) 6%   (3) 10%   (4) 12%

119. A sum of money lent out at simple interest amounts to Rs.720 after 2 years and to Rs.1020 after a further period of 5 years. The sum is
(1) Rs.500   (2) Rs.600
(3) Rs.700   (4) Rs.710

120. Let N be the greatest number that will divide 1305, 4665 and 6905 leaving the same remainder in each case. Then sum of the digits in N is
    (1) 4 (2) 5 (3) 6 (4) 8

121. A hollow iron pipe is 21 cm long and its exterior diameter is 8 cm. If the thickness of the pipe is 1 cm and iron weighs 8 g/cm^3, then the weight of the pipe is (Take $\pi = \frac{22}{7}$)
    (1) 3.696 kg (2) 3.6 kg
    (3) 36 kg (4) 36.9 kg

122. In a rectangle ΔBCD, AB = 15cm, $\angle$BAC = 60°, then the length of side BC is
    (1) $15\sqrt{2}$ cm (2) 15cm
    (3) $15\sqrt{5}$ cm (4) $15\sqrt{3}$ cm

Directions (123-127) : The Pie chart given here represents the domestic expenditure of a family in per cent. Study the chart and answer the following questions if the total monthly income of the family is Rs.33,650.

A : Expenditure on food
B : Expenditure on house-rent
C : Expenditure on entertainment
D : Expenditure on education and maintenance of children
E : Medical and miscellaneous expenditure
F : Deductions towards provident fund

123. The house rent per month is
    (1) Rs. 6000 (2) Rs. 6152
    (3) Rs. 6057 (4) Rs. 6048

124. The annual savings in the form of Provident Fund would be
    (1) Rs. 48,456 (2) Rs. 48,540
    (3) Rs. 44,856 (4) Rs. 45,480

125. After provident fund deductions and payment of house rent, the total monthly income of the family remains
    (1) Rs. 23,545 (2) Rs. 24,435
    (3) Rs. 23,555 (4) Rs. 25,355

126. The total amount per month, the family spends on food and entertainment combined together, is
    (1) Rs. 11,432 (2) Rs. 11,441
    (3) Rs. 12,315 (4) Rs. 12,443

127. Had there been no children in the family what would have been the total savings of the family including that by provident fund?
    (1) Rs. 12,667.50 (2) Rs. 12,625.50
    (3) Rs. 11,727.50 (4) Rs. 11,777.50

128. When the price of eggs is reduced by 20% it enables a man to buy 20 more eggs for Rs.40. The reduced price per egg is
    (1) 35 paise (2) 40 paise
    (3) 50 paise (4) 56 paise

129. If ABCD is a rectangle, E, F are the midpoints of BC and AD respectively and G is any point on EF then ΔGAB equals :
    (1) $\frac{1}{6}$ (rectangle ABCD)
    (2) $\frac{1}{4}$ (rectangle ABCD)
    (3) $\frac{1}{3}$ (rectangle ABCD)
    (4) $\frac{1}{2}$ (rectangle ABCD)

130. $\frac{1}{1-a+a^2} - \frac{1}{1+a^2+a} - \frac{2a}{1+a^2+a^4} = ?$
    (1) 0 (2) -1 (3) 1 (4) 2

131. If $a\cos\theta + b\sin\theta = m$ and $a\sin\theta - b\cos\theta = n$, then $a^2 + b^2 = ?$
    (1) $m^2 - n^2$ (2) $m^2 + n^2$
    (3) $m^2 n^2$ (4) $n^2 - m^2$

132. $2\left(\frac{\cos 58°}{\sin 32°}\right) - \sqrt{3}\left(\frac{\cos 38°.\cos ec52°}{\tan 15°.\tan 60°.\tan 75°}\right) = ?$
    (1) 2 (2) 0 (3) 1 (4) -1

133. A and B can do a piece of work in 20 days and 12 days respectively. A started the work alone and then after 4 days B joined him till the completion of the work. How long did the work last?
    (1) 10 days (2) 20 days
    (3) 15 days (4) 6 days

134. 10 men working 6 hours a day can complete a work in 18 days. How many hours a day must 15 men work to complete the same work in 12 days?
    (1) 6 (2) 10 (3) 12 (4) 15

135. Two circles of radii R and r touch each other externally and PQ is the direct common tangent, Then PQ^2 is equal to:
    (1) R – r (2) R + r (3) 2Rr (4) 4Rr

136. ACB is a tangent to a circle at C. CD and CE are chords such that $\angle$ACE > $\angle$ACD. If $\angle$ACD = $\angle$BCE = 50°, then '
    (1) CD = CE
    (2) ED is not parallel to AB
    (3) ED passes through the centre of the circle
    (4) A CDE is a right angled triangle

137. The perimeters of five squares are 24 cm, 32 cm, 40 cm, 76 cm and 80 cm respectively. The perimeter of another square equal in area to sum of the areas of these squares is
    (1) 31 cm (2) 62 cm
    (3) 124 cm (4) 961 cm

138. The area of the incircle of an equilateral triangle of side 42 cm is (Take $\pi = \frac{22}{7}$)
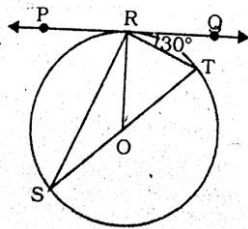(1) 231 cm²   (2) 462cm²
(3) $22\sqrt{3}$ cm²   (4) 924 cm²

139. The length of a rectangular hall is 5m more than its breadth. The area of the hall is 750m². The length of the hall is
(1) 15 m   (2) 22.5 m
(3) 25 m   (4) 30 m

140. The area of a triangle is 216cm² and its sides are in the ratio 3 : 4 : 5. The perimeter of the triangle is
(1) 6 cm   (2) 12.cm   (3) 36 cm   (4) 72 cm

141. PQ is a tangent to the circle at R then ∠PRS is equal to:

(1) 30°   (2) 40°   (3) 60°   (4) 80°

142. A man bought two goats for Rs.1008.He sold one at a loss of 20% and other at a profit of 44%. If each goat was sold for the same price, the cost price of the goat which was sold at loss was
(1) Rs.648   (2) Rs.360   (3) Rs.568   (4) Rs.440

143. A train moves past a telegraph post and a bridge 264m long in 8 seconds and 20 seconds respectively. What is the speed of the train?
(1) 69.5 km/hr   (2) 70 km/hr
(3) 79 km/hr   (4) 79.2 km/hr

144. A boy goes to his school from his house at a speed of 3 km/hr and returns at a speed of 2km/hr. If he takes 5 hours in going and coming, the distance between his house and school is
(1) 6 km   (2) 5km   (3) 5.5 km   (4) 6.5 km

145. A boat goes 40 km upstream in 8 hours and 36 km downstream in 6 hours. The speed of the boat in still water is
(1) 6.5 km/hour   (2) 5.5 km/hour
(3) 6 km/hour   (4) 5 km/hour

146. The angles of depression of two ships from the top of the light house are 45° and 30° towards east. If the ships are 100m apart, then the height of the light house is:
(1) 50 $(\sqrt{3}-1)$ m   (2) 50 $(\sqrt{3}+1)$ m
(3) 50 $\sqrt{3}$ m   (4) $\frac{50}{\sqrt{3}-1}$ m

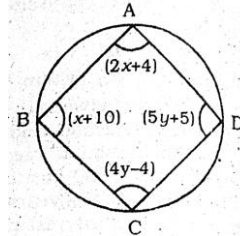147. The value of (sin 20°cos 70° + cos 20° sin 70°) is:
(1) 1   (2) 0   (3) -1   (4) $\frac{1}{2}$

148. Find the values of p and q for which the following system of equations has infinite solutions:
2x + 3y = 7, (p + q) x + (2 p - q)y = 21
(1) p = 2, q = 3   (2) p= 15, q = 1
(3) p = 15, q = 6   (4) p =. 5, q = 1

149. The values of x and y in the figure are measure of angles, then x + y is equal to

(1) 90°   (2) 85°
(3) 75°   (4) 65°

150. The longer side of a parallelogram is 10 cm and the shorter 6cm. If the longer diagonal makes an angle 30° with the longer side find the: length of the longer diagonal.
(1) $(6\sqrt{3} + \sqrt{11})$ cm   (2) $(6\sqrt{3} + \sqrt{7})$ cm
(3) $(8\sqrt{5} + \sqrt{11})$ cm   (4) $\frac{(6\sqrt{3}+11)}{3}$ cm

PART-IV
GENERAL AWARENSS

151. Which of the following Course Correction and Initiatives have, not been mentioned by the. Railway Budget 2014-15?
(1) Alternate resource mobilization need to be explored as enlisted
(2) Aggressive indigenization of export products.
(3) Decision Support System for project implementation
(4) Strategic partnerships and transparency in procurements

152. If all the plants of the world dies, all the animals would also die to shortage of
(1) Cold air   (2) Food
(3) Oxygen   (4) Shelter

153. Chlorination is
(1) adding small amounts of chloride to contaminated water
(2) a chemical reaction in which chlorine is formed
(3) The formation of a salt containing chlorine
(4) a process of converting chlorides into chlorine

154. Who decides the disputes regarding election of President?
(1) The Supreme Court
(2) The Election Commission
(3) The Parliament
(4) Both Supreme Court and High Courts

155. The growth of bacteria is measured by
(1) hemacytometer
(2) spectrophotometer
(3) calorimeter
(4) auxanometer

156. For which one of the following are honey bees used?
(1) Apiculture   (2) Horticulture
(3) Pisciculture   (4) Sericulture

157. Which one of the following is not an internal factor for industrial sickness?
(1) Diversion of funds
(2) Technological Obsolescence
(3) Wrong dividend policy
(4) Mismanagement

158. Who is the first Law Officer of the Government of India?
(1) Law Secretary
(2) Union Law Minister
(3) Attorney General of India
(4) The Chief Justice of India

159. The substance that causes the worst air pollution is
(1) sulphur dioxide   (2) carbon dioxide
(3) carbon monoxide   (4) smoke

160. Mammals form urea in the
(1) Kidney   (2) Spleen
(3) Bladder   (4) Liver

161. Main cause for agitations for separate states in India is
(1) growing regional Imbalances
(2) people's political consciousness
(3) social inequalities
(4) regionalism

L62. Vikramshila University was founded by
(1) Kanishka   (2) Dharampala
(3) Pulakesin II   (4) Chandra Gupta Maurya

163. A government is classified as federal or unitary on the basis of
(1) Relations between the centre and states
(2) Relations between the executive and the legislature
(3) Relations between three organs of government
(4) None of these

164. Choose the correct one from among the following
(1) Nirukta — metre
(2) Jyotisha — phonetics
(3) Vyakarana—grammar
(4) Siksha — astrology

165. The Newzealanders are also known as
(1) Kiwis (2) Arabs (3) Orientals (4) Sams

166. Near which one of the following cities, the Palitana Temples are situated?
(1) MountAbu   (2) Mearke
(3) Ujjain   (4) BhavNagar

167. Which one of the following is an essential ingredient of parliamentary government?
(1) A rigid constitution
(2) Political parties
(3) An Independent judiciary
(4) A written constitution

168. 'El Nino effect' is closely associated with
(1) Humboldt current
(2) Equatorial counter current
(3) Canaries current
(4) Gulf current

169. 'EVM' stands
(1) Electric Vending Machine
(2) Electronic Vending Machine
(3) Electronic Voting Machine
(4) None of these

170. JDBC stands for .
(1) Java Development Connectivity
(2) Java Database Connectivity
(3) Java Developing Connectivity
(4) Java Data Base Conductivity

171. 'Milk of magnesia' is a suspension of
(1) Magnesium carbonate
(2) Magnesium hydroxide
(3) Magnesium chloride
(4) Magnesium sulphate

172. Pila globosa is used as bio filter in cleaning pollution of water by
(1) Mercury   (2) Arsenic
(3) Cadmium   (4) Algal blooms

173. Find the odd one out
(1) IDBI-Financial assistance to large industries'
(2) SIDBI-Financial assistance to small industries
(3) FCI - Financial assistance to food-grains merchants
(4) EXIM Bank- Financial assistance to exporters and importers

174. The word 'Secular' is a part of the Preamble of the Constitution of India
(1) after the 44th amendment
(2) after the 73rd amendment
(3) from the date of implementation
(4) after the 42nd amendment

175. Chemical name of Plaster of Paris.is
(1) Hydrated calcium carbonate
(2) Calcium hydrate
(3) Calcium sulphate hemihydrate
(4) Calcium sulphate

176. The tributary of River Indus which flows through Himachal Pradesh is
(1) Sutlej   (2) Beas
(3) Ravi   (4) Hunza

177. Acidity of rain is measured by
(1) Hygrometer   (2) Ammeter
(3) pH-meter   (4) Barometer

178. Which revenue earned by Union Government is not distributed among State Governments?
(1) Excise duty   (2) Income tax
(3) Customs duty   (4) None of these

179. The world's fastest growing water plant is
(1) Amazon water lily (2) Water hyacinth
(3) Utricularia   (4) Water Chestnut

180. The contents of memory will not be lost, when the power goes off in
    (1) ROM
    (2) EPROM
    (3) EEPROM
    (4) All the above
181. The programme which is being implemented in all the districts of the country is
    (1) Rajiv Gandhi Gramin Vidyutikaran Yojna
    (2) Sarva Shiksha Abhiyan
    (3) M.G.N.R.E.G programme
    (4) Navodya Vidyalaya
182. Who was the first envoy of the East India Company to meet Jahangir in 1608 AD?
    (1) William Edwards
    (2) Sir Thomas Roe
    (3) Edward Terry
    (4) William Hawkins
183. The Economic Survey 2013-14 explicitly says that the fiscal outcome of the central government in 2013-14 was achieved despite the macroeconomic challenges.' What were those challenges?
    (1) Growth slowdown
    (2) Elevated levels of global crude oil prices
    (3) Slow growth of investment
    (4) Ail of the above
184. Law of 'Use and disuse' was proposed by;
    (1) Lederberg
    (2) Lamarck
    (3) Darwin
    (4) Hugo De Vries
185. For his excellent displays, Paul Pogba won the Hyundai Young Player award at the FIFA World Cup 2014. Which country/team does he play for?
    (1) France
    (2) Croatia
    (3) Uruguay
    (4) Costa Rica
186. The rocket which gives us information about Mars is:
    (1) Discovery
    (2) Insat 4
    (3) Atlas 5
    (4) Cassinie
187. Wanchoo Committee dealt with
    (1) Agricultural Taxation
    (2) Direct Taxes
    (3) Monopolies and Trade Practices
    (4) Agricultural Prices
188. Carbohydrates are compounds of
    (1) Carbon, oxygen and hydrogen
    (2) Carbon, nitrogen and hydrogen
    (3) Carbon and nitrogen
    (4) Carbon and hydrogen
189. If a bacterium cell divides in every 20 minutes, how many bacteria will be formed in two hours?
    (1) 16
    (2) 8
    (3) 64
    (4) 4
190. What has been the allocation for developing 'one hundred Smart Cities' in the Union Budget 2014- 15?
    (1) Rs.5050 crore
    (2) Rs.7060 crore
    (3) Rs.8875 crore
    (4) Rs.10,000 crore
191. A person opens his mouth on hearing a thunder in order to
    (1) equalise pressure of air on both sides of the ear drum
    (2) receive more sound
    (3) allow air to come out of the mouth
    (4) overcome fear
192. When ice is heated from 0°C to 10° C, the volume of water
    (1) Decreases steadily
    (2) First increases then decreases
    (3) First decreases then increases
    (4) Increases steadily
193. Through which states does the river Chambal flows?
    (1) M.P. Gujarat. U.P
    (2) Rajasthan, M.P., Bihar
    (3) Gujarat. M.P., Chhattisgarh
    (4) U.P., M.P., Rajasthan
194. As per the 2011 population census. the most populous state in the country is
    (1) Madhya Pradesh
    (2) Uttar Pradesh
    (3) West Bengal
    (4) Rajasthan
195. The state of Jhansi was made a part of the British empire in India through the:
    (1) Doctrine of Lapse
    (2) Policy of Subsidiary Alliance
    (3) War against Rani Lakshmi Bai
    (4) None of these
196. The famous book "A Better India, A Better World" has been written by:
    (1) AzimPremji
    (2) N. R. Narayana Murthy
    (3) Praveen Mahapatra
    (4) Rajiv Sikri
197. Simple Goitre is a disease affecting:
    (1) Tear glands
    (2) Liver
    (3) Thyroid glands
    (4) Gums
198. Two bodies of the same mass are thrown with equal speed from the top of a tower simultaneously. One body (x) is thrown vertically downwards. The other (y) is thrown horizontally.
    (1) Both reaches ground with same Kinetic Energy
    (2) x reaches-ground with greater Kinetic energy
    (3) y reaches ground with greater Kinetic energy
    (4) Both x and y reaches ground simultaneously
199. An apparatus used for locating submerged objects is known as?
    (1) sonar
    (2) quasar
    (3) pulsar
    (4) radar
200. Which of the following are wrongly matched?
    (i) Tropic of Cancer – 23½°N latitude
    (ii) Tropic of Capricorn – 66½°N latitude
    (iii) International Date line-0° longitude
    (iv) Antarctic Circle – 66½° S latitude
    (1) (1)
    (2) (ii) and (iii)
    (3) (i), (ii) and (iv)
    (4) None of these

MODEL PAPER-V
ANSWER SHEET

Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	4	51	1	101	4	151	2
2	3	52	2	102	2	152	2
3	4	53	2	103	3	153	1
4	3	54	4	104	2	154	1
5	1	55	1	105	3	155	4
6	4	56	4	106	4	156	1
7	4	57	1	107	4	157	2
8	2	58	1	108	3	158	3
9	1	59	3	109	3	159	3
10	3	60	4	110	4	160	1
11	1	61	4	111	2	161	1
12	3	62	1	112	1	162	2
13	1	63	1	113	2	163	1
14	3	64	1	114	3	164	3
15	4	65	3	115	2	165	1
16	3	66	3	116	1	166	4
17	3	67	2	117	3	167	2
18	1	68	4	118	3	168	2
19	3	69	4	119	2	169	3
20	2	70	20	120	1	170	2
21	3	71	3	121	1	171	2
22	2	72	4	122	4	172	3
23	4	73	3	123	3	173	3
24	3	74	2	124	1	174	4
25	2	75	1	125	3	175	3
26	4	76	1	126	2	176	1
27	4	77	4	127	4	177	3
28	3	78	1	128	2	178	3
29	3	79	1	129	2	179	2
30	2	80	3	130	1	180	1
31	4	81	4	131	2	181	2
32	2	82	2	132	3	182	4
33	1	83	3	133	1	183	4
34	4	84	1	134	1	184	2
35	1	85	4	135	4	185	1
36	2	86	1	136	1	186	3
37	1	87	2	137	3	187	2
38	3	88	4	138	2	188	1
39	4	89	1	139	4	189	3
40	2	90	1	140	4	190	2
41	2	91	4	141	3	191	1
42	4	92	2	142	1	192	2
43	3	93	3	143	4	193	4
44	4	94	3	144	1	194	2
45	2	95	3	145	2	195	1
46	3	96	3	146	2	196	2
47	4	97	4	147	1	197	3
48	2	98	1	148	4	198	1
49	1	99	4	149	4	199	1
50	2	100	3	150	1	200	2