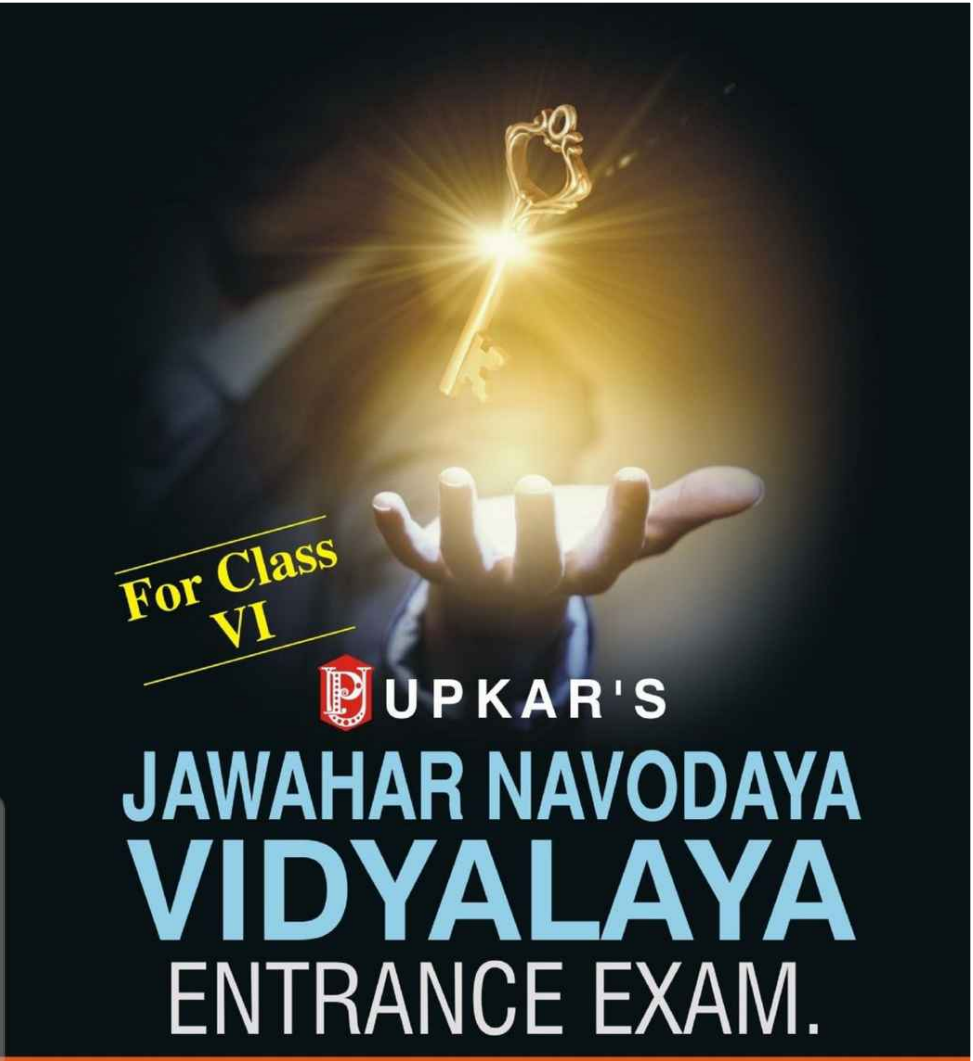


For Class VI

UPKAR'S

JAWAHAR NAVODAYA VIDYALAYA ENTRANCE EXAM.

Solved Papers

Editorial Board : PRATIYOGITA DARPAN

UPKAR'S

JAWAHAR NAVODAYA VIDYALAYA ENTRANCE EXAM.

Solved Papers

(Class-VI)

Editorial Board
Pratiyogita Darpan

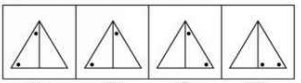
UPKAR PRAKASHAN, AGRA–2

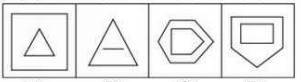
Jawahar Navodaya Vidyalaya
Entrance Exam.
(Class VI)
Solved Papers

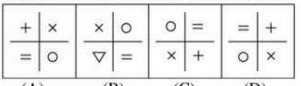
2017
Section – I
Mental Ability Test

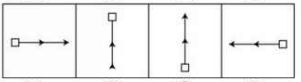
Part-I

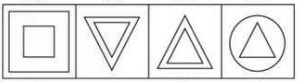
Directions—(Q. 1 to 5) Four figures (A), (B), (C) and (D) have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and write your answer of English letters *i.e.*, (A), (B), (C) or (D) in the box against the number corresponding to the question in the Answer Sheet.

1. 
(A) (B) (C) (D)

2. 
(A) (B) (C) (D)

3. 
(A) (B) (C) (D)

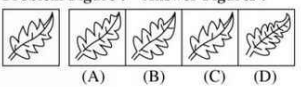
4. 
(A) (B) (C) (D)

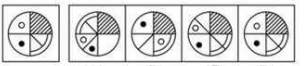
5. 
(A) (B) (C) (D)

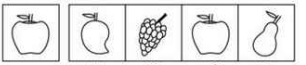
Part-II

Directions—(Q. 6 to 10) A problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which is exactly the same as the problem figure and write your answer only in English letters *i.e.*, (A), (B), (C) or (D) in the box against the number corresponding to the question in the Answer Sheet.

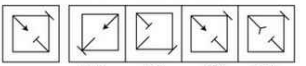
Problem Figure : Answer Figures :

6. 
(A) (B) (C) (D)

7. 
(A) (B) (C) (D)

8. 
(A) (B) (C) (D)

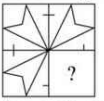
9. 
(A) (B) (C) (D)

10. 
(A) (B) (C) (D)

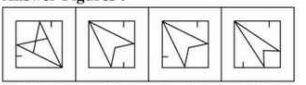
Part-III

Directions—(Q. 11 to 15) There is a problem figure in each question, a part of which is missing. Observe the answer figures (A), (B), (C) and (D) and find out the answer figure which, without changing direction, fits in the missing part of the problem figure in order to complete pattern in the problem figure. Indicate your answer by the letter of the answer figure chosen by you in the box against the number corresponding to the question in the Answer Sheet.

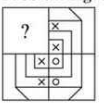
11. **Problem Figure :**



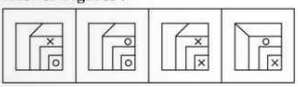
Answer Figures :


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

12. **Problem Figure :**

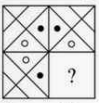


Answer Figures :

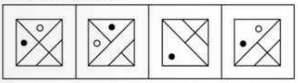


(A) (B) (C) (D)

13. **Problem Figure :**



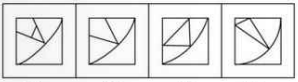
Answer Figures :



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

14. **Problem Figure :**

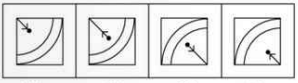
Answer Figures :



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

15. **Problem Figure :**

Answer Figures :



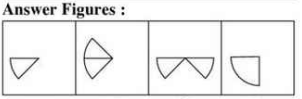
(A) (B) (C) (D)

Part-IV

Directions—(Q. 16 to 20) There are three problem figures and the space for the fourth figure is left blank. The problem figures are in a series. Find out one figure from among the answer figures (A), (B), (C) and (D) given below which would occupy the blank space for the fourth figure and which completes the series. Indicate your answer by the letter of the answer figure chosen by you in the box against the number corresponding to the question in the Answer Sheet.

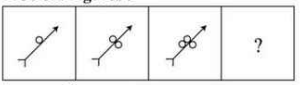
16. **Problem Figures :**

Answer Figures :

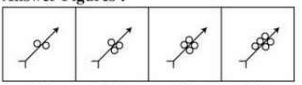


(A) (B) (C) (D)

17. **Problem Figures :**

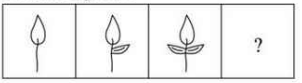


Answer Figures :

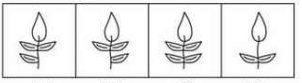


(A) (B) (C) (D)

18. **Problem Figures :**



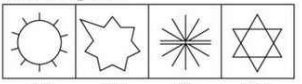
Answer Figures :



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

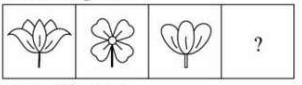
19. **Problem Figures :**

Answer Figures :

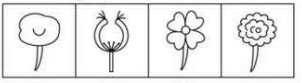


(A) (B) (C) (D)

20. **Problem Figures :**



Answer Figures :

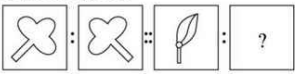


(A) (B) (C) (D)

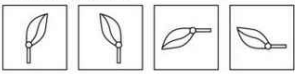
Part-V

Directions—(Q. 21 to 25) There are three problem figures followed by mark of interrogation (?) for the fourth one. There exists a relationship between the first two problem figures. A similar relationship should exist between the third and the fourth problem figures. Select one figure from the answer figures (A), (B), (C) and (D) which replaces the mark of interrogation. Write the letter of the answer figure select by you in the box against the number corresponding to the question in the Answer Sheet.

21. **Problem Figures :**

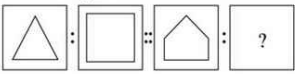


Answer Figures :

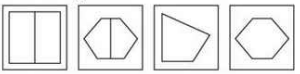


(A) (B) (C) (D)

22. **Problem Figures :**

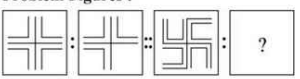


Answer Figures :

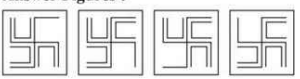


(A) (B) (C) (D)

23. **Problem Figures :**

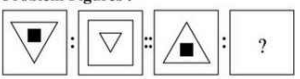


Answer Figures :

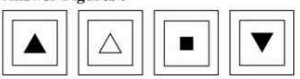


(A) (B) (C) (D)

24. **Problem Figures :**

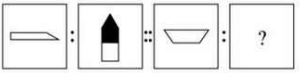


Answer Figures :

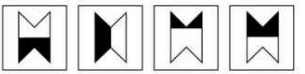


(A) (B) (C) (D)

25. **Problem Figures :**



Answer Figures :



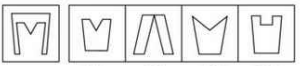
(A) (B) (C) (D)

Part-VI

Directions—(Q. 26 to 30) One part of a geometrical figure is given in the problem figure on the left-hand side and the other one is among the four answer figures (A), (B), (C) and (D) on the right-hand side. Find the figure on the right-hand side that completes the problem figure. Write the letter given below that figure in the box against the number corresponding to the question in the Answer Sheet.

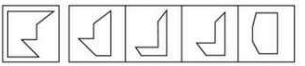
Problem Figure : **Answer Figures :**

26.



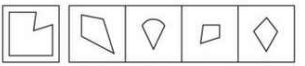
(A) (B) (C) (D)

27.



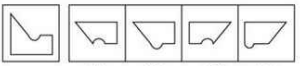
(A) (B) (C) (D)

28.



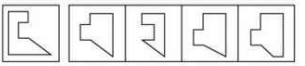
(A) (B) (C) (D)

29.



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

30.



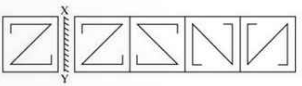
(A) (B) (C) (D)

Part-VII

Directions—(Q. 31 to 35) There is a problem figure on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which is exactly the mirror image of the problem figure when the mirror is held at XY and write your answer only in English letters *i.e.*, (A), (B), (C) or (D) in the box against the number corresponding to the question in the Answer Sheet.

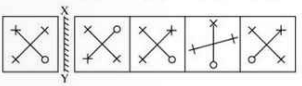
Problem Figure : **Answer Figures :**

31.



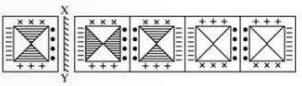
(A) (B) (C) (D)

32.



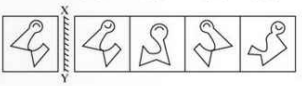
(A) (B) (C) (D)

33.



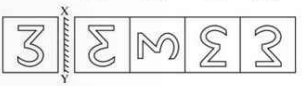
(A) (B) (C) (D)

34.



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

35.

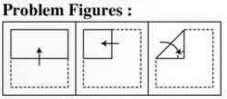


(A) (B) (C) (D)

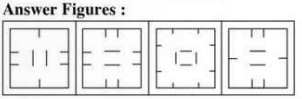
Part-VIII

Directions—(Q. 36 to 40) A piece of paper is folded and also punched as shown in problem figures and four answer figures marked (A), (B), (C) and (D). Select the answer figure which indicates how the paper will appears when opened (unfolded) and write your answer only in English letters *i.e.*, (A), (B), (C) or (D) in the box against the number corresponding to the question in the Answer Sheet.

36. **Problem Figures :**

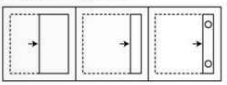


Answer Figures :

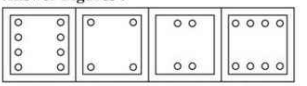


(A) (B) (C) (D)

37. **Problem Figures :**

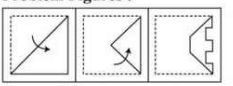


Answer Figures :

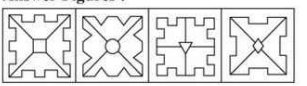


(A) (B) (C) (D)

38. **Problem Figures :**

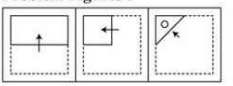


Answer Figures :

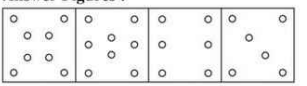


(A) (B) (C) (D)

39. **Problem Figures :**

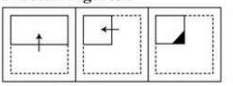


Answer Figures :

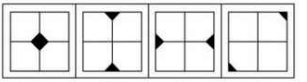


(A) (B) (C) (D)

40. **Problem Figures :**



Answer Figures :



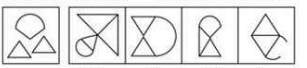
(A) (B) (C) (D)

Part-IX

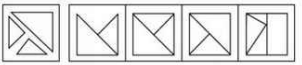
Directions—(Q. 41 to 45) A problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which can be formed from the cut-out pieces given in problem figure and indicate your answer by the letter of the answer figure chosen by you in the box against the number corresponding to the question in the Answer Sheet.

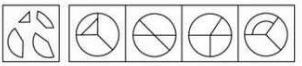
Problem Figure : **Answer Figures :**

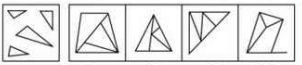
41.

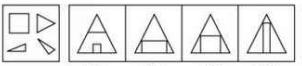


(A) (B) (C) (D)

42. 
(A) (B) (C) (D)

43. 
(A) (B) (C) (D)

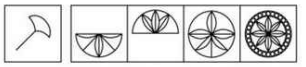
44. 
(A) (B) (C) (D)

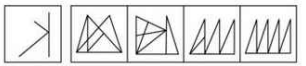
45. 
(A) (B) (C) (D)

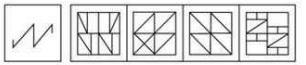
Part-X

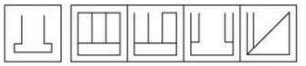
Directions—(Q. 46 to 50) A problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure in which the problem figure is hidden/embedded and indicate your answer by the letter of the answer figure chosen by you in the box against the number corresponding to the question in the Answer Sheet.

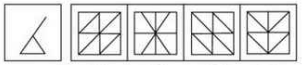
Problem Figure : **Answer Figures :**

46. 
(A) (B) (C) (D)

47. 
(A) (B) (C) (D)

48. 
(A) (B) (C) (D)

49. 
(A) (B) (C) (D)

50. 
(A) (B) (C) (D)

Section – II
Mathematics

Directions—For every question, four probable answers bearing letters (A), (B), (C) and (D) are given. Only **one** out of these is **correct.** You have to select the correct answer and write the letter in the box against the number corresponding to the question in the Answer Sheet.

51. The following pictograph shows the number of orange boxes sold by a trader in four days—

Monday	○ ○ ○ ○
Tuesday	○ ○ ○
Friday	○ ○ ○ ○ ○ ○ ○
Sunday	○ ○ ○ ○ ○ ○

(Symbol '○' represents 50 boxes)

How many total number of boxes did he sell on Tuesday and Sunday ?

(A) 400 (B) 450
(C) 500 (D) 700

52. 40% of the weight in a sweet is sugar. What amount of sugar is in such sweet of weight 4·8 kg ?

(A) 1·12 kg (B) 0·192 kg
(C) 1·92 kg (D) 1·29 kg

53. 6 men or 10 women can do a piece of work in 12 days. In how many days the same work can be done by 3 men and 5 women ?

(A) 6 days (B) 12 days
(C) 18 days (D) 24 days

54. If 5·28 × 0·8 = 4·224, then the value of 52·8 × 0·8 is—

(A) 42·24 (B) 4·224
(C) 422·4 (D) 4224

55. 6% of 800 is—

(A) 12 (B) 48
(C) 80 (D) 60

56. A man purchased a scooter for ₹ 47,000 and spent ₹ 3,000 on its repair. He sold it for ₹ 52,000. What is his gain/loss per cent ?

(A) Gain 4% (B) Loss 8%
(C) Loss 4% (D) Gain 8%

57. In how much time a money will become double of itself at the rate of 10% per annum at simple interest ?

(A) 2 years (B) 5 years
(C) 10 years (D) 15 years

58. The prime factorization of 32 is—
(A) $2 \times 2 \times 2 \times 2 \times 2$
(B) $3 \times 3 \times 2 \times 2$
(C) $2 \times 2 \times 8$
(D) $2 \times 2 \times 2 \times 4$

59. Which of the following numbers are the first three common multiples of the numbers 8 and 12 ?
(A) 24, 48, 72 (B) 8, 16, 24
(C) 12, 24, 36 (D) 96, 192, 288

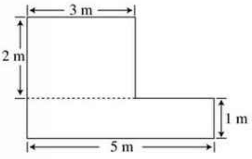
60. The next term of the sequence 1, 2, 4, 8, 16, ... is—
(A) 20 (B) 64
(C) 24 (D) 32

61. Which one of the following is not equal to 2·4 ?
(A) $2\frac{2}{5}$ (B) 22·5%
(C) $\frac{12}{5}$ (D) $2\frac{4}{10}$

62. What is the sum of 6·666, 6·66 and 6·06 ?
(A) 1·9386 (B) 19·386
(C) 193·86 (D) 1938·6

63. A hall measures 24 m × 20 m. The number of tiles of size 0·4 m × 0·3 m required to pave the floor is—
(A) 1500 (B) 4000
(C) 3000 (D) 2500

64. In the figure given below, what is the area of the carpet ?



(A) 16 m (B) 16 m^2
(C) 11 m^2 (D) 11 m

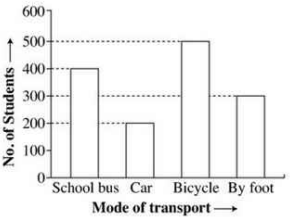
65. A train starts at 5:45 a.m. and reaches the next station at 9:20 a.m. What is the time taken by the train to reach the next station ?
(A) 3 hr 35 min (B) 3 hr 15 min
(C) 3 hr 25 min (D) 4 hr 35 min

66. A bucket can hold 20 litres of water. Its $\frac{3}{5}$ part is filled with water. Water is the amount of water required to fill the bucket completely ?
(A) 12 litres (B) 10 litres
(C) 8 litres (D) 6 litres

67. A shopkeeper sells ball pen at ₹ 12 each or a packet of 5 for ₹ 50. How much minimun will it cost to purchase 23 ball pens ?
(A) ₹ 236 (B) ₹ 276
(C) ₹ 250 (D) ₹ 230

68. In an examination, Ramesh scored 15 marks more than Gurdas, whereas Leela scored 7 marks less than Gurdas in the same examination. If their total score is 83, find the marks scored by Gurdas—
(A) 18 (B) 25
(C) 40 (D) 35

69. Read the bar graph showing the mode of transport used by students of a school and answer the question given below :



What is the least number of mode of transport used by the students ?
(A) School bus (B) By foot
(C) Bicycle (D) Car

70. Kishore got medicines for ₹ 205·50 and a torch for ₹ 180·50, and paid for the bill with a 500 rupee note. The balance he got is—
(A) ₹ 336 (B) ₹ 114
(C) ₹ 120 (D) ₹ 115

71. Which is the smallest four-digit number formed, using different digits with 9 in the ten's place ?
(A) 1092 (B) 1290
(C) 2091 (D) 2190

72. The HCF of the numbers 14, 36 and 66 is—
(A) 2 (B) 4
(C) 6 (D) 11

73. The LCM of the numbers 24, 36 and 42 is—
(A) 84 (B) 72
(C) 504 (D) 604

74. $101 \times 0 \times 11$ is equal to—
(A) 112 (B) 1010
(C) 0 (D) 11·11

75. Using the digits 9, 5, 0, 2, 4, the smallest five-digit even number is—
(A) 20594 (B) 20459
(C) 02594 (D) 02459

Section–III
Language

Directions—There are five passages in this section. Each passage is followed by five questions. Read each passage carefully and answer the questions that follow. For every question, four probable answers bearing letters (A), (B), (C) and (D) are given. Only **one** out of these is **correct.** You have to select the correct answer and write the letter in the box against the number corresponding to the question in the Answer Sheet.

Passage – 1

Long ago, a large tree stood in the forest. It was so tall that it almost reached the clouds. Today we call it a redwood tree because the wood inside the tree looks red. "Why am I here ?" the redwood asked. Sadly, no one heard him. "What is my job ? What good am I ?" No one answered. The redwood tree stood for many more years. All the trees lost their leaves in snow. But this one had green needles, not leaves, and it was green all the year. That is why birds liked the tree. Over the years, hundreds of bird families called this tree their home. It was like a big bird hotel. A sundown, the sound of nesting birds was so loud that deers couldn't rub their backs on the tree trunks. The bird noises hurt their ears.

76. The passage describes—
(A) why redwood trees are important to the forest
(B) how people use redwood trees to build homes
(C) how happy birds were in the redwood tree
(D) how sharp the green needles of the redwood tree were

77. Which word best tells how the redwood tree feels in the beginning of the story ?
(A) Funny (B) Angry
(C) Happy (D) Sad

78. Why were the birds very happy ?
(A) Birds got a lot of seeds to eat
(B) The tree was green all the year
(C) The tree lost the leaves in the snow
(D) The tree was very tall

79. What gave the large tree in the forest the name, 'redwood tree' ?
(A) Its height
(B) The red wood inside the tree
(C) The leaves which were needle like
(D) The red bird families which lived there

80. What made the deer unhappy in the forest ?
(A) The deer had no place to hide.
(B) The bird noises hurt its ears.
(C) The deer could not get enough sunlight.
(D) The deer could not consume the leaves of the redwood tree.

Passage – 2

Ramu lives in a village. His grandfather is a farmer. Ramu's father is also a farmer. In the rainy season, Ramu goes to the fields. He sits under the mango trees. Sometimes he plucks a ripe mango and eats it. There are jamun trees also is the farm. When Ramu comes back from school, he runs to the jamun trees. He picks up the ripe jamuns. He takes them home. His mother washes the jamuns and Ramu eats them.

When Ramu does not have to go school, he goes to the fields with his father. He takes the cows to graze in the fields. His dog Moti also goes with him. Moti runs around in the grass. He barks loudly.

In the evening, they come back home. The family enjoys a tasty meal of rice and dal and vegetables. After dinner, they eat mangoes and drink milk. The family loves their life in the village. They are a happy family.

81. Where does Ramu live ?
(A) in a city (B) in a town
(C) in a village (D) in Mumbai

82. What work do Ramu's grandfather and father do ?
(A) They are farmers (B) They are bakers
(C) They are drivers (D) They are painters

83. What does Ramu do in the rainy season ?
(A) He plays with his friends
(B) He eats apples
(C) He goes to the fields
(D) He plays with Moti

84. What does Ramu do after school ?
(A) He sits in his room
(B) He runs to the jamun trees
(C) He sits under the mango trees
(D) He takes the cows to the field

85. What do Ramu and his family have after dinner ?
(A) Milk and mangoes
(B) Jamuns and mangoes
(C) Sweets and milk
(D) Milk and jamuns

Passage – 3

Indian dolphin is now an endangered species. Once they were found in plenty in the Ganga, Brahmaputra and Mahanadi rivers. They are now greatly reduced in numbers. It is now said that there are nearly 5000 of them found in the Ganga and the Brahmaputra. These dolphins are different from the marine or river dolphins found elsewhere in the world. They are apparently blind but nature has compensated them for this loss in a remarka-

ble way. They have a well-developed and refined sense of hearing and are thus capable of navigating by sound. An unusual cupped top at its skull helps in directing the sounds produced for echo-location. It also enables the mammal to identify minute objects and differentiate between them. A dolphin, for instance, can tell a living fish from a dead one and even a dead fish from a dummy.

86. Dolphins are blind yet capable of navigation. The reason for this is—
(A) they concentrate on the objects
(B) nature helps them to find way
(C) they have a refined sense of hearing
(D) they have the ability of identify objects

87. The antonym for the word 'dead' is—
(A) dummy (B) refined
(C) living (D) different

88. The word 'navigating' as used in the passage means—
(A) to lead the masses ahead
(B) to steer the way through water
(C) to walk or move forward
(D) to travel by a ship

89. The dolphin's highly developed sense of hearing is evident from the way—
(A) it navigates in a river
(B) it swims across
(C) it identifies the keeper
(D) it can tell a living fish from a dead one

90. A suitable title to this passage would be—
(A) River Fish (B) Rare Dolphins
(C) Indian Dolphins (D) Blind Dolphins

Passage – 4

The grizzly bear is an omnivorous animal. This means that it eats both plants and animals. Because it is the dominant animal in the land which is its habitat, it can prey on even large animals. Even then commonly it eats only the small ones. Whatever food a grizzly bear eats, it takes a huge amount of food to fill the big stomach of this animal. Often its meals come in small quantities, however, the search for food is never finished. It the spring, grizzlies eat grass, leaves, roots and moss. Often they overturn small stones and even large rocks to find ants, beetles, crickets and other insects.

91. A grizzly bear eats—
(A) both plants and animals
(B) only large animals
(C) very small animals only
(D) only leaves and moss

92. It can prey on large animals, because—
(A) of its huge size
(B) they are easily available
(C) of its dominant nature
(D) they make a big meal

93. Grizzlies mostly eat grass, leaves, roots, etc., during ..... season.
(A) rainy (B) spring
(C) winter (D) summer

94. They don't eat ..... from under the rocks.
(A) plants (B) moss
(C) beetles (D) insects

95. 'Omnivorous' is one who eats—
(A) only plants
(B) only insects
(C) both plants and animals
(D) only animals

Passage – 5

Penguins live in icebound South Pole. Have you ever wondered how penguins live on such a freezing continent without any woolen coats, sweaters and gloves like the ones you wear when you go to cold country ? Penguins can walk on ice without shoes and they never fall sick.

They don't have any home so they sleep on ice. Nature has given them very different features which help them to survive in the coldest weather without difficulty. The secret behind this is that their bodies are covered with a thick layer of fat which keeps their bodies warm. It acts like a fur coat.

Penguins are also very devoted to their eggs and babies. Unlike other animals, the female penguin does not hatch or nurse its baby. It simply lays one egg and then it is the male penguin who incubates it by giving it warmth. The female penguin then goes far to find food for her husband and baby. Due to heavy snow, she has to travel long distances.

96. Nature helps penguins to survive in extremely cold temperatures by—
(A) covering their bodies with fur
(B) lining their bodies with a thick layer of fat
(C) giving them woolen coats to wear
(D) giving them a secret way to keep themselves warm

97. By saying that "Penguins are also very devoted to their eggs", the writer means that—
(A) they worship the eggs
(B) they lay their eggs
(C) they take full care of their eggs
(D) they protect the eggs from cold

98. Penguins do not have a home, because—
(A) they do not sleep
(B) they are lazy
(C) they sleep on ice
(D) they have no land

99. The word 'freezing' as used in the passage means—
(A) chilled (B) motionless
(C) hard (D) snowy

100. Penguin parents are different from other animals, because—
(A) they are devoted to their eggs
(B) the mother penguin nurses the baby
(C) the father hatches the eggs
(D) the mother lays only two eggs at a time

Answers with Hints

1. (B)	2. (A)	3. (B)	4. (B)	5. (D)
6. (C)	7. (D)	8. (C)	9. (B)	10. (C)
11. (C)	12. (B)	13. (A)	14. (D)	15. (B)
16. (A)	17. (C)	18. (B)	19. (D)	20. (B)
21. (B)	22. (D)	23. (B)	24. (B)	25. (D)
26. (A)	27. (A)	28. (C)	29. (B)	30. (A)
31. (B)	32. (D)	33. (B)	34. (C)	35. (A)
36. (C)	37. (D)	38. (A)	39. (A)	40. (A)
41. (B)	42. (C)	43. (A)	44. (B)	45. (C)
46. (C)	47. (B)	48. (B)	49. (C)	50. (B)

51. (B) Total number of boxes sold on Tuesday and Sunday
$= 3 \times 50 + 6 \times 50$
$= 150 + 300 = 450$

52. (C) Amount of sugar in the sweet
$= \frac{40}{100} \times 4{\cdot}8$
$= 1{\cdot}92$ kg

53. (B) 6 men = 10 women
$\therefore$ 3 men = 5 women
3 men and 5 women = (3 + 3) men
= 6 men
6 men will finish the work in 12 days.

54. (A) $5{\cdot}28 \times 0{\cdot}8 = 4{\cdot}224$
$\therefore$ $52{\cdot}8 \times {\cdot}8 = 42{\cdot}24$

55. (B) 6% of 800
$= \frac{6}{100} \times 800 = 48$

56. (A) Actual cost price = ₹ 47,000 + ₹ 3,000
= ₹ 50,000
Selling price = ₹ 52,000
Gain = ₹ 52,000 – ₹ 50,000
= ₹ 2000
$\text{Gain \%} = \frac{2000 \times 100}{50000} = 4\%$

57. (C) Let the Principal = ₹ 100
Amount will be ₹ 200.
Simple Interest = 200 – 100 = ₹ 100
$T = \frac{100 \times \text{S.I.}}{P \times R}$
$T = \frac{100 \times 100}{100 \times 10}$
$\therefore$ T = 10 years

58. (A) Prime Factors of 32

2	32
2	16
2	8
2	4
	2

Prime factors of $32 = 2 \times 2 \times 2 \times 2 \times 2$

59. (A) Multiples of 8 are 8, 16, 24, 32, 40, 48, 56, 72, 80
Multiples of 12 are 12, 24, 36, 48, 60, 72, 84, 96
First three-Common multiples of 8 and 12 = 24, 48 and 72.

60. (D) $1 \times 2 = 2$, $2 \times 2 = 4$, $4 \times 2 = 8$, $8 \times 2 = 16$, $16 \times 2 = 32$
32 will be the next term of the series.

61. (B) $22{\cdot}5\% \neq 2{\cdot}4$

62. (B) $6{\cdot}666 + 6{\cdot}66 + 6{\cdot}06 = 19{\cdot}386$

63. (B) Area of the floor $= 24 \times 20$
$= 480$ m^2
Area of one tile $= {\cdot}4 \times {\cdot}3 = 0{\cdot}12$ m^2
Number of the tiles required to pave the floor
$= \frac{480}{0{\cdot}12}$
$= \frac{48000}{12}$
$= 4000$

64. (C) Area of the given carpet
$= 5 \times 1 + 3 \times 2$
$= 5 + 6$
$= 11$ m^2

65. (A) Time taken by the train to reach the next station = 9:20 – 5:45
= 3:35
= 3 hrs 35 minutes

66. (C) Amount of the water in the bucket
$= \frac{3}{5} \times 20 = 12$ litres
Amount of water required to fill the bucket completely
= 20 – 12 = 8 litres

67. (A) 23 ball pens = (20 + 3) ball pens
= 4 packets of ball pens + 3 ball pens
Cost = 4 × 50 + 3 × 12
= 200 + 36 = ₹ 236

68. (B)

Ramesh	Gurdas	Leela
$x + 15$	x	$x - 7$

$x + 15 + x + x - 7 = 83$
$\therefore$ $3x + 8 = 83$
$\therefore$ $3x = 83 - 8$
$\therefore$ $3x = 75$
$x = 25$
$\therefore$ Gurdas scored = 25 marks.

69. (D)

70. (B) Total = 205·50 + 180·50 = ₹ 386

Paid for the bill = ₹ 500

Balance = ₹ 500 – ₹ 386

= ₹ 114

71. (A) Smallest four digit number formed using different digits with 9 in the ten's place.

= 1092

72. (A) H.C.F. of 14, 36 and 66

```
14)36(2          2)66(2
  28               66
  --               --
  8)14(1           ×
    8
    -
  6)8(1
    6
    -
  2)6(3
    6
    -
    ×
```

H.C.F. = 2

73. (C) L.C.M. 24, 36 and 42

2	24, 36, 42
2	12, 18, 21
3	6, 9, 21
	2, 3, 7

L.C.M. = 2 × 2 × 3 × 2 × 3 × 7

= 24 × 21 = 504

74. (C) 101 × 0 × 11 = 0

Multiplication of a number by zero is always zero.

75. (A) Using 9, 5, 0, 2, 4 the smallest five digit even number = 20594

76. (A)	77. (D)	78. (B)	79. (B)	80. (B)
81. (C)	82. (A)	83. (C)	84. (B)	85. (C)
86. (C)	87. (C)	88. (B)	89. (D)	90. (C)
91. (A)	92. (C)	93. (B)	94. (A)	95. (C)
96. (B)	97. (B)	98. (C)	99. (A)	100. (C)

2016

(Held on 9 January, 2016)

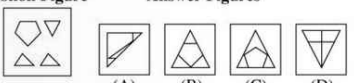
Section–I

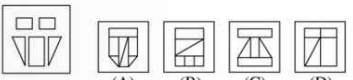
Mental Ability Test

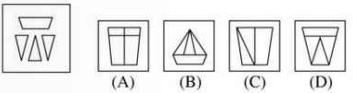
Part–I

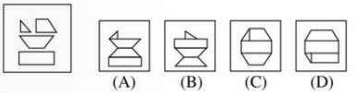
Directions—(Q. 1-5) A question figure is given on the left side and four answer figures, marked (A), (B), (C), (D) are given on the right side. Select the answer figure which can be formed from the cut-out pieces given in the question figure and write your answer only in English letters (*i.e.* A, B, C, D) in the box against the letter corresponding to the question.

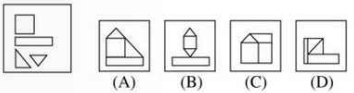
Question Figure **Answer Figures**

1. 
(A) (B) (C) (D)

2. 
(A) (B) (C) (D)

3. 
(A) (B) (C) (D)

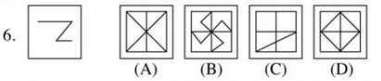
4. 
(A) (B) (C) (D)

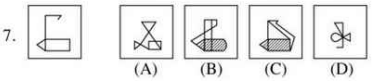
5. 
(A) (B) (C) (D)

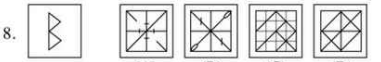
Part–II

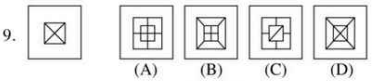
Directions—(Q. 6–10) A question figure is given on the left side and four answer figures, marked (A), (B), (C), (D) are given on the right side. Select the answer figure which the question figure is hidden/embedded and write your answer only in English letters (*i.e.* A, B, C, D) in the box against the letter corresponding to the question.

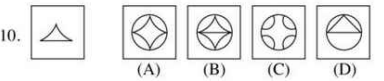
Question Figure **Answer Figures**

6. 
(A) (B) (C) (D)

7. 
(A) (B) (C) (D)

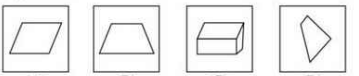
8. 
(A) (B) (C) (D)

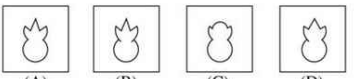
9. 
(A) (B) (C) (D)

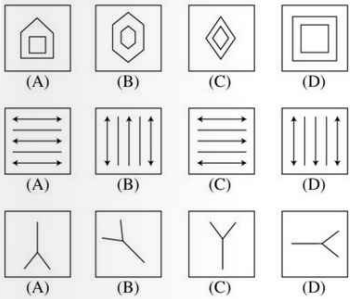
10. 
(A) (B) (C) (D)

Part–III

Directions—(Q. 11–15) Four figures (A), (B), (C) and (D) have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and write your answer only in English letters *i.e.*, (A), (B), (C), (D) in the box against the letter corresponding to the question.

11. 
(A) (B) (C) (D)

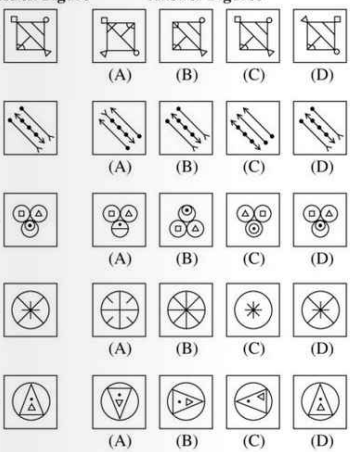
12. 
(A) (B) (C) (D)



Part–IV

Directions—(Q. 16–20) A question figure is given the left side and four answer figures, marked (A), , (C), (D) are given on the right side. Select the swer figure which is exactly the same as the question ure and write your answer only in English letters (*i.e.* B, C, D) in the box against the letter corresponding to question.

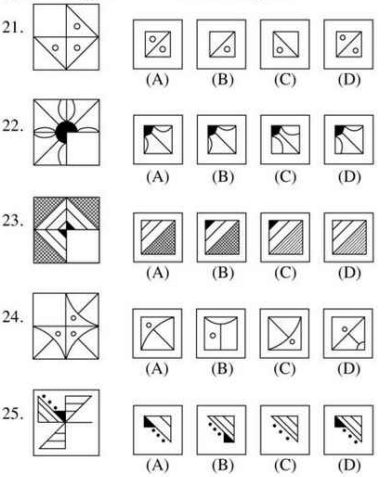
uestion Figure **Answer Figures**



Part–V

Directions—(Q. 21–25) There is a question figure n the left hand side, a part of which is missing. Observe ıe answer figures (A), (B), (C), (D) on the right hand ide and find out the answer figure which **without hanging the direction**, fits in the missing part of the uestion figure in order to complete the pattern in the question figure. Indicate your answer by letter of the answer figure chosen by you in the box against the letter corresponding to the question.

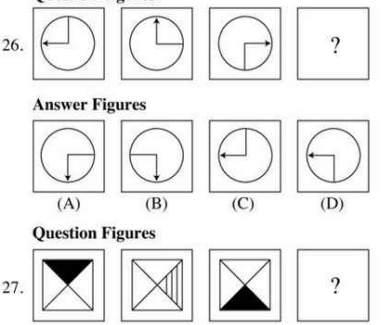
Question Figure **Answer Figures**



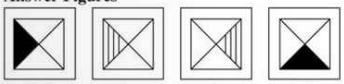
Part–VI

Directions—(Q. 26–30) There are three question figures and the space for the fourth figure is left blank. The question figures are in a series. Find out one figure from among the answer figures which occupies the blank space for the fourth figure and completes the series. Indicate your answer by letter of the answer figure chosen by you in the box against the letter corresponding to the question.

Question Figures

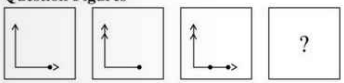


Answer Figures

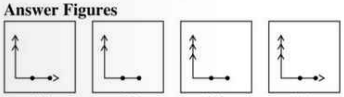


(A) (B) (C) (D)

Question Figures

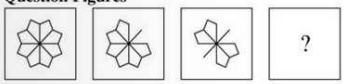
28. 

Answer Figures

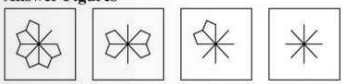


(A) (B) (C) (D)

Question Figures

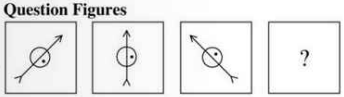
29. 

Answer Figures

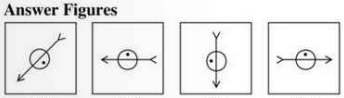


(A) (B) (C) (D)

Question Figures

30. 

Answer Figures

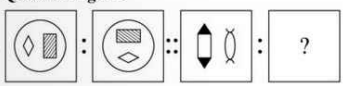


(A) (B) (C) (D)

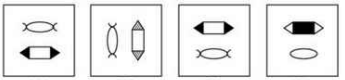
Part–VII

Directions—(Q. 31–35) There are two sets of two question figures each. The second set has an interrogation ?. There exists a relationship between the first two question figures. Similar relationship should exist between the third and fourth question figure. Select one of the answer figures which replaces the mark of interrogation. Write the letter of the answer figure selected by you in the box against the letter corresponding to the question.

Question Figures

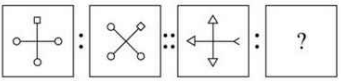
31. 

Answer Figures

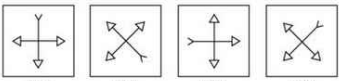


(A) (B) (C) (D)

Question Figures

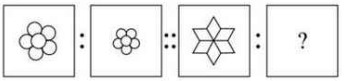
32. 

Answer Figures

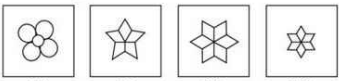


(A) (B) (C) (D)

Question Figures

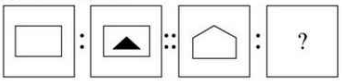
33. 

Answer Figures

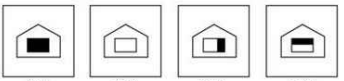


(A) (B) (C) (D)

Question Figures

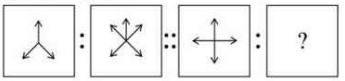
34. 

Answer Figures

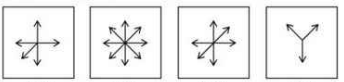


(A) (B) (C) (D)

Question Figures

35. 

Answer Figures

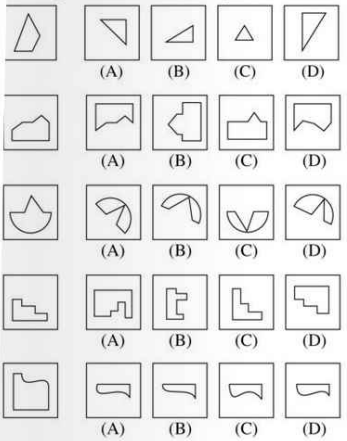


(A) (B) (C) (D)

Part–VIII

Directions—(Q. 36–40) One part of a geometrical : (Triangle, Square, Circle) is on the left hand side estion figure and the other one is among the four er figures (A), (B), (C), (D) on the right hand side. the figure **on the right hand side** that completes eometrical figure and write the letter given below igure in the box against the letter corresponding to uestion.

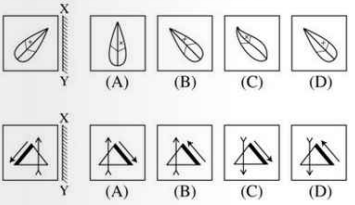
tion Figure **Answer Figures**



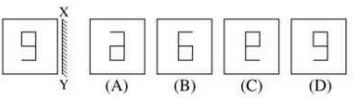
Part–IX

Directions—(Q. 41–45) There is a question figure he left side and four answer figures marked (A), (B), , (D) are given on the right side. Select the answer ure which is exactly the mirror image of the question ure when the mirror is held at XY. Indicate your wer by letter of the answer figure chosen by you in against the letter corresponding to the question.

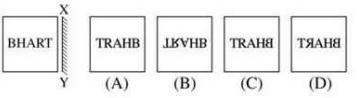
estion Figure **Answer Figures**



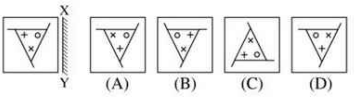
43.



44.



45.

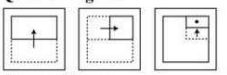


Part–X

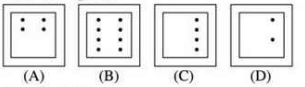
Directions—(Q. 46–50) A piece of paper is folded and punched as shown in question figures on the left side and four answer figures marked (A), (B), (C), (D) are given on right side. Select the answer figure which indicates how the paper will appear when opened (unfolded). Indicate your answer by letter of the answer figure chosen by you in the box against the letter corresponding to the question.

Question Figures

46.

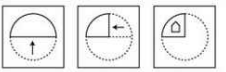


Answer Figures

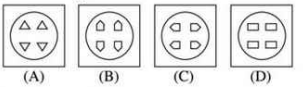


Question Figures

47.

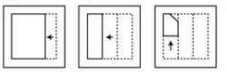


Answer Figures

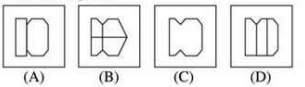


Question Figures

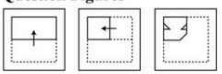
48.



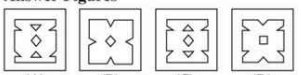
Answer Figures



49. **Question Figures**

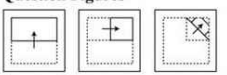


Answer Figures

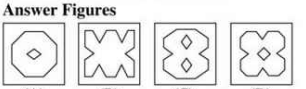


(A) (B) (C) (D)

50. **Question Figures**



Answer Figures



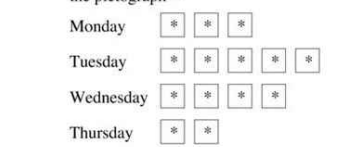
(A) (B) (C) (D)

Section–II

Arithmetic

Directions—For every question, four probable answers bearing letters (A), (B), (C) and (D) are given. Only **one** out of these is **correct**. You have to give the correct answer and write the letter in the box against the letter corresponding to the questions in the answer sheet.

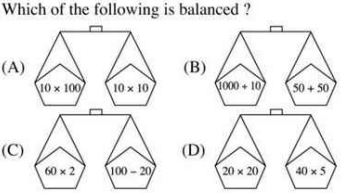
51. The number of baskets of apple sold by a shopkeeper on first five days of a week is given in the pictograph—



If he still has 140 baskets left, how many baskets he initially had ?

(A) 210 (B) 260
(C) 350 (D) 410

52. Which of the following is balanced ?



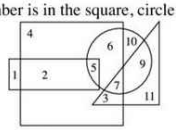
53. What is the difference between simple interest on ₹ 5,000 at 8% per annum for $3\frac{1}{2}$ years and simple interest on 4,000 at $4\frac{1}{2}$ % per annum for 8 years ?

(A) ₹ 60 (B) 40
(C) ₹ 20 (D) ₹ 80

54. What is simplified value of the product $243 \times 3 \times 2^2 \times 5^5 \times 0 \times 4$?

(A) 234564 (B) 32121215
(C) 1854212 (D) 0

55. Which number is in the square, circle and triangle ?



(A) 1 (B) 5 (C) 7 (D) 6

56. What will be the sum of greatest 5 digit number and greatest 4 digit number ?

(A) 108999 (B) 109998
(C) 1089 (D) 109999

57. Pots A and B have 145 and 116 litres of milk respectively. What should be the volume of the largest possible Can which can measure out the milk in each of the posts an exact number of times ?

(A) 1 litre (B) 29 litres
(C) 4 litres (D) 23 litres

58. What is L. C. M. of 120, 240 and 360 ?

(A) 360 (B) 120
(C) 240 (D) 720

59. When 144·144 is divided by 12, the quotient obtained is—

(A) 120·12 (B) 12·012
(C) 12·2012 (D) 1·2012

60. 135% is equal to—

(A) $\frac{35}{100}$ (B) $\frac{27}{20}$
(C) 13·5 (D) 135

61. A man purchased 120 mangoes at rate of ₹ 4 per mango. 20 mangoes were rotten. He sold rest of mangoes at the rate of ₹ 48 for 10 mangoes. What is his gain of loss ?

(A) gain ₹ 20 (B) loss ₹ 30
(C) no gain no loss (D) gain ₹ 10

62. At what rate per cent per annum, the simple interest on ₹ 3,650 will be ₹ 1,314 after 3 years ?
(A) 8% (B) 10%
(C) 12% (D) 15%

63. The length and breadth of a rectangular field are $3\frac{1}{4}$ m and $2\frac{3}{4}$ m respectively. What will be the cost of fencing it at the rate of ₹ $2\frac{1}{2}$ per metre ?
(A) ₹ 20 (B) ₹ 30
(C) ₹ 10 (D) ₹ 15

64. If 12276 ÷ 1·55 = 7920. What is value of 1227·6 ÷ 7920 ?
(A) 1·55 (B) ·0155
(C) ·155 (D) 15·5

65. What will be the value of $2^2 + 2^3 + 2^4 + 2^5$?
(A) 15 (B) 20
(C) 25 (D) 60

66. The next three numbers of the pattern 4, 9, 16, ... are—
(A) 20, 24, 28 (B) 23, 30, 37
(C) 25, 36, 49 (D) 25, 35, 45

67. The sum
30 + 3·0 + 0·3 + 0·33 + 0·333 equals—
(A) 33·963 (B) 33·636
(C) 33·936 (D) 33·693

68. Mona bought a shirt for ₹ 860 and sold it at a gain of 15%. What is the selling price of the shirt ?
(A) ₹ 875 (B) ₹ 980
(C) ₹ 984 (D) ₹ 989

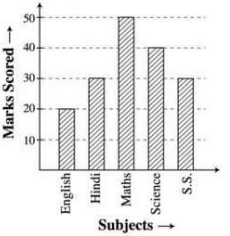
69. A man hired a taxi for a destination 12 km away. The fare is ₹ 25 for first two km and ₹ 10 for every subsequent kilometre. The total fare payable is—
(A) ₹ 125 (B) ₹ 120
(C) ₹ 115 (D) ₹ 110

70. 4 men or 6 women can finish a work in 16 days. In how many days the same work is completed by 2 men and 9 women ?
(A) 12 days (B) 10 days
(C) 9 days (D) 8 days

71. Which of the following is true for any natural number n ? { > represents (greater no.) < (smaller no.)}
(A) $n^2 > n^3$ (B) $n^3 > n^2$
(C) $n^2 - n^3 > 0$ (D) $n > 0$

72. Parul buys 9 large bottles of orange juice. Each bottle holds 750 mL of juice. How much orange juice has she altogether ?
(A) 7·59 litre (B) 6·84 litre
(C) 6·75 litre (D) 5·93 litre

73. The following chart gives the marks scored by a student in different subjects. His total score in all the subject is—



(A) 150 (B) 170
(C) 190 (D) 200

74. What is the answer got when we simplify $\left[\left(\frac{2}{3}+\frac{4}{9}\right) \text{ of } \frac{3}{5} \div 1\frac{2}{3} \times 1\frac{1}{4} - \frac{1}{3}\right]$?
(A) $\frac{1}{3}$ (B) $\frac{1}{6}$
(C) $\frac{1}{4}$ (D) $\frac{1}{9}$

75. A pair of socks costs twice as much as a cap. If 5 pairs of socks cost ₹ 1,250, what will 2 pairs of socks and 4 caps cost ?
(A) ₹ 1,050 (B) ₹ 1,000
(C) ₹ 950 (D) ₹ 1,250

Section–III
Language

Directions—There are **five** passages in this Section. Each passage is followed by five questions. Read each passage carefully and answer the questions that follow. For each question four probable answers bearing letters (A), (B), (C) and (D) are given. Only **one** out of these is **correct**. You have to choose the correct answer and write the letters in the number box against the letter corresponding to the question in answer sheet.

Passage–I

Neem is very commonly seen in India. The entire tree *i.e.*, the bark, leaves and flowers have a lot of medicinal values as each helps in curing various diseases. The fresh leaves can be used by extracting the juice. A paste of the leaves can be taken along with a small piece of jaggery. In case of wounds a few leaves can be boiled in water and then this water, when at

tolerable temperature, can be used to wash the wounds. Two drops of Neem oil can be used for applying to the wound. Neem also helps in relieving itching in case of allergic rashes. The paste of Neem seeds can be applied to the scalp and washed off after 10 minutes of application. It also helps in eliminating drandruff, boils on the scalp and also prevents hair fall. Neem is very useful in jaundice. The juice can be given along with honey. Neem water can be used to soak feet in case of cracks on dried feet. Neem leaf powder is used for preserving grains and pulses. Neem is of special importance on New Year's Day as a symbol of good health and longevity.

76. The adjectival form of tolerate is—
(A) tolerability (B) tolerating
(C) tolerate (D) tolerable

77. A paste of Neem leaves should be taken with—
(A) jaggery (B) water
(C) milk (D) butter

78. Neem seeds are good for—
(A) skin (B) hair
(C) scalp (D) stomach

79. A word which means the same as effective is—
(A) uncommon (B) affect
(C) useful (D) fruitless

80. Grains and pulses benefit from the _____ of Neem.
(A) seeds (B) juice
(C) dried leaves (D) bark

Passage–II

Recently, one of my mother's uncles came to visit us. He is a retired colonel and something of a naturalist. He and I got talking about birds and he told me a fantastic story. His garden in Kolkata has a lawn with tall trees on one side. Neither grass nor flowers would grow in the shade of these trees, so uncle decided to have them chopped down. Nobody knew that a pair of crows had built their nest in one of these trees, When the branches hit the ground, the nest and the eggs were smashed to pieces. Not content to mourn their loss, father and mother crow declared revenge. For weeks afterwards, whenever anyone appeared in the garden, the crows would attack them with beak and claws. They would dart like small, black fighter planes and sometimes even draw blood !

81. Pick out the synonym of 'made' from the passage.
(A) cut (B) smashed
(C) built (D) did

82. Uncle decided to cut the trees as—
(A) there was not enough sunlight for plants to grow
(B) the crows were troublesome
(C) he was a naturalist
(D) they were overgrown

83. The crows have been compared to—
(A) flowers and trees (B) fighter planes
(C) father and mother (D) beak and claws

84. A word from the passage which means the same as 'charge' is—
(A) chop (B) smash
(C) attack (D) mourn

85. Being a naturalist, the narrator's uncle—
(A) cut the trees down
(B) was attacked by the crows
(C) did not like the flowers in his garden
(D) talked about crows

Passage–III

After six days of continuous rain, the little stream by Naren's farm had turned into a raging river. On the evening of the sixth day, as he tried to lead his cows to a higher ground, he stumbled over a tree trunk and fell. For a moment or two, he was out cold. When he came to, Bhanu, one of his oldest cows, was licking his face. All around, the water was rising. Naren's Head hurt and he struggled to move. After a few minutes, he threw his arm around Bhanu's neck and tried to hang on. Eventually, Bhanu managed to pull herself and Naren out of water onto dry and. On that small island in the middle of the river, Naren and his cow waited for someone to rescue them.

86. How did Naren fall ?
(A) He slipped off Bhanu's back
(B) He stumbled over a tree trunk
(C) He could not bear the cold
(D) The water rose suddenly

87. Why did Naren lead his cows to a higher ground ?
(A) It was raining (B) The river was raging
(C) It was cold (D) It was evening

88. The word, 'eventually' means—
(A) gratefully (B) safely
(C) at last (D) happily

89. Bhanu, the cow—
(A) was full of concern for Naren
(B) wanted to put Naren in water
(C) liked licking Naren's face
(D) liked carrying Naren around

90. An island is—
(A) a piece of land surrounded by water
(B) a piece of land extending into the sea
(C) where Naren and his cows were going to
(D) where Bhanu lived

Passage–IV

By the time Nani came in morning, we had carted away our old articles no longer in use. But if I were ever to come back in the afternoon, she would be sitting in

the shade of the veranda on a low stool, fanning herself, making tea over a camp stove. Without signs of her children, her jewellery, her cuisine, her acid wit (when I asked for her car, she said, "first weigh, then think, then talk"), I'd find her sitting in a pose I never faced her in while growing up.

91. Which action of Nani was least liked by the narrator ?
(A) her making tea on the camp stove
(B) her blunt reply about the car
(C) her sitting in the shade of veranda
(D) her waiting for the children

92. Where was Nani sitting in the afternoon ?
(A) Corridor (B) Shade of the veranda
(C) Garden area (D) Open veranda

93. Camp stove was used for—
(A) Cooking food (B) Boiling water
(C) Making tea (D) Baking cake

94. What is the meaning of 'carted away' ?
(A) taken away (B) focused on
(C) turned down (D) wiped off

95. "When I asked for her car." Here 'I' refers to—
(A) Nani (B) Son
(C) Daughter (D) Narrator

Passage–V

Venice is a strange and beautiful city in the north of Italy. It consists of not one island, but a hundred and seventeen islands. There are about four hundred old stone bridges linking the islands of Venice. But in this city there are no motor cars and no buses. This is because Venice has no streets. Everyone goes by boat from one place to another. The boats sail along one hundred and fifty canals or waterways. The water touches the walls and steps of the buildings. The people of Venice are good sailors. They have long boats with flat bottoms called 'gondolas'. But today you can also see plenty of motor boats in Venice.

96. Venice has no streets. This is because—
(A) everyone must go by boats
(B) it has not one but a hundred and seventeen islands
(C) there are one hundred and fifty canals
(D) the water touches walls and steps of buildings

97. What is strange about the natural formation of the city of Venice ?
(A) It has boats and no cars
(B) It has four hundred old stone bridges
(C) It has one hundred and seventeen islands
(D) It has no roads

98. Why are there no motor cars or buses in Venice ?
(A) It has no roads
(B) Everyone goes by motor boats
(C) There are lots of gondolas
(D) The people are good sailors

99. How do people travel in Venice ?
(A) By motor cars (B) By buses
(C) By trains (D) By boats

100. Which word is opposite in meaning to 'plenty' as used in the paragraph ?
(A) Many (B) Few
(C) Less (D) Enough

Answers with Hints

1. (B)	2. (D)	3. (D)	4. (C)	5. (A)	6. (D)
7. (C)	8. (C)	9. (D)	10. (B)	11. (C)	12. (C)
13. (A)	14. (A)	15. (B)	16. (C)	17. (D)	18. (D)
19. (D)	20. (D)	21. (B)	22. (D)	23. (A)	24. (C)
25. (D)	26. (B)	27. (B)	28. (C)	29. (C)	30. (B)
31. (A)	32. (B)	33. (D)	34. (A)	35. (C)	36. (C)
37. (A)	38. (C)	39. (D)	40. (D)	41. (D)	42. (A)
43. (C)	44. (D)	45. (B)	46. (B)	47. (B)	48. (C)
49. (C)	50. (D)				

51. (C) The number of basket sold in 5 days
$= 21 \times 10$
$= 210$
Basket left $= 140$
No. of Basket he initially had
$= 210 + 140$
$= 350$

52. (B)

53. (B) I. $\text{S.I.} = \dfrac{5000 \times 8 \times 3{\cdot}5}{100}$
$= ₹\ 1400$
II. $\text{S.I.} = \dfrac{4000 \times 4{\cdot}5 \times 8}{100}$
$= ₹\ 1440$
Required difference $= 1440 - 1400$
$= ₹\ 40$

54. (D) 55. (C)

56. (B) $99999 + 9999 = 109998$

57. (B) H. C. F. of $145, 116 = 29$

58. (D) L. C. M. of $120, 240, 360 = 720$

59. (B)

60. (B) $135\% = \dfrac{135}{100}$
$= \dfrac{27 \times 5}{20 \times 5}$
$= \dfrac{27}{20}$

61. (C) Cost price of 120 mangoes $= 4 \times 120$
$= ₹\ 480$
Selling Price $= 4{\cdot}8 \times 100$
$= ₹\ 480$
Profit/Loss $= 480 - 480$
$= ₹\ 0$

62. (C) $\text{S.I.} = \frac{P \times R \times T}{100}$

$\Rightarrow \quad 1314 = \frac{3650 \times R \times 3}{100}$

$R = \frac{1314 \times 100}{3650 \times 3}$

$= 12\%$

63. (B) Perimeter of rectangle field = 2 (Length + Breadth)

$= 2\left(\frac{13}{4} + \frac{11}{4}\right)$

$2\left(\frac{24}{4}\right) = 12 \text{ m}$

Cost of fencing $= 12 \times \frac{5}{2}$

$= ₹ 30$

64. (C)

65. (D) $2^2 + 2^3 + 2^4 + 2^5$

$= 4 + 8 + 16 + 32$

$= 60$

66. (C) 4 9 16 25 36 49

+5 +7 +9 +11 +13

67. (A)

68. (D) $\text{Selling Price} = \frac{860 \times 115}{100}$

$= 989$

69. (A) The total payable fare $= 10 \times 10 + 25$

$= ₹ 125$

70. (D) 4 men = 6 women

1 man $= \frac{3}{2}$ women

6 women finish the work in 16 days

2 men and 9 women = 12 women will finish the work in 8 days.

71. (B)

72. (C) $\frac{750 \times 9}{1000}$ litre

$\Rightarrow 6{\cdot}75$

73. (B) Total score $= 20 + 30 + 50 + 40 + 30$

$= 170$

74. (B) $\left(\frac{2}{3} + \frac{4}{9}\right) \times \frac{3}{5} \times \frac{3}{5} \times \frac{5}{4} - \frac{1}{3}$

$= \frac{10}{9} \times \frac{3}{5} \times \frac{3}{5} \times \frac{5}{4} - \frac{1}{9}$

$= \frac{1}{6}$

75. (B) Price of a pair of socks

$= \frac{1250}{5}$

$= ₹ 250$

Price of a cap $= ₹ 125$

Cost 2 pair of socks + 4 cap

$= (2 \times 250) + (125 \times 4)$

$= ₹ 1000$

76. (D) The adjectival form of Tolerate is 'Tolerable'.

77. (A) A paste of Neem leaves should be taken with **jaggery.**

78. (C) Neem seeds are good for scalp.

79. (C) effective = useful.

80. (C) Grains and pulses benefit from the **dried leaves of** Neem.

81. (C) made = built.

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87. (B) Naren lead his cows to a higher ground since the river was raging.

88. (C) Eventually = at last.

89. (A) Bhanu, the cow was full of concern for Naren.

90. (A) An Iceland is a piece of land surrounded by water.

91. (B) Her blunt reply about the car was least liked by the narrator.

92. (B) In the afternoon Nani was sitting in the open veranda.

93. (C) Camp stove was used for making tea.

94. (A) Carted away = taken away.

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96. (B) Venice has no streets. This is because it has not one, but a hundred and seventeen Islands.

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98. (A) There are no motor cars or buses in Venice because it has no roads.

99. (D) In Venice people travel by boats.

100. (C) Less is opposite word of 'Plenty' used in the paragraph.

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$\Rightarrow \quad 1314 = \frac{3650 \times R \times 3}{100}$

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$= 12\%$

63. (B) Perimeter of rectangle field = 2 (Length + Breadth)

$= 2\left(\frac{13}{4} + \frac{11}{4}\right)$

$2\left(\frac{24}{4}\right) = 12 \text{ m}$

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2 men and 9 women = 12 women will finish the work in 8 days.

71. (B)

72. (C) $\frac{750 \times 9}{1000}$ litre

$\Rightarrow 6{\cdot}75$

73. (B) Total score $= 20 + 30 + 50 + 40 + 30$

$= 170$

74. (B) $\left(\frac{2}{3} + \frac{4}{9}\right) \times \frac{3}{5} \times \frac{3}{5} \times \frac{5}{4} - \frac{1}{3}$

$= \frac{10}{9} \times \frac{3}{5} \times \frac{3}{5} \times \frac{5}{4} - \frac{1}{9}$

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75. (B) Price of a pair of socks

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98. (A) There are no motor cars or buses in Venice because it has no roads.

99. (D) In Venice people travel by boats.

100. (C) Less is opposite word of 'Plenty' used in the paragraph.

2015

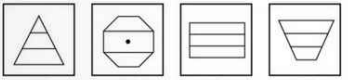
(Held on 7 Feb., 2015)

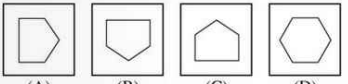
Section–I

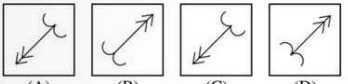
Mental Ability Test

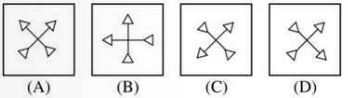
Part–I

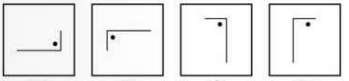
Directions—(Q. 1–5) Four figures (A), (B), (C) and (D) have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and write your answer only in English letters (*i.e.*, A, B, C or D) in the box against the letters corresponding to the question in the Answer Sheet.

1. 
(A) (B) (C) (D)

2. 
(A) (B) (C) (D)

3. 
(A) (B) (C) (D)

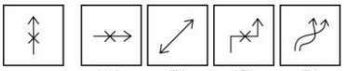
4. 
(A) (B) (C) (D)

5. 
(A) (B) (C) (D)

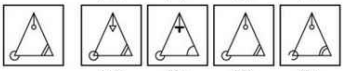
Part–II

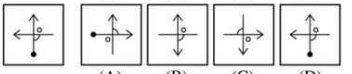
Directions—(Q. 6–10) A problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which is exactly the same as the problem figure and write your answer only in English letters (*i.e.*, A, B, C or D) in the box against the letter corresponding to the question in the Answer Sheet.

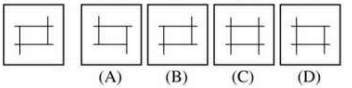
Problem Figure **Answer Figures**

6. 
(A) (B) (C) (D)

7. 
(A) (B) (C) (D)

8. 
(A) (B) (C) (D)

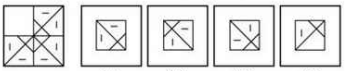
9. 
(A) (B) (C) (D)

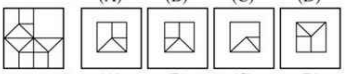
10. 
(A) (B) (C) (D)

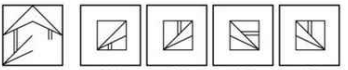
Part–III

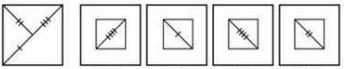
Directions—(Q. 11–15) There is a problem figure on the left-hand side, a part of which is missing. Observe the answer figures (A), (B), (C) and (D) on the right-hand side and find out the answer figure which, without changing the direction, fits in the missing part of the problem figure in order to complete the pattern in the problem figure. Indicate your answer by the letter of the answer figure chosen by you in the box against the letter corresponding to the question in the Answer Sheet.

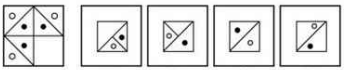
Problem Figure **Answer Figures**

11. 
(A) (B) (C) (D)

12. 
(A) (B) (C) (D)

13. 
(A) (B) (C) (D)

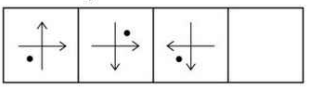
14. 
(A) (B) (C) (D)

15. 
(A) (B) (C) (D)

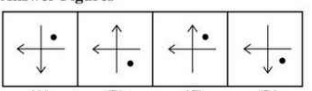
Part–IV

Directions—(Q. 16–20) There are three problem figures on the left-hand side and the space for the fourth figure is left blank. The problem figures are in a series. Find out one figure from among the answer figures (A), (B), (C) and (D) given on the right-hand side which would occupy the blank space for the fourth figure on the left-hand side and which completes the series. Indicate your answer by the letter of the answer figure chosen by you in the box against the letter corresponding to the question in the Answer Sheet.

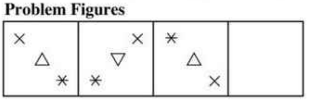
Problem Figures

16. 

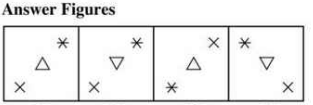
Answer Figures


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

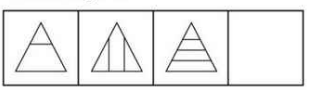
Problem Figures

17. 

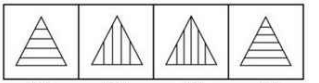
Answer Figures


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

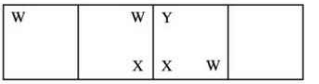
Problem Figures

18. 

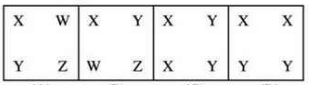
Answer Figures


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

Problem Figures

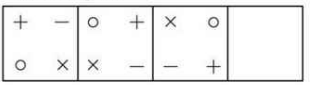
19. 

Answer Figures

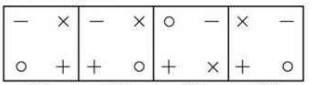


(A) (B) (C) (D)

Problem Figures

20. 

Answer Figures

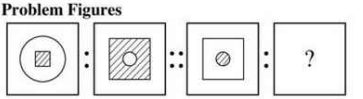


(A) (B) (C) (D)

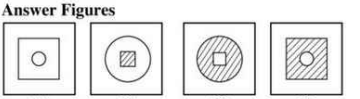
Part–V

Directions—(Q. 21–25) There are three problem figures followed by a mark of interrogation (?) for the fourth one. There exists a relationship between the first two problem figures. A similar relationship should exist between the third and the fourth problem figures. Select one figure from the answer figures (A), (B), (C) and (D) which replaces the mark of interrogation. Write the letter of the answer figure selected by you in the box against the letter corresponding to the question in the Answer Sheet.

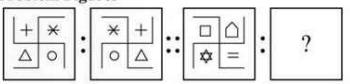
Problem Figures

21. 

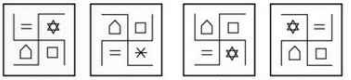
Answer Figures


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

Problem Figures

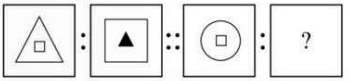
22. 

Answer Figures

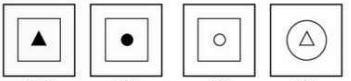


(A) (B) (C) (D)

Problem Figures

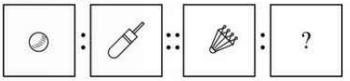
23. 

Answer Figures

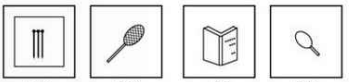


(A) (B) (C) (D)

Problem Figures

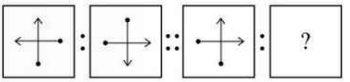
24. 

Answer Figures

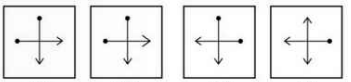


(A) (B) (C) (D)

Problem Figures

25. 

Answer Figures

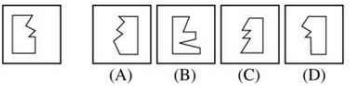


(A) (B) (C) (D)

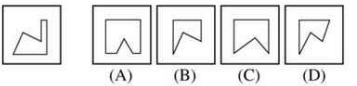
Part–VI

Directions—(Q. 26–30) One part of a geometrical figure is given in the problem figure on the left-hand side and the other one is among the four answer figures (A), (B), (C) and (D) on the right-hand side. Find the figure on the right-hand side that completes the problem figure. Write the number given below that figure in the box against the letter corresponding to the question in the Answer Sheet.

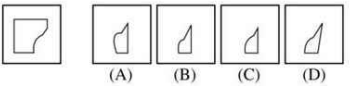
Problem Figure **Answer Figures**

26. 

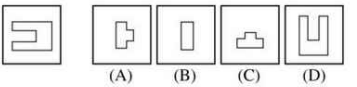
(A) (B) (C) (D)

27. 

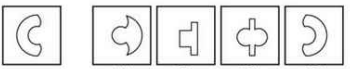
(A) (B) (C) (D)

28. 

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

29. 

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

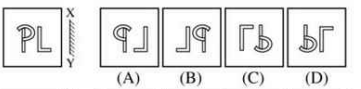
30. 

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

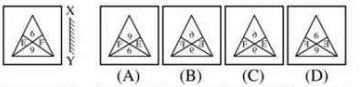
Part–VII

Directions—(Q. 31–35) There is a problem figure on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which is exactly the mirror image of the problem figure when the mirror is held at XY and write your answer only in English letters (*i.e.*, A, B, C or D) in the box against the letter corresponding to the question in the Answer Sheet.

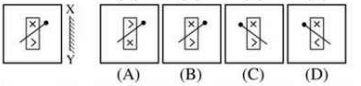
Problem Figure **Answer Figures**

31. 

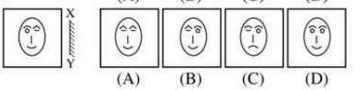
(A) (B) (C) (D)

32. 

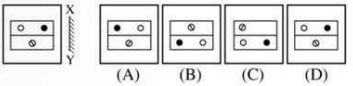
(A) (B) (C) (D)

33. 

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

34. 

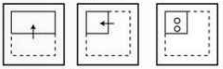
(A) (B) (C) (D)

35. 

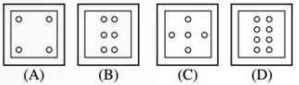
Part–VIII

Directions—(Q. 36–40) A piece of paper is folded and also punched as shown in problem figures on the left-hand side, and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which indicates how the paper will appear when opened (unfolded) and write your answer only in English letters (*i.e.,* A, B, C or D) in the box against the letter corresponding to the question in the Answer Sheet.

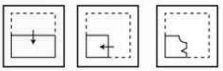
Problem Figures

36. 

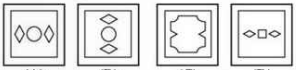
Answer Figures



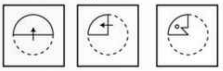
Problem Figures

37. 

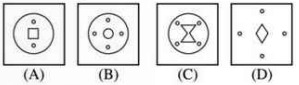
Answer Figures



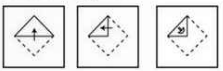
Problem Figures

38. 

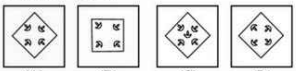
Answer Figures



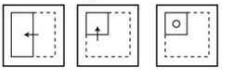
Problem Figures

39. 

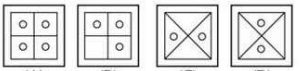
Answer Figures



Problem Figures

40. 

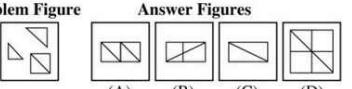
Answer Figures

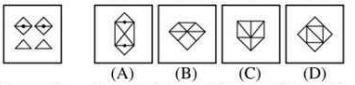


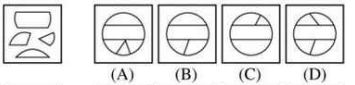
Part–IX

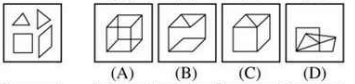
Directions—(Q. 41–45) A problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which can be formed from the cut-out pieces given in the problem figure and indicate your answer by the letter of the answer figure chosen by you in the box against the letter corresponding to the question in the Answer Sheet.

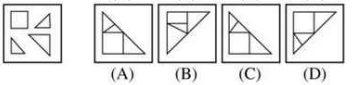
Problem Figure **Answer Figures**

41. 

42. 

43. 

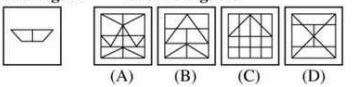
44. 

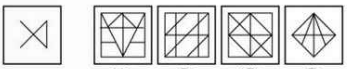
45. 

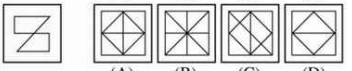
Part–X

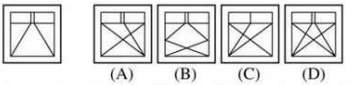
Directions—(Q. 46–50) A problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure in which the problem figure is hidden/embedded and indicate your answer by the letter of the answer figure chosen by you in the box against the letter corresponding to the question in the Answer Sheet.

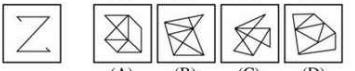
Problem Figure **Answer Figures**

46. 

47. 
(A) (B) (C) (D)

48. 
(A) (B) (C) (D)

49. 
(A) (B) (C) (D)

50. 
(A) (B) (C) (D)

Section–II
Mathematics

Directions—For every question, four probable answers bearing letters (A), (B), (C) and (D) are given. Only **one** out of these is **correct**. You have to select the correct answer and write the letter in the box against the letter corresponding to the question in the Answer Sheet.

51. For an old-age home, Gopal collected 36·5 kg of rice, Sekhar collected 45·5 kg of rice. They needed in all 100 kg of rice. How much more rice did they have to purchase ?
(A) 22 kg (B) 18 kg
(C) 25 kg (D) 18·5 kg

52. A runner takes 6 minutes 40 seconds of cross a platform of length 800 metres. The speed of the runner is—
(A) 80 m/s (B) 2 m/s
(C) 4 m/s (D) 40 m/s

53. Write the following in ascending order—
11023, 11032, 12031, 12013
(A) 11023, 12031, 12013, 11032
(B) 11032, 12013, 11023, 12031
(C) 11023, 11032, 12013, 12031
(D) 11032, 11023, 12013, 12031

54. Two-digit numbers are formed by using digits 2, 3, 4, and 5. The percentage of even numbers so formed is—
(A) 30% (B) 40%
(C) 50% (D) 60%

55. What is the remainder, if 5314 is divided by 13 ?
(A) 5 (B) 10
(C) 15 (D) 20

56. What is the greatest of the following four numbers ?
8080, 8800, 8008, 8880
(A) 8080 (B) 8008
(C) 8880 (D) 8800

57. The sum of the first 7 multiples of 11 is—
(A) 328 (B) 308
(C) 318 (D) 338

58. The decimal equivalent of $\frac{2}{5}+\frac{2}{25}-\frac{1}{4}$ is—
(A) 0·77 (B) 0·37
(C) 0·27 (D) 0·60

59. 18·05 × 2 × 0·5 × 0 × 10 =
(A) 18·5 (B) 18·05
(C) 185 (D) 0

60. If 2·55 × 0·5 = 1·275, then 255 × 0·5 is—
(A) 255 (B) 127·5
(C) 12·75 (D) 25·55

61. 20% of 480 is equal to—
(A) 48 (B) 96
(C) 16 (D) 24

62. The sum of all the digits obtained in the result of adding first 6 multiples of 7 is—
(A) 9 (B) 6
(C) 7 (D) 12

63. Four bells ring at interval of 5, 10, 15 and 20 minutes. If they ring together at 9 : 00 AM, at what time will they ring together again ?
(A) 10 : 00 AM (B) 10 : 30 AM
(C) 11 : 00 AM (D) 11 : 30 AM

64. The simplification of :
$76 - 15 \times \{13 - (6 \times 2)\} \times 3$
gives—
(A) 61 (B) 51
(C) 71 (D) 31

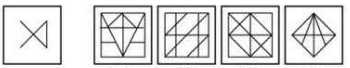
65. The simplification of :
571·0002 × 4 + 302·005 × 7 – 40 × 10·005
is nearest to—
(A) 4020 (B) 3998
(C) 3980 (D) 3972

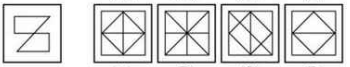
66. The next row of the following pattern of numbers :

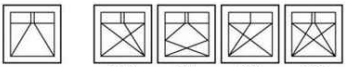
81	74	63
108	101	90
135	128	117
…	…	…

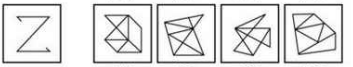
is—
(A) 150, 143, 132 (B) 162, 143, 132
(C) 162, 144, 133 (D) 162, 155, 144

67. If a bus travels 104 km in $3\frac{1}{4}$ hours, then the distance it goes in 1 hour is—
(A) 30 km (B) 45 km
(C) 40 km (D) 32 km

47. 
(A) (B) (C) (D)

48. 
(A) (B) (C) (D)

49. 
(A) (B) (C) (D)

50. 
(A) (B) (C) (D)

Section–II
Mathematics

Directions—For every question, four probable answers bearing letters (A), (B), (C) and (D) are given. Only **one** out of these is **correct**. You have to select the correct answer and write the letter in the box against the letter corresponding to the question in the Answer Sheet.

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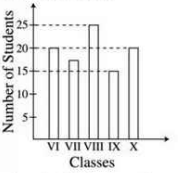
is—
(A) 150, 143, 132 (B) 162, 143, 132
(C) 162, 144, 133 (D) 162, 155, 144

67. If a bus travels 104 km in $3\frac{1}{4}$ hours, then the distance it goes in 1 hour is—
(A) 30 km (B) 45 km
(C) 40 km (D) 32 km

68. A duck flew at 18 km per hour for first 3 hours, then at 15 km per hour for next 2 hours. With what average speed did the duck fly ?
(A) 33 km per hour (B) $16\frac{1}{2}$ km per hour
(C) $16\frac{4}{5}$ km per hour (D) $15\frac{3}{5}$ km per hour

69. The number of students in the different classes is given below in the bar chart—



Which class has the highest number of students ?
(A) VI (B) VIII
(C) IX (D) X

70. The pictograph shows the number of mango boxes sold by a trader in the first four days of a week :

Days	Number of mango boxes sold
Monday	○○○○○
Tuesday	○○○
Wednesday	○○○○○○
Thursday	○○○○○○○○

If ○ represents five boxes and he had 150 boxes in the beginning, then the number of boxes left after Thursday is—
(A) 110 (B) 90
(C) 70 (D) 40

71. The simple interest on ₹ 8,000 for 2 years at 9% per annum is—
(A) ₹ 1,420 (B) ₹ 1,440
(C) ₹ 1,240 (D) ₹ 720

72. If 36 dozen bananas cost ₹ 720, then what is the cost of 18 bananas ?
(A) ₹ 360 (B) ₹ 720
(C) ₹ 240 (D) ₹ 30

73. A book is bought for ₹ 120 and sold for ₹ 150. What is the profit per cent ?
(A) 25% (B) 20%
(C) 30% (D) 10%

74. The area of a rectangular garden is 512 cm^2. If its length is double of its breadth, what is the perimeter of the garden ?
(A) 48 cm (B) 24 cm
(C) 72 cm (D) 96 cm

75. The volume of a cuboid with $l = 12$ cm, $b = 10$ cm and $h = 8$ cm is—
(A) 960 cubic cm (B) 840 cubic cm
(C) 960 square cm (D) 30 cubic cm

Section–III
Language

Directions—There are **five** passages in this Section. Each passage is followed by five questions. Read each passage carefully and answer the questions that follow. For each question, four probable answers bearing letters (A), (B), (C) and (D) are given. Only **one** out of these is **correct**. You have to choose the correct answer and write the letter in the box against the letter corresponding to the question in the Answer Sheet.

Passage–1

Gafur was a peasant who used to plough the fields of a small landlord. He had a pair of bulls which were very useful to him. By chance one of his bulls fells ill and within a few days it died.

Now Gafur had to depend on the only remaining bull. He took great care of it but being poor he could not provide it, enough fodder. He went to the village moneylender and asked him for a loan of two rupees. The moneylender refused. He knew that Gafur would not be able to pay back the loan.

76. Gafur was—
(A) a small landlord (B) a cattle merchant
(C) a peasant (D) a moneylender

77. One of his bulls died—
(A) when it fell ill
(B) when it fell down in the fields
(C) when it fell down in the market
(D) all of a sudden

78. He could not feed his only bull—
(A) as he had lost interest in bulls
(B) as he had no money
(C) as his bull was useless
(D) as he was afraid this bull would also die

79. The moneylender did not give him two rupees—
(A) as he did not have money
(B) as he did not have one rupee coin
(C) as Gafur would not return the money
(D) as he himself wanted to buy a bull

80. Which of the following does the word 'fodder' mean ?
(A) Food for the cattle
(B) A cattle medicine
(C) A shelter for the cattle
(D) A machine

Passage–2

Banana is a yellow fruit that grows in hot climates. Sometimes it is called the 'perfect fruit' because you don't have to wash it and it is easy to carry. It is easy to peel the skin. Bananas are good for muscles. For a delicious treat, add some banana slices to other foods, like cereal, ice-cream, or a peanut butter sandwich. A banana is also an excellent breakfast food.

Pineapple is another example of a yellow fruit that grows in hot climates. Pineapples are very juicy and sweet. They taste wonderful when added to other foods, like pizza, ice-cream, or cakes. Pineapples are not very easy to carry around because they are large. They have prickly skin which is difficult to peel. Since you don't eat the outer skin of a pineapple, you don't have to wash it before you eat it.

81. Bananas and pineapples are alike, because—
(A) both fruits are juicy
(B) they are easy to carry
(C) both grow in hot climates
(D) both have soft skin

82. You don't have to wash a pineapple before you eat it, because—
(A) it is not dirty
(B) it is easy to peel the skin
(C) we don't eat the outer skin
(D) it is a juicy fruit

83. Which of the following statements has an opinion ?
(A) Pineapples taste wonderful
(B) Banana is a yellow fruit
(C) Pineapples have prickly skin
(D) Banana is called the 'perfect fruit'

84. Pineapple is a—
(A) small and yellow fruit
(B) large and prickly fruit
(C) large and green fruit
(D) prickly and small fruit

85. In this passage the word 'delicious' means—
(A) unpleasant (B) tasty
(C) agreeable (D) enjoyable

Passage–3

Animals that sleep during the day and come out at night are called nocturnal.

Desert animals which are active at night escape the heat of the day and conserve water. Many snakes and rodents are examples of desert animals that prefer the night.

Owls and certain species of cats are very effective nocturnal hunters because they have great night vision and excellent hearing. In addition to this, owls have softer feather than most other birds, so they can come silently down upon their prey. Of course cats don't have feathers, but the soft pads on their feet allow them to quietly sneak up on small animals. Cats also use their whiskers to help feel their way in the dark.

86. 'Nocturnal' animals—
(A) sleep at night
(B) come out at night
(C) are awake during both day and night
(D) sleep all the time

87. Some desert animals prefer the night—
(A) to escape the heat
(B) to be safe
(C) to silently attack their prey
(D) as they sleep during the day

88. Owls hunt easily at night as they—
(A) are more powerful at night
(B) cannot be seen at night
(C) have excellent hearing and night vision
(D) are active at night

89. Whiskers help the cat to—
(A) see at night
(B) catch its prey
(C) walk silently
(D) feel its way in the dark

90. 'To conserve' means—
(A) to store (B) to save
(C) to spend (D) to maintain

Passage–4

The earth might be the only planet in the universe that has life on it. But, when the earth was formed, there was no life on it. For one, there was too much heat and then there were no gases. But over millions of years, when the planet cooled, water filled the oceans and gases were formed. Conditions on the earth soon became favourable for living things to survive. There are many reasons why the earth supports life. Firstly, it is at a right distance from the sun that prevents it from getting too hot or too cold. Secondly, the presence of gases around the earth prevents the harmful rays of the sun from reaching the earth. Yet another important factor is water, vital for the survival of almost all living things.

91. There was no life on the earth when it was formed, because—
(A) it was too hot
(B) it was too cold
(C) it had many harmful gases
(D) it was covered with water

92. Condition(s) essential for living things to survive is/are—
(A) heat and gases
(B) water-filled oceans

(C) long distance from the sun
(D) water and layers of gases

93. Which of the following prevents the earth from getting too hot or too cold ?
(A) Only the right distance from the sun
(B) Only the layer of gases surrounding the earth
(C) Presence of water on the earth
(D) The right distance from the sun and the layer of gases that surrounds the earth

94. Which of the following words in the passage means 'suitable' ?
(A) Vital (B) Favourable
(C) Survival (D) Factor

95. The gases around the earth—
(A) maintain the right distance from the earth
(B) fill the oceans with water
(C) prevent harmful rays of the sun from reaching the earth
(D) cool the earth's surface

Passage–5

Grandmother's house was the place Sara loved to go to before and after school because it made her feel much loved, warm and safe. Her grandmother's house was probably as old as her grandmother herself, but it had been Sara's favourite place since childhood. It was so, perhaps because she had lived with her grandmother in that house since she was very small. The smell of coffee and chocolate, the grandmother made for frequent visitors, was in the air at all times. The house was made of red and white stones. The paint had peeled off at many places and Sara decided to redo it during her holidays. The house was always filled with people—happy people—chatting and sharing their life's experiences; sad people—seeking advice; young children looking for cookies and young mothers looking for recipes of all kinds.

96. Sara loved to go to her grandmother's house, because—
(A) it made her feel loved, warm and safe
(B) she had never lived in that house
(C) she had nowhere to go to after school
(D) there were many visitors in the house

97. Grandmother's house smelled of coffee and chocolate, because—
(A) she liked to drink coffee with chocolate
(B) she made them for frequent visitors
(C) there were coffee and chocolate growing outside the house
(D) Sara loved chocolates

98. The people visiting grandmother did not come to—
(A) chat and share their life's experiences
(B) seek recipes of all kinds
(C) seek advice
(D) redo the paint on the walls

99. sara decided to redo the house, because—
(A) she liked to paint
(B) she wanted to please her grandmother
(C) she had to do something during her holidays
(D) the paint had peeled off at many places

100. The house was made of—
(A) red and green bricks
(B) red and green stones
(C) red and white stones
(D) red and white bricks

Answers with Hints

1. (C)	2. (D)	3. (B)	4. (C)	5. (D)	6. (A)
7. (C)	8. (C)	9. (D)	10. (B)	11. (A)	12. (B)
13. (D)	14. (C)	15. (C)	16. (C)	17. (B)	18. (B)
19. (B)	20. (B)	21. (C)	22. (C)	23. (B)	24. (B)
25. (C)	26. (D)	27. (B)	28. (C)	29. (B)	30. (A)
31. (B)	32. (B)	33. (D)	34. (B)	35. (A)	36. (D)
37. (B)	38. (C)	39. (A)	40. (A)	41. (A)	42. (A)
43. (C)	44. (C)	45. (C)	46. (A)	47. (C)	48. (B)
49. (D)	50. (A)				

51. (B) Gopal collected 36·5 kg rice
Sekhar collected 45·5 kg rice
$\therefore$ Both collected $36{\cdot}5 + 45{\cdot}5 = 82$ kg rice
They will have to purchases $100 - 82$
$= 18$ kg rice more

52. (B) 6 minutes 40 seconds $= (6 \times 60 + 40)$ seconds
$= (360 + 40)$ seconds
$= 400$ seconds
Length of the platform $= 800$ m
Speed of the runner $= \frac{800}{400}$
$= 2$ m/sec.

53. (C) Ascending order is—
11023, 11032, 12013, 12031

54. (C) Two digits numbers formed by using the digits 2, 3, 4 and 5 are 23, 32, 24, 42, 25, 52, 34, 43, 45, 54, 35, 53
$\therefore$ There are 12 two digit number
out of there 12 two digit nos. even number are 34, 54, 32, 24, 42, 52 *i.e.* there are 6 even numbers

$$\text{Percentage} = \frac{6 \times 100}{12}$$
$$= 50\%$$

55. (B)

$$\begin{array}{r} 408 \\ 13\overline{)\,5314} \\ \underline{52} \\ 114 \\ \underline{104} \\ 10 \end{array}$$

Remainder $= 10$

56. (C) Clearly number 8880 is the greatest number out of the given four numbers

57. (B) Sum of the first 7 multiples of 11 is—
$11 + 22 + 33 + 44 + 55 + 66 + 77$
$= 308$

58. (C) $\frac{2}{5} + \frac{3}{25} - \frac{1}{4}$
$\frac{40 + 12 - 25}{100} = \frac{27}{100}$
$= 0{\cdot}27$

59. (D) $18{\cdot}05 \times 2 \times 0{\cdot}5 \times 0 \times 10 = 0$

60. (B) $2{\cdot}55 \times 0{\cdot}5 = 1{\cdot}275$
$\therefore \quad 255 \times 0{\cdot}5 = 127{\cdot}5$

61. (B) 20% of $480 = \frac{20 \times 480}{100}$
$= 96$

62. (D) First 6 multiples of 7 are 7, 14, 21, 28, 35 and 42
Sum $= 7 + 14 + 21 + 28 + 35 + 42$
$= 147$
Sum of digits $= 1 + 4 + 7$
$= 12$

63. (A) L.C.M. of 5, 10, 15 and 20

2	5, 10, 15, 20
5	5, 5, 15, 10
	1, 1, 3, 2

L.C.M. $= 2 \times 5 \times 3 \times 2 = 60$
60 minutes $= 1$ hour
Therefore, the bells will ring together at
$9 + 1 = 10$ A.M..

64. (D) $76 - 15 \times \{13 - (6 \times 2)\} \times 3$
$= 76 - 15 \times \{13 - 12\} \times 3$
$= 76 - 45$
$= 3$

65. (B) $571{\cdot}000\,2 \times 4 + 302{\cdot}005 \times 7 - 40 \times 10{\cdot}005$
Approximately $= 571 \times 4 + 302 \times 7 - 40 \times 10$
$= 2284 + 2114 - 400$
$= 4398 - 400$
$= 3998$

66. (C) Difference between the numbers in 1st column
$108 - 81 = 27, 135 - 108 = 27$
Difference between the numbers in 2nd column
$= 101 - 74 = 27, 128 - 101 = 27$
Difference between the numbers in 3rd column
$= 90 - 63 = 27; 117 - 90 = 27$
Therefore, the last row numbers will be 162, 155, 144

67. (D) $3\frac{1}{4}$ hrs $= \frac{13}{4}$ hrs
Distance travelled in 1 hour $= 104 \div \frac{13}{4}$
$= \frac{104 \times 4}{13}$
$= 32$ km

68. (C) Distance travelled by the duck in 3 hrs
$= 18 \times 3 = 54$ km
Distance travelled by the duck in next two hours $= 15 \times 2 = 30$ km
Total Distance $= 54 + 30 = 84$ km
Total Time $= 3 + 2 = 5$ hrs
Average speed $= \frac{84}{5}$
$= 16\frac{4}{5}$ km per hrs

69. (B) It is clear from the given bar chart that highest number of students (25) is in class VIII.

70. (D) $0 =$ boxes
Total number of boxes $= 22 \times 5$
up to Thursday $= 110$
Boxes left after Thursday $= 150 - 110$
$= 40$

71. (B) Simple Interest $= \frac{8000 \times 2 \times 9}{100}$
$= ₹\,1440$

72. (D) 36 dozen $= 36 \times 12 = 432$
Cost of 432 bananas $= 720$
$\therefore$ Cost of 18 bananas $= \frac{720 \times 18}{432} = ₹\,30$

73. (A) Profit $= 150 - 120 = ₹\,30$
Profit % $= \frac{30 \times 100}{120}$
$= 25\%$

74. (D) Let the breadth of the rectangular garden be x cm.
$\therefore$ Length of the garden will be $2x$ cm.
$2x \times x = 512$
$2x^2 = 512$
$x^2 = 256$
$x = 16$
$\therefore$ Breadth of the garden $= 16$ cm
Length $= 2 \times 16$
$= 32$ cm
Perimeter $= 2\,(32 + 16)$
$= 2 \times 48$
$= 96$ cm

75. (A) $l = 12$ cm
$b = 10$ cm
$h = 8$ cm
volume of the cuboid $= l\,b\,h$
$= 12 \times 10 \times 8$
$= 960\ \text{cm}^3$

76. (C) 77. (A) 78. (B) 79. (C) 80. (A) 81. (C)
82. (C) 83. (A) 84. (B) 85. (B) 86. (B) 87. (A)
88. (C) 89. (D) 90. (B) 91. (A) 92. (D) 93. (A)
94. (B) 95. (C) 96. (A) 97. (B) 98. (D) 99. (D)
100. (C)

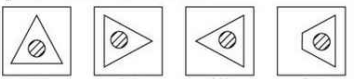
2014

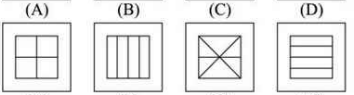
Section–I

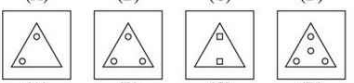
Mental Ability Test

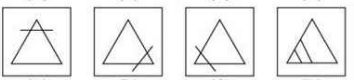
Part–I

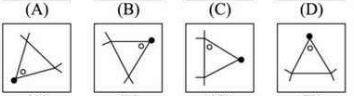
Directions—(Q. 1–5) Four figures (A), (B), (C) and (D) have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and write your answer only in English letters (*i.e.*, A, B, C or D) in the box against the number corresponding to the question in the Answer Sheet.

1. 
(A) (B) (C) (D)

2. 
(A) (B) (C) (D)

3. 
(A) (B) (C) (D)

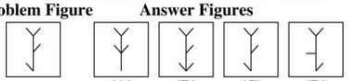
4. 
(A) (B) (C) (D)

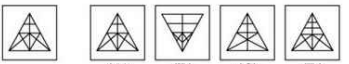
5. 
(A) (B) (C) (D)

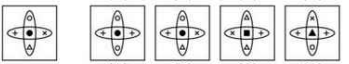
Part–II

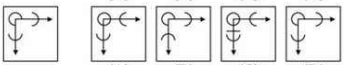
Directions—(Q. 6–10) A problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which is exactly the same as the problem figure and write your answer only in English letters (*i.e.*, A, B, C or D) in the box against the number corresponding to the question in the Answer Sheet.

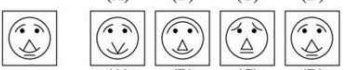
Problem Figure **Answer Figures**

6. 
(A) (B) (C) (D)

7. 
(A) (B) (C) (D)

8. 
(A) (B) (C) (D)

9. 
(A) (B) (C) (D)

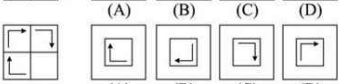
10. 
(A) (B) (C) (D)

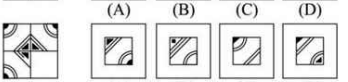
Part–III

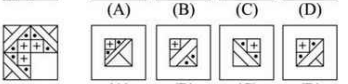
Directions—(Q. 11–15) There is a problem figure on the left-hand side, a part of which is missing. Observe the answer figures (A), (B), (C) and (D) on the right-hand side and find out the answer figure which, without changing the direction, fits in the missing part of the problem figure in order to complete the pattern in the problem figure. Indicate your answer by the letter of the answer figure chosen by you in the box against the number corresponding to the question in the Answer Sheet.

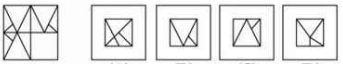
Problem Figure **Answer Figures**

11. 
(A) (B) (C) (D)

12. 
(A) (B) (C) (D)

13. 
(A) (B) (C) (D)

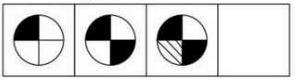
14. 
(A) (B) (C) (D)

15. 
(A) (B) (C) (D)

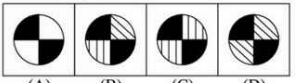
Part–IV

Directions—(Q. 16–20) There are three problem figures on the left-hand side and the space for the fourth figure is left blank. The problem figures are in a series. Find out one figure from among the answer figures (A), (B), (C) and (D) given on the right-hand side which occupies the blank space for the fourth figure on the left-hand side and which completes the series. Indicate your answer by the letter of the answer figure chosen by you in the box against the number corresponding to the question in the Answer Sheet.

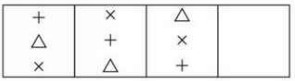
Problem Figures

16. 

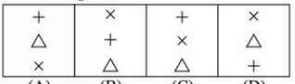
Answer Figures


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

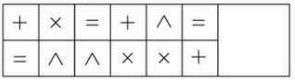
Problem Figures

17. 

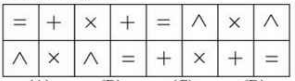
Answer Figures


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

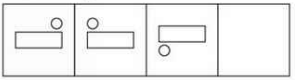
Problem Figures

18. 

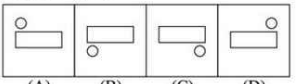
Answer Figures


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

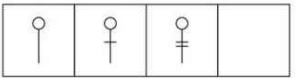
Problem Figures

19. 

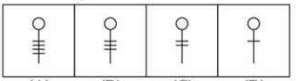
Answer Figures


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

Problem Figures

20. 

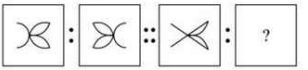
Answer Figures


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

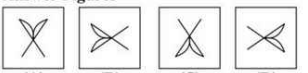
Part–V

Directions—(Q. 21–25) There are three problem figures followed by a mark of interrogation (?) for the fourth one. There exists a relationship between the first two problem figures. A similar relationship should exist between the third and the fourth problem figures. Select one figure from the answer figures (A), (B), (C) and (D) which replaces the mark of interrogation. Write the letter of the answer figure selected by you in the box against the number corresponding to the question in the Answer Sheet.

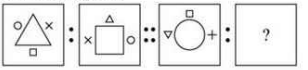
Problem Figures

21. 

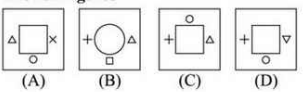
Answer Figures


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

Problem Figures

22. 

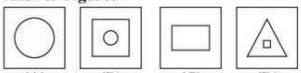
Answer Figures


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

Problem Figures

23. 

Answer Figures



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

Problem Figures

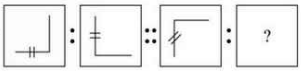
24.

Answer Figures

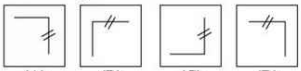
(A) (B) (C) (D)

Problem Figures

25.



Answer Figures



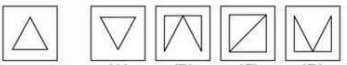
(A) (B) (C) (D)

Part–VI

Directions—(Q. 26–30) One part of a square is given in the problem figure on the left-hand side and the other one is among the four answer figures (A), (B), (C) and (D) on the right-hand side. Find the figure on the right-hand side that completes the square. Write the letter given below that figure in the box against the number corresponding to the question in the Answer Sheet.

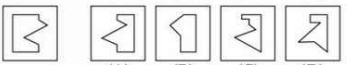
Problem Figure **Answer Figures**

26.



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

27.

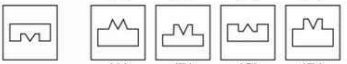


(A) (B) (C) (D)

28.

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

29.



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

30.

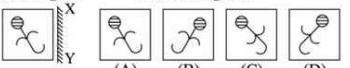
(A) (B) (C) (D)

Part–VII

Directions—(Q. 31–35) There is a problem figure on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which is exactly the mirror image of the problem figure when the mirror is held at XY and write your answer only in English letters (*i.e.*, A, B, C or D) in the box against the number corresponding to the question in the Answer Sheet.

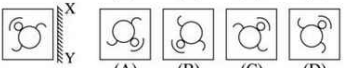
Problem Figure **Answer Figures**

31.



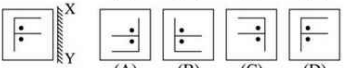
(A) (B) (C) (D)

32.



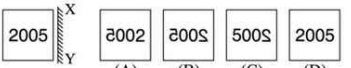
(A) (B) (C) (D)

33.



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

34.



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

35.

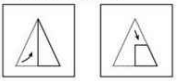
(A) (B) (C) (D)

Part–VIII

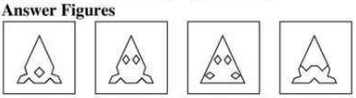
Directions—(Q. 36–40) A piece of paper is folded and also punched as shown in problem figures on the left-hand side, and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which indicates how the paper will appear when opened (unfolded) and write your answer only in English letters (*i.e.*, A, B, C or D) in the box against the number corresponding to the question in the Answer Sheet.

Problem Figures

36.



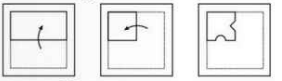
Answer Figures



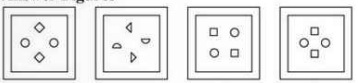
(A) (B) (C) (D)

Problem Figures

37.



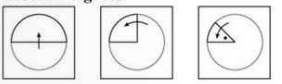
Answer Figures



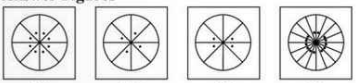
(A) (B) (C) (D)

Problem Figures

38.



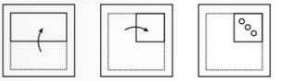
Answer Figures



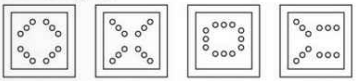
(A) (B) (C) (D)

Problem Figures

39.



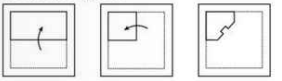
Answer Figures



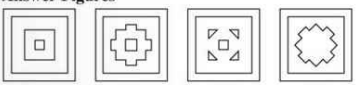
(A) (B) (C) (D)

Problem Figures

40.



Answer Figures



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

Part–IX

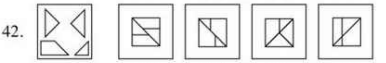
Directions—(Q. 41–45) A problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which can be formed from the cut-out pieces given in the problem figure and indicate your answer by the letter of the answer figure chosen by you in the box against the number corresponding to the question in the Answer Sheet.

Problem Figure **Answer Figures**

41.

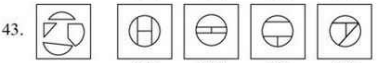
(A) (B) (C) (D)

42.



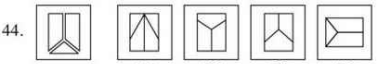
(A) (B) (C) (D)

43.



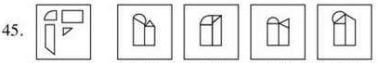
(A) (B) (C) (D)

44.



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

45.



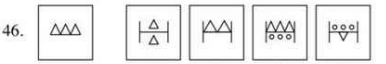
(A) (B) (C) (D)

Part–X

Directions—(Q. 46–50) A problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure in which the problem figure is hidden/embedded and indicate your answer by the letter of the answer figure chosen by you in the box against the number corresponding to the question in the Answer Sheet.

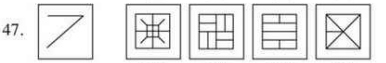
Problem Figure **Answer Figures**

46.



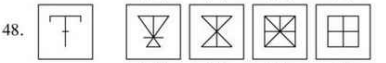
(A) (B) (C) (D)

47.



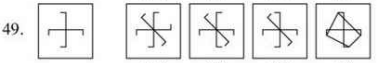
(A) (B) (C) (D)

48.



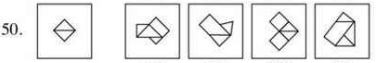
(A) (B) (C) (D)

49.



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

50.



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

Section–II
Mathematics

Directions—For every question, four probable answers bearing letters (A), (B), (C) and (D) are given. Only **one** out of these is **correct**. You have to select the correct answer and write the letter in the box against the number corresponding to the question in the Answer Sheet.

51. Salim has 60 cubes of side 1 cm. Which of the cuboids of following dimensions cannot be made by these cubes ?
(A) 5 cm long, 4 cm wide, 3 cm high
(B) 2 cm long, 3 cm wide, 10 cm high
(C) 4 cm long, 4 cm wide, 4 cm high
(D) 6 cm long, 5 cm wide, 2 cm high

52. The correct number in the last row is—

$1 \times 1 = 1$
$11 \times 11 = 121$
$111 \times 111 = 12321$
$1111 \times 1111 = 1234321$
$11111 \times 11111 =$ .....

(A) 123123123 (B) 123445321
(C) 123555321 (D) 123454321

53. A vegetable vendor bought 80 oranges at ₹ 3 each. He distributed 10 of them to beggars free of cost and sold the remaining at ₹ 4 each. What was his profit per cent ?
(A) $8\frac{2}{3}\%$ (B) $16\frac{2}{3}\%$
(C) $33\frac{1}{3}\%$ (D) $33\frac{2}{3}\%$

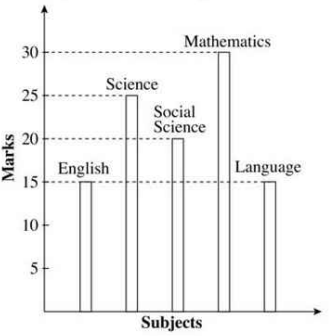
54. What sum will amount to ₹ 1,300 in $2\frac{1}{2}$ years at 12% per annum at simple interest ?
(A) ₹ 1,200 (B) ₹ 1,100
(C) ₹ 900 (D) ₹ 1,000

55. The number of families speaking various languages in a colony is shown below :

Hindi	Tamil	Bengali	Malayalam
500	450	250	150

There are 250 families speaking other languages. The total number of families in the colony is—
(A) 1700 (B) 1600
(C) 1650 (D) 1750

56. From the following graph, find the total marks secured by a student in all subjects :



(A) 75 (B) 85
(C) 95 (D) 105

57. The difference of the greatest and the smallest 5-digit odd numbers formed by the digits 0, 3, 6, 7 and 9 without repetition is—
(A) 66951 (B) 66924
(C) 20700 (D) 19564

58. The arrangement of the numbers
45405, 45450, 45504, 45449
in descending order is—
(A) 45504, 45450, 45449, 45405
(B) 45405, 45449, 45450, 45504
(C) 45450, 45504, 45405, 45449
(D) 45504, 45405, 45449, 45450

59. What number should be subtracted from the sum of 435·88 and 37 to get 4·08 ?
(A) 476·96 (B) 477·68
(C) 488·68 (D) 468·80

60. $80 + (800 \div 8) \times 2$ on simplification gives—
(A) 130 (B) 220
(C) 280 (D) 55

61. $23{\cdot}0 \times 13{\cdot}2 \times 7{\cdot}5 \times 0{\cdot}0 \times 75{\cdot}32$ is equal to—
(A) 270775·0 (B) 47077·5
(C) 17077·5 (D) 0

62. Fill in the blank with symbol '<', '>' or '=' in the following—
$(2{\cdot}78 + 27{\cdot}22) \times 0 + 10$.....$(27{\cdot}22 + 2{\cdot}78) \times 10 + 0$
(A) > (B) <
(C) = (D) None of these

63. 29·4 is what per cent of 42 ?
(A) $\frac{7}{1000}$ % (B) $\frac{100}{7}$ %
(C) 7% (D) 70%

64. The decimal equivalent of $26\frac{5}{8}$ is—
(A) 26·605 (B) 26·625
(C) 26·0625 (D) 26·6025

65. How many two-digit prime numbers can be formed in which both the digits are prime numbers ?
(A) 3 (B) 4
(C) 6 (D) 9

66. The smallest number whose factors are 2, 3, 5 and 11 is—
(A) 130 (B) 155
(C) 166 (D) 330

67. If 7657658 is divided by 765, then the quotient and remainder respectively are—
(A) 101, 8 (B) 1001, 18
(C) 10010, 8 (D) 1010, 18

68. The difference between the numbers 14510 rounded to the nearest thousands and 8849 rounded to nearest hundreds is—
(A) 5200 (B) 5700
(C) 6200 (D) 6150

69. The next number in the number pattern
16110, 16106, 16102, ...
is—
(A) 16098 (B) 16008
(C) 16108 (D) 16198

70. The next row of numbers in the pattern

30	45	60
42	57	72
54	69	84
...	...	...

is—
(A) 60 65 70 (B) 60 75 90
(C) 66 81 96 (D) 66 86 106

71. 6·75 cm written in kilometre is—
(A) ·00675 km (B) ·0675 km
(C) ·0000675 km (D) ·000675 km

72. The total weight of 3 soap bars weighting 125 g each and 4 detergent cakes weighing 275 g each is—
(A) 1 kg 200 g (B) 1 kg 475 g
(C) 1 kg 350 g (D) 1 kg 500 g

73. A milkman had 37 litres 475 ml of milk. He gave 5 litres 250 ml in one house, 25 litres 180 ml in 2nd house and 4 litres 350 ml in 3rd house. Rest of the milk he kept for himself. The milk kept for himself was—
(A) 2·695 litres (B) 3·695 litres
(C) 1·580 litres (D) 4·285 litres

74. In a month of 30 days, the first day is Sunday. What will be the day on the 30th day ?
(A) Sunday (B) Monday
(C) Tuesday (D) Wednesday

75. Joseph wants to frame 3 pictures each of length 3·5 m and breadth 2·5 m. The total length of wood needed as—
(A) 30 m (B) 18 m
(C) 12 m (D) 36 m

Section–III
Language

Directions—There are **five** passages in this Section. Each passage is followed by five questions. Read each passage carefully and answer the questions that follow. For each question four probable answers bearing letters (A), (B), (C) and (D) are given. Only **one** out of these is **correct**. You have to choose the correct answer and write the letter in the box against the number corresponding to the question in the Answer Sheet.

Passage–1

Green is a beautiful colour. In nature, the grass that you walk on is green and the leaves that you see on trees are usually green. Most of the plants that you see are green tool.

Did you know that you can make green paint by mixing blue and yellow ? Because you can make green by mixing two primary colours, it is called a secondary colour. Green is also the name used to describe the movement to make products that do not harm the earth. Green products are often those made from recycled materials or those that are safe to throw out in the trash. Green living means adopting an eco-friendly lifestyle.

76. According to the passage, 'Green' is—
(A) a bright colour
(B) a secondary colour
(C) a primary colour
(D) a plant

77. Green colour is made by mixing—
(A) blue and green
(B) yellow and orange
(C) yellow and blue
(D) blue and purple

78. Green living means—
    (A) wearing green clothes
    (B) painting the house green
    (C) planting trees
    (D) an eco-friendly lifestyle

79. 'Green' products—
    (A) are dangerous
    (B) protect the earth
    (C) are easily available
    (D) are expensive

80. The opposite word for 'primary' is—
    (A) higher
    (B) secondary
    (C) middle
    (D) basic

Passage–2

A man and his wife set out to visit a friend, whose house was at some distance. On the way, they recalled that they would have to cross a bridge which was very old and was considered unsafe.

The lady said to her husband, "We should not go over it." The husband agreed and said, "Suppose it gives way while we are on it, we will be drowned."

"Or suppose," added the wife, "you step on a rotten plank and break your leg, who would take care of us." The husband said, "You are right. We may die of hunger in that case." And so it went on, both of them kept worrying, imagining all sorts of misfortunes would happen to them, until they reached the bridge, and found that a new bridge had already been built. They crossed over it in safety.

We must give up the habit of worrying and thinking negatively.

81. A husband and his wife were set out—
    (A) to cross the river
    (B) to walk on an old bridge
    (C) to visit their friend
    (D) to talk something private

82. After a while they recalled that—
    (A) their friend lives at a distant place
    (B) there is a river to be crossed
    (C) there is an old bridge across the river
    (D) they do not know how to swim

83. They agreed that they should not go over the bridge because—
    (A) they may fall down
    (B) the bridge may break and fall down
    (C) the friend may not be there
    (D) it was already dark out there

84. When they reached the bridge, they saw—
    (A) the bridge has already fallen
    (B) a new bridge has been built there
    (C) their friend has come to receive them
    (D) the river had a little water

85. 'Misfortune' means—
    (A) bad luck (B) fear
    (C) worry (D) safety

Passage–3

In ancient times, man did not have bows and arrows to kill the birds. So, he aimed sharp stones at them wherever they gathered. Or he might attract the birds with seeds and then throw a net over them. Sometimes, he would throw a handful of seeds on the ground, then put down some stakes covered with sticky resin collected from the trees. Then he would wait for the birds to come down for the seeds and get caught between the stakes. This was the most cruel way of trapping birds.

86. What was not used by the man of ancient times to kill birds ?
    (A) Bow and arrow (B) Seeds and trees
    (C) Stickly stakes (D) Sharp stones

87. They used to attract birds by showing them—
    (A) resin (B) seeds
    (C) net (D) stones

88. Resin was collected from—
    (A) people (B) plants
    (C) trees (D) animals

89. What was the most cruel way of trapping birds ?
    (A) Kill them with stones
    (B) Put a net over them
    (C) Show them seeds and kill
    (D) Sticking them to resin-covered stakes

90. The opposite word for 'ancient' is—
    (A) modern (B) current
    (C) recent (D) latest

Passage–4

Ravi was thrilled when his aunt bought for him a clay money box, shaped like an apple. It had a hole for dropping in coins. Ravi said to his father, "Now I'll save money to buy a cricket bat for my birthday."

Ravi began to save money. He saved money from his Diwali shopping and put it in the money box. He spent his pocket money carefully and saved from it also.

Now there were only two days left for his birthday. Ravi was sad that he hadn't saved enough to buy a cricket bat. A day before his birthday, his father said, "Call your mother, we will open the money box." When they broke open the box, there was a hundred rupee note among the coins. Ravi hugged his father, thanked him and said, "Now, I know why you sent me to call mother." Happily, they went out to buy a cricket bat.

91. Ravi's aunt gave him—
(A) a gift (B) an apple
(C) a money box (D) a hundred rupee note

92. Ravi wanted to buy a.....for his birthday.
(A) football (B) money box
(C) cricket bat (D) shirt

93. Two days before his birthday Ravi was sad because—
(A) he had no money
(B) his father had scolded him
(C) he could not save enough money to buy a cricket bat
(D) he lost his money box

94. Who put the hundred rupee note in the box ?
(A) Ravi (B) Ravi's father
(C) Ravi's aunt (D) Ravi's mother

95. 'Thrilled' means—
(A) satisfied (B) very happy
(C) amused (D) thankful

Passage–5

Dimpi was sick. She had a headache, her nose was running. Her mother took her to a doctor who gave her some medicine.

"Ugh!" she said as she drank the medicine. Suddenly Dimpi sneezed and saw a dirty ball of spikes sitting on her hand.

"Who are you ?" she asked. "We are bacteria," it said, "we were in your stomach with a million others. When you took medicine, many of us died. I escaped to your nose and now when you sneezed I landed with a thud on your hand."

"Oh, so you are the one who made me sick. How did you enter my stomach ?" asked Dimpi. "We entered your stomach with my friends through the dirty roadside food you ate. You do not know we are here, there and everywhere. If you had been careful of what you ate, nothing would have happened to you," retorted the bacteria.

96. Dimpi was taken to the doctor because—
(A) she knew him
(B) she wanted to see him
(C) she was sick
(D) she had an accident

97. Who took her to the doctor ?
(A) Her mother (B) Her father
(C) Her friend (D) She went herself

98. Whom was she talking with after sneezing ?
(A) The doctor (B) Her mother
(C) Bacteria (D) Her friend

99. How did bacteria reach her stomach ?
(A) Through medicines
(B) Through water
(C) Through dirty hands
(D) Through the roadside food

100. Nothing would have happened to her if—
(A) her nose was not running
(B) she obeyed her mother
(C) she had been careful what she ate
(D) she knew the bacteria

Answers with Hints

1. (D)	2. (C)	3. (C)	4. (D)	5. (C)	6. (C)
7. (A)	8. (B)	9. (D)	10. (D)	11. (D)	12. (B)
13. (A)	14. (D)	15. (C)	16. (D)	17. (A)	18. (D)
19. (C)	20. (B)	21. (B)	22. (D)	23. (B)	24. (D)
25. (D)	26. (B)	27. (A)	28. (C)	29. (B)	30. (D)
31. (B)	32. (C)	33. (C)	34. (B)	35. (D)	36. (B)
37. (A)	38. (A)	39. (A)	40. (B)	41. (C)	42. (C)
43. (D)	44. (D)	45. (B)	46. (C)	47. (D)	48. (D)
49. (C)	50. (C)				

51. (C) Volume of a cube whose side is 1 cm

$= 1 \times 1 \times 1$

$= 1\ cm^3$

Volume of 60 cubes $= 60 \times 1$

$= 60\ cm^3$

Volume of the cuboid of 4 cm long, 4 cm wide and 4 cm high

$= 4 \times 4 \times 4$

$= 64\ cm^3$

This cuboid can not be made by the cubes.

52. (D) $1 \times 1 = 1$

$11 \times 11 = 121$

$111 \times 111 = 12321$

$1111 \times 1111 = 1234321$

$\therefore \quad 11111 \times 11111 = 123454321$

53. (B) Cost Price of 80 oranges @ ₹ 3 each
$= 80 \times 3$
$= ₹ 240$
Remaining number of orange $= 80 - 10 = 70$
Selling Price of 70 oranges @ ₹ 4 each
$= 70 \times 4$
$= ₹ 280$
Profit $= 280 - 240$
$= ₹ 40$
$\text{Profit \%} = \frac{40 \times 100}{240}$
$= 16\frac{2}{3}\%$

54. (D) Let the sum $= ₹ P$
$\text{Simple Interest} = \frac{P \times 12 \times 5}{2 \times 100}$
$= \frac{3P}{10}.$
$\therefore P + \frac{3P}{10} = 1300 \quad \therefore P = ₹ 1000$
$\therefore 13P = 13000$

55. (B) Total number of families in the colony
$= 500 + 450 + 250 + 150 + 250$
$= 1600$

56. (D) Total marks obtained by a student in all subjects
$= 15 + 15 + 20 + 25 + 30$
$= 105$

57. (B) Greatest five digit odd number formed by using the digits 0, 3, 6, 7 and 9
$= 97603$
Least number $= 30679$
Difference $= 97603 - 30679$
$= 66924$

58. (A) Descending order of the numbers is 45504, 45450, 45449, 45405

59. (D) Sum $= 435{\cdot}88 + 37$
$= 472{\cdot}88$
$472{\cdot}88$
$-\ 4{\cdot}08$
$468{\cdot}80$
Therefore, number 468·80 should be subtracted from the sum to get 4·08.

60. (C) $80 + (800 \div 8) \times 2 = 80 + 100 \times 2$
$= 80 + 200$
$= 280.$

61. (D) $23{\cdot}0 \times 13{\cdot}2 \times 7{\cdot}5 \times 0{\cdot}0 \times 75{\cdot}32 = 0$
Any number multiplied by 0 is 0.

62. (B) $(2{\cdot}78 + 27{\cdot}22) \times 0 + 10 \ldots (27{\cdot}22 + 2{\cdot}78) \times 10 + 0$
$= 10 \ldots\ldots 30 \times 10$
$= 10 \ldots\ldots 300$
$= 10 < 300$

63. (D) Let x% of 42 is equal to 29·4
$\therefore \frac{42x}{100} = 29{\cdot}4$
$\therefore 42x = 29{\cdot}4 \times 100$
$\therefore x = \frac{2940}{42}$
$x = 70\%$

64. (B) $26\frac{5}{8} = 26{\cdot}625$

65. (B) Two digits prime numbers can be formed by using prime numbers are 23, 37, 53 and 73.
Thus, there of 4 two digit prime numbers formed by prime numbers.

66. (D) Smallest number whose factors are 2, 3, 5 and 11 (all prime numbers)
$= 2 \times 3 \times 5 \times 11$
$= 330$

67. (C)
$$\begin{array}{r} 765 \overline{)\ 7657658\ (\ 10010} \\ \underline{765} \\ 7658 \\ \underline{765} \\ 8 \end{array}$$
Quotient = 10010 and remainder = 8

68. (C) Number 14510 to rounded to the nearest thousands $= 15000$
Number 8849 rounded to nearest hundreds
$= 8800$
Difference $= 15000 - 8800$
$= 6200$

69. (A) 16110, 16106, 16102, 16098
$\quad -4 \quad -4 \quad -4$

70. (C) Difference in the number is 12
$42 - 30 = 12 \quad 57 - 45 = 12 \quad 72 - 60 = 12$
$54 - 42 = 12 \quad 69 - 57 = 12 \quad 84 - 72 = 12$
Therefore, the next row of numbers
$= 66, 81, 96$

71. (C) $6{\cdot}75 \text{ cm} = \frac{6{\cdot}75}{1{\cdot}000 \times 100} \text{ km}$
$= \frac{675}{100 \times 1000 \times 100} \text{ km}$
$= 0{\cdot}0000675 \text{ km}$

72. (B) Weight of 3 soapbars = 125×3
$= 375$ gm
Weight 4 detergent cakes = 275×4
$= 1100$ gm
Total weight = 1475 gm
= 1 kg 475 gm

73. (A) Total milk the milkman had
= 37 litres 475 ml
= 37·475 litres
Total milk given to 3 houses
= (5·250 + 25·180 + 4·350) litres
= 34·780 litres
Remaining milk with milkman
= 37·475 – 34·780
= 2·695 litres

74. (B) First day is Sunday. Therefore, 30th day
= Monday
Remember : If Sunday is on date 1, Sunday will be on 8, 15, 22 and 29 dates.

75. (D) Perimeter of one frame
= 2 (3·5 + 2·5)
= 12 m
Total length of the wood needed to make 3 frames
= 3×12
= 36 m.

76. (B)	77. (C)	78. (D)	79. (B)	80. (B)	81. (C)
82. (C)	83. (B)	84. (B)	85. (A)	86. (D)	87. (B)
88. (C)	89. (D)	90. (A)	91. (C)	92. (C)	93. (C)
94. (B)	95. (B)	96. (C)	97. (A)	98. (C)	99. (D)

100. (C)

2013

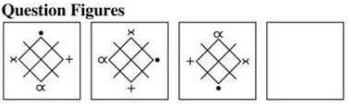
Section–I

Mental Ability Test

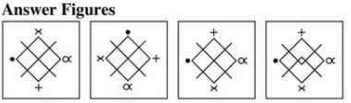
Part–I

Directions—(Q. 1–5) There are three problem figures on the left hand side and the space for the fourth figure is left blank. The problem figures are in a series. Find out one figure from among the answer figures given on the right hand side which occupies the blank space for the fourth figure on the left hand side and completes the series. Indicate your answer by letter of the answer figure chosen by you in the box against the letter corresponding to the question.

1. **Question Figures**

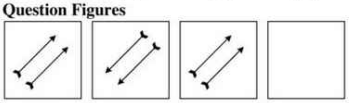


Answer Figures

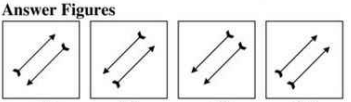


(A) (B) (C) (D)

2. **Question Figures**

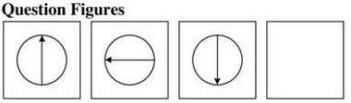


Answer Figures

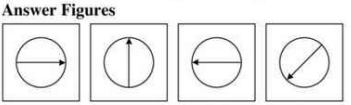


(A) (B) (C) (D)

3. **Question Figures**

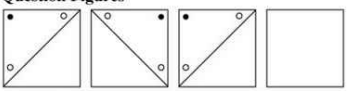


Answer Figures

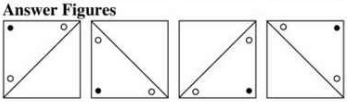


(A) (B) (C) (D)

4. **Question Figures**

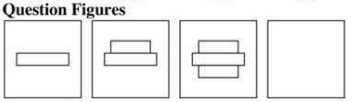


Answer Figures

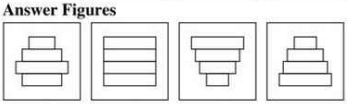


(A) (B) (C) (D)

5. **Question Figures**



Answer Figures

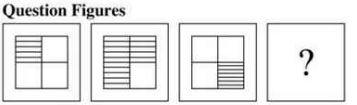


(A) (B) (C) (D)

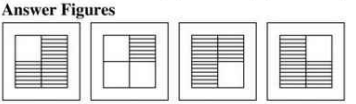
Part–II

Directions—(Q. 6–10) There are two sets of two problem figures each. The second set has an interrogation ? There exists a relationship between the first two problem figures. Similar relationship should exist between the third and fourth problem figure. Select one of the answer figures which replaces the mark of interrogation. Write the letter of the answer figure selected by you in the box against the letter corresponding to the question.

6. **Question Figures**

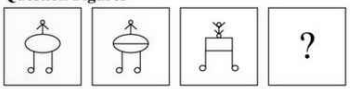


Answer Figures

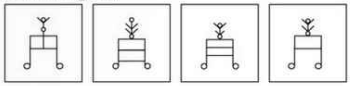


(A) (B) (C) (D)

7. **Question Figures**

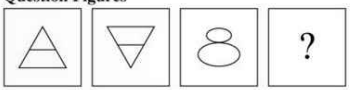


Answer Figures

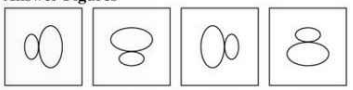


(A) (B) (C) (D)

8. **Question Figures**

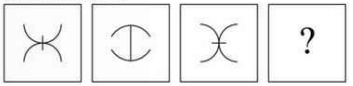


Answer Figures

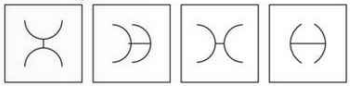


(A) (B) (C) (D)

9. **Question Figures**

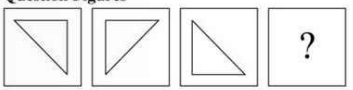


Answer Figures

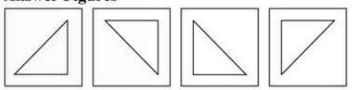


(A) (B) (C) (D)

10. **Question Figures**



Answer Figures

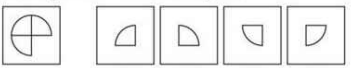


(A) (B) (C) (D)

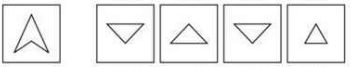
Part–III

Directions—(Q. 11–15) One part of a geometrical figure (Triangle, Square, Circle) is on the left hand side as question figure and the other one is among the four answer figures (A), (B), (C), (D) on the right hand side. Find the figure **on the right hand side** that completes the geometrical figure and write the letter given below that figure in the box against the letter corresponding to the question.

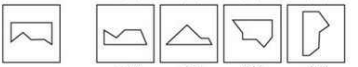
Question Figure **Answer Figures**

11. 

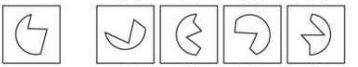
(A) (B) (C) (D)

12. 

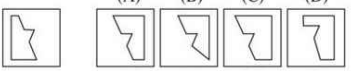
(A) (B) (C) (D)

13. 

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

14. 

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

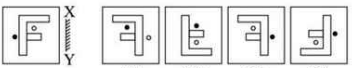
15. 

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

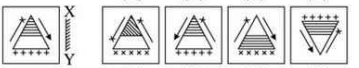
Part–IV

Directions—(Q. 16–20) There is a problem figure on the left side and four answer figures marked (A), (B), (C), (D) are given on the right side. Select the answer figure which is exactly the mirror image of the problem figure when the mirror is held at XY. Indicate your answer by letter of the answer figure chosen by you in the box against the letter corresponding to the question.

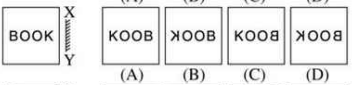
Question Figures **Answer Figures**

16. 

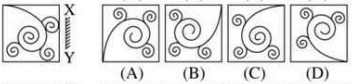
(A) (B) (C) (D)

17. 

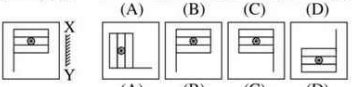
(A) (B) (C) (D)

18. 

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

19. 

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

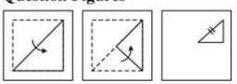
20. 

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

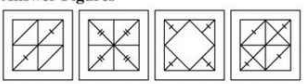
Part–V

Directions—(Q. 21–25) A piece of paper is folded and punched as shown in problem figures on the left side and four answer figures marked (A), (B), (C), (D) are given on right side. Select the answer figure which indicates how the paper will appear when opened (unfolded). Indicate your answer by letter of the answer figure chosen by you in the box against the letter corresponding to the question.

21. **Question Figures**

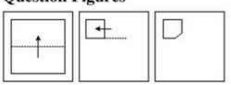


Answer Figures

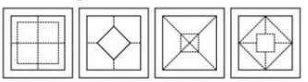


(A) (B) (C) (D)

22. **Question Figures**

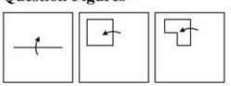


Answer Figures

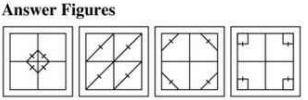


(A) (B) (C) (D)

23. **Question Figures**

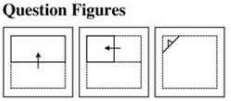


Answer Figures

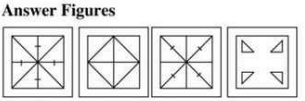


(A) (B) (C) (D)

24. **Question Figures**

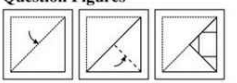


Answer Figures

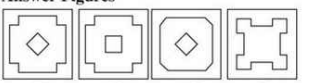


(A) (B) (C) (D)

25. **Question Figures**



Answer Figures

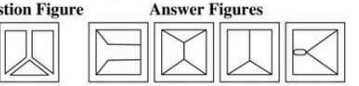


(A) (B) (C) (D)

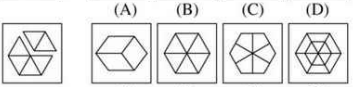
Part–VI

Directions—(Q. 26–30) A problem figure is given on the left side and four answer figures, marked (A), (B), (C), (D) are given on the right side. Select the answer figure which can be formed from the cut-out pieces given in the problem figure and write your answer only in English letter in the box against the letter corresponding to the question.

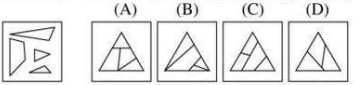
Question Figure **Answer Figures**

26. 

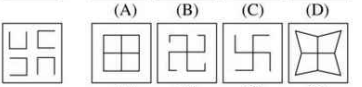
(A) (B) (C) (D)

27. 

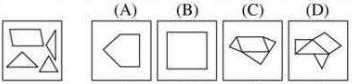
(A) (B) (C) (D)

28. 

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

29. 

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

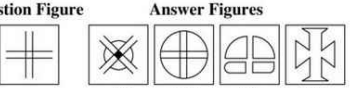
30. 

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

Part–VII

Directions—(Q. 31–35) A problem figure is given on the left side and four answer figures, marked (A), (B), (C), (D) are given on the right side. Select the answer figure which the problem figure is hidden/embedded and write your answer only in English letter in the box against the letter corresponding to the question.

Question Figure **Answer Figures**

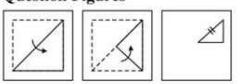
31. 

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

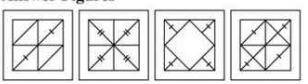
Part–V

Directions—(Q. 21–25) A piece of paper is folded and punched as shown in problem figures on the left side and four answer figures marked (A), (B), (C), (D) are given on right side. Select the answer figure which indicates how the paper will appear when opened (unfolded). Indicate your answer by letter of the answer figure chosen by you in the box against the letter corresponding to the question.

21. **Question Figures**

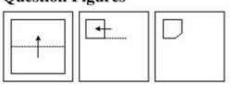


Answer Figures

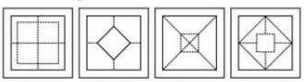


(A) (B) (C) (D)

22. **Question Figures**

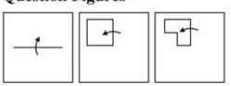


Answer Figures

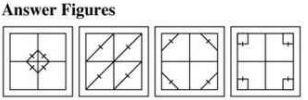


(A) (B) (C) (D)

23. **Question Figures**

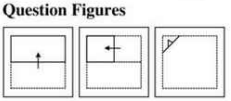


Answer Figures

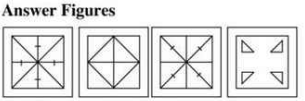


(A) (B) (C) (D)

24. **Question Figures**

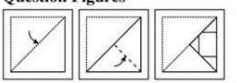


Answer Figures

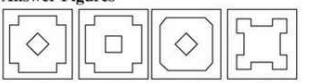


(A) (B) (C) (D)

25. **Question Figures**



Answer Figures

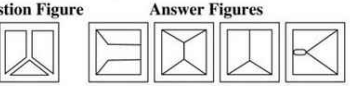


(A) (B) (C) (D)

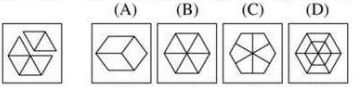
Part–VI

Directions—(Q. 26–30) A problem figure is given on the left side and four answer figures, marked (A), (B), (C), (D) are given on the right side. Select the answer figure which can be formed from the cut-out pieces given in the problem figure and write your answer only in English letter in the box against the letter corresponding to the question.

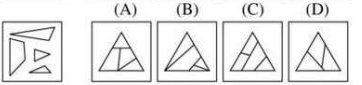
Question Figure **Answer Figures**

26. 

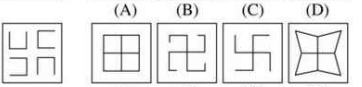
(A) (B) (C) (D)

27. 

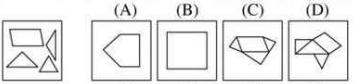
(A) (B) (C) (D)

28. 

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

29. 

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

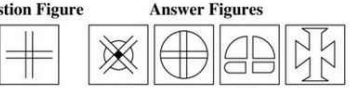
30. 

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

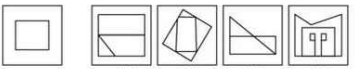
Part–VII

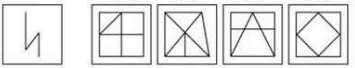
Directions—(Q. 31–35) A problem figure is given on the left side and four answer figures, marked (A), (B), (C), (D) are given on the right side. Select the answer figure which the problem figure is hidden/embedded and write your answer only in English letter in the box against the letter corresponding to the question.

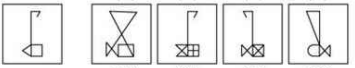
Question Figure **Answer Figures**

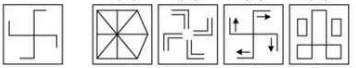
31. 

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

32. 
(A) (B) (C) (D)

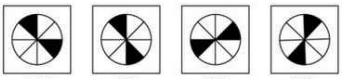
33. 
(A) (B) (C) (D)

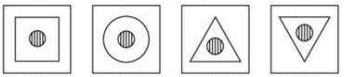
34. 
(A) (B) (C) (D)

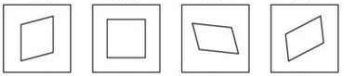
35. 
(A) (B) (C) (D)

Part–VIII

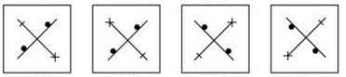
Directions—(Q. 36–40) Four figures (A), (B), (C), and (D) have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and write your answer only in English letter in the box against the letter corresponding to the question.

36. 
(A) (B) (C) (D)

37. 
(A) (B) (C) (D)

38. 
(A) (B) (C) (D)

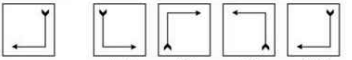
39. 
(A) (B) (C) (D)

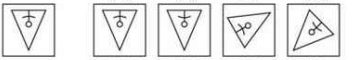
40. 
(A) (B) (C) (D)

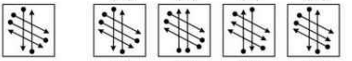
Part–IX

Directions—(Q. 41–45) A problem figure is given on the left side and four answer figures marked (A), (B), (C), (D) are given on the right side. Select the answer figure which is exactly the same as the problem figure and write your answer only in English letter in the box against the letter corresponding to the question.

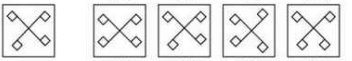
Question Figure **Answer Figures**

41. 
(A) (B) (C) (D)

42. 
(A) (B) (C) (D)

43. 
(A) (B) (C) (D)

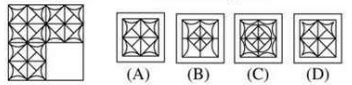
44. 
(A) (B) (C) (D)

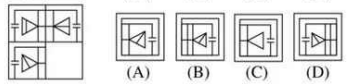
45. 
(A) (B) (C) (D)

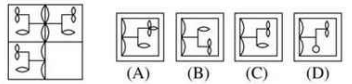
Part–X

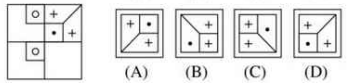
Directions—(Q. 46–50) There is a problem figure on the left hand side, a part of which is missing. Observe the answer figures (A), (B), (C), (D) on the right hand side and find out the answer figure which **without changing the direction**, fits in the missing part of the problem figure in order to complete the pattern in the problem figure. Indicate your answer by letter of the answer figure chosen by you in the box against the letter corresponding to the question.

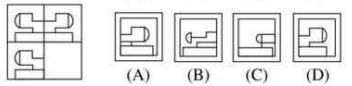
Question Figure **Answer Figures**

45. 
(A) (B) (C) (D)

47. 
(A) (B) (C) (D)

48. 
(A) (B) (C) (D)

49. 
(A) (B) (C) (D)

50. 
(A) (B) (C) (D)

Section–II
Arithmetic

Directions—For every question, four probable answers bearing letters (A), (B), (C) and (D) are given. Only **one** out of these is **correct**. You have to give the correct answer and write the letter in the box against the letter corresponding to the questions in the answer sheet.

51. A train, travelling at a speed of 54 km/hr, will cross a 90 m platform (in seconds)—
(A) 10 (B) 8
(C) 6 (D) 5

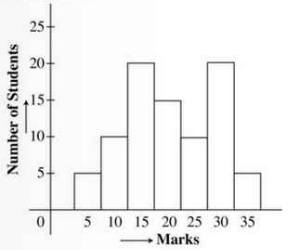
52. 12 men or 15 women can complete a work in 20 days. In how many days, the same work can be completed by 4 men and 5 women ?
(A) 15 days (B) 25 days
(C) 30 days (D) 40 days

53. A drum is one third full of water. If 60 litre more water is required to fill it up, what is the capacity of drum ?
(A) 120 litres (B) 90 litres
(C) 60 litres (D) 30 litres

54. What is the sum of 7·7, 7·07, 7·007 and 77·0077 ?
(A) 98·7777 (B) 98·7877
(C) 98·7807 (D) 98·7847

55. The area of a square park whose perimeter is 72 m is—
(A) 144 sq. m (B) 2376 sq. m
(C) 1296 sq. m (D) 324 sq. m

56. From the graph find how many children scored less than 20 marks—



(A) 35 (B) 45
(C) 65 (D) 85

57. What is the decimal equivalent of 7·5% of (4% of ₹ 2,200) ?
(A) ₹ 13·2 (B) ₹ 6·6
(C) ₹ 3·3 (D) ₹ 26·4

58. A shopkeeper sells ball-pens for ₹ 12 each or a packet of 10 for ₹ 100. How much will it cost Mrs. Swati if she buys 24 ball-pens ?
(A) ₹ 212 (B) ₹ 238
(C) ₹ 248 (D) ₹ 258

59. Karan scored 10 marks more than Bhawana in an examination. Eesha scored 5 marks less than Bhawna. In total, they scored 140 marks. What was the score of Karan ?
(A) 40 (B) 45
(C) 50 (D) 55

60. The largest number of 5 digits which can be formed by digits 9, 6, 3 and 0 (a digit may repeat twice) is—
(A) 96630 (B) 96300
(C) 99630 (D) 90963

61. The pictograph shows the number of apple boxes sold by a trader in 4 days of the week—

Monday	☺☺☺☺☺☺☺
Tuesday	☺☺☺☺☺
Wednesday	☺☺☺
Thursday	☺ ☺ ☺ ☺ ☺

☺ = represents 25 boxes

If the trader still has 75 apple boxes left after 4 days, how many apple boxes did he had in the beginning ?
(A) 500 (B) 550
(C) 575 (D) 625

62. The largest 5 digits even number formed by the digits 3, 0, 5, 7 and 8 is—
(A) 83570 (B) 85703
(C) 87530 (D) 87350

63. What smallest number is divisible by 42, 98 and 70 ?
(A) 1470 (B) 1740
(C) 1070 (D) 980

64. The sum of two numbers is 234560. If one number is ten thousand ten greater than the other number, what is the greater number ?
(A) 112275 (B) 122285
(C) 132285 (D) 117280

65. In the product (3207 × 12 × 17 × 13), the unit's digit is—
(A) 0 (B) 3
(C) 4 (D) 7

66. The difference of the greatest and smallest 5 digit numbers formed by the digits 0, 3, 6, 8 and 9 without repetition is—
(A) 94941 (B) 61821
(C) 61740 (D) 67941

67. HCF of 45, 75 and 165 is—
(A) 15 (B) 45
(C) 75 (D) 2475

68. A man bought a cycle for ₹ 1,200 and sold it for ₹ 1,500. The percentage of profit is—
(A) ₹ 300 (B) 20%
(C) 25% (D) 28%

69. At what rate per cent per annum a sum of ₹ 2,500 will become ₹ 3,300 in 4 years ?
(A) 5% (B) 6%
(C) 8% (D) 10%

70. The decimal equivalent of $17\frac{1}{16}$ is—
(A) 17·625 (B) 17·6025
(C) 17·0625 (D) 17·0525

71. By what number should we divide 5·029 so as to get 50·29 ?
(A) 0·01 (B) 0·1
(C) 1·0 (D) 10·0

72. 500 g is what per cent of 4 kg ?
(A) 12·5% (B) 25%
(C) 50% (D) 125%

73. The greatest prime number of two digits is—
(A) 93 (B) 97
(C) 91 (D) 99

74. If the sum of each row, column, and diagonal is same, then the values of x, y, t and z respectively are—

x	1	y
3	5	z
t	9	2

(A) 8, 6, 4, 7 (B) 6, 8, 4, 7
(C) 7, 8, 6, 4 (D) 4, 6, 7, 8

75. The next row of numbers is—

40	45	50
55	60	65
70	75	80
___	___	___

(A) 75 80 85 (B) 85 90 95
(C) 90 95 100 (D) 70 75 85

Section–III
Language

Directions—There are **five** passages in this Section. Each passage is followed by five questions. Read each passage carefully and answer the questions that follow. For each question four probable answers bearing number (A), (B), (C) and (D) are given. Only **one** out of these is **correct**. You have to choose the correct answer and write the letter in the box against the letter corresponding to the question in answer sheet.

Passage–I

From spring to summer scout bees search around for possible sources of nectar, pollen and water. The scout bee is attracted to nectar sources by both sight and scent. Of the two, scent is the most compelling influence. Having been attracted to a possible source by scent, the final approach of the scout is guided by the shape and colour of flowers. Individual flowers in many species have what are called scent guides on their petals. During the Second World War, a French bee keeper used bees to carry messages for him. The note was attached to the thorax and had to be exactly central or else the bee was off balance and could not fly.

76. The opposite of 'attract' is—
(A) unattract (B) disattract
(C) repel (D) discreet

77. While using bees as messengers, the notes—
(A) never reached its destination
(B) were attached to its head
(C) used to fall off
(D) were attached to the thorax

78. The note had to be carefully attached with the bees as otherwise—
(A) it would go off balance
(B) its wings would fall off
(C) it would lose its sight
(D) it was too heavy for it

79. The scout bee is guided to the flower by—
(A) the scent and colour (B) the shape and colour
(C) the scent and sight (D) nectar and pollen

80. Scent guides are situated on—
(A) pollen (B) petals
(C) nectar (D) leaves

Passage–II

In the past people were healthy. They used to eat, freshly cooked nutritious food with their families at home.

Today this has changed. Many people, particularly children like fast food such as burgers, pizzas, chips etc. There are many reasons for this change.

Firstly, nowadays most parents are working for long hours and have less time to cook. Secondly, when

women too work, there is more money to spend. Another reason is advertising. TV, magazines and internet make people aware of different kinds of foods available.

Although fast food is tasty and convenient, it is not healthy. Many children are becoming obese and suffer from various diseases.

81. Burger, Pizza, Chips are called—
    (A) healthy food (B) quick food
    (C) tasty food (D) Fast food

82. Through the passage, the author wants to tell us that—
    (A) families should sit together to have their meals
    (B) children do not like to eat home cooked food
    (C) fast food is not good for health
    (D) more and more people are working nowadays

83. The word 'obese' means—
    (A) very thin (B) very tall
    (C) very ugly (D) very fat

84. People in the olden times were healthier because they—
    (A) ate variety of food in hotels and restaurants
    (B) ate food that was cooked at home and served fresh
    (C) ate only fresh fruit and vegetables
    (D) ate together as a family

85. 'Today **this** has changed." The word 'this' refers to—
    (A) food (B) idea
    (C) people (D) habits

Passage–III

There is a lot of animal life in the desert. At night desert lizards come out of their holes. There are many kinds of poisonous snakes, scorpions, foxes and insects and birds. In the Sahara, Arabian and Thar deserts, camels are used by local people to transport their belongings from place to place. The camel, known as the 'ship of the desert', can travel for miles on sand. It has long eyelashes and it can close its nostrils. The sand can hence be kept out of its eyes and nose. It has flat padded feet and only a single or two humps on its back. The camel can drink many litres of water at one time and then go without water for more than a week. For people living in deserts camels are indispensable.

86. The word 'indispensable' in the para means—
    (A) unnecessary (B) important
    (C) significant (D) essential

87. What helps the camel keep the sand out of its nose and eyes ?
    (A) Because it has padded feet
    (B) It has long lashes and can close its nostrils
    (C) It has a single or two humps
    (D) It can live without water for weeks

88. Which is the most appropriate title for the paragraph ?
    (A) Life in the desert
    (B) Night life in the desert
    (C) The use of camels in the desert
    (D) Camel – The ship of the desert

89. Which animal comes out of its hole at night ?
    (A) Poisonous snakes (B) Foxes
    (C) Insects (D) Desert lizards

90. The camel can go without water for more than a week, because—
    (A) it can travel for miles on sand
    (B) it has padded feet
    (C) it can drink many litres of water at one time
    (D) it has a single or two humps

Passage–IV

It is good to know that you can call a police officer when you need help. You should not be afraid of the police. Their job is to help people. Police officers help find lost children. They direct traffic when there is a problem on the roads. They arrest criminals so that our towns are safe. When people get involved in car accidents, police officers come quickly to help them. During floods, fires and tornadoes, they take people to safe places. Sometimes they rescue people who are in danger. Police officers have saved many lives. Think of a police officer as your best friend.

91. How do police men help people during floods ?
    (A) They give food to all
    (B) They take people to safe places
    (C) They tell about the dangers
    (D) They run away from floods

92. When children are lost who will help their parents to find them ?
    (A) friends (B) Grandparents
    (C) Policemen (D) Neighbours

93. In what way police men are your best friends ?
    (A) They help people and save many lives
    (B) In times of accidents, they come to help all
    (C) They do their job
    (D) They move around in cars

94. We should not be afraid of police because—
    (A) they shoot people (B) they give us jobs
    (C) they arrest criminals (D) they help people

95. Whenever there is a car accident what do police men do ?
    (A) They find lost children
    (B) They come quickly to help
    (C) They take people away
    (D) They find out our problem

Passage–V

Tea has two major varieties. One of them is green tea which is quickly and completely dried after plucking. Its colour is light green and has a mild aroma. It is mostly popular in China and Japan. Black tea is a bit dark in colour and strong in aroma. It is very popular in Europe. Its leaves are partially dried. After that these are put in rolling machines, as a result cells of tea leaves are broken. Thus the natural juice comes out which gives it a special taste. This process also rolls the leaves. After rolling, the leaves are spread in a humid atmosphere and are thus left for fermentation which makes them bright copper coloured. After fermentation leaves are dried in dry air and our favourite black tea is produced.

96. What is true about the leaves when the rolling machines bring out their natural juices ?
(A) The taste becomes light and the colour is green
(B) The taste becomes special and the leaves are curled
(C) Taste becomes strong, but there is no colour
(D) The taste and colour become good

97. 'Thus the natural juice comes out which gives it a special taste.' The opposite word for 'natural' is—
(A) strong (B) light
(C) special (D) artificial

98. Fermentation makes the leaves—
(A) bright and tasty
(B) aromatic and bright
(C) bright and copper coloured
(D) bright and black

99. Most of the Eurpoeans like—
(A) Green tea (B) Yellow tea
(C) Black tea (D) English tea

100. The tea mostly popular in China and Japan contains—
(A) strong aroma
(B) bright copper colour
(C) dark black colour
(D) light green colour

Answers with Hints

1. (C)	2. (C)	3. (A)	4. (D)	5. (A)	6. (A)
7. (C)	8. (B)	9. (D)	10. (A)	11. (D)	12. (B)
13. (D)	14. (A)	15. (A)	16. (C)	17. (B)	18. (D)
19. (C)	20. (C)	21. (B)	22. (B)	23. (D)	24. (D)
25. (D)	26. (C)	27. (B)	28. (B)	29. (A)	30. (C)
31. (B)	32. (D)	33. (B)	34. (B)	35. (C)	36. (A)
37. (D)	38. (B)	39. (D)	40. (A)	41. (D)	42. (A)
43. (A)	44. (C)	45. (B)	46. (A)	47. (A)	48. (C)
49. (D)	50. (D)				

51. (C) Speed of the train = 54 km/hr

$$= 54 \times \frac{5}{18} \text{ m/sec.}$$

$$= 15 \text{ m/sec.}$$

Time taken to cross the platform

$$= \frac{\text{Distance}}{\text{Speed}}$$

$$= \frac{90}{15} \text{ seconds}$$

$$= 6 \text{ seconds}$$

52. (C) 12 men = 15 women

$\therefore$ 4 men = 5 women

4 men and 5 women = (5 + 5) women

= 10 women

$\because$ 15 women can complete the work in 20 days.

$\therefore$ 1 woman will complete the work in 20 × 15 days.

$\therefore$ 10 women will complete the work in

$$\frac{20 \times 15}{10} = 30 \text{ days}$$

53. (B) Empty portion of the drum $1 - \frac{1}{3} = \frac{2}{3}$

$\frac{2}{3}$ part of the drum can be filled with 60 litres of water.

$\therefore$ Whole drum will be filled in $\frac{60 \times 3}{2}$

= 90 litres of water

54. (D) 7·7 + 7·07 + 7·007 + 77·0077

= 98·7847

55. (D) Perimeter of a square park = 72 m

$\therefore$ One side of the square park = $\frac{72}{4} = 18$ m

Area of the square park = $(\text{side})^2$

$= (18)^2$

= 324 sq. m

56. (B) Number of children who scored less than 20 marks = 5 + 10 + 15 + 10 + 5

= 45

57. (B) 7·5% of (4% of ₹ 2200)

$$= \frac{7{\cdot}5}{100} \times \frac{4}{100} \times 2200$$

$$= \frac{75}{1000} \times \frac{4}{100} \times 2200$$

= ₹ 6·6

58. (C) 24 = 10 × 2 + 4

One packet contains 10 pens.

Therefore, 24 pens will be kept in 2 packets and 4 pens separately.

Cost = ₹ 2 × 100 + ₹ 12 × 4

= ₹ 200 + ₹ 48

= ₹ 248

59. (D) According to the question—if Eesha Scored x marks, Bhawana will score $x + 5$ marks and Karan will score $x + 15$ marks.

$$x + 15 + x + 5 + x = 140$$
$$\therefore \quad 3x + 20 = 140$$
$$\therefore \quad 3x = 140 - 20$$
$$\therefore \quad 3x = 120$$
$$\therefore \quad x = \frac{120}{3}$$
$$\therefore \quad x = 40$$
$$\text{Karan will score } x + 15 = 40 + 15$$
$$= 55 \text{ marks}$$

60. (C) Given digits are 9, 6, 3 and 0.

Largest 5-digit number which can be formed using the above 4-digit (a digit may repeat twice)

$$= 99630$$

61. (C) Number of apple boxes sold in 4 days
$$= 20 \times 25$$
$$= 500$$
$$\text{Number of remaining boxes} = 75$$
$$\text{Total number of boxes} = 500 + 75$$
$$= 575$$

62. (C) Largest five digit even number formed by the digits 3, 0, 5, 7 and 8 = 87530.

63. (A) Smallest number divisible by 42, 98, 70 will be the L.C.M. of 42, 98 and 70

2	42, 98, 70
7	21, 49, 35
	3, 7, 5

$$\text{L. C. M.} = 2 \times 7 \times 3 \times 7 \times 5$$
$$= 1470$$

64. (B) Ten thousand ten = 10010

Let one number be x.

$$\therefore \quad \text{Other number} = x + 10010$$
$$x + 10010 + x = 234560$$
$$\therefore \quad 2x + 10010 = 234560$$
$$\therefore \quad 2x = 234560 - 10010$$
$$\therefore \quad 2x = 224550$$
$$\therefore \quad x = \frac{224550}{2}$$
$$\therefore \quad x = 112275$$
$$\therefore \quad \text{Greater number} = x + 10010$$
$$= 112275 + 10010$$
$$= 122285$$

65. (C) In the product $(3207 \times 12 \times 17 \times 13)$ the unit's digit is 4.

66. (D) Given digits are 0, 3, 6, 8 and 9 greatest five digit number formed by there digits
$$= 98630$$
Smallest five digit number formed by these digits
$$= 30689$$
$$\text{Difference} = 98630 - 30689$$
$$= 67941$$

67. (A) H. C. F. of 45, 75 and 165

$$45 \overline{)\,75\,(\,1} \qquad 15 \overline{)\,165\,(\,11}$$
$$45 \qquad\qquad 15$$
$$30 \overline{)\,45\,(\,1} \qquad\qquad 15$$
$$30 \qquad\qquad 15$$
$$15 \overline{)\,30\,(\,2} \qquad\qquad \times$$
$$30$$
$$\times$$

$$\therefore \quad \text{H. C. F.} = 15$$

68. (C) $\text{C.P. of a cycle} = ₹\ 1200$
$\text{S.P. of the cycle} = ₹\ 1500$
$\text{Profit} = ₹\ 1500 - ₹\ 1200$
$= ₹\ 300$
$$\text{Profit} = \frac{300 \times 100}{1200}\%$$
$$= 25\%$$

69. (C) $\text{Principal} = ₹\ 2500$
$\text{Amount} = ₹\ 3300$
$\text{Simple Interest} = ₹\ 3300 - ₹\ 2500$
$= ₹\ 800$
$\text{Time} = 4 \text{ years}$
$$\text{Rate} = \frac{100 \times \text{Simple Interest}}{\text{Principal} \times \text{Time}}$$
$$= \frac{100 \times 800}{2500 \times 4}$$
$$= 8\%$$

70. (C)

Method I	**Method II**
$17\frac{1}{16} = \frac{17 \times 16 + 1}{16}$	$17\frac{1}{16} = 17 + \frac{1}{16}$
$= \frac{273}{16}$	$= 17{\cdot}0625$
$= 17{\cdot}0625$	

71. (B) We should divide 5·029 by 0·1 to get 50·29.

72. (A) $4 \text{ kg} = 4000 \text{ gm}$
$$500 \text{ gm} = \frac{500}{4000} \times 100 \text{ per cent of } 4000$$
$$= 12{\cdot}5\%$$

73. (B) Greatest prime number of two digits
$$= 97$$

74. (A) Sum of the numbers in 2nd column
$= 1 + 5 + 9 = 15$
Sum of the numbers in 2nd row
$z + 5 + 3 = 15$
$z + 8 = 15$
$z = 7$
Sum of the numbers in 3rd column
$y + z + 2 = 15$
$y + 7 + 2 = 15$
$y + 9 = 15$
$y = 15 - 9 = 6$
Sum of the numbers in 1st row
$x + 1 + y = 15$
$x + 1 + 6 = 15$
$x + 7 = 15$
$\therefore \quad x = 15 - 7 = 8$
Sum of the numbers in 3rd row
$t + 9 + 2 = 15$
$t + 11 = 15$
$t = 15 - 11 = 4$
Now, $x = 8, y = 6, z = 7, t = 4$

75. (B) Next row is 85, 90, 95.

76. (C) 77. (D) 78. (A) 79. (C) 80. (B) 81. (D)
82. (C) 83. (D) 84. (B) 85. (A) 86. (D) 87. (B)
88. (D) 89. (D) 90. (C) 91. (B) 92. (C) 93. (A)
94. (D) 95. (B) 96. (D) 97. (D) 98. (C) 99. (C)
100. (D)

2012

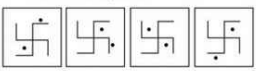
Section–I

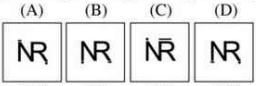
Mental Ability Test

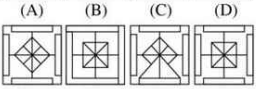
Part–I

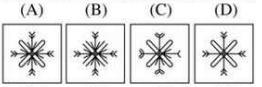
Directions—In questions 1 to 5, a problem figures is given on the left-hand side and four answer figure marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which is exactly the same as the problem figure and write your answer only in English letters *i.e.*, (A), (B), (C) and (D) in the box against the number corresponding to the question.

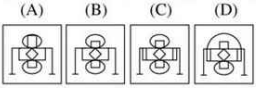
Problem figure **Answer figures**

1. 

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

2. 

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

3. 

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

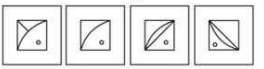
4. 

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

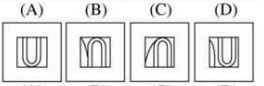
5. 

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

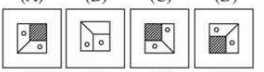
Part–II

Directions—In questions 6 to 10, there is a problem figure on the left-hand side, a part of which is missing, observe the answer figure (A), (B), (C) and (D) on the right-hand side and find out the answer figure which, without changing the direction, fits in the missing part of the problem figure. Indicate your answer by number of the answer figure chosen by you in the box against the number corresponding to the question.

Problem figure **Answer figures**

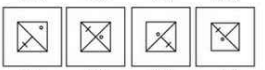
6. 

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

7. 

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

8. 

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

9. 

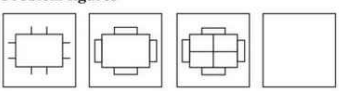
(A) (B) (C) (D)

10. 

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

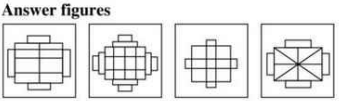
Part–III

Directions—In questions 11 to 15, there are three problem figures on the left-hand side and the space for the fourth figure is left blank. The problem figures are in a series. Find out one figure from among the answer figures given on the right-hand side which occupies the blank space for the fourth figure on the left-hand side and which completes the series. Indicate your answer by number of the answer figure chosen by you in the box against the number corresponding to the question.

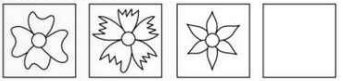
11. **Problem figures**



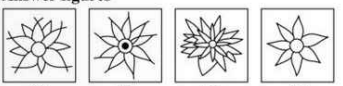
Answer figures


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

12. **Problem figures**

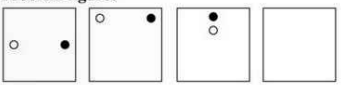


Answer figures

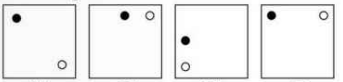


(A) (B) (C) (D)

13. **Problem figures**

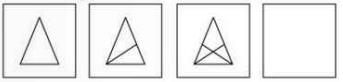


Answer figures

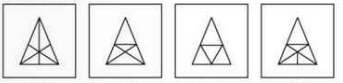


(A) (B) (C) (D)

14. **Problem figures**

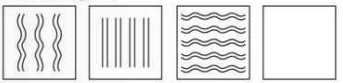


Answer figures

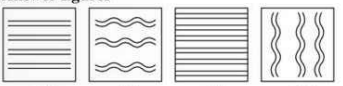


(A) (B) (C) (D)

15. **Problem figures**



Answer figures

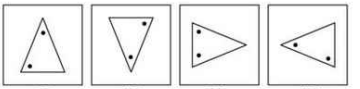


(A) (B) (C) (D)

Part–IV

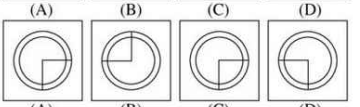
Directions—In questions 16 to 20, four figures (A) (B) (C) and (D) have been given in each question. Of these four figures three figures are similar in some way and one figure is different. Select the figure which is different and write your answer only in English letters *i.e.*, (A), (B), (C) and (D) in the box against the number corresponding to the question.

16.



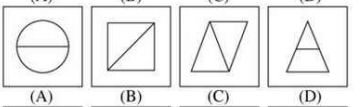
(A) (B) (C) (D)

17.



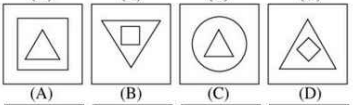
(A) (B) (C) (D)

18.



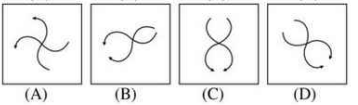
(A) (B) (C) (D)

19.



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

20.



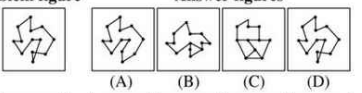
(A) (B) (C) (D)

Part–V

Directions—In questions 21 to 25, a problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which is exactly the same as the problem figure and write your answer only in English letters *i.e.*, (A), (B), (C) and (D) in the box against the number corresponding to the question.

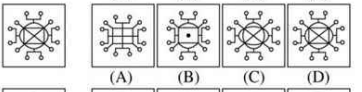
Problem figure **Answer figures**

21.



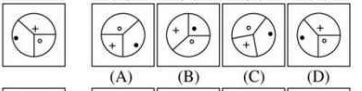
(A) (B) (C) (D)

22.



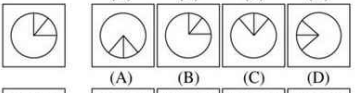
(A) (B) (C) (D)

23.



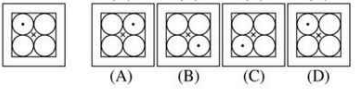
(A) (B) (C) (D)

24.



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

25.

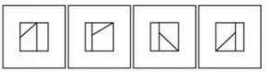


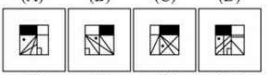
(A) (B) (C) (D)

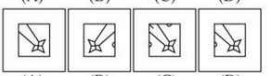
Part–VI

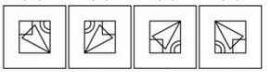
Directions—In questions 26 to 30, there is a Problem figure on the left-hand side, a part of which is missing. Observe the answer figures (A), (B), (C) and (D) on the right-hand side and find out the answer figure which, without changing the direction, fits in the missing part of the problem figure in order to complete the pattern in the problem figure. Indicate your answer by letter of the answer figure chosen by you in the box.

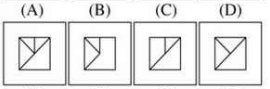
Problem figure **Answer figures**

26. 

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

27. 

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

28. 

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

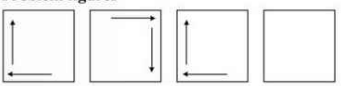
29. 

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

30. 

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

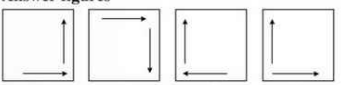
Part–VII

Directions—In questions 31 to 35, there are three problem figures on the left-hand side and the space for the fourth figure is left blank. The problem figures are in a series. Find out one figure from among the answer figures given on the right-hand side which occupies the blank space for the fourth figure on the left-hand side and which completes the series. Indicate your answer by letter of the answer figure chosen by you in the box against the number corresponding to the question.

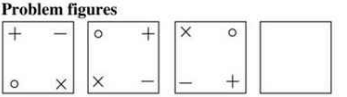
31. **Problem figures**



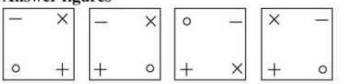
Answer figures


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

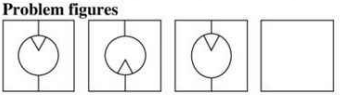
32. **Problem figures**



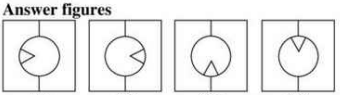
Answer figures


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

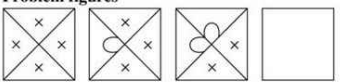
33. **Problem figures**



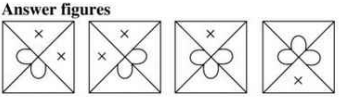
Answer figures


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

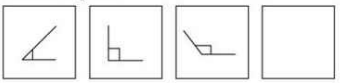
34. **Problem figures**



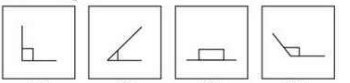
Answer figures


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

35. **Problem figures**



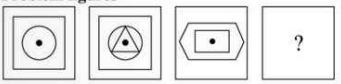
Answer figures


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

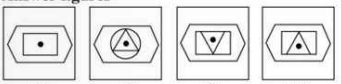
Part–VIII

Directions—In questions 36 to 40, there are three problem figures followed by a mark of interrogation (?) for the fourth one. There exists a relationship between the first two problem figures. A similar relationship should exist between the third and fourth problem figures. Select one figure from the answer figures which replaces the mark of interrogation. Write the letter of the answer figure selected by you in the box against the number corresponding to the question.

36. **Problem figures**

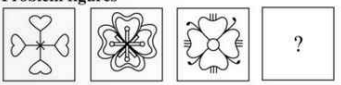


Answer figures

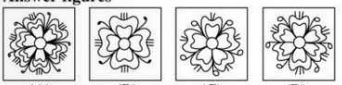


(A) (B) (C) (D)

37. **Problem figures**

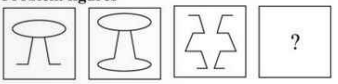


Answer figures

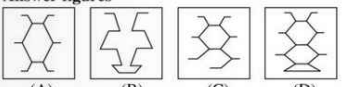


(A) (B) (C) (D)

38. **Problem figures**

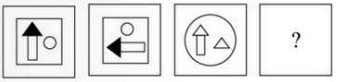


Answer figures

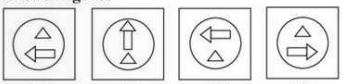


(A) (B) (C) (D)

39. **Problem figures**

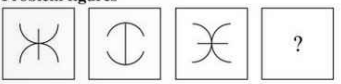


Answer figures

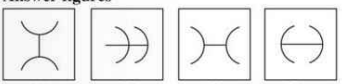


(A) (B) (C) (D)

40. **Problem figures**



Answer figures

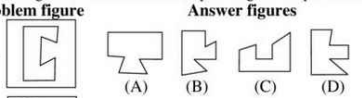


(A) (B) (C) (D)

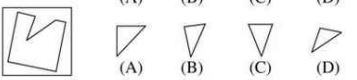
Part–IX

Directions—In questions 41 to 45, one part of a square is on the left-hand side and the other one is among the four figures (A), (B), (C) and (D) on the right-hand side. Find the figures on the right-hand side the completes the squares. Write the letter given below that figure in the box against the number corresponding to the question.

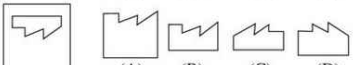
Problem figure **Answer figures**

41. 

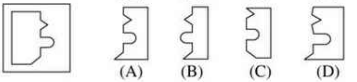
(A) (B) (C) (D)

42. 

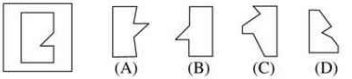
(A) (B) (C) (D)

43. 

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

44. 

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

45. 

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

Part–X

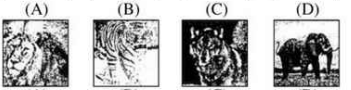
Directions—In questions 46 to 50, four figures (A), (B), (C) and (D) have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and write your answer only in English letter *i.e.*, (A), (B), (C) and (D) in the box against the number corresponding to the question.

46. 

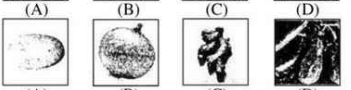
(A) (B) (C) (D)

47. 

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

48. 

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

49. 

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

50. 

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

Section–II
Arithmetic

Directions—For every question, four probable answers bearing letters (A,) (B), (C) and (D) are given. Only **one** out of these is **correct.** You have to give the correct answer and write the letter in the box against the number corresponding to the questions in the answer sheet.

51. What is the decimal equivalent to 3·75% of 1600 ?
(A) 60 (B) 6
(C) 0·6 (D) 0·06

52. For which number 15 is both a factor and a multiple ?
(A) 3 (B) 5
(C) 15 (D) 30

53. On simplification $12 - 8 \div 4 + 3 \times 2$, we get—
(A) 6 (B) 7
(C) 16 (D) 20

54. Simplify after expressing the decimal correct to hundredth place.
17·654 + 8·632 + 10·076 – 35·009
(A) 1·35 (B) 1·36
(C) 1·34 (D) 71·37

55. What is the sum of 50·5, 50·05, 50·005 and 5·0005 ?
(A) 55·5555 (B) 155·5555
(C) 15·5560 (D) 155·5005

56. What is the volume of a cube whose one edge is 8 cm ?
(A) 64 cm^3 (B) 512 cm^3
(C) 888 cm^3 (D) 512 cm

57. What is the next row of numbers ?
15, 35, 421
16, 36, 521
17, 37, 621
(A) 18, 37, 622 (B) 18, 38, 721
(C) 18, 38, 612 (D) 17, 37, 721

58. What is the next term of the series
4, 16, 36, 64 ..... ?
(A) 84 (B) 90
(C) 100 (D) 120

59. Rajdhani Express covers 504 km in 4 hours 30 minutes. What is the speed of the train ?
(A) 100 km/hr (B) 112 km/hr
(C) 126 km/hr (D) 140 km/hr

60. Rounding off the final answer of
$87 \times 79 - 6012 \div 12 + 526$
to the nearest thousand, gives—
(A) 6890 (B) 6900
(C) 7000 (D) 6000

61. A man purchased a table for ₹ 250 and spent ₹ 150 on its repair and polish. He sold it for ₹ 500. What was his gain per cent ?
(A) 50% (B) 30%
(C) 25% (D) 20%

62. A man purchased 40 chairs at the rate of ₹ 72 each. 5 chairs got damaged. The rest were sold at ₹ 84 each. What is his profit or loss per cent ?
(A) Profit $2\frac{1}{12}\%$ (B) Loss $2\frac{1}{12}\%$
(C) Profit 60% (D) Profit $2\frac{2}{49}\%$

63. Shanta scored 10 marks less than Kamla in an examination. Sharda scored 5 marks more than Kamla. In total, they scored 442 marks. What was the score of Shanta ?
(A) 139 (B) 149
(C) 154 (D) 162

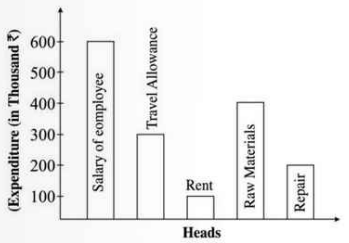
64. A player can run at an average speed of 36 km/hr. How much time will he take to cover 300 metre ?
(A) 30 minutes (B) 30 seconds
(C) 36 minutes (D) $8\frac{1}{3}$ minutes

65. The pictograph shows the number of eggs sold by a trader in three days. If the trader still had 225 eggs left after the three days, how many eggs did he have in the beginning ?

Monday	○○○○○
Tuesday	○○○○
Wednesday	○○○○○○

○ represents 50 eggs.
(A) 400 (B) 750
(C) 875 (D) 975

66. The bar chart represents the expenditure of a company on different heads. On what head, the expenditure of the company is minimum ?



(A) Salary of employees
(B) Travelling allowance
(C) Rent
(D) Repair

67. Gopal sold 10 mangoes at the cost price of 12 mangoes. What is his profit or loss percentage ?
(A) $16\frac{2}{3}\%$ profit (B) 20% profit
(C) 20% loss (D) $16\frac{2}{3}\%$ loss

68. I have a pack of ₹ 100 currency notes starting with numeral 321 and ending with 341. How much money do I have ?
(A) ₹ 20 (B) ₹ 2,000
(C) ₹ 21 (D) ₹ 2,100

69. Which is the largest prime number of 2-digits ?
(A) 99 (B) 98
(C) 97 (D) 91

70. The number of prime factors of 1547 is—
(A) 1 (B) 2
(C) 3 (D) 6

71. What is the smallest 5 digit odd number formed of the digits 1, 2, 3, 5 and 0 ? (Using the digits once only)
(A) 12305 (B) 10235
(C) 10523 (D) 32105

72. When 66,660 is divided by 11, what will be the quotient ?
(A) 606 (B) 660
(C) 6006 (D) 6060

73. The sum of two numbers is 1575470. If one number is ten thousand less than the other number, what is the smaller number ?
(A) 1565470 (B) 792735
(C) 782735 (D) 787735

74. What is the decimal equivalent of $7\frac{3}{8}$?
(A) 7·125 (B) 7·250
(C) 7·375 (D) 7·380

75. What should be added to the product of 37 and 30 to obtain 1200 ?
(A) 100 (B) 90
(C) 80 (D) 110

Section–III
Language

Directions—There are **three** passages in this Section. Each passage is followed by five questions. Read each passage carefully and answer the questions that follow. For each question four probable answer bearing letter (A), (B), (C) and (D) are given. Only **one** out of these is **correct.** You have to choose the correct answer and write the letter in the box against the number corresponding to the question in answer sheet.

Passage–1

Mr. Shah decided to take his children Devika and Radha to a circus in the summer holidays. The girls were very excited as they had never seen a circus before and they were jumping with joy. They bought the tickets and went inside. The show was in a large tent. The show started. They found everything very interesting. Everyone clapped loudly as the two clowns appeared. They wore bright and colourful clothes and their faces were painted. The girls found them very funny and laughed loudly. One of the two clowns tried to ride a horse but it kicked him everytime he tried to get on its back. The other clown tried to make him wear a cap but the horse shook his head and the cap fell. The audience laughed and laughed.

76. Everyone clapped because—
(A) they bought tickets
(B) they saw Mr. Shah
(C) two clowns appeared
(D) the show was in a large tent

77. The girls found 'them' very funny. 'Them' refers to—
(A) Devika and Radha
(B) Mr. Shah and his children
(C) The people
(D) The clowns

78. The clown could not ride the horse because—
(A) the horse kicked the clown

(B) the people did not allow them
(C) the other clown pulled him down
(D) the clowns did not know how to ride

79. What does the word 'excited' mean ?
(A) Very happy and eager
(B) Very sad
(C) Making lot of noise
(D) Very much angry

80. Devika and Radha were excited because—
(A) they were jumping with joy
(B) it was summer holidays
(C) they were going to a circus
(D) the show had started

Passage–2

Anyone who went to Navratna Supermarket had just one great ambition : to be the lucky one who did not have to pay for the shopping. For this was what the notice just inside the entrance promised. It said : Remember, once a week, one of our customers gets free goods. This may be your lucky day ! Mrs. Dev tried her luck for several weeks. Her house was full of things she did not need but she never gave up hope. One Saturday morning, Mrs. Dev finished her shopping and left the supermarket. It is then that she discovered that she had forgotten to buy tea. She went back, bought tea and went toward the cash desk. The manager came up to her and said, "Madam, I want to congratulate you ! You are our lucky customer today and everything you have in your basket is free."

81. Mrs. Dev's house was full of unwanted things because—
(A) she loved shopping
(B) she hoped to be lucky winner
(C) she gave up hope
(D) she finished shopping and left the supermarket

82. Why did Mrs. Dev return to the supermarket ?
(A) She had not finished shopping
(B) She had forgotten her bag
(C) She had not bought tea
(D) She had forgotten to buy sugar

83. The manager congratulated Mrs. Dev because—
(A) she had won a bag full of money
(B) she became their lucky customer
(C) she visited the supermarket often
(D) she had won a lottery

84. What would have been Mrs. Dev's reaction when the manager told her the good news ?
(A) Glad (B) Thrilled
(C) Disappointed (D) Indifferent

85. Everyone was attracted towards the Navaratna Supermarket because—
(A) once in a week it sold things cheap
(B) once a month it gave free goods to customers
(C) once a week it gave free goods to one customer
(D) once a week it have free goods to two customers

Passage–3

All living things need food and safety from danger in order to survive. Animals are no exception. They must find food to survive. Sometimes they will go to great lengths to avoid sharing it with others. However, some animals will cooperate and communicate in their search for food.

Bees have evolved a very elaborate system of passing on information about the location of food. In a hive, bees perform a dance in which they wiggle their bodies while moving in a particular direction. Through this dance, they can communicate to other bees that there are flowers with a good supply of nectar in a certain direction relative to the Sun. Their movements also give an indication of how far away the supply is.

Many animals have special types of calls which warn other members of the group when danger is present. Some birds produce very loud alarm calls. Some animals listen to calls given by other animals whilst still others post sentries to warn them so that others can safely eat and drink.

86. What information do the bees communicate to their group through their dance ?
(A) About the danger to their hive
(B) About danger to their own group
(C) About the presence of food, distance and direction
(D) About the direction in which to find food

87. Which phrase is the closest to the meaning of the phrase 'evolved' ?
(A) Made (B) Hired
(C) Danced (D) Developed

88. Two things which are essential for survival are—
(A) food and shelter (B) food and security
(C) food and friends (D) sun and nectar

89. The word 'wiggle' means—
(A) moving in circles round over a place or a thing
(B) movement of body from side to side
(C) curling up ones body to make it smaller
(D) flapping of wings to make a humming noise

90. Animals avoid sharing their food with others because—
(A) they need a quiet place to sleep soon after eating the food
(B) they generally do not eat in the open

(C) they are scared of being attacked by their own group or by other animals

(D) they want to hide the food in some safe place

Directions—Given below are four sentences marked as 1, 2, 3, 4. Find the correct order of these sentences to make a paragraph and write the letter in the box against the number corresponding to the questions in the answer sheet.

91. 1. This is because there are far too many vehicles on the road.
2. Crossing a road in a busy town is becoming very dangerous.
3. Most of the drivers are rash and do not follow traffic rules.
4. If we use pedestrain crossings we can cross the road safely.

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

92. 1. Praising people when they do something good makes them happy.
2. It is very important to have good manners.
3. If people are happy, they can help the organization to prosper.
4. Showing courtesy, gratitude and humility are examples of good manners.

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

Directions—Complete the following sentences by selecting the best alternative and write the letter in the box against the number corresponding to the questions in the answer sheet.

93. It is very pleasant if the Sun shines after—
(A) heavy rains
(B) a football match
(C) examination are over
(D) the mother comes home

94. We must eat nourishing food in order to—
(A) become rich
(B) get admission in a good school
(C) remain fit
(D) compete with others

Directions—The following sentences are divided into four parts. One part in each sentence is wrong. You have to find it and write the letter in the box against the number corresponding to the question in the answer sheet.

95. Lord Krishna / was / very found of / his friend
(A) (B) (C) (D)
Sudama.

96. My mother / cooks / very delicious / foods.
(A) (B) (C) (D)

97. The queen / order / her men / to kill the leopard.
(A) (B) (C) (D)

Directions—Select the suitable word to fill in the following sentences and write the letter in the box against the number corresponding to the question in the answer sheet.

98. Watching too much of television is not good ..... health.
(A) of (B) with
(C) about (D) for

99. I liked the story of Ali Baba and forty thieves—
(A) most (B) more
(C) much (D) best

100. It rained very heavily ..... the morning.
(A) at (B) in
(C) on (D) for

Answers with Hints

1. (D)	2. (B)	3. (A)	4. (A)	5. (C)	6. (B)
7. (C)	8. (D)	9. (B)	10. (A)	11. (D)	12. (A)
13. (D)	14. (A)	15. (C)	16. (C)	17. (B)	18. (D)
19. (C)	20. (A)	21. (D)	22. (D)	23. (D)	24. (B)
25. (D)	26. (C)	27. (B)	28. (C)	29. (A)	30. (B)
31. (B)	32. (B)	33. (C)	34. (D)	35. (C)	36. (B)
37. (B)	38. (B)	39. (A)	40. (D)	41. (A)	42. (B)
43. (A)	44. (A)	45. (B)	46. (D)	47. (D)	48. (D)
49. (C)	50. (D)				

51 (A) $3{\cdot}75\%$ of $1600 = \frac{1600 \times 3{\cdot}75}{100}$

$= 16 \times 3{\cdot}75$

$= 60{\cdot}00$

$= 60$

52. (D) $\because 30 = 2 \times 15 \Rightarrow 15$ is factor of 30

and $30 \times \frac{1}{2} = 15 \Rightarrow 15$ is multiple of 30

53. (C) Given Exp. $= 12 - 8 \div 4 + 3 \times 2$

$= 12 - \frac{8}{4} + 3 \times 2$

$= 12 - 2 + 6 = 16$

54. (A) Given Exp. $= 17{\cdot}654 + 8{\cdot}632 + 10{\cdot}076 - 35{\cdot}009$

$= 36{\cdot}362 - 35{\cdot}009$

$= 1{\cdot}353 = 1{\cdot}35$

$1{\cdot}353$ when corrected to hundredth place will be $1{\cdot}35$ because 3 is on thousandth place which is less than 5.

55. (B) Reqd. sum $= 50{\cdot}5 + 50{\cdot}05 + 50{\cdot}005 + 5{\cdot}0005$

$= 155{\cdot}5555$

56. (B) $\because$ One edge of the cube $= a = 8$ cm

$\therefore$ Volume of the cube $= a^3$

$= 8 \times 8 \times 8$

$= 512\ \text{cm}^3$

57. (B) On considering first column. We see that,
$15 + 1 = 16, 16 + 1 = 17$ therefore $17 + 1 = 18$.
In second column
$35 + 1 = 36, 36 + 1 = 37$ therefore $37 + 1 = 38$.
In third column
$421 + 100 = 521, 521 + 100 = 621$
Therefore $621 + 100 = 721$
Therefore 4th row will be 18, 38, 721

58. (C) The given number series is following as—

4	16	36	64	? = 100
⇑	⇑	⇑	⇑	⇑
$(2)^2$	$(4)^2$	$(6)^2$	$(8)^2$	$(10)^2$

Hence the reqd. next term = $(10)^2 = 100$.

59. (B) $\because$ 4 hours 30 minutes $= 4\frac{1}{2}$ hrs.

$$= \frac{9}{2} \text{ hrs.}$$

Time $= \frac{9}{2}$ hrs. Distance = 504 km

$$\text{Reqd. Speed} = \frac{\text{Distance}}{\text{Time}}$$
$$= \frac{504 \times 2 \text{ kms}}{9 \text{ hrs}}$$
$$= (56 \times 2) \text{ km/hour}$$
$$= 112 \text{ km per hour}$$

60. (C) Given Exp. $= 87 \times 79 - 6012 \div 12 + 526$
$= 6873 - 501 + 526$
$= 6873 + 25$
$= 6898$
$\simeq 6900 \simeq 7000$

If we round up 6898 nearest to thousand we observe that number 8 is on hundred place. Therefore, 6898 = 7000 rounded upto thousand place.

61. (C) $\because$ Actual cost price of the table (including repair charges) $= ₹ 250 + ₹ 150$
$= ₹ 400$
$\Rightarrow$ Selling price $= ₹ 500$
$\Rightarrow$ Gain $= 500 - 400$
$= ₹ 100$
$\therefore$ Reqd. Gain % $= \frac{100}{400} \times 100\%$
$= 25\%$

$$\left[\text{Gain \%} = \frac{\text{Gain}}{\text{C.P.}} \times 100\right]$$

62. (A) $\because$ Cost price of 40 chairs @ ₹ 72 each
$= 40 \times 72$
$= ₹ 2880$
$\Rightarrow$ Rest of chairs $= 40 - 5 = 35$
$\Rightarrow$ Selling price of 35 chairs @ ₹ 84 each
$= 35 \times 84$
$= ₹ 2940$
$\Rightarrow$ Profit $= 2940 - 2880$
$= ₹ 60.$
$\therefore$ Required Profit % $= \frac{60}{2880} \times 100\%$
$= \frac{100}{48}\%$
$= \frac{25}{12}\%$
$= 2\frac{1}{12}\%$

63. (A) Name : Shanta Kamla Sharda
Score : $x - 10$ x $x + 5$
According to the question
$\because$ $x - 10 + x + x + 5 = 442$
$\Rightarrow$ $3x - 5 = 442$
$\Rightarrow$ $3x = 442 + 5$
$\Rightarrow$ $3x = 447$
$\Rightarrow$ $x = 149$
$\therefore$ Score of Shanta $= x - 10$
$= 149 - 10 = 139$
Therefore, Shanta scored 139 marks.

64. (B) $\because$ $\text{Speed} = \frac{\text{Distance}}{\text{Time}}$
$\Rightarrow$ $\text{Time} = \frac{\text{Distance}}{\text{Speed}}$

Distance $= 300$ m
$= \frac{300}{1000}$ km
Speed $= 36$ km/hr

$\therefore$ Time $= \frac{300}{1000 \times 36}$ hours
$= \frac{300 \times 60 \times 60}{1000 \times 36}$ seconds
$= 30$ seconds

65. (D) As per pictograph—
$\because$ ○ represents $= 50$ eggs
$\Rightarrow$ No. of eggs sold on Monday
$= 5 \times 50 = 250$
$\Rightarrow$ No. of eggs sold on Tuesday
$= 4 \times 50 = 200$
$\Rightarrow$ No. of eggs sold on Wednesday
$= 6 \times 50 = 300$
$\Rightarrow$ Total no. of eggs sold in 3 days
$= 250 + 200 + 300$
$= 750$
$\Rightarrow$ Remaining no. of eggs = 225
$\therefore$ Reqd. no. of eggs in the beginning
$= 750 + 225$
$= 975$

66. (C) As per bar-chart—
Rqd. head of minimum expenditure of company = Rent

67. (B) Let C.P. of 10 mangoes = ₹ $10x$
$\therefore$ S.P. of 10 mangoes = C.P. of 12 mangoes
$= ₹\ 12x$
$\Rightarrow$ Profit = S.P. – C.P.
$= ₹\ (12x - 10x)$
$= ₹\ 2x$
$\therefore$ Reqd. profit % $= \frac{\text{Profit}}{\text{C.P.}} \times 100\%$
$= \frac{₹\ 2x}{₹\ 10x} \times 100\%$
$= 20\%$

68. (D) $\underset{321}{|}\text{|||||||||||||||||||}\underset{341}{|} = 21$
$\because$ Number of currency notes = 341 – 320
$= 21$
$\therefore$ Reqd. cost = 21 × 100
= ₹ 2100

69. (C) Largest prime number of 2-digits = 97.

70. (C)
$7 \mid 1547$
$13 \mid 221$
17
$\therefore 1547 = 7 \times 13 \times 17$
Number of prime factors of 1547 = 3 (three).

71. (B) For writing smallest number we should write numbers in increasing order. Here there are five digits 1, 2, 3, 5 and 0. Therefore, number 0 will come after 1.
$\therefore$ Reqd. smallest 5-digit odd number = 10235

72. (D) Reqd. quotient $= \frac{66,660}{11} = 6060$

73. (C) Let one number be x.
smaller number will be $(x - 10{,}000)$.
$\because$ $x + x - 10000 = 1575470$
$\Rightarrow$ $2x = 1575470 + 10000$
$\Rightarrow$ $2x = 1585470$
$\Rightarrow$ $x = 792735$
$\because$ Smaller number = 792735 – 10000
= 782735

74. (C) Decimal equivalent of $7\frac{3}{8} = 7 + \frac{3}{8}$
$= 7 + 0{\cdot}375$
$= 7{\cdot}375$

75. (B) $\because$ $37 \times 30 = 1110$
Reqd. no. to be added = 1200 – 1110
= 90

76. (C) 77. (D) 78. (A) 79. (A) 80. (C) 81. (A)
82. (C) 83. (B) 84. (A) 85. (C) 86. (C) 87. (D)
88. (B) 89. (B) 90. (C)

91. (C) Crossing a road in a busy town is becoming very dangerous. This is because there are far too many vehicles on the road. Most of the drivers are rash and do not follow traffic rules. If we use pedestrian crossing we can cross the road safely.

92. (B) It is very important to have good manners. Showing court say, gratitude and humility are examples of good manners. Praising people when they do some thing good makes them happy. If people are happy, they can help the organisation to prosper.

93. (A) It is very pleasant if the sun shines after heavy rains.

94. (C) We must eat nourishing food in order to remain fit.

95. (C) Lord krishna was very **fond of** his friend Sudama.

96. (D) My mother cooks very delicious **food.**

97. (B) The queen **ordered** her men to kill the leopard.

98. (D) Watching too much television is not good **for** health.

99. (A) I liked the story of Ali Baba and forty thieves **most.**

100. (B) It rained very heavily **in** the morning.

2011

Section–I

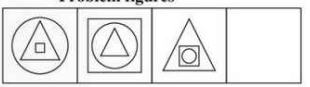
Mental Ability Test

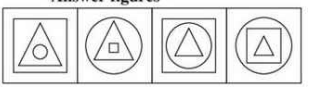
Part–I

Directions—In questions 1 to 5 there are three problem figures on the left hand side and the space for the fourth figure is left blank. The problem figures are in a series. Find out one figure from given four answer figures given on the right hand side which occupies the blank space of the problem figures.

Problem figures **Answer figures**

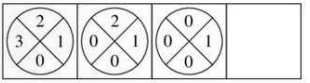
1.

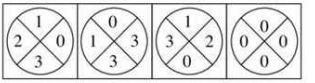




(A) (B) (C) (D)

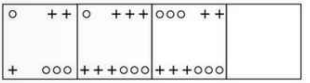
2.

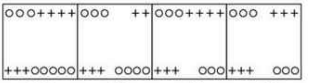




(A) (B) (C) (D)

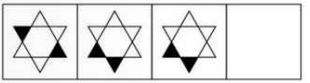
3.

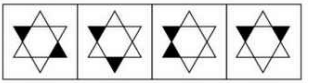




(A) (B) (C) (D)

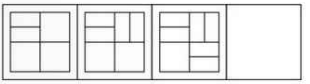
4.

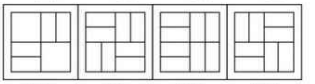




(A) (B) (C) (D)

5.





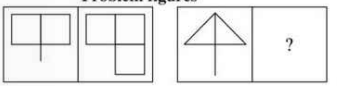
(A) (B) (C) (D)

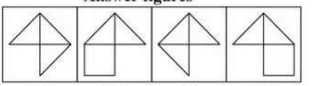
Part–II

Directions—In questions 6 to 10 there are three problem figures followed by a mark of interrogation (?) for the fourth one. There exists a relationship between the first two problem figures. A similar relationship should exist between the third and the fourth problem figures. Select one figure from the answer figures which replaces the mark of interrogative (?)

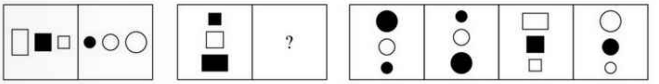
Problem figures **Answer figures**

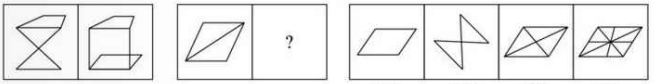
6.

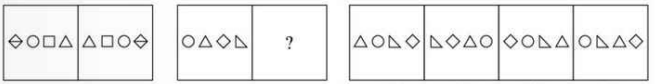




(A) (B) (C) (D)

7. 

8. 

9. 

10. 

Part–III

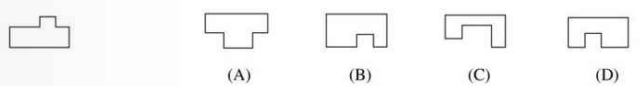
Directions—In questions 11 to 15 one part of a square is on the left hand side and the other one is among the four answer figures (A), (B), (C) and (D) on the right hand side. Find the figure from the answer figures that completes the square.

Problem figure **Answer figures**

11. 

12. 

13. 

14. 

15. 

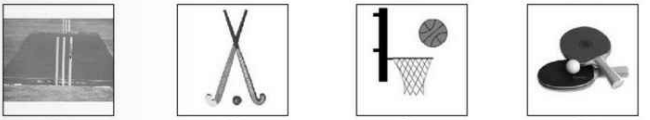
Part–IV

Directions—In questions 16 to 20 four figures (A) (B) (C) and (D) are given in each question. Out of these four figures three figures are similar in someway and one figure is different. Select the figure which is different.

16.

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

17.



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

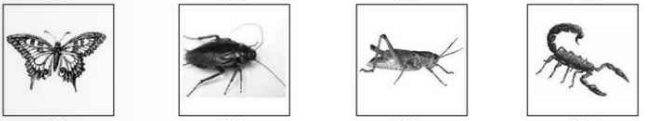
18.

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

19.

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

20.



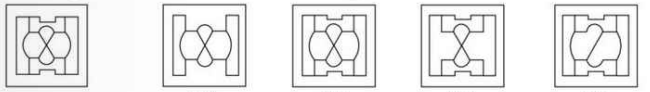
(A) (B) (C) (D)

Part–V

Directions—In questions 21 to 25 a problem figure is given on the left hand side and four answer figures are given on the right hand side. Select the answer figure which is exactly the same as the problem figure.

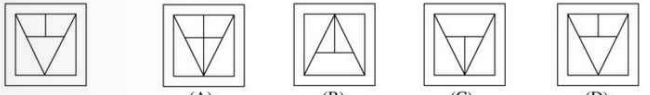
Problem figure **Answer figures**

21.



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

22.



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

23. 


(A)


(B)


(C)


(D)

24. 


(A)


(B)


(C)


(D)

25. 


(A)


(B)


(C)


(D)

Part–VI

Directions—In questions 26 to 30 there is a Problem figure on the left hand side, a part of which is missing. Observe the answer figures (A), (B), (C) and (D) and find out the answer figure which fits in the missing part of the problem figure in order to complete the pattern in the problem figure.

Problem figure **Answer figures**

26. 


(A)


(B)


(C)


(D)

27. 


(A)


(B)


(C)


(D)

28. 

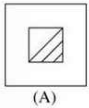

(A)

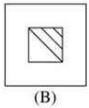

(B)

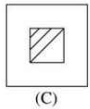

(C)

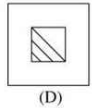

(D)

29. 

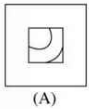

(A)

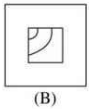

(B)

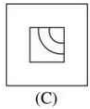

(C)

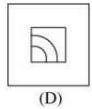

(D)

30. 


(A)


(B)

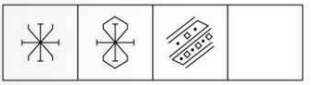

(C)

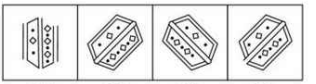

(D)

Part–VII

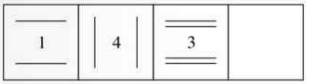
Directions—In questions 31 to 35, there are given three problem figures and a vacant space is left for the fourth one. Find out which one of the answer would go to complete the pattern.

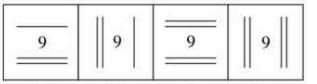
Problem figures **Answer figures**

31. 



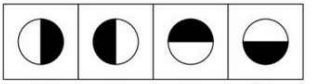
(A) (B) (C) (D)

32. 

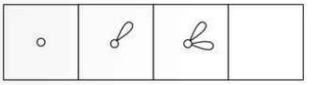


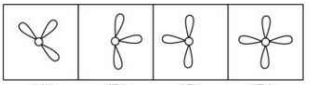
(A) (B) (C) (D)

33. 

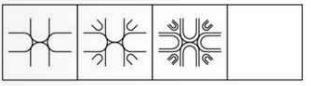


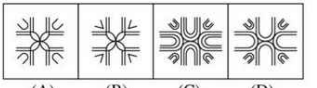
(A) (B) (C) (D)

34. 



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

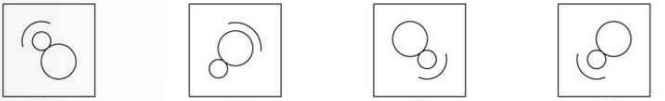
35. 



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

Part–VIII

Directions—In questions 36 to 40 four figures (A), (B), (C) and (D) have been given in each question. Out of there four figures three figures are similar in some way and one figure is different. Select the figure which is different.

36. 

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

37. 

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

38.

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

39.

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

40.

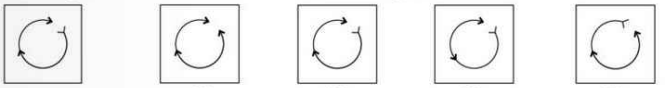
(A) (B) (C) (D)

Part–IX

Directions—In questions 41 to 45 one problem figure is given followed by four answer figures. Select the answer figure which is exactly similar to the given problem figure.

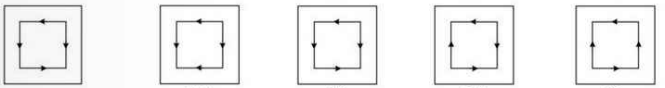
Problem figure **Answer figures**

41.



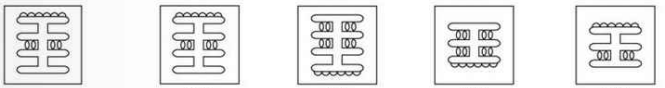
(A) (B) (C) (D)

42.



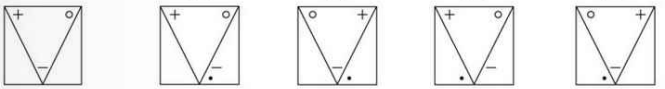
(A) (B) (C) (D)

43.



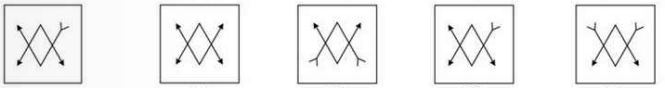
(A) (B) (C) (D)

44.



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

45.



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

Part–X

Directions—In questions 46 to 50 there is a Problem figure on the left hand side, a part of which is missing. Find out the figure from the answer figures which will complete the missing part of the problem figure.

Problem figure **Answer figures**

46. 

(A)

(B)

(C)

(D)

47. 

(A)

(B)

(C)

(D)

48. 

(A)

(B)

(C)

(D)

49. 

(A)

(B)

(C)

(D)

50. 

(A)

(B)

(C)

(D)

Section–II
Arithmetics

Directions—(Q. 51 to 75) Each question has four probable answers (A), (B), (C) and (D). Out of these four answers, choose only one correct answer. You write the correct answer in annexed answer sheet in particular box in English alphabet.

51. How many prime factors are of the number 2730 ?
(A) 2 (B) 3
(C) 5 (D) 4

52. $\frac{3}{8}\%$ is equal to which decimal fraction ?
(A) 0·0375 (B) 0·375
(C) 0·000375 (D) 0·00375

53. L. C. M. and H. C. F. of two numbers is 570 and 19 respectively. If one number is 95, second number will be—
(A) 114 (B) 57
(C) 190 (D) 228

54. What is G. C. D. (Greatest Common Divisor) of 126, 91 and 84 ?
(A) 42 (B) 36
(C) 21 (D) 7

55. Find the quotient when 303·004 is divided by 13—
(A) 23·308 (B) 23·38
(C) 203·38 (D) 230·38

56. If 396591 is divided by 13, the quotient will be—
(A) 30570 (B) 30527
(C) 30507 (D) 3057

57. What is sum of 5·05; 5·005; 0·505 and 55·0005 ?
(A) 65·0565 (B) 65·5065
(C) 65·5605 (D) 56·5605

58. Express $\frac{1}{2}+\frac{3}{4}$ as decimal fraction—
(A) 1·5 (B) 2·5
(C) 1·75 (D) 1·25

59. Sum of the largest three digit number and the smallest four digit number is—
(A) 1 (B) 1999
(C) 1099 (D) 0999

60. What is the five digit greatest even number formed by the digits 4, 0, 6, 7, 3 and 8 ?
(A) 70648 (B) 87643
(C) 87634 (D) 87640

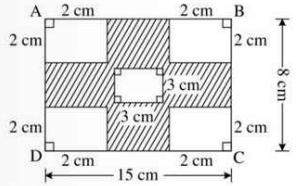
61. Some students went on a picnic. They collected ₹ 2160. If each student gave ₹ 45, the number of students was—
(A) 48 (B) 42
(C) 45 (D) 50

62. What should be subtracted from the product of 133 and 80 to get 10600 ?
(A) 140 (B) 40
(C) 60 (D) 160

63. Sum of all the factors of 6 is—
(A) 5 (B) 6
(C) 12 (D) 36

64. A Car covers 200 m. distance in 10 seconds. A train covers 300 m. distance in 18 seconds. Whose speed is more and how much ?
(A) Car $\frac{10}{3}$ (B) Car 4
(C) Train 4 (D) Train $\frac{10}{3}$

65. ABCD is a rectangle whose dimensions are 15 cm × 8 cm. Four squares of side 2 cm each and another square whose side is 3 cm. each have been cut from the rectangle (as shown in the figure). Find the area of the dotted portion—



(A) 104 cm² (B) 100 cm²
(C) 95 cm² (D) 92 cm²

66. Out of the following numbers which number is divisible by 3, 4, 5 and 6 ?
(A) 1440 (B) 1448
(C) 1720 (D) 1472

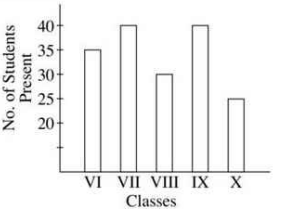
67. Change 39·5° C into Farenhite.
$\left(\text{Use } \frac{F-32}{180} = \frac{C}{100}\right)$
(A) 100·1° F (B) 102·4° F
(C) 103·7° F (D) 103·1° F

68. A toy whose cost price was ₹ 60, was sold at 25% profit. What was the selling price of the toy ?
(A) ₹ 80 (B) ₹ 45
(C) ₹ 75 (D) ₹ 65

69. Simple Interest on ₹ 5,000 for 2 years at certain rate of interest is ₹ 500. What will be simple Interest on ₹ 12,000 for 3 years on the same rate of interest ?
(A) ₹ 500 (B) ₹ 1,000
(C) ₹ 1,500 (D) ₹ 1,800

70. The value of (20% of ₹ 5,000) of 12% is—
(A) ₹ 1,200 (B) ₹ 120
(C) ₹ 12 (D) ₹ 240

71. From the given bar chart find the attendence of class VII students—



(A) 20 (B) 35
(C) 30 (D) 40

72. Product of 102·005 and 7·002 is approximately equal to—
(A) 714 (B) 716
(C) 715 (D) 744

73. $2\times [42 - \{13 + (8 \times 2)\}]$ is equal to—
(A) 13 (B) 26
(C) 12 (D) 52

74. How many bottles of 200 milli litre can be filled from 12 cubic metre oil ?
(A) 600 (B) 6000
(C) 60000 (D) 6600

75. What sequence will be on the last line—

25	50	520
27	54	420
29	58	320
—	—	—

(A) 30 60 320
(B) 31 62 220
(C) 30 60 220
(D) 32 64 320

Section–III
Language

Directions—(Q. 76 to 90) Read the following three passages carefully. Answer the questions that follows selecting the correct choice.

Passage–1

Dowry is the biggest evil of Indian society. It lowers the dignity of womanhood. Parents of the bride are compelled by the parents of the bridegroom to pay huge amounts of cash with luxury items like Television sets, Refrigerators. Cars etc. Poor parents have to borrow huge sums of money for their daughters marriage on high rate of interest. Bride burning evil is the by-product of dowry system. Dowry prohibition act was passed by the Government in 1961 but it could not produce desirable results. This social evil can be eradicated by the mass awareness. Young boys and girls should come forward and should resolve not to give consent to such marriage which demands dowry. Society should encourage intercaste marriage. This social evil can be checked by educating the girls so that they understand their rights and duties.

76. What is the by product of dowry system ?
   (A) Intercaste marriage
   (B) Education of girls
   (C) Evil of bride burning
   (D) Mass awareness in the society

77. In the passage which word means 'to destroy completely' ?
   (A) Encourage (B) Borrow
   (C) Eradicate (D) Prohibit

78. What do the parents do to arrange money for their daughter's marriage ?
   (A) They borrow money from the banks
   (B) They borrow money from their relatives
   (C) They borrow money at high rate of interest
   (D) They sale their property

79. Social evil of dowry can be stopped by—
   (A) Encouraging intercaste marriage
   (B) Mass education of the girls
   (C) Mass awareness
   (D) All the above methods

80. Select the pair having correct meaning—
   (A) Luxury — Poor
   (B) Produce — Reduce
   (C) Prohibit — Prevent
   (D) Consent — Disagree

Passage–2

Sri Lanka is one of the most beautiful countries in the world. It is situated near the south-eastern coast of India and separated from it by Palk straight. Colombo is the capital of Sri Lanka. Sri Lanka is an Island lying in Indian ocean. Sri Lanka became independent in 1948.

As the Island is not far from the equator the climate of Sri Lanka is tropical. It is hot all through the year and there is very little difference between summer and winter. Heavy rain falls during monsoon season. The climate is therefore hot and humid, consequently the vegetation is thick and there are jungles in most parts of the Island. It is difficult to go through them without cutting the trees and making a path.

81. Which water bay separates Sri Lanka from India ?
   (A) Bay of Bengal (B) Palk straight
   (C) Arabian Sea (D) Indian Ocean

82. Colombo is the capital of—
   (A) Nepal (B) Bangladesh
   (C) Myanmar (D) None of these

83. What is an Island ?
   (A) Land surrounded by sea from three sides
   (B) Land near a sea
   (C) Land surrounded by sea from all sides
   (D) Land surrounded by Jungles

84. It is difficult to go to jungles of Sri Lanka. Why ?
   (A) Heavy rains (B) Moisture
   (C) Wild animals (D) Thick vegetation

85. Climate of Sri Lanka is hot because—
   (A) the country is surrounded by sea water
   (B) it is near the equator
   (C) it has less vegetation
   (D) it has a big desert

Passage–3

The Aryans were keen hunters and caught lions in snares and hunted boars with dogs. But their favourite sport was racing in chariots drawn by swift horses. After the races they had open air dancing and singing. Like other ancient people they worshiped at first many gods of nature. The gods of the sky, the swift moving sun god the god of the storms. For a long time their chief god was Lord Indra. Laterthere grew up the great Hindu religion. As centuries passed the Aryans settled and developed their farming and trade in the conquered lands, the people become divided in the four main castes, the Brahmans, the Kshatriyas, the Vaishyas and the Sudras. The duties of these four groups were described in ancient book of laws called the 'Manu Sanhita' or the laws of Manu.

86. Who was the chief God of Aryans ?
(A) God of storm (B) Sun God
(C) Lord Indra (D) God of Sky

87. Why did Aryans keep dogs ?
(A) For hunting lions (B) For hunting Boars
(C) For drawing chariots (D) For enjoyment

88. What was the favourate sport of the Aryans ?
(A) Open Air dancing (B) Chess
(C) Chariots Race (D) Hunting boars

89. Aryans adopted ..... religion.
(A) Hindu (B) Islam
(C) Christianity (D) Sikh

90. What is Manu Sanhita ?
(A) A type of chariot race
(B) A type of dance
(C) A book of laws
(D) None of these

Directions—(Q. 91–93) In each question one part of the given sentence is incorrect. Spot the incorrect part.

91. He / are / drinking / milk.
(A) (B) (C) (D)

92. I / have / two / pen.
(A) (B) (C) (D)

93. She / house / is near / my house.
(A) (B) (C) (D)

Directions—(Q. 94–95) Choose the word which is opposite (Antonym) in meaning of the given word.

94. Early—
(A) Evening (B) Late
(C) Always (D) Morning

95. Destroy—
(A) Make (B) Peace
(C) Abuse (D) Hate

Directions—(Q. 96–97) Choose the word which is nearly the same meaning (Synonym) as the given word.

96. Courage—
(A) Handsome (B) Intelligent
(C) Valour (D) Fighter

97. Jealousy—
(A) Envy (B) Enemy
(C) Hate (D) Unlawful

Directions—(Q. 98–100) Rearrange the followings three sentences in the proper sequence to form a meaningful paragraph.

98. 1. He was famous for his judgement.
2. His soldier brought two ladies and a baby to his court
3. Vikramaditya was a wise king
4. They were quarreling over the baby

Answer—
(A) 1, 3, 4, 2 (B) 3, 2, 4, 1
(C) 3, 1, 2, 4 (D) 2, 4, 3, 1

99. 1. There is a famous temple at Kanya Kumari.
2. It stands on the southern most point of land, very near the sea.
3. They go up to temple for worship.
4. Pilgrims take bath in the sea.

Answer—
(A) 1, 2, 4, 3 (B) 1, 4, 3, 2
(C) 1, 2, 3, 4 (D) 3, 1, 2, 4

100. 1. He looked around and saw an earthen pot.
2. A crow was very thirsty
3. There was very little water in the pot.
4. He threw some pebbles into the pot.

Answer—
(A) 1, 2, 3, 4 (B) 2, 1, 3, 4
(C) 3, 4, 1, 2 (D) 2, 3, 1, 4

Answers with Hints

1. (B) Problem figures are in a particular sequence. If we name inner most small figure as 1, middle figure as 2 and outer most figure as 3, the figures are changing in this order given below—
$1 \rightarrow 3 \quad 2 \rightarrow 1 \quad 3 \rightarrow 2$
Therefore fig. (B) will complete the series.
2. (D) In this problem figure series, number of digits is decreasing. Therefore answer figure (D) will occupy the blank space.
3. (B)
4. (A) In this series shaded small triangle on left side is moving anti-clockwise direction and the shaded small triangle is moving in clockwise direction. Answer figure(A) will occupy the blank space.
5. (B)
6. (A) Second problem figure is obtained by completing the incomplete square of the first problem figure. Therefore answer figure (A) will occupy the place marked with mark of interrogation (?)
7. (A)
8. (D) In second problem figure number of sides is increasing therefore figure (D) will replace the mark of interrogation (?)
9. (B) Second problem figure can be obtained by reversing the order of the first problem figure. Therefore answer figure (B) will replace the mark of interrogation (?)
10. (D) Second problem figure can be obtained by turning the first problem figure at an angle of 90° (in anti-clockwise direction). Therefore answer figure (D) will replace the mark of interrogation (?)
11. (B) 12. (C) 13. (B) 14. (B) 15. (D)

16. (C) Figure (C) is of a pea-cock which can fly while other animals cannot fly.
17. (D)
18. (D) Cauliflower is a vegetable others are fruits.
19. (D) Onion, carrot and radish are digged out from the earth but the karela vegetable hangs from the branches.
20. (A) 21. (B) 22. (D) 23. (C) 24. (B) 25. (C)
26. (C) 27. (D) 28. (C) 29. (C) 30. (B) 31. (B)
32. (D) 33. (B) 34. (B) 35. (C)
36. (B) Except in figure (B) a small curved line is near the small circle.
37. (A) Figure (A) is not having an arrow other figures have an arrow.
38. (C) In figure (C) both squares have one diagonal but in other figures only one square has a diagonal.
39. (B)
40. (D) Inside figure (D) does not have shaded inside figure.
41. (B) 42. (B) 43. (A) 44. (A) 45. (C) 46. (D)
47. (B) 48. (C) 49. (B) 50. (A)
51. (C) Prime factors of 2730

2	2730
3	1365
5	455
7	91
	13

Prime factors of 2730 = $2 \times 3 \times 5 \times 7 \times 13$
Reqd. no. of prime factors = 5

52. (D) $\frac{3}{8}\% = \frac{3}{8 \times 100}$
$= \frac{0{\cdot}03}{8}$
$= 0{\cdot}00375$

53. (A) Second number $= \frac{\text{L. C. M.} \times \text{H. C. F.}}{\text{First number}}$
$= \frac{570 \times 19}{95}$
$= 114.$

54. (D) G. C. D. of 126, 91 and 84.

91) 126 (1
91
35) 91 (2
70
21) 35 (1
21
14) 21 (1
14
7) 14 (2
14
×
7) 84 (12
84
×

$\therefore$ Reqd. G. C. D. = 7

55. (A) 13) 303·004 (23·308
26
43
39
40
39
104
104
×
$\therefore$ Reqd. quotient = 23·308

56. (C) 13) 396591 (30507
39
65
65
91
91
×
Reqd. quotient = 30507.

57. (C) Reqd. sum = 5·05 + 5·005 + 0·505 + 55·0005
= 65·5605

58. (D) Given Exp. $= \frac{1}{2} + \frac{3}{4}$
$= \frac{2+3}{4}$
$= \frac{5}{4}$
$= 1{\cdot}25$

59. (B) Largest three digit number = 999
Smallest four digit number = 1000
Reqd. sum = 999 + 1000
= 1999

60. (D) Greatest five digits even number formed by the digits 4, 0, 6, 7, 3, 8, is 87640

61. (A) Reqd. no. A students $= \frac{2160}{45} = 48$

62. (B) $\because$ $133 \times 80 = 10640$
Difference = 10640 – 10600 = 40
Therefore 40 should be subtracted from the product of 133 and 80 to get 10600.

63. (C) All factors of 6 are 1, 2, 3 and 6.
Reqd. sum = 1 + 2 + 3 + 6
= 12

64. (A) Speed of the Car $= \frac{200}{10}$
= 20 m. per second
Speed of the train $= \frac{300}{18}$
$= \frac{50}{3}$ m. per second

Difference between speeds

$$= \left(20 - \frac{50}{3}\right)$$

$$= \frac{60 - 50}{3}$$

$$= \frac{10}{3} \text{ m. per second}$$

Speed of car is more by $\frac{10}{3}$ m/sec.

65. (C) $\because$ Area of the big rectangle $= 15 \times 8$

$= 120 \text{ cm}^2$

$\Rightarrow$ Area of 5 small squares (4 squares of 2 cm. side and one square of 3 cm side)

$= 4 \times 4 + 3 \times 3$

$= (16 + 9) \text{ cm}^2$

$= 25 \text{ cm}^2$

$\therefore$ Area of the shaded portion $= (120 - 25)$

$= 95 \text{ cm}^2$

66. (A) L. C. M. of 3, 4, 5 and 6

2	3, 4, 5, 6
3	3, 2, 5, 3
	1, 2, 5, 1

L. C. M. $= 2 \times 3 \times 2 \times 5$

$= 60$

Therefore number 1440 which is divisible by 60 and will be divisible by 2, 3, 4 and 6.

67. (D) $\because \quad \frac{F - 32}{180} = \frac{C}{100}$

$\Rightarrow \quad F - 32 = \frac{C \times 180}{100}$

$\therefore \quad F - 32 = 1{\cdot}8C.$

When $C = 39{\cdot}5$

$\Rightarrow \quad F - 32 = 39{\cdot}5 \times 1{\cdot}8$

$\Rightarrow \quad F - 32 = 71{\cdot}10$

$\therefore \quad F = 71{\cdot}10 + 32$

$F = 103{\cdot}1°$

68. (C) Selling price of the toy $= \frac{125 \times 60}{100}$

$= ₹ 75.$

69. (D) Principal (P) $= ₹ 5000$

Time (T) $= 2$ years

Simple Interest $= ₹ 500$

Reqd. Rate $= \frac{\text{S. I.} \times 100}{\text{P} \times \text{T}}$

$= \frac{500 \times 100}{5000 \times 2} = 5\%$

Now Principal (P) $= ₹ 12000$

Rate (R) $= 5\%$

Time (T) $= 3$ years

$\therefore$ Reqd. Simple Interest $= \frac{\text{P} \times \text{R} \times \text{T}}{100}$

$= \frac{12000 \times 5 \times 3}{100}$

$= ₹ 1800$

70. (B) Value of (20% of ₹ 5000) of 12%

$= \frac{20 \times 5000}{100} \times \frac{12}{100}$

$= ₹ 120$

71. (D) As per bar chart, Reqd. Attendence = 40

72. (A) $102{\cdot}005 \times 7{\cdot}002 \simeq 102 \times 7$ (Approximately)

$\simeq 714$ (Approximately)

73. (B) Given Exp. $= 2 \times [42 - \{13 + (8 \times 2)\}]$

$= 2 \times [42 - \{13 + 16\}]$

$= 2 \times [42 - 29]$

$= 2 \times 13$

$= 26$

74. (C) 12 cubic meter $= 12 \times 100 \times 100 \times 100 \text{ cm}^3$

$\because \quad 1000 \text{ cm}^3 = 1$ litre

$\therefore$ 12 cubic meter

$= \frac{12 \times 100 \times 100 \times 100}{1000}$ litre

$= 12000$ litre

$= 12000 \times 1000$ milli litre

Reqd. no. of bottles

$= \frac{12000 \times 1000}{200}$

$= 60000$

75. (B) 76. (C) 77. (C) 78. (C) 79. (D) 80. (C)
81. (B) 82. (D) 83. (C) 84. (D) 85. (B) 86. (C)
87. (C) 88. (C) 89. (A) 90. (C) 91. (B) 92. (D)
93. (A) 94. (B) 95. (A) 96. (C) 97. (A) 98. (C)
99. (A) 100. (B)

2010

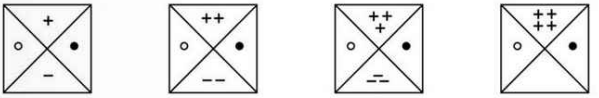
Section–I

Mental Ability Test

Part–I

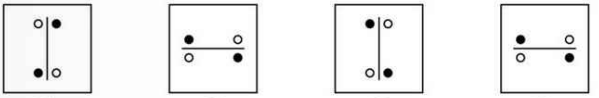
Directions—(Q. 1 to 5) Four figures (A), (B), (C) and (D) have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and write your answer only in English letters (*i.e.*, A, B, C and D) in the box against the number corresponding to the questions in the answer sheet.

1.



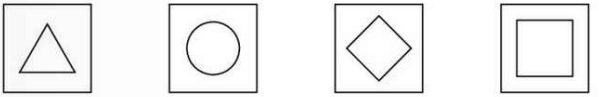
(A) (B) (C) (D)

2.



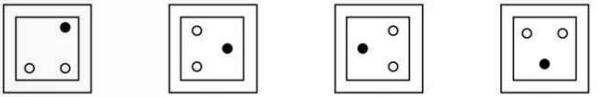
(A) (B) (C) (D)

3.



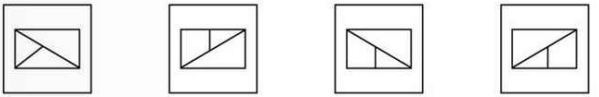
(A) (B) (C) (D)

4.



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

5.

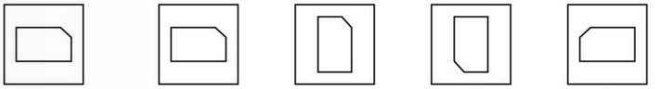


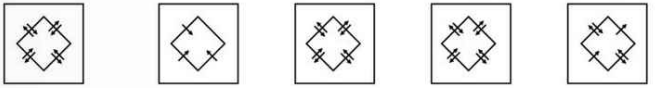
(A) (B) (C) (D)

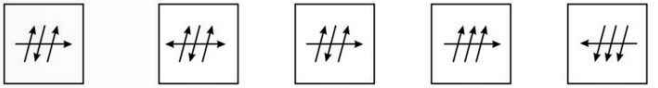
Part–II

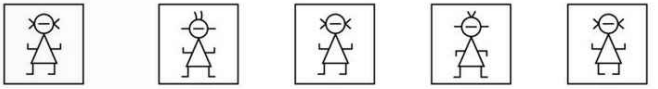
Directions—(Q. 6 to 10) A problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which is exactly the same as the problem figure and write your answer only in English letters (*i.e.*, A, B, C and D) in the box against the number corresponding to the questions in the answer sheet.

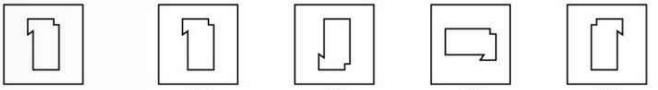
Problem figure **Answer figures**

6. 
(A) (B) (C) (D)

7. 
(A) (B) (C) (D)

8. 
(A) (B) (C) (D)

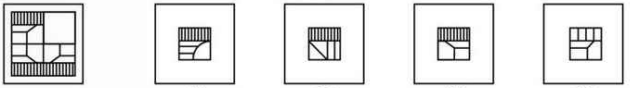
9. 
(A) (B) (C) (D)

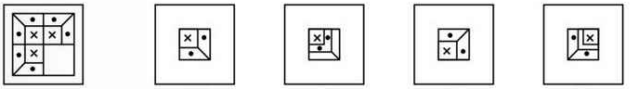
10. 
(A) (B) (C) (D)

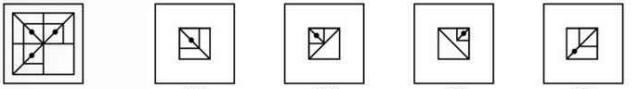
Part–III

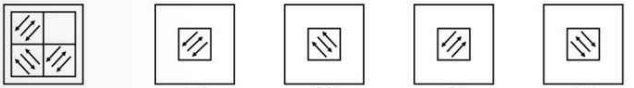
Directions—(Q. 11 to 15) There is a problem figure on the left-hand side, a part of which is missing. Observe the answer figures (A), (B), (C) and (D) on the right-hand side and find out the answer figure which, without changing the direction fits in the missing part of the problem figure in order to complete the pattern in the problem figure. Indicate your answer by letter of the answer figure chosen by you in the box against the number corresponding to the questions in the answer sheet.

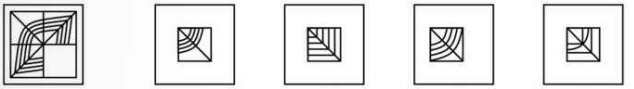
Problem figure **Answer figures**

11. 
(A) (B) (C) (D)

12. 
(A) (B) (C) (D)

13. 
(A) (B) (C) (D)

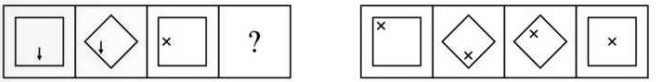
14. 
(A) (B) (C) (D)

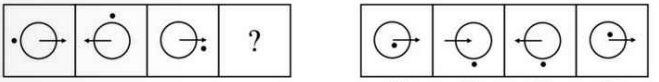
15. 
(A) (B) (C) (D)

Part–IV

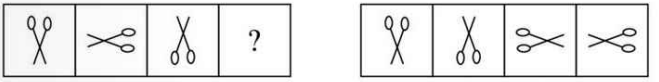
Directions—(Q. 16 to 20) There are three problem figures on the left-hand side and the space for the fourth figure is left blank. The problem figures are in a series. Fing out one figure from among the answer figures given on the right-hand side which occupies the blank space for the fourth figure on the left-hand side and which completes the series. Indicate your answer of the answer figure chosen by you in the box against the number corresponding to the questions in the answer sheet.

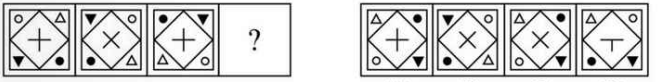
Problem figures **Answer figures**

16. 
(A) (B) (C) (D)

17. 
(A) (B) (C) (D)

18. 
(A) (B) (C) (D)

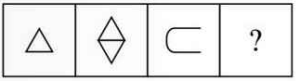
19. 
(A) (B) (C) (D)

20. 
(A) (B) (C) (D)

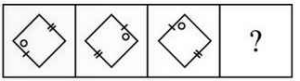
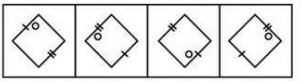
Part–V

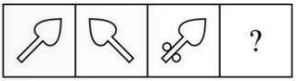
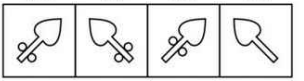
Directions—(Q. 21 to 25) There are three problem figures followed by a mark of interrogation (?) for the fourth one. There exists a relationship between the first two problem figures. A similar relationship should exist between the third and fourth problem figures. Select one figure from the answer figures which replaces the mark of interrogation. Write the letter of the answer figure selected by you in the box against the number corresponding to the questions in the answer sheet.

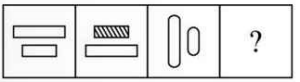
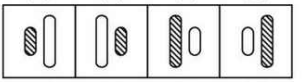
Problem figures **Answer figures**

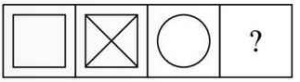
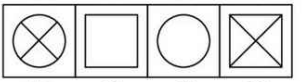
21. 

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

22. 

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

23. 

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

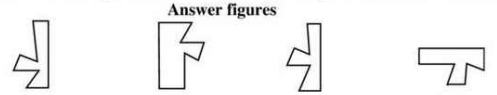
24. 

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

25. 

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

Part–VI

Directions—(Q. 26 to 30) One part of a square is on the left-hand side and the other one is among the four figures (A), (B), (C) and (D) on the right-hand side. Find the figure on the right-hand side that completes the square. Write the letter given below that figure in the box against the number corresponding to the questions in the answer sheet.

Problem figures **Answer figures**

26. 

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

27. 

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

28. 

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

29. 

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

30. 

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

Part–VII

Directions—(Q. 31 to 35) Four figures (A), (B), (C) and (D) have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and write your answer only in English letters (*i.e.*, A, B, C and D) in the box against the number corresponding to the questions in the answer sheet.

31. 
(A) (B) (C) (D)

32. 
(A) (B) (C) (D)

33. 
(A) (B) (C) (D)

34. 
(A) (B) (C) (D)

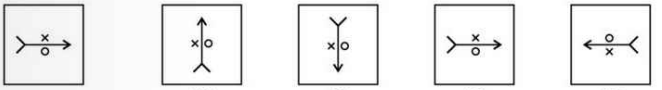
35. 
(A) (B) (C) (D)

Part–VIII

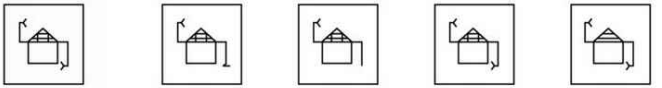
Directions—(Q. 36 to 40) A problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which is exactly the same as the problem figure and write your answer only in English letters (*i.e.*, A, B, C and D) in the box against the number corresponding to the questions in the answer sheet.

Problem figures **Answer figures**

36. 
(A) (B) (C) (D)

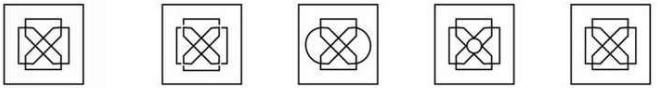
37. 
(A) (B) (C) (D)

38.



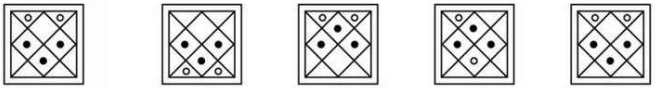
(A) (B) (C) (D)

39.



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

40.



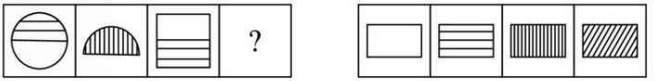
(A) (B) (C) (D)

Part–IX

Directions—(Q. 41 to 45) There are three problem figures followed by a mark of interrogation (?) for the fourth one. There exists a relationship between the first two problem figures. A similar relationship should exist between the third and fourth problem figures. Select one figure from the answer figures which replaces the mark of interrogation. Write the letter of the answer figure selected by you in the box against the number corresponding to the questions in the answer sheet.

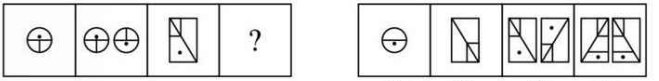
Problem figures **Answer figures**

41.



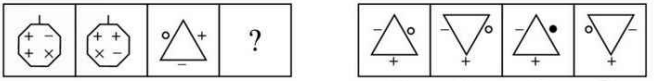
(A) (B) (C) (D)

42.



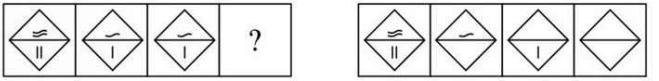
(A) (B) (C) (D)

43.



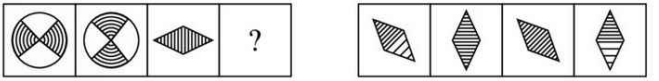
(A) (B) (C) (D)

44.



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

45.



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

Part–X

Directions—(Q. 46 to 50) One part of a square is on the left-hand side and the other one is among the four figures (A), (B), (C) and (D) on the right-hand side. Find the figure on the right-hand side that completes the square. Write the letter given below that figure in the box against the number corresponding to the questions in the answer sheet.

Problem figures **Answer figures**

46. 

(A)

(B)

(C)

(D)

47. 

(A)

(B)

(C)

(D)

48. 

(A)

(B)

(C)

(D)

49. 

(A)

(B)

(C)

(D)

50. 

(A)

(B)

(C)

(D)

Section–II
Arithmetic

Directions (Q. 51 to 75)—There are four possible answers for each questions which are represented by (A), (B), (C) and (D). Only one answer is correct out of these answers. Choose correct answer and write down the answer in English alphabet in the given boxes in front of each problem in the attached answer book.

51. Sixteen lakh eight hundred thirteen is written as—
(A) 16813 (B) 160830
(C) 1600813 (D) 160813

52. There are 14 lines in a car parking. There are 420 places for parking the cars in each line. How many cars can be parked in the car parking ?
(A) 5880 (B) 434
(C) 406 (D) 30

53. A number
– is less than 50
– is multiple of 7
– has total 3 factors.
What is this number ?
(A) 14 (B) 42
(C) 49 (D) 70

54. How is $\frac{61}{10000}$ written in decimal ?
(A) 610000 (B) 0·61000
(C) 0·000061 (D) 0·0061

55. Amita started to draw her field at 11 : 55 a. m. and finished to it at 12 : 05 p.m. How much time did she take to complete the drawing ?
(A) 50 minutes (B) 1 hour 50 minutes
(C) 10 minutes (D) 1 hour 10 minutes

56. What is the place value of digit 5 in the number 214·56 ?
(A) 5 ones (B) 5 tens
(C) 5 tenth (D) 5 hundredth

57. The two brands of chocolate are available in the packing of 10 and 12. If I have to take both brands of chocolate with the same quantity then how many packs should purchase at least of each brand ?

(A) two pack of 10 and two pack of 12
(B) six pack of 10 and five pack of 12
(C) twelve pack of 10 and ten pack of 12
(D) twenty two pack of each

58. Solve the following to get—

$1\frac{1}{24} - 1 + \frac{7}{36}$

(A) $\frac{17}{72}$ (B) $1\frac{17}{72}$
(C) $\frac{7}{60}$ (D) $2\frac{7}{60}$

59. The multiple of two decimals is 14·837. If one is 4·01 of it, then what is the second decimal ?
(A) 37 (B) 3·7
(C) 3·07 (D) 3·007

60. Study the following pattern and find out next term—

$\frac{5}{\times 5}{25}$ $\frac{15}{\times 15}{225}$ $\frac{25}{\times 25}{625}$ $\frac{35}{\times 35}{1225}$ $\frac{45}{\times 45}{2025}$

(A) $\frac{55}{\times 55}{2825}$ (B) $\frac{55}{\times 55}{3225}$
(C) $\frac{55}{\times 55}{3025}$ (D) $\frac{55}{\times 55}{10025}$

61. The population of a district is 20 lakhs. If population increases by 1·1% every year then what will be the population of this district in the end of a year ?
(A) 21·1 lakh (B) 22 lakh
(C) 22·2 lakh (D) 20·22 lakh

62. A shopkeeper looses ₹ 120 by selling a Radio at ₹ 680. To earn the profit of ₹ 120, for how much, he should sell the radio out.
(A) ₹ 720 (B) ₹ 800
(C) ₹ 820 (D) ₹ 920

63. What will be the area of rectangle of 12 cm long and 6·5 cm wide ?
(A) 78 s. cm (B) 78 c. cm
(C) 37 s. cm (D) 37 cm

64. The weight of a ₹ 5 coin is 9 gms. The total weight of ₹ 5 coins is 9 kilogms in the bag of Anu. How many coins are there in the bag ?
(A) 10 (B) 100
(C) 1000 (D) 10000

65. There are 26 rooms in a school. 4 plants are planted in the each room. If 2 cups of water is powered in one plant then how many cups of water should be required for all the plants ?
(A) 32 cups (B) 106 cups
(C) 112 cups (D) 208 cups

66. If one rectangle is formed by 100 cm long wire then what can be maximum area of rectangle ?
(A) 100 square cm (B) 400 square cm
(C) 620 square cm (D) 10000 square cm

67. Arun forms one cuboid by 60 one cm side cube. What will be the volume of this cuboid ?
(A) 30 c. cm (B) 60 c. cm
(C) 75 c. cm (D) 90 c. cm

68. If F rotates three times in clockwise direction at 45° angle, then which figure will be formed ?
(A)  (B) 
(C) (D) 

69. A person borrows ₹ 20000 for the maintenance of house which he has to return in 2 years at the 10% annual interest. The amount which is returned after 2 years with interest by him, is—
(A) ₹ 21000 (B) ₹ 22000
(C) ₹ 24000 (D) ₹ 4000

70. The books available on different subjects in the school library are shown by pictograph as follows—

Subjects	□ → 10 Books
Mathematic	□□□□□□□
Science	□□□□□□□□
Hindi	□□□□
English	□□□□□□□□□□
History	□□

How many subjects are there with more than 50 books ?
(A) 2 (B) 3
(C) 1 (D) 4

71. What is the sum of 20·08, 20·008, 20·888 and 20·088 ?
(A) 80·064 (B) 81·544
(C) 81·054 (D) 81·064

72. The common factors of 12 and 15 are—
(A) 1, 2, 4 (B) 1, 3, 15
(C) 1, 12 (D) 1, 3

73. How many bottles with the capacity of 300 ml. can be filled from the container which has 2·85 m^3 oil.
(A) 950 (B) 9050
(C) 9500 (D) 9550

74. Approximate value of 275·0003 × 3·005 is—
(A) 825 (B) 830
(C) 810 (D) 835

75. A person purchases an old bicycle in ₹ 450 and incur ₹ 50 on its maintenance. If he sold old bicycle for ₹ 600 then his profit percentage is—
(A) 15% (B) 18%
(C) 20% (D) 25%

Section–III
Language

Directions—There are three passages in this Section. Each passage is followed by five questions. Read each passage carefully and answer the questions that follow. For each question four probable answers bearing letters (A), (B), (C) and (D) are given. Only one out of these is correct. You have to choose the correct answer and write the letter in the box against the letter corresponding to the question in answer sheet.

Passage–1

A Jeweller, when peeped through his shop into the lane, saw a well dressed women getting of her car. Along with her pet she moved forward and rang the bell. Curiously, the shopkeeper let her in. After an hour or so the curiosity subsided. The women with atmost care looked at the trays containing diamond, at the counter in front of her nodded her head and asked for something else. In the end she asked for the tray-5 to be shown once again. The jeweller was very happy from within because the said tray contained the most valuable diamonds. When he brought the tray, the woman moved forward and dashed with the jeweller, resulting in all the diamond scattered thither-thither. The woman cut a sorry figure and jeweller looked at her timidly. She helped him picking the diamonds. In the mean while, she took out a piece of biscuit out of her purse and fed her dog. When jeweller could pick the piece of diamond he felt something to stop his heart beat. A 5 carate diamond was seen no where. Excitedly he looked around the entire floor but all in vein. Then he suspeciously looked at the woman and called the police. At the request of the jeweller the police searched the woman but could find nothing. The jeweller realized that the clever woman has cheated on him.

76. Why did the jeweller show curiosity while letting the woman in ?
   (A) because she was well dressed
   (B) because she rang the bell
   (C) because she had a pet also
   (D) because she was beautiful

77. In the above passage Tray-5 is important, because—
   (A) It contained shining diamonds
   (B) Whatever it contained, all scattered on the floor
   (C) The female cut the sorry figure and the jeweller got desperate
   (D) This tray was loving to the jeweller

78. What is the meaning of 'counter' in the passage ?
   (A) An article on which you count
   (B) Re. to be used during playing cards
   (C) An opposition
   (D) A flat surface, on which articles are kept to sell

79. Police was called—
   (A) The woman made the diamonds in tray-5 to fall down
   (B) She was feeding her dog with biscuit and she did not like any of the diamonds
   (C) A 5 carate diamond got disappeared
   (D) She did not purchase anything from the tray

80. Then he looked at the woman with suspecion. What does the underline phrase mean—
   (A) He looked at the woman as if she was not a woman
   (B) He angrily looked at the woman, because she made the tray to fall down
   (C) He looked in such a way as if the woman had cheated on him
   (D) He looked at her suspeciously and the police arrested her

Passage–2

In the year 2007 India became the 11th nation to join the trillioners club. It was the moment to pat you back, but the experts opined that we congratulated in haste. The country is suffering from evils like child marriage, poverty, diseases, castism and communalism, therefore it is a matter of shame for all of us.

81. Which important event took place in the year 2007 ?
   (A) India landed loan worth ₹ 1 trillion to 11 nations
   (B) India became the 11th nation to take loan worth ₹ 1 trillion
   (C) India is included among the those prosperous countries, which had more than one trillion $
   (D) India became the 11th nation to have no poor

82. When the writer says that we have congratulated ourselves in haste, he means—
   (A) Indian wished each other very early in the morning
   (B) India is proud to be counted as prospe-rous country
   (C) We ought to celebrate the moment when there is no poor in the country
   (D) People should have wished each other by the late evening

83. Which words mean—to feel pleasure—
   (A) To pat once own back
   (B) To wish in haste
   (C) Only some have become rich
   (D) Country is still reeling under poverty

84. What was shame for India, according to the writer ?
(A) India became rich quickly
(B) People are still unhappy
(C) Only some have become rich
(D) The government did not give employment to all

85. Which of the following sentences impart the meaning-evils like child marriage ?
(A) Ravana was the king of evils
(B) Child marriage is an evil
(C) We adopt evil methods to torture others
(D) To speak loudly with your parents, is an evil

Passage–3

Two diseases of banana, spreading fast in Africa, are becoming danger to about 3 crore people who bank upon this fruit for their food and earning as well. To check this fast spreading disease, the scientists had an emergency meeting with policy makers. They found the disease incurable, therefore they suggested powerful scheme; such as ploughing the large banana fields, spray the insecticide or burn the plants. They felt, if steps were not taken in time, the disease would turn into epidemic and 90% of the crop would be destroyed.

86. Why did the writer say that the banana disease is becoming danger to the people ?
(A) It would soon spread among the people and kill them
(B) It would soon destroy the crop, which is the means of living and earning of the people
(C) The trees would turn poisonous
(D) This would spread epidemic among the people

87. Why did scientists have emergency meeting ?
(A) To find the solution of the problem
(B) To tell the government, that they have found out the solution
(C) To be awarded by the government
(D) To tell the government that the problem is serious

88. To check the disease, the scientists sugges-ted—
(A) All the people should be inhabited else where
(B) People should be given some other employment for their earning
(C) People should plant something else
(D) All the affected plants must be burnt out or sprayed with insecticide

89. Epidemic means—
(A) Frequently spread disease
(B) Drought
(C) A method to cure plants
(D) A disease to attack only human being

90. Which sentence in the stanza is used to mean-incurable disease ?
(A) None could survive after returning from Africa
(B) On spreading swine flue, to check the spread the government has to take strict steps
(C) The fire was so furious that the entire building turned into ashes with no time
(D) There was a powerful change in the people's life after the erection of factory in the village

Directions—Below are given four sentences (A), (B), (C) and (D). To make a stanza, arrange them in correct order and fill the box in the attached answer sheet, with English alphabet as correct answer.

91. 1. The students were making too much noise.
2. The teacher was not in the class.
3. Everyone got the punishment.
4. The principal visited the class.
The correct order is—
(A) 1, 2, 3, 4 (B) 3, 2, 1, 4
(C) 4, 2, 1, 3 (D) 2, 1, 4, 3

92. 1. Her mother was not at home.
2. Nina was hungry.
3. She purchased chocolate for herself.
4. She went to the nearby shop.
The correct order is—
(A) 1, 2, 3, 4 (B) 2, 1, 4, 3
(C) 3, 2, 1, 4 (D) 3, 1, 2, 4

Directions—Complete the sentence with most appropriate option and fill the box in the attached answer sheet with English alphabet as correct answer—

93. I wanted to stay back at home because—
(A) The train was leaving
(B) I wanted to sleep
(C) The bananas were purchased
(D) I like the apples

94. The child was crying because—
(A) He wanted to read the book
(B) India had won the match
(C) He was hungry
(D) It was raining outside

Directions—(Q. 95–97) Read each sentence to find out whether there is any error in it, the error, if any, will be in one part of the sentence. The number of that part is the answer.

95. Gandhiji was a / men who / become a legend / in his own time
(A) (B) (C) (D)

96. The travel agency made / all the arrangements / for our journey / for England.
(A) (B) (C) (D)

97. The question was / so difficult that / nobody were / able to answer it.
(A) (B) (C) (D)

Directions—Below are given certain words to be filled in the blanks. Choose the correct word and fill the box in the attached answer sheet, with English alphabet as correct answer.

98. I like oranges.....
(A) more (B) usually
(C) like (D) pleasure

99. He sleeps the whole day and studies ..... night.
(A) in (B) at
(C) on (D) for

100. ..... picture is very beautiful.
(A) This (B) They
(C) These (D) Some

Answers with Hints

1. (D) In the rest of others, there are as many '+' symbols in the upper part, there are same as many horizontal small lines in the lower part.
2. (C) In the rest of others, the designs are same after becoming horizontal—

3. (B) In the rest of others, the designs are formed by straight lines.
4. (A) In the rest of others, the shaded circle is at the upper middle of rest of two circles.
5. (A) In the rest of others, one vertical line is on the diagonal line.
6. (A) 7. (C) 8. (B) 9. (B) 10. (A) 11. (C)
12. (A) 13. (A) 14. (B) 15. (A)
16. (C) In the second figure from first the main design rotates 45° and the design inside of it shifts half side clockwise.
17. (C) In each subsequent figure the arrow on the circle rotates 180° clockwise and the point outside of it rotates 90° clockwise.
18. (B) As, the designs are same of first and third figure. Similarly, the designs will be also same of second and fourth figure.
19. (C) In each subsequent figure the design rotates 90° clockwise.
20. (C) In each subsequent figure, the middle design rotates 45° and rest of four designs shift one side clockwise.
21. (D) In second figure from first the similar design joins under the design.
22. (C) In second figure from first the small lines on the square form on the opposite sides after reversing and small circle forms at the opposite corner.
23. (B) In second figure from first the design rotates 45° anticlockwise.
24. (A) In second figure from first the small design becomes with lining after forming at opposite side.
25. (A) In second figure from first two lines form perpendicular inside of the design.
26. (A) 27. (D) 28. (C) 29. (D) 30. (A) 31. (B)
32. (A) 33. (D) 34. (D) 35. (A) 36. (A) 37. (C)
38. (C) 39. (D) 40. (D)
41. (C) In second figure from first the circle becomes with vertical lines after becoming half.
42. (C) In second figure from first the same design forms after reversing near of the design.
43. (A) In second figure from first the symbols inside of design shift one side clockwise. Similarly, these shift outside also.
44. (D) In second figure from first the designs of lines become missing one by one.
45. (B) In second figure from first the design forms after rotating 90°.
46. (B) 47. (A) 48. (A) 49. (A) 50. (A) 51. (C)
52. (A) Total parked cars in parking
$= 14 \times 420$
$= 5880$
53. (B) $42 = 7 \times 2 \times 3$
54. (D) $\frac{61}{10000} = 0{\cdot}0061$
55. (C) $\therefore$ Required time = 12 : 05 p. m.
$\sim$ 11 : 55 a. m.
= 10 minutes
56. (A) $214{\cdot}56 \approx 215$
57. (B) $10 \times 6 = 60$
$12 \times 5 = 60$
58. (A) $1\frac{1}{24} - 1 + \frac{7}{36}$

$$= \frac{25}{24} - 1 + \frac{7}{36}$$

$$= \frac{25 \times 36 - 24 \times 36 + 7 \times 24}{24 \times 36}$$

$$= \frac{36(1) + 7 \times 24}{24 \times 36}$$

$$= \frac{6(6 + 28)}{24 \times 36}$$

$$= \frac{34}{24 \times 6}$$

$$= \frac{17}{72}$$

59. (B) $\therefore$ Second decimal $= \dfrac{14{\cdot}837}{4{\cdot}01}$

$= 3{\cdot}7$

60. (C)

$$5 \xrightarrow{+10} \underset{\times 5}{25} \qquad 15 \xrightarrow{+10} \underset{\times 15}{225} \qquad 25 \xrightarrow{+10} \underset{\times 25}{625}$$

$$35 \xrightarrow{+10} \underset{\times 35}{1225} \qquad 45 \xrightarrow{+10} \underset{\times 45}{2025} \qquad 55 \xrightarrow{} \underset{\times 55}{3025}$$

61. (D) $\therefore$ Required population of district

$= 20{,}00000 \times \dfrac{101{\cdot}1}{100}$

$= 2022000$

$\approx 20{\cdot}22$ lakh

62. (D) Cost price of radio $=$ ₹ $(680 + 120)$

$=$ ₹ 800

$\therefore$ Required price $=$ ₹ $(800 + 120)$

$=$ ₹ 920

63. (A) $\therefore$ Required area of rectangle

$= 12 \times 6{\cdot}5$ sq. cm

$= 78$ sq. cm

64. (C) $\therefore$ Total coins in the bag $= \dfrac{9 \times 1000 \text{ gm}}{9 \text{ gm}}$

$= 1000$

65. (D) $\therefore$ Total required water cups $= 26 \times 4 \times 2$

$= 208$

66. (B) Perimeter of rectangle $= 2(x + y)$

$= 100$ cm

$\Rightarrow \quad x + y = 50$ cm

Hence, the sum of length and width will be 50 cm

$\therefore$ Maximum area of rectangle

$= 10 \times 40$

$= 400$ sq. cm

67. (B) The volume of one cm core cube

$= (1 \times 1 \times 1)$ cubic. cm

$= 1$ cubic. cm

$\therefore$ Volume of one cuboid

$= (1 \times 60)$ cubic cm

$= 60$ cubic. cm

68. (D)

69. (C) $\therefore$ Required returning amount

$= \dfrac{20000 \times 10 \times 2}{100} + 20000$

$=$ ₹ $4000 +$ ₹ 20000

$=$ ₹ 24000

70. (B)

71. (D) $20{\cdot}08 + 20{\cdot}008 + 20{\cdot}888 + 20{\cdot}088$

$= 81{\cdot}064$

72. (D) $12 = 1 \times 2 \times 2 \times 3$

$15 = 1 \times 3 \times 5$

$\therefore$ Common factors $= 1, 3$

73. (C)

1 cubic meter $= 1000$ litre

1 liter $= 1000$ milli litre

$\therefore$ Required filled bottles

$= \dfrac{2{\cdot}85 \times 1000 \times 1000}{300}$

$= 9500$

74. (A) $275{\cdot}0003 \times 3{\cdot}005 \approx 275 \times 3$

$= 825$

75. (C) $\therefore$ Required per cent profit

$= \dfrac{600 - (450 + 50)}{(450 + 50)} \times 100\%$

$= 20\%$

Passage 1

76. (A) 77. (A) 78. (D) 79. (C) 80. (C)

Passage 2

81. (C) 82. (C) 83. (A) 84. (B) 85. (B)

Passage 3

86. (B) 87. (A) 88. (D) 89. (A) 90. (A)

91. (D) 92. (B) 93. (B) 94. (C)

95. (C) became a legend होगा.

96. (D) to England होगा.

97. (C) nobody was होगा.

98. (B) usually

99. (B) at night

100. (A) This

2009

Section–I

Mental Ability Test

Part–I

Directions—(Q. 1 to 5) Four figures (A), (B), (C) and (D) have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and write your answer only in English letters (*i.e.*, A, B, C and D) in the box against the number corresponding to the questions in the answer sheet.

1. 
(A) (B) (C) (D)

2. 
(A) (B) (C) (D)

3. 
(A) (B) (C) (D)

4. 

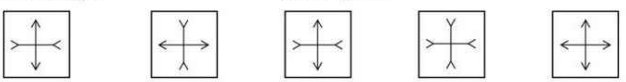
(A) (B) (C) (D)

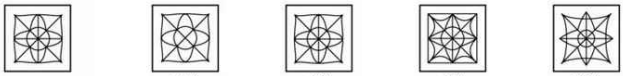
5. 
(A) (B) (C) (D)

Part–II

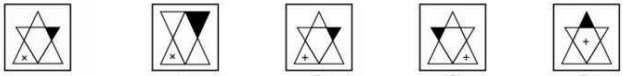
Directions—(Q. 6 to 10) A problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which is exactly the same as the problem figure and write your answer only in English letters (*i.e.*, A, B, C and D) in the box against the number corresponding to the questions in the answer sheet.

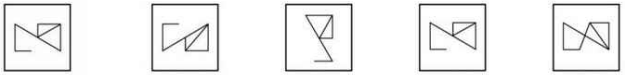
Problem figure **Answer figures**

6. 
(A) (B) (C) (D)

7. 
(A) (B) (C) (D)

8. 
(A) (B) (C) (D)

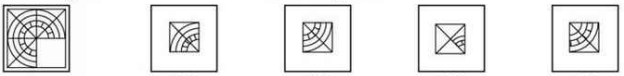
9. 
(A) (B) (C) (D)

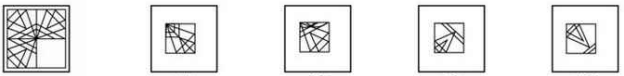
10. 
(A) (B) (C) (D)

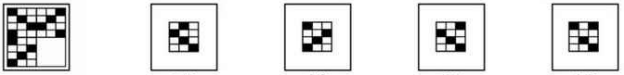
Part–III

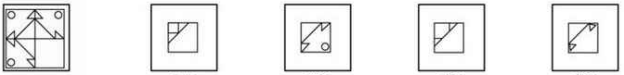
Directions—(Q. 11 to 15) There is a problem figure on the left-hand side, a part of which is missing. Observe the answer figures (A), (B), (C) and (D) on the right-hand side and find out the answer figure which, without changing the direction fits in the missing part of the problem figure in order to complete the pattern in the problem figure. Indicate your answer by letter of the answer figure chosen by you in the box against the number corresponding to the questions in the answer sheet.

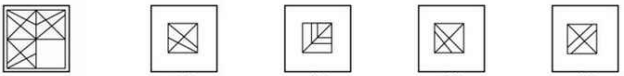
Problem figure **Answer figures**

11. 
(A) (B) (C) (D)

12. 
(A) (B) (C) (D)

13. 
(A) (B) (C) (D)

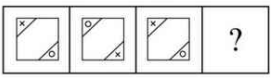
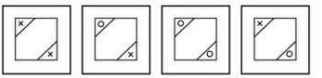
14. 
(A) (B) (C) (D)

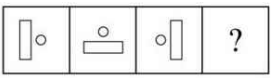
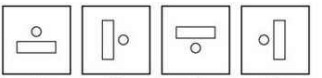
15. 
(A) (B) (C) (D)

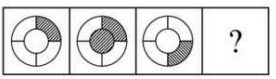
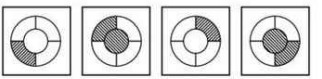
Part–IV

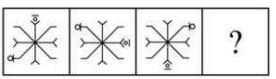
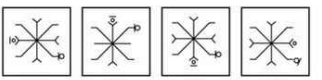
Directions—(Q. 16 to 20) There are three problem figures on the left-hand side and the space for the fourth figure is left blank. The problem figures are in a series. Fing out one figure from among the answer figures given on the right-hand side which occupies the blank space for the fourth figure on the left-hand side and which completes the series. Indicate your answer of the answer figure chosen by you in the box against the number corresponding to the questions in the answer sheet.

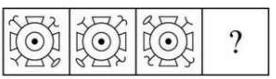
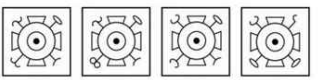
Problem figures **Answer figures**

16. 

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

17. 

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

18. 

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

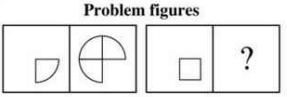
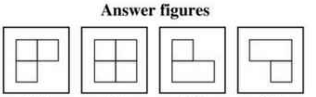
19. 

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

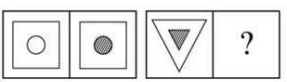
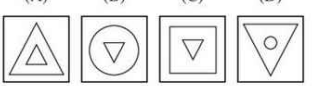
20. 

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

Part–V

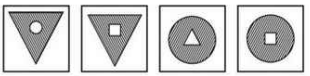
Directions—(Q. 21 to 25) There are three problem figures followed by a mark of interrogation (?) for the fourth one. There exists a relationship between the first two problem figures. A similar relationship should exist between the third and fourth problem figures. Select one figure from the answer figures which replaces the mark of interrogation. Write the letter of the answer figure selected by you in the box against the number corresponding to the questions in the answer sheet.

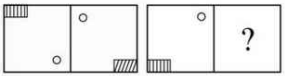
Problem figures **Answer figures**

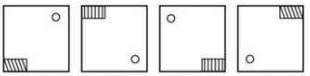
21. 

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

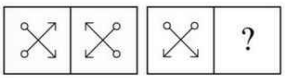
22. 

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

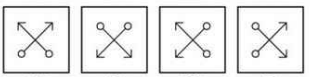
23. 


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

24. 


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

25. 


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

Part–VI

Directions—(Q. 26 to 30) One part of a square is on the left-hand side and the other one is among the four figures (A), (B), (C) and (D) on the right-hand side. Find the figure on the right-hand side that completes the square. Write the letter given below that figure in the box against the number corresponding to the questions in the answer sheet.

Problem figure **Answer figures**

26. 

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

27. 

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

28. 

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

29. 

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

30. 

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

Part–VII

Directions—(Q. 31 to 35) Four figures (A), (B), (C) and (D) have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and write your answer only in English letters (*i.e.*, A, B, C and D) in the box against the number corresponding to the questions in the answer sheet.

31. 
(A) (B) (C) (D)

32.

(A)

(B)

(C)

(D)

33.

(A)

(B)

(C)

(D)

34.

(A)

(B)

(C)

(D)

35.

(A)

(B)

(C)

(D)

Part–VIII

Directions—(Q. 36 to 40) A problem figure is given on the left-hand side and four answer figures marked (A), (B), (C) and (D) are given on the right-hand side. Select the answer figure which is exactly the same as the problem figure and write your answer only in English letters (*i.e.*, A, B, C and D) in the box against the number corresponding to the questions in the answer sheet.

Problem figure **Answer figures**

36.

(A)

(B)

(C)

(D)

37.

(A)

(B)

(C)

(D)

38.

(A)

(B)

(C)

(D)

39.

(A)

(B)

(C)

(D)

40.

(A)

(B)

(C)

(D)

Part–IX

Directions—(Q. 41 to 45) There is a problem figure on the left-hand side, a part of which is missing. Observe the answer figures (A), (B), (C) and (D) on the right-hand side and find out the answer figure which, without changing the direction, fits in the missing part of the problem figure in order to complete the pattern in the problem figure. Indicate your answer by letter of the answer figure chosen by you in the box against the number corresponding to the questions in the answer sheet.

Problem Figure **Answer Figures**

41. 

(A)

(B)

(C)

(D)

42. 

(A)

(B)

(C)

(D)

43. 

(A)

(B)

(C)

(D)

44. 

(A)

(B)

(C)

(D)

45. 

(A)

(B)

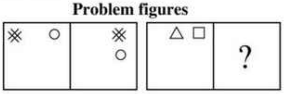
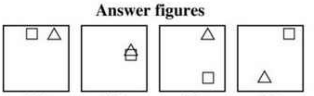
(C)

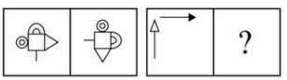
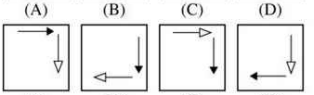
(D)

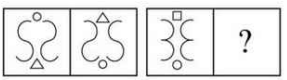
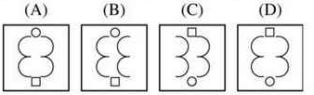
Part–X

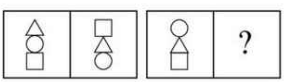
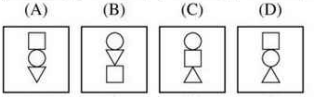
Directions—(Q. 46 to 50) There are three problem figures followed by a mark of interrogation (?) for the fourth one. There exists a relationship between the first two problem figures. A similar relationship should exist between the third and fourth problem figures. Select one figure from the answer figures which replaces the mark of interrogation. Write the number of the answer figure selected by you in the box against the number corresponding to the questions in the answer sheet.

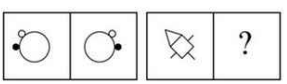
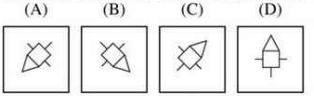
Problem figures **Answer figures**

46. 

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

47. 

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

48. 

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

49. 

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

50. 

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

Section–II
Arithmetic

Directions—For every question, four probable answers bearing letters (A), (B), (C) and (D) are given. Only one out of these is correct. You have to give the correct answer and write the letter in the box against the letter corresponding to the questions in the answer sheet.

51. The smallest 4-digit number formed by the digits 8, 0, 3, 6 and is divisible by 5 is—
(A) 0368 (B) 3068
(C) 8630 (D) 3680

52. What is the difference between the largest and the smallest five digit numbers formed by 3, 5, 7, 9, 0 ?
(A) 128109 (B) 93951
(C) 61740 (D) 66951

53. A number when divided by 108 gives quotient as 29 and remainder 24. What is this number ?
(A) 3156 (B) 2621
(C) 75168 (D) 161

54. What will be the largest number that divides 163 and 243 leaving 3 as remainder ?
(A) 180 (B) 80
(C) 406 (D) 403

55. Which is the largest prime number of 2-digits ?
(A) 91 (B) 93
(C) 97 (D) 19

56. How many prime numbers are there between 1 and 20 ?
(A) 8 (B) 9
(C) 10 (D) 11

57. It was Thursday on 1st January. What day will be on 4th February ?
(A) Monday (B) Tuesday
(C) Wednesday (D) Thursday

58. The sum of the digits of a 2-digit number is 11. On adding 27 to the number, the digits are reversed. What is the number ?
(A) 83 (B) 74
(C) 47 (D) 38

59. By how much 2806 exceeds 1989 ?
(A) 4795 (B) 4785
(C) 827 (D) 817

60. What is the sum of 7·07, 7·007, 70·007 and 700·007 ?
(A) 783·091 (B) 784·081
(C) 784·091 (D) 785·101

61. What is the value of 20·2 – 2 + 0·002 ?
(A) 18·202 (B) 18·002
(C) 18·020 (D) 18·222

62. In which of the following, the quotient is 36 ?
(A) 0·216 ÷ 0·6 (B) 0·216 ÷ 0·06
(C) 0·216 ÷ 0·006 (D) 216 ÷ 0·6

63. Express 3·5% in fraction—
(A) $\frac{7}{2}$ (B) $\frac{7}{20}$
(C) $\frac{7}{200}$ (D) $\frac{7}{2000}$

64. What is the smallest 3-digit number which is divisible by 18 and 24 ?
(A) 112 (B) 144
(C) 936 (D) 972

65. H.C.F. and L.C.M. of two numbers are 8 and 120 respectively. If one number is 24, what is the other number ?
(A) 24 (B) 30
(C) 40 (D) 50

66. When 77·7777 is divided by 11, what will be the quotient ?
(A) 7·7707 (B) 7·0707
(C) 7·0077 (D) 7·0777

67. The estimated sum of 41·75, 7·76 and 8·13 in complete integers is—
(A) 56 (B) 57
(C) 58 (D) 60

68. How many 300 ml bottles can be filled in with 3 cubic metre oil ?
(A) 100 (B) 1000
(C) 10000 (D) 100000

69. A train covers 504 km in 4 hours 30 minutes. What is the speed of the train ?
(A) 110 km/hr (B) 112 km/hr
(C) 120 km/hr (D) 126 km/hr

70. A man performs $\frac{2}{15}$ of his total journey by train, $\frac{9}{20}$ by bus and the remaining 10 km by bicycle. The total journey is—
(A) 15·6 km (B) 12·8 km
(C) 16·4 km (D) 24 km

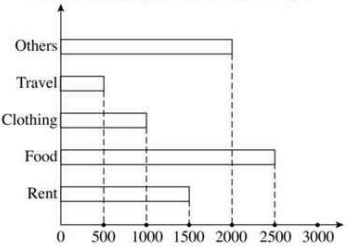
71. A sum of ₹ 1200 is taken on loan at 8% per annum at simple interest for a period of 8 months. How much money is required to settle the amount ?
(A) ₹ 64 (B) ₹ 1264
(C) ₹ 1136 (D) ₹ 1968

72. One litre of ghee weighs 930 gm. If the cost of ghee is ₹ 200 per kg, what is the cost of 5 litres of ghee ?
(A) ₹ 900 (B) ₹ 930
(C) ₹ 950 (D) ₹ 1000

73. The sugar prices have gone up from ₹ 20 per kg. to ₹ 23 per kg. What per cent increase has taken place ?
(A) 3% (B) 5%
(C) 15% (D) 20%

74. Study the following pattern—
$(2 \times 2) - (1 \times 1) = 2 + 1 = 3$
$(3 \times 3) - (2 \times 2) = 3 + 2 = 5$
$(4 \times 4) - (3 \times 3) = 4 + 3 = 7$
$(5 \times 5) - (4 \times 4) = 5 + 4 = 9$
What is the value of $(73 \times 73) - (72 \times 72)$?
(A) 1045 (B) 145
(C) 1 (D) 2

75. The bar graph shown below represents the expenditure of a family—
What is the total expenditure of the family ?



(A) ₹ 8000 (B) ₹ 7500
(C) ₹ 7000 (D) ₹ 6500

Section–III
Language

Directions—There are three passages in this Section. Each passage is followed by five questions. Read each passage carefully and answer the questions that follow. For each question four probable answers bearing letters (A), (B), (C) and (D) are given. Only one out of these is correct. You have to choose the correct answer and write the letter in the box against the letter corresponding to the question in answer sheet.

Passage–1

Bats are very useful to humans. Seventy per cent of bats eat insects. These bats help to rid places of mosquitoes or other insects that destroy plants. A mere one hundred and fifty bats can eat millions of rootworms. Bats that eat fruits help to spread seeds for new plants and trees. These bats like ripe fruits, like mangoes, nuts dates and figs. They drop the seeds as they fly and these seeds can grow into new trees. Echolocation directs bats to their food. These bats emit a series of sounds which travel into air, bouncing off objects and insects, thereby resulting in different echoes. During the day, their natural habitat offers them the most protection. They mostly stay in trees or deep inside caves. These are perfect places against danger and for babies to be nursed. The bat is a mammal because it has fur, its baby is born live and it nurses from its mother.

76. Natural habitat of bats are—
(A) Trees or caves (B) Burrows
(C) Homes (D) Hives

77. Bats are mammals because—
(A) They can fly
(B) They are hatched from eggs
(C) It is a warm blooded creature
(D) Babies are fed from the mother's milk

78. Fruit eating bats help new trees to grow by—
(A) Bouncing off objects and insects
(B) Eating ripe fruits like mangoes and dates
(C) By dropping the seeds as they fly
(D) Depending on echolocation to search for food

79. Bats help farmers by—
(A) Eating insects that destroy plants
(B) By destroying plants that are harmful
(C) By creating a mere one hundred and fifty bats
(D) By eating ripe fruits and figs

80. 'Directs' means—
(A) Travels (B) Emits
(C) Guides (D) Drops

Passage–2

Did you know that pearls come from the bottom of the sea ? On the sea bed are found shells. Some of these shells are the homes of tiny sea creatures that are called oysters.

Oysters make something called 'nacre'. This 'nacre' coats the inside of the shells and makes them look shiny and pretty. Sometimes a piece of shell or a grain of sand or some other small particle gets into the shell of the oyster. The oyster begins to cover this particle with nacre. After it has coated the object for some time, a beautiful pearl is formed.

Some pearls are round, some look like tiny buttons and others even resemble raindrops. Pearls are of different colours. They may be white or pink, cream or orange, black or grey or even gold.

Divers collect the oyster shells from the sea. The pearls are taken out and sold to jewellers who make the most amazing jewellery with them. Women love pearl necklaces, earrings, bangles and rings.

81. Where do pearls come from ?
    (A) The jeweller's shop
    (B) The bottom of the sea
    (C) The beach
    (D) Flower beds

82. Why do the inside of oyster shells look shiny and pretty ?
    (A) They have been polished
    (B) They are painted
    (C) They are coated with nacre
    (D) They are kept clean by the oysters

83. By whom are pearls made ?
    (A) Oysters
    (B) Human beings
    (C) The fish at the bottom of the sea
    (D) Whales

84. What does the word 'resemble' mean ?
    (A) Look like (B) Put together
    (C) Round (D) Like tiny buttons

85. Who collects the oyster shells from the sea ?
    (A) Drivers (B) Jewellers
    (C) Divers (D) Swimmers

Passage–3

Jane decided to have a different birthday party this year. As usual, it was held at her house. Her mother cooked all her favourite food like she always did and Jane invited her friends as the year before. She was going to have a costume party, a welcome change for everyone. On the day of the party, Jane's friends were greeted at the door by a fluffy rabbit. One of her guests was dressed as a witch and had a broom also with her. One was an elf and; had pointed ears, nose and shoes. Everyone liked the 'passing the parcle' best. There were many unexpected twists to the game. There were many games and even more prizes to be won. The children went from one game to the other forgetting about their growling stomachs. The games stopped only when all the prizes had been given out. By then, almost everyone had a prize. Jane was also able to cut the birthday cake. Right in front of her was a three kilogram cake with the face of Winnie of Pooh staring back at her.

86. Jane's birthday party was different this year because—
    (A) It was held at her house
    (B) She invited her friends
    (C) Her mother cooked her favourite food
    (D) She was having her costume party

87. Jane was dressed as a—
    (A) Rabbit (B) Witch
    (C) Elf (D) Pirate

88. The games ended when—
    (A) Jane had run out of ideas for any more games
    (B) There were no more prizes to give out
    (C) The children were tired of singing
    (D) Their stomachs started growling

89. The cutting of the cake was exciting because—
    (A) Jane's mother had overheard her talking to her friends
    (B) It was the highlight of the occasion
    (C) Jane could eat the cake all by herself
    (D) Jane had a Winnie the Pooh cake

90. The children were very involved in the games that they even forgot—
    (A) To go home
    (B) To open the parcel
    (C) About their growling stomachs
    (D) About the elf

Directions—Given below are four sentences marked as 1, 2, 3 and 4. Find the correct order of these sentences to make a paragraph and write the letter in the box against the letter corresponding to the questions in the answer sheet.

91. 1. The assembly had already begun.
    2. I got up late.
    3. I reached the school.
    4. I took bath and dressed up quickly.
    The correct order will be—
    (A) 1 2 3 4 (B) 2 1 3 4
    (C) 2 4 3 1 (D) 3 2 4 1

92. 1. About 50 people died in the fire.
    2. A fire broke out in the market.
    3. The injured were taken to the hospital.
    4. Every one was shocked.
    The correct order will be—
    (A) 4 3 2 1 (B) 4 3 1 2
    (C) 2 4 1 3 (D) 2 1 3 4

Directions—Complete the following sentences by selecting the best alternative and write the letter in the box against the letter corresponding to the questions in the answer sheet.

93. The children were ..... when the teacher was telling them a ghost story.
    (A) Digging their ears
    (B) Opening their ears to listen
    (C) Covering their ears in fear
    (D) Listening attentively

94. She failed in her exams because—
    (A) She worked very hard
    (B) She followed the instructions of her teachers
    (C) Of her own carelessness
    (D) She always completed her work on time

Directions—The following sentences are divided into four parts. One part in each sentence is wrong. You have to find it and write the letter in the box against the letter corresponding to the questions in the answer sheet.

95. Where / do / your family / come from ?
    (A) (B) (C) (D)

96. We are / playing / a game / in football.
    (A) (B) (C) (D)

97. Water / comes out / in / tap.
    (A) (B) (C) (D)

Directions—Select the suitable word to fill in the following sentences and write the letter in the box against the letter corresponding to the questions in the answer sheet.

98. Unfortunately the driver ..... the red light.
    (A) didn't saw (B) didn't see
    (C) no saw (D) saw not

99. The children collected the eggs which the hens.....
    (A) lay (B) lain
    (C) had laid (D) are laying

100. The boys saw the woman ..... yet they did nothing.
    (A) falling (B) have fallen
    (C) fell (D) fall

Answers with Hint

1. (B) In all the rest three designs are same except size.
2. (B) In all the rest two lines are perpendicular with each other.
3. (B) In all the rest there are curve lines.
4. (B) In all the rest things are made of cotton.
5. (D) In all the rest four parts of designs are same.
6. (B) 7. (B) 8. (A) 9. (B) 10. (C)
11. (B) 12. (B) 13. (C) 14. (B) 15. (A)
16. (B) In each subsequent figure the designs of upper left corner and lower right corner are changing their places with each other.
17. (C) In each subsequent figure the design is rotating through 90° anticlockwise.
18. (D) In second figure from first the middle circle becomes black. Similarly, in fourth figure from third the middle circle will become black.
19. (A) In each subsequent figure the both designs on the sides of main design are forming after leaving one side anticlockwise.
20. (A) In each subsequent figure the four designs on the main design are shifting one side anticlockwise.
21. (A) In second figure from first the one-fourth part of design completes coloured the design.
22. (A) In second figure from first the middle part of design forms after becoming coloured. So in fourth figure from third the middle part of design will form plane from coloured.
23. (B) In second figure from first the design reverses and leaving middle part the rest part becomes.
24. (D) In second figure from first both designs change their places and vertical lines inside rectangle become diagonally slant.
25. (B) In second figure from first the design reverses horizontaly or makes mirror image.
26. (C) 27. (D) 28. (C) 29. (C) 30. (A)
31. (C) In all the rest designs are same as '  ' when rotate.
32. (D) In all the rest designs form with horizontal and vertical lines only.
33. (C) In all the rest letters are formed with only two lines.
34. (D) In all the rest there are living creatures ground and in water both.
35. (A) In all the rest there are living things who give milk which is used by human being.
36. (C) 37. (B) 38. (A) 39. (C) 40. (D) 41. (D)
42. (C) 43. (B) 44. (D) 45. (A)
46. (B) In second figure from first the first design shifts half side clockwise in the same direction designs the second design shifts one side.
47. (C) In second figure from first the design rotates through 90° clockwise.
48. (A) In second figure from first the upper and lower designs change their places mutually and rest both designs form after reversing.
49. (D) In second figure from first the designs shift one place lower side respectively and the lowest design reaches of the top.
50. (C) In second figure from first the design forms with its mirror image.

51. (D) Required smallest 4-digit number divisible by 5 = 3680

52. (D) Required difference = 97530 – 30579
= 66951

53. (A) ∵ Dividend = Divisor × Quotient + Remainder
∴ Reqd. number = 108 × 29 + 24
= 3132 + 24 = 3156

54. (B) ∵ 163 – 3 = 160
and 243 – 3 = 240
∴ Reqd. largest number = H.C.F. of 160 and 240
= 80

55. (C) Largest prime number of 2-digits = 97

56. (A) The prime numbers between 1 and 20 are 2, 3, 5, 7, 11, 13, 17, 19
∴ Number of these numbers = 8 (eight)

57. (C) ∵ 1st January was on Thursday
⇒ Number of day between 1st January and 4th February
= 30 + 4 = 34 days
= 4 weeks + 6 days
∴ 4th February will be on Wednesday.

58. (C) Let the two-digit number be $10x + y$. Then,
$x + y = 11$ ...(1)
and $(10x + y) + 27 = (10y + x)$
⇒ $9(y - x) = 27$
∴ $y - x = 3$ ...(2)
Solving equation (1) and (2), we get
$x = 4$ and $y = 7$.
Hence, the required number
= 10 × 4 + 7 = 47

59. (D) ∵ 2806 – 1989 = 817
Hence, 2806 exceeds 1989 by 817

60. (C) Required sum = 7·07 + 7·007 + 70·007 + 700·007
= 784·091

61. (A) Given exp. = 20·2 – 2 + 0·002 = 18·202

62. (C) ∵ 0·216 ÷ 0·006 = 216 ÷ 6 = 36

63. (C) $3{\cdot}5\% = \frac{35}{10} \times \frac{1}{100}$
$= \frac{7}{2} \times \frac{1}{100} = \frac{7}{200}$

64. (B) ∵ L.C.M. of 18 and 24
= 2 × 2 × 2 × 3 × 3 = 72
∴ Required smallest 3-digit number
= 72 × 2 = 144

65. (C) ∵ Other number = $\frac{\text{H.C.F.} \times \text{L.C.M.}}{\text{one number}}$
$= \frac{8 \times 120}{24} = 40$

66. (B) Required quotient = 77·7777 ÷ 11
= 7·0707

67. (C) **1st method** estimated sum
= 41·75 + 7·76 + 8·13
= 57·64 ≃ 58 (Approx.)
2nd method estimated sum
= 41·75 + 7·76 + 8·13
≃ 42 + 8 + 8 = 58

68. (C) ∵ 3 cubic metre = 3 × 1000 litre
= 3000 × 1000 ml.
∴ Required number of bottles
$= \frac{3000 \times 1000 \text{ ml.}}{300 \text{ ml.}}$
= 10000

69. (B) ∵ 4 hours 30 minutes = $4\frac{1}{2}$ hours
= 4·5 hours
∴ Speed of the train = $\frac{\text{Distance}}{\text{Time}}$
$= \frac{504 \text{ km}}{4{\cdot}5 \text{ hours}}$
= 112 km/hr

70. (D) Let the total journey be x kms. Then,
∵ Remaining journey travelled by bicycle = Total journey – journey by train – journey by bus.
⇒ $10 \text{ km} = \left(x - \frac{2}{15}x - \frac{9}{20}x\right) \text{ kms.}$
$= x\left(1 - \frac{2}{15} - \frac{9}{20}\right)$
$= x\left(\frac{60 - 8 - 27}{60}\right)$
$= x \cdot \frac{25}{60} = x \times \frac{5}{12}$
∴ $x = \frac{10 \times 12}{5} = 24 \text{ kms.}$

71. (B) Required Amount
$= P\left(1 + \frac{RT}{100}\right)$
$= 1200\left(1 + \frac{8}{100} \times \frac{8}{12}\right)$
$= 1200\left(1 + \frac{4}{75}\right)$
$= 1200 \times \frac{79}{75}$
= ₹ 1264

72. (B) As per question,
$\because$ Weight of 5 litres ghee $= 5 \times 930$ gm
$= \frac{4650}{1000}$ kg
$= 4{\cdot}65$ kg
$\therefore$ Cost of 5 litres of ghee $= 4{\cdot}65 \times 200$
$= ₹\,930$

73. (C) Reqd. per cent increase in price
$= \frac{(23-20)}{20} \times 100\%$
$= \frac{3}{20} \times 100\%$
$= 15\%$

74. (B) Value of $(73 \times 73) - (72 \times 72)$
$= 73 + 72$
$= 145$

75. (B) As per question,
Total expenditure of the family
= Rent + Food + Clothing + Travel + Others
$= ₹\,(1500 + 2500 + 1000 + 500 + 2000)$
$= ₹\,7500$

76. (A) 77. (D) 78. (C) 79. (A) 80. (C) 81. (B)
82. (C) 83. (A) 84. (A) 85. (A) 86. (D) 87. (A)
88. (B) 89. (D) 90. (C) 91. (C) 92. (D) 93. (D)
94. (C) 95. (B) 96. (D) 97. (B) 98. (B) 99. (C)
100. (A)

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