Previous Paper (Solved)

# JAWAHAR NAVODAYA VIDYALAYA
## Class-VI, Entrance Exam, 2016

SECTION-I : MENTAL ABILITY TEST

PART-I
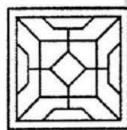
Directions (Qs. 1-5) : *In every question, four figures (A), (B), (C) and (D) are given. Except one, three figures are similar in a certain manner. Choose the odd one.*

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)
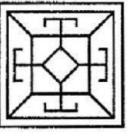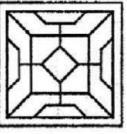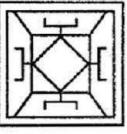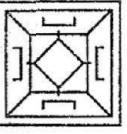
PART-II

Directions (Qs. 6-10) : *In every question, there is a problem figure followed by four answer figures (A), (B), (C) and (D). Find out that figure which is exactly similar to that problem figure.*
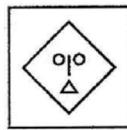
6. **Problem Figure:**
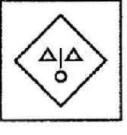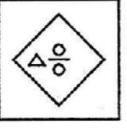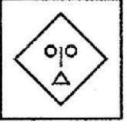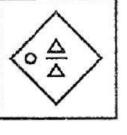
Answer Figures:
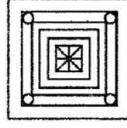
(A)   (B)   (C)   (D)

7. **Problem Figure:**
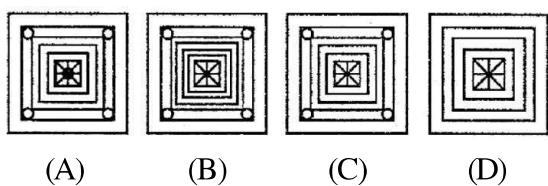
Answer Figures:

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

8. **Problem Figure:**

Answer Figures:

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

9. **Problem Figure:**

Answer Figures:

(A)   (B)   (C)   (D)
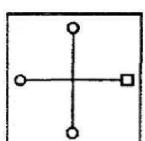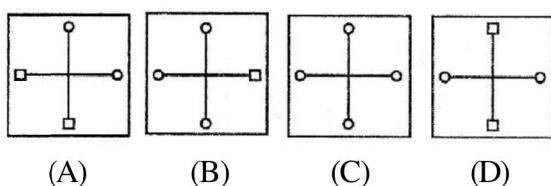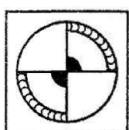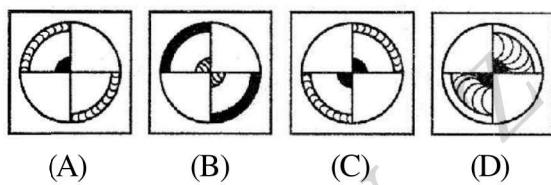
10. **Problem Figure:**

Answer Figures:

(A)   (B)   (C)   (D)
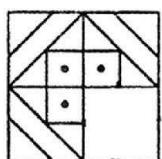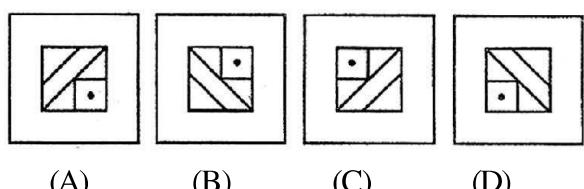
PART-III

Directions (Qs. 11-15) : *A problem figure is given in every question. One part of this figure is missing. Find out the figure from answer figures (A), (B), (C) and (D). Which fits exactly the same in the missing part of problem figure without changing their direction & complete the pattern of the problem figure.*
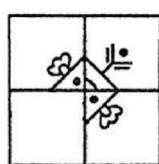
11. **Problem Figure:**
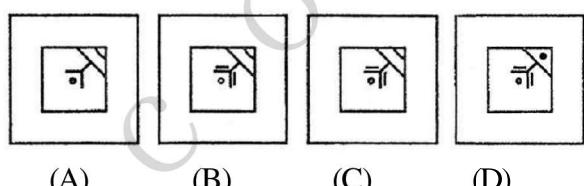
Answer Figures:
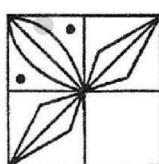
(A)   (B)   (C)   (D)

12. **Problem Figure:**
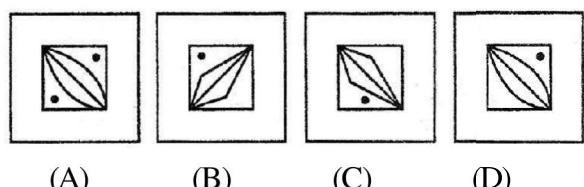
Answer Figures:
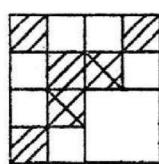
(A)   (B)   (C)   (D)

13. **Problem Figure:**
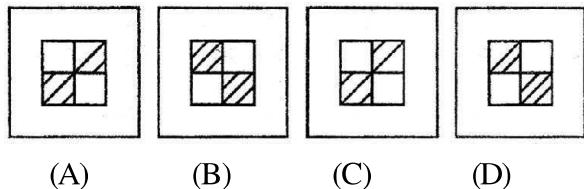
Answer Figures:
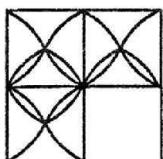
(A)   (B)   (C)   (D)

14. **Problem Figure:**
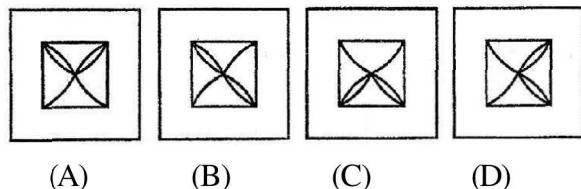

Answer Figures:

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

15. Problem Figure:

Answer Figures:
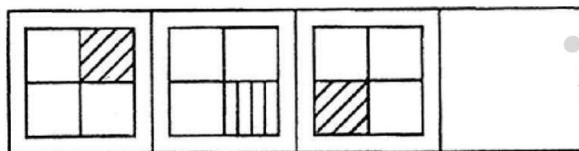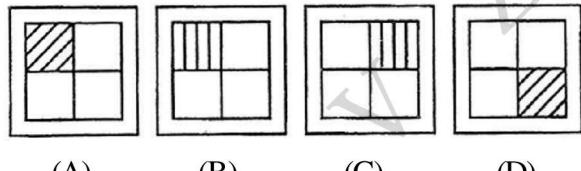
(A)   (B)   (C)   (D)

PART -IV

Directions (Qs. 16-20) : *Three problem figures are given in every question and for fourth, it is left blank. From the given answer figures, which figure will complete the series of problem figure?*

16. Problem Figures:
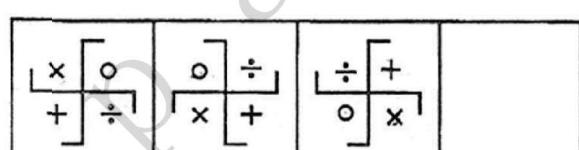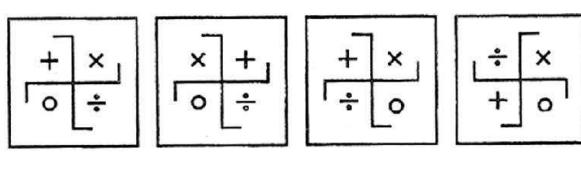
Answer Figures:

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

17. Problem Figures:
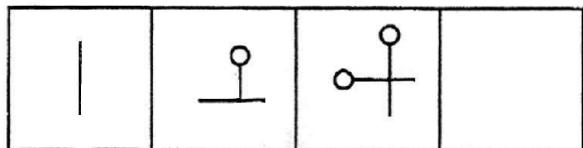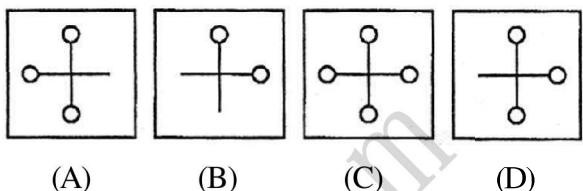
Answer Figures:

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

18. Problem Figures:
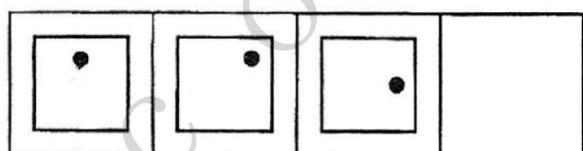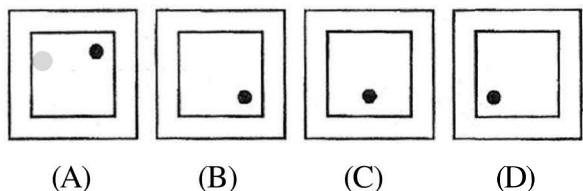
Answer Figures:

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

19. Problem Figures:
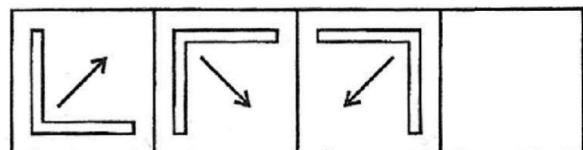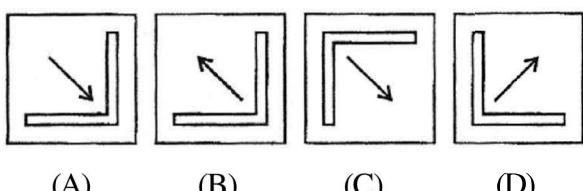
Answer Figures:

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

20. Problem Figures:

Answer Figures:

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

PART -V
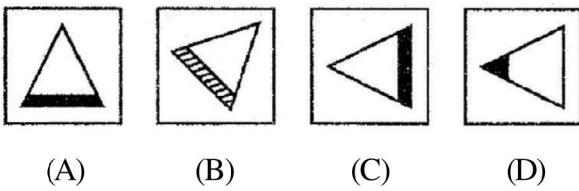
Directions (Qs. 21-25) : *A question mark (?) is inserted at the fourth place of problem figures. There is a relationship between the first two problem figures. Similarly, there should be a relationship*

between third and fourth problem figures. Choose the figure which fits at the place of question mark.

21. Problem Figures:
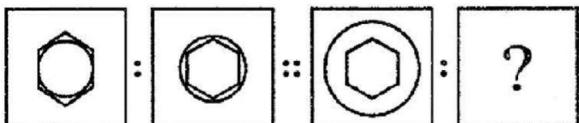
Answer Figures:
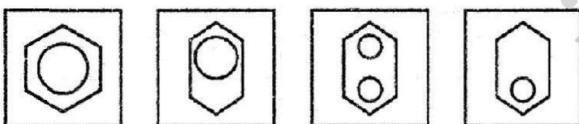

(A)   (B)   (C)   (D)

22. Problem Figures:
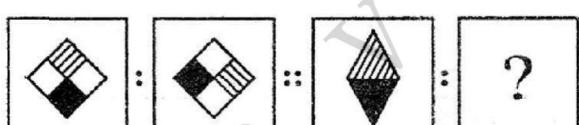
Answer Figures:
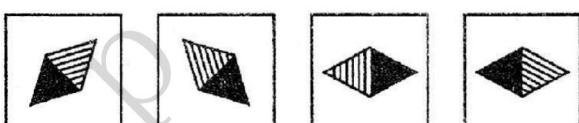
(A)   (B)   (C)   (D)

23. Problem Figures:
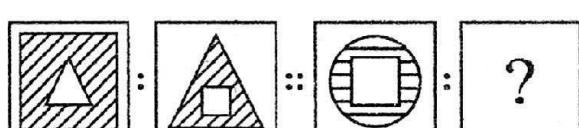
**Answer Figures:**

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

24. Problem Figures:

Answer Figures:
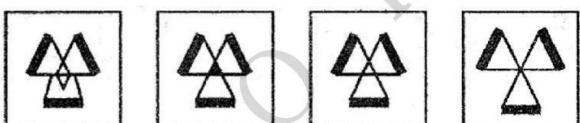
(A)   (B)   (C)   (D)

25. Problem Figures:

Answer Figures:
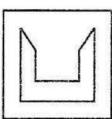
(A)   (B)   (C)   (D)
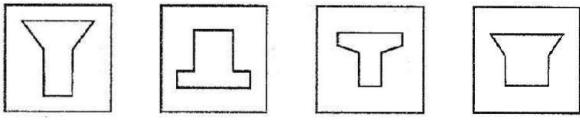
PART-VI

Directions (Qs. 26-30) : *In every question, a geometric shaped figure is given in the form of problem figure and four answer figures (A), (B), (C) and (D) are also given. Which figure among answer figures will complete the problem figure?*

26. Problem Figure:
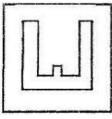
Answer Figures:
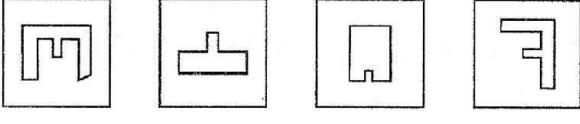
(A)   (B)   (C)   (D)

27. Problem Figure:
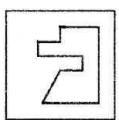
Answer Figures:
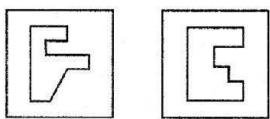
(A)   (B)   (C)   (D)

28. Problem Figure:
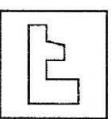
Answer Figures:
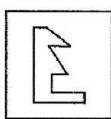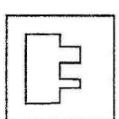
(A)   (B)   (C)   (D)

29. Problem Figure:
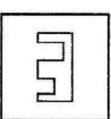
Answer Figures:
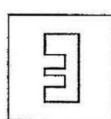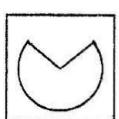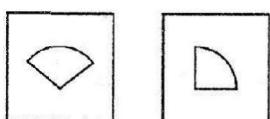
(A)   (B)   (C)   (D)

30. Problem Figure:

Answer Figures:
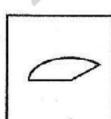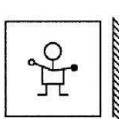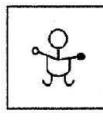
(A)   (B)   (C)   (D)

PART-VII

Directions (Qs. 31-35) : *There are four alternatives (A), (B), (C) and (D) given. You have to choose the correct mirror image of the question figure, when the mirror held on the line XY.*
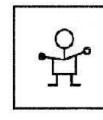
31. Problem Figure:
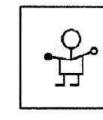
Answer Figures:
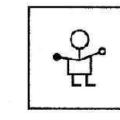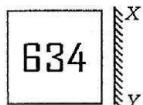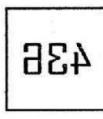
(A)   (B)   (C)   (D)

32. Problem Figure:

Answer Figures:
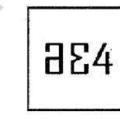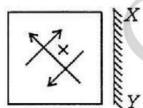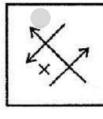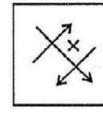
(A)   (B)   (C)   (D)

33. Problem Figure:
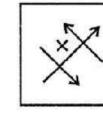
Answer Figures:
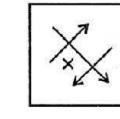
(A)   (B)   (C)   (D)

34. Problem Figure:

Answer Figures:
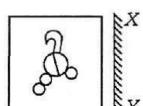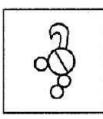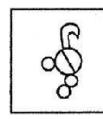
(A)   (B)   (C)   (D)

35. Problem Figure:
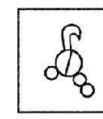
Answer Figures:
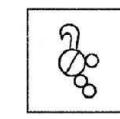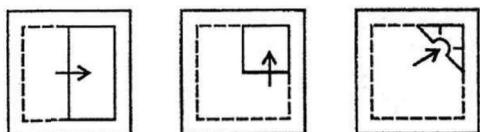
(A)   (B)   (C)   (D)
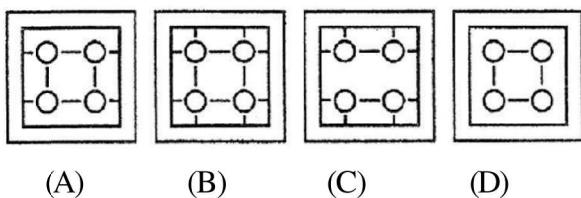
PART-VIII

Directions (Qs. 36-40) : *In these questions, a sheet of paper has been folded and punched as shown in problem figures. You have to find out among the four answer figures (A), (B), (C) and (D); how it will appear when opened?*
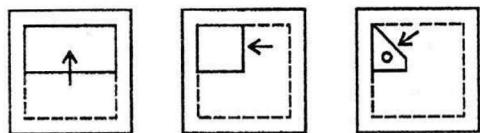
36. **Problem Figures:**

Answer Figures:

(A)　　(B)　　(C)　　(D)
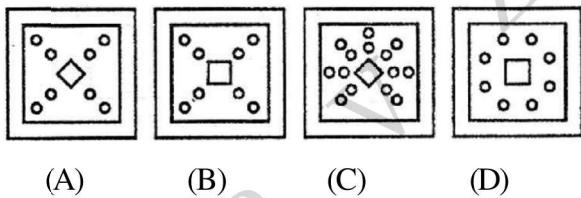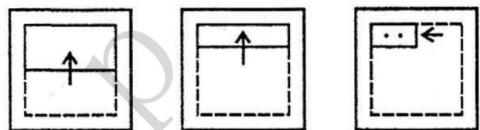
37. **Problem Figures:**

Answer Figures:

(A)　　(B)　　(C)　　(D)
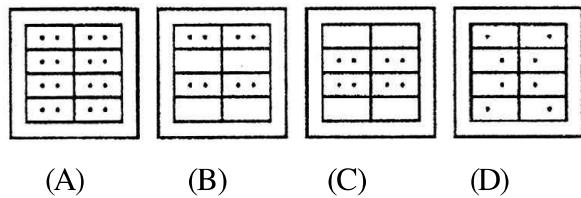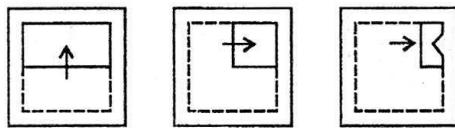
38. **Problem Figures:**

Answer Figures:

(A)　　(B)　　(C)　　(D)
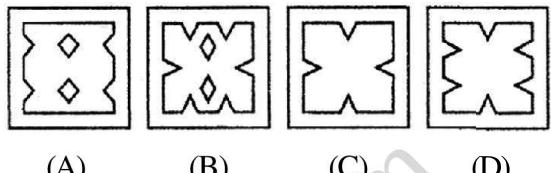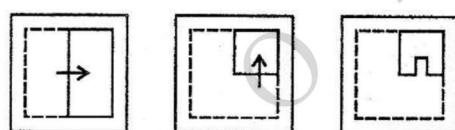
39. **Problem Figures:**

Answer Figures:

(A)　　(B)　　(C)　　(D)
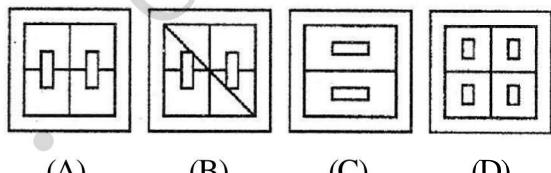
40. **Problem Figures:**

Answer Figures:

(A)　　(B)　　(C)　　(D)
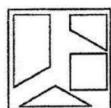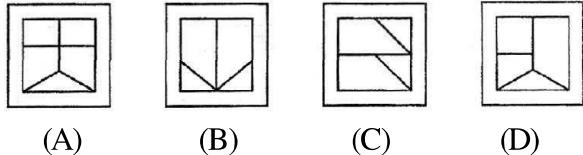
PART-IX

Directions (Qs. 41-45) : *In the following questions, a problem figure and four answer figures (A), (B), (C) and (D) are given. Find out the answer figure formed from cutting part of problem figure.*

41. **Problem Figure:**
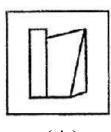
Answer Figures:
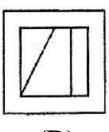
(A)　　(B)　　(C)　　(D)
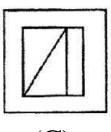
42. **Problem Figure:**

Answer Figures:
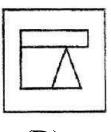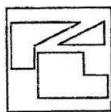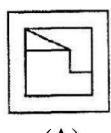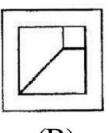
(A)   (B)   (C)   (D)

43. Problem Figure:
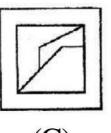
Answer Figures:
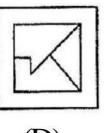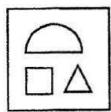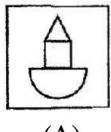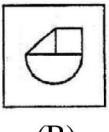
(A)   (B)   (C)   (D)

44. Problem Figure:
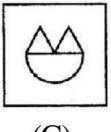
Answer Figures:
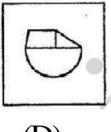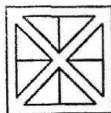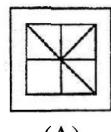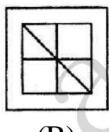
(A)   (B)   (C)   (D)

45. Problem Figure:
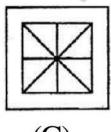
Answer Figures:
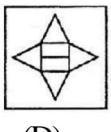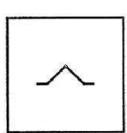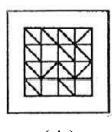
(A)   (B)   (C)   (D)

PART-X

Directions (Qs. 46-50) : *In the following questions, Choose the answer figure in which problem figure is implied.*
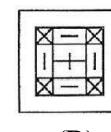
46. Problem Figure:
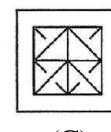
Answer Figures:
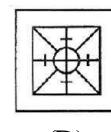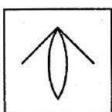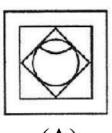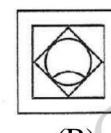
(A)   (B)   (C)   (D)

47. Problem Figure:
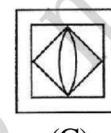
Answer Figures:
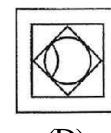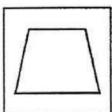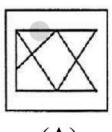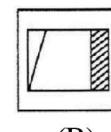
(A)   (B)   (C)   (D)

48. Problem Figure:
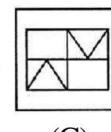
Answer Figures:
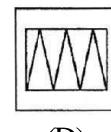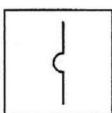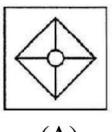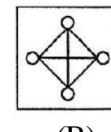
(A)   (B)   (C)   (D)

49. Problem Figure:
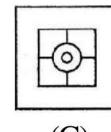
Answer Figures:
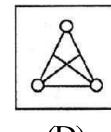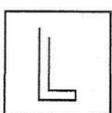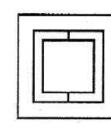
(A)   (B)   (C)   (D)

50. Problem Figure:
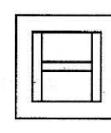
Answer Figures:
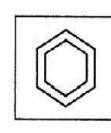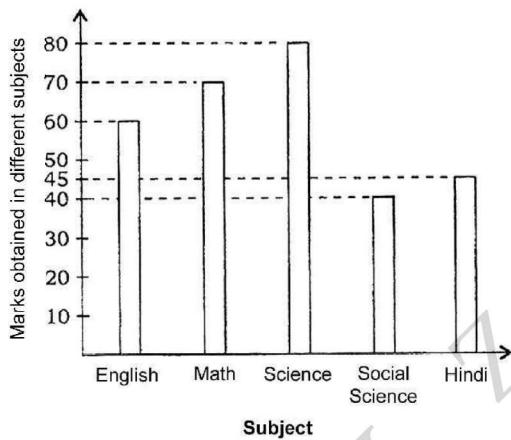
(A)   (B)   (C)   (D)

SECTION-II : MATHEMATICS

Directions : *Select the correct answer.*

51. If the price of 12 packets of biscuits is ₹ 240, then the price of 8 packets of bicuits will be:
    A. ₹ 160   B. ₹ 140
    C. ₹ 120   D. ₹ 240

52. Ram has got 8 marks more than Shyam. In the same examination, Anil has got 4 marks more than Ram. If all of three have got total 128 marks, than marks obtained by Ram is:
    A. 36   B. 44
    C. 48   D. 54

53. Study the following bar graph which shows the marks obtained by Shyam in different subjects of 100 marks each in an examination.

    What is the percentage marks of Shyam in Science?
    A. 50   B. 80
    C. 70   D. 60

54. Cars came into garrage for cleaning and repairing from Monday to Friday have shown in the below picture chart:
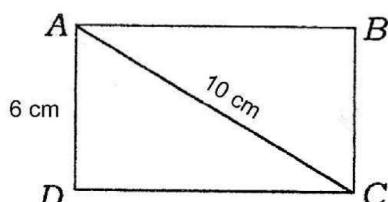
Day	No. of Cars in Garrage
Monday	🚗 🚗 🚗
Tuesday	🚗 🚗 🚗 🚗
Wednesday	🚗 🚗 🚗 🚗 🚗 🚗
Thursday	🚗 🚗
Friday	🚗 🚗 🚗 🚗 🚗 🚗 🚗

    (Where 🚗 shows 100 cars)

    Number of cars for cleaning and repairing on Wednesday is:
    A. 700   B. 600
    C. 400   D. 300

55. Which is the smallest number?
    A. 7413   B. 7130
    C. 7985   D. 7545

56. Total of four factors before 6 is :
    A. 66   B. 56
    C. 72   D. 60

57. H.C.F. of 128, 288 and 160 is :
    A. 16   B. 24
    C. 32   D. 48

58. If multiplication of two co-prime numbers is 117, then its L.C.M. is :
    A. 9   B. 13
    C. 39   D. 117

59. In 1 km race, B is defeated by 36 m or 18 sec from A. How much time A has taken to complete the distance?
    A. 500   B. 582
    C. 460   D. 482

60. The result of $9680 \times 10 \times 14 \times 0 \times 8$ is :
    A. 561260
    B. 642976
    C. 912040
    D. zero

61. In the given figure, what is the length of AB in rectangle ABCD?

    A. 8 cm
    B. 10 cm
    C. 12 cm
    D. 16 cm

62. If $4.75 \times 0.7 = 3.325$, then 475×0.7 is equal to:
A. 332.5
B. 33.25
C. 3.325
D. 0

63. If $4854.3 \div 3.3 = 1471$, then $48.543 \div 33$ is equal to whom?
A. 1.471
B. 14.71
C. 147.1
D. 0.1471

64. 26.2% is equal to :
A. 2.62   B. 0.262
C. 0.0262   D. 262.0

65. A cell phone is purchased in ₹ 1,500 and sold at ₹ 1,650. What is the profit percentage?
A. 10%   B. 15%
C. 20%   D. 16%

66. The rate on which the amount of ₹ 17,500 on simple interest for 2 years will be ₹ 19,250:
A. 12½%   B. 10%
C. 7½%   D. 5%

67. Series 3, 4, 6, 9, 13, ... the next term is :
A. 18   B. 17
C. 14   D. 19
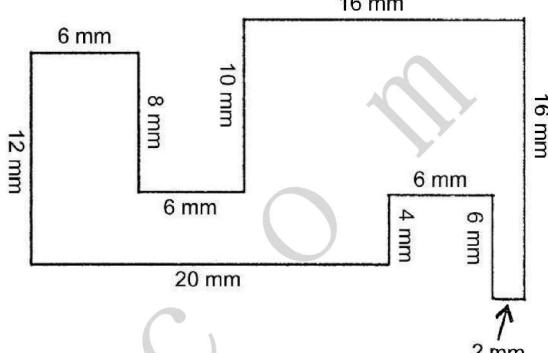
68. The difference between 6-digit smallest number and 4-digit largest number is:
A. 90001   B. 91000
C. 90100   D. 90010

69. Which is true for 56 and 84?
A. Both are prime numbers
B. Both are co-prime numbers
C. Both are factors of 14
D. Both are odd numbers

70. Ram purchased a book in ₹ 178.50 and medicines in ₹ 248.25. He gave a note of ₹ 500. The rest amount is :
A. ₹ 126.50
B. ₹ 70.50
C. ₹ 75.50
D. ₹ 73.25

71. A hall has dimensions of 20 m × 12 m. Number of square shaped tiles having 4 m of side, which can be fixed is:
A. 10
B. 15
C. 24
D. 12

72. What is the area of given figure?
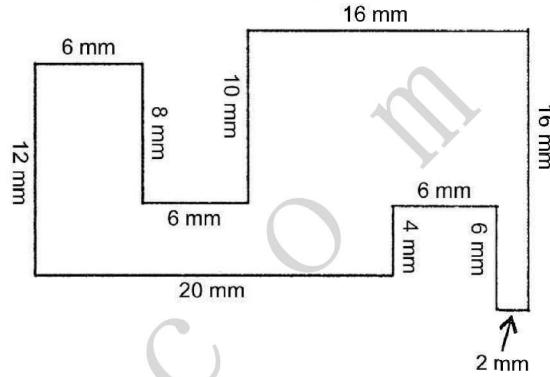
A. 240 sq. mm
B. 280 sq. mm
C. 300 sq. mm
D. 440 sq. mm

73. A bus started at 9.45 A.M. with the speed of 80 km/h. When it will reach its destination, which is 300 km away?
A. 12 o'clock at noon
B. 12.30 o'clock after noon
C. 1.30 o'clock after noon
D. 2.45 o'clock after noon

74. 12 men and 15 women can complete a work in 10 days. In how many days the same work will be completed by 7 men and 10 women?
A. 12   B. 10
C. 9   D. 8

75. The capacity of a water tank is 36 kl, when it is full. Now, it is half. If $\frac{1}{3}$ of water is taken out, then how much water will be given to the tank to fill up completely?
A. 24
B. 21
C. 18
D. 15

SECTION-III : LANGUAGE

Directions (Qs. 76-100) : *In this section five passeges are given. Each passage has five questions. Read every passage with carefully and give answer of the questions.*

Passage-1

There is no general agreement about how the planets were formed. The most widely accepted theory is that about 5000 millions years ago swirling clouds of matter began to condense. Through the action of centrifugal force, the heavier molecules were concentrated near the centre of the eddies and the lighter, gaseous material was thrown out towards the periphery. Such is the theory. What is known is that nine satellites began orbiting round the sun. These are the planets.

The planet on which man lives is the third closest to the sun, with the third shortest orbit. It also has something none of the others has—an atmosphere that can support life in all the manifold forms that exist on our planet.

There may be satellites circling other stars in other parts of the universe that have the right ingredients for some sort of life to evolve, but the earth is the only one in the solar system.

76. According to the passage, the planets are
   A. nothing but condensed clouds
   B. a collection of gaseous material
   C. a collection of condensed swirling material
   D. a collection of centrifugal forces

77. The theory of the formation of the planets
   A. is generally agreed upon by everyone
   B. is a debatable one
   C. covers a very wide area
   D. is fairly well-known

78. A planet is a 'heavenly body' which moves round
   A. the sun
   B. a star
   C. a satellite of the solar system
   D. the universe

79. One essential difference between the earth and the other planets is that
   A. the atmosphere of the earth makes possible the presence of life on it
   B. the earth draws the heavier molecules into its centre through the action of centrifugal force
   C. only the earth is on the periphery of the solar system
   D. the earth has the capacity to come into closer contact with the sun

80. The writer claims that the life-supporting atmosphere
   A. is there on other planets in the solar system
   B. may be there on the other satellites in the universe
   C. may evolve on other satellite circling other stars in the universe
   D. cannot evolve anywhere outside the earth

Passage-2

Through the break between the trees, she looked into one of the lighted windows above the shop. She could see the cartons of biscuits neatly piled near the far wall. Against her conscious wishes Cissy's saliva glands started pumping the fluid into her mouth. She felt her heart beating strongly from the top of her throat into the back of her mouth. There is nobody, she thought. I can dash in and take a box and dash out again. I know it is a sin but the Lord will not punish us if we are so hungry.

81. The whole passage is a description of
   A. Cissy's courage for stealing
   B. Cissy's plans before stealing
   C. Cissy's temptation before stealing
   D. Cissy's greed for stealing

82. How do you know that Cissy felt guilty?
A. She knew what she was doing was morally wrong
B. She felt her heart pounding inside her chest
C. She was saying her prayers before she went to steal
D. She knew that she was about to do something selfish

83. Why did her heart beat strongly?
A. She thought nobody was watching her
B. She was thinking of stealing the biscuits
C. She was eager to taste the biscuits
D. She was ill and was running temperature

84. How was Cissy able to see the cartons of biscuits?
A. She had very good eyesight
B. She was able to smell the biscuits
C. She saw another child eating biscuits
D. She was aided by a light in the room

85. What was Cissy's reaction when she saw the biscuit cartons?
A. She wanted to eat all the biscuits
B. She felt like vomiting
C. Her mouth started watering
D. She thought of all the toffees she had eaten

Passage-3

A certain Ameer was on a voyage in his ship when a great storm arose. One of the slaves on board, who had never been to sea, began to wail and cry out in fear. This went on for sometime and no one could silence him. In anger the Ameer asked, 'Is there no one here who can silence this wretched coward?'

A philosopher, who happened to be a passenger, said, 'I think I can quiet this man, Sir, if you give me full permission to do as I please with him.'

'Go ahead,' said the Ameer, 'you have my permission'.

86. What kind of prose is used in this extract?
A. Informative
B. Argumentative
C. Lyrical
D. Narrative

87. The verb 'to wail' means
A. to smile
B. to call
C. to weep
D. to speak

88. The word 'voyage' means
A. travelling by sea
B. walking on foot
C. riding a horse
D. swimming in sea

89. The slave was afraid because
A. the Ameer was about to beat him
B. there was a storm in the sea
C. he was about to be thrown into the sea
D. the journey was not coming to an end

90. The philosopher volunteered to
A. throw off the slave
B. persuade the slave
C. silence the slave
D. None of these

Passage-4

We started pitching the highest camp that has ever been made. Everything took five times as long as it would have taken in a place where there was enough air to breathe; but at last we got the, tent up and when we crawled in, it was not too bad. There was only a light wind, and inside it was not too cold for us to take off our gloves. At night most climbers take off their boots; but I prefer to keep them on. Hillary, on the other hand, took his off and laid them next to his sleeping bag.

91. The narrator of the story is
A. an airline pilot
B. a mountaineer
C. a traveller
D. a tourist

92. In this passage, 'we' refers to
A. the author and his friends
B. the author and his friend
C. the author and his wife
D. None of the above

93. They crawled into the tent because
A. they must have been too tired to work
B. the entrance to the tent must have been low
C. they had heavy loads on their back
D. they wanted to hide from enemies

94. They took a long time to finish the work because
A. they were very tired
B. it was very cold
C. there was not enough air to breathe
D. it was very dark

95. When they crawled into the tent
A. they took off their gloves because it was not very cold
B. they could not take off their gloves because it was very cold
C. they took off their gloves though it was very cold
D. they did not take off their gloves though it was not cold

Passage-5

In the evening we decided to pitch camp as the weather was not encouraging. The wind was high and gathering storm clouds predicted a wild wet night. Moreover, we had arrived at a spot which looked promising for a camp.

A level expanse in the lee of a high hill afforded some shelter from the wind; fresh water was near at hand in a stream which flowed across the plain; a copse of trees provided adequate supplies of fuel; and the dry grasses which abounded on the hillside would enhance the comfort of our beds.

Each member of the party was allotted a task. Some erected the tents; others prepared a scanty meal; yet others attended to the needs of the ponies that were now exhausted after a very strenuous day. As the angry sun sank, the bustle of activity was hushed into silence and each man settled down to sleep.

96. As the weather was not encouraging we decided to
A. set up the camp
B. pack up the camp
C. extend the camp
D. shift the camp

97. The camp site looked encouraging because
A. it was sheltered by some trees
B. the dry grass would provide fuel
C. we had been promised that spot
D. it was level and sheltered

98. The day had been very
A. exciting
B. tiring
C. boring
D. comfortable

99. The task given to some members was to
A. pitch the tents
B. prepare a hot meal
C. walk the ponies
D. allot the tasks

100. This passage is about the selection of
A. a suitable home
B. a suitable place for animals
C. a suitable place to camp
D. a suitable route for trekking

ANSWERS

1	2	3	4	5	6	7	8	9	10
B	B	B	C	A	B	C	C	B	C

11	12	13	14	15	16	17	18	19	20
C	C	A	B	A	B	C	A	B	B

21	22	23	24	25	26	27	28	29	30
C	A	D	A	C	D	C	A	A	A
31	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
B	B	C	C	C	B	*	A	A	A
41	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**
D	B	A	A	C	A	C	D	A	B
51	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
A	B	B	B	B	D	C	D	D	D
61	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**
A	A	A	B	A	D	A	A	C	D
71	**72**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80**
B	C	C	D	A	A	C	A	A	C
81	**82**	**83**	**84**	**85**	**86**	**87**	**88**	**89**	**90**
C	A	B	D	C	D	C	A	B	C
91	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**99**	**100**
B	B	B	C	A	A	D	B	A	C

EXPLANATORY ANSWERS

1. In figure 'B', a hanging figure towards down is triangular.

2. In other figures, the direction of two consecutive coming rays are opposite.

3. Two points situated at figure 'B' are as horizontal lines.

4. The triangle and square in figure 'C' are in the same direction of line segment/sector.

5. Marked line in figure 'A' is coming out from the end point of angle of triangle or two sides of triangle.

8. The number of squares made in figure 'C' is equal to the number of squares made in problem figure.

9. Circle is at the both end of straight line and at the end of horizontal line, circle & square lie.

16. Shaded square sector is rotating clockwise and inner lines rotate respectively straight and at 45°.

17. Four different symbols situated in four sectors of Swastika rotating anticlockwise.

18. In every next figure, a circle is added at the end point of line and the direction of addition is anticlockwise.

19. In every next figure, the point inside a square moving clockwise, displaced by the half length of a side of square.

20. Every next figure is rotating clockwise by 90° angle.

21. Rotating the first figure by 180°, the second figure forms.

22. There is an opposite relationship between first and second figure, where circle is inside the hexagon in first figure and in second figure, hexagon is inside the circle.

23. Rotating the first figure clockwise by 90°, second figure is forming.

24. In first figure, triangle is inside the square whereas in second figure, square is inside the triangle and in both the figures, shaded area is present between triangle and square.

Hence, in fourth figure, circle will be inside the square and area between them will be shaded.

25. In second figure, parallel lines situated inside circles become thick and hence in fourth figure, parallel lines of sides of triangle become thick.

26-30. In this type of questions, we have to compare answer figures to empty parts of incomplete figure after well observation and then selection of correct answer figure is done.

31-35. Remember, when we stand in front of a plane mirror, the image occurs in mirror shows our left part in the right side and right part in the left side and the size of image in front of plane mirror is equal to the size of the object.

51. $\because$ cost of 12 packets = ₹ 240

$\therefore$ cost of 1 packet = ₹$\dfrac{240}{12}$

$\therefore$ cost of 8 packets = ₹$\dfrac{240}{12} \times 8$

= ₹ 160.

52. Let, Shyam got x marks

Ram got $x + 8$ marks

and Anil got $x + 8 + 4$ marks

According to the question,

$x + (x + 8) + (x + 12) = 128$

$\Rightarrow \qquad 3x + 20 = 128$

$\Rightarrow \qquad 3x = 108$

$\Rightarrow \qquad x = 36$

Hence, Ram got $36 + 8 = 44$ marks in the examination.

53. Shyam got 80% marks in Science.

54. Required number of Cars

$= 6 \times 100 = 600$

55. The smallest number is 7130

56. $6 \times 1 = 6$

$6 \times 2 = 12$

$6 \times 3 = 18$

$6 \times 4 = 24$

$\overline{\qquad 60 \qquad}$

Sum of first four multiple of 6 = 60.

57.

$$128)\ \overline{288}\ (\ 2$$
$$\quad\ \ 256$$
$$\quad\ \ \overline{\quad\quad}$$
$$\qquad 32)\ \overline{128}\ (\ 4$$
$$\qquad\quad 128$$
$$\qquad\quad \overline{\ \times\ }$$
$$\qquad 32)\ \overline{160}\ (\ 5$$
$$\qquad\quad 160$$
$$\qquad\quad \overline{\ \times\ }$$

Hence, H.C.F. of 128, 288 and 160 = 32.

58. 13 and 9 are two co-prime numbers whose product $13 \times 9 = 117$

L.C.M. of 13 and 9 = 117

59. Clearly B runs 36 m in 18 seconds

Time taken by B to travel 1 km

$= \left(\dfrac{18}{36} \times 1000\right)$ seconds

$= 500$ seconds

Time taken by A to travel 1 km
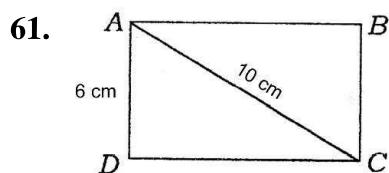
$= (500 - 18)$ seconds

$= 482$ seconds

Hence, required time

$= 482$ seconds

60. We get zero from the product of

$9680 \times 10 \times 14 \times 0 \times 8$

61.

In right triangle ABC

$$(AB)^2 = (AC)^2 - (BC)^2$$
$$= (10)^2 - (6)^2$$
$$= 100 - 36$$
$$\Rightarrow \quad AB^2 = 64$$
$$\Rightarrow \quad AB = 8 \text{ cm}$$

62. $\because \quad 4.75 \times 0.7 = 3.325$
$\therefore \quad 475 \times 0.7 = 332.5$

63. $\because \quad 4854.3 \div 3.3 = 1471$
$\therefore \quad 48.543 \div 33 = 1.471.$

64.
$$26.2\% = \frac{262}{10 \times 100}$$
$$= \frac{262}{1000}$$
$$= 0.262.$$

65. C.P. of Cell phone = ₹ 1500
S.P. of Cell phone = ₹ 1650
$$\text{Profit} = 1650 - 1500$$
$$= ₹ 150$$
$$\text{Profit } \% = \frac{150}{1500} \times 100$$
$$= 10\%.$$
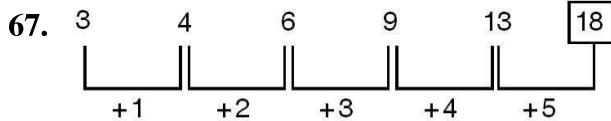
66. S.I. = A − P
$$= ₹ 19250 - 17500$$
$$= ₹ 1750$$
$$\text{rate} = \frac{\text{S.I.} \times 100}{p \times t}$$
$$= \frac{1750 \times 100}{17500 \times 2} = 5\%.$$

67.

Hence, next term = 18.

68. The smallest number of 6 digits = 100000
The greatest number of 4 digits = 9999
Required difference = 100000
$$= - 9999$$
$$\overline{ 90001}$$

69. $56 = 14 \times 4$
$84 = 14 \times 6$
Hence, both are multiples of 14.

70.
$$\begin{array}{r} ₹\ 178.50 \\ +\ ₹\ 248.25 \\ \hline ₹\ 426.75 \end{array}$$
Remaining amount
$$\begin{array}{r} ₹\ 500.00 \\ -\ ₹\ 426.75 \\ \hline ₹\quad 73.25 \end{array}$$

71. Number of tiles
$$= \frac{20 \times 12}{4 \times 4}$$
$$= 5 \times 3 = 15$$

72. Area of the figure
$$\begin{array}{llll} = 6 \times 8 & = & 48 & \text{mm}^2 \\ = 20 \times 4 & = & 80 & \text{mm}^2 \\ = 16 \times 10 & = & 160 & \text{mm}^2 \\ = 6 \times 2 & = & 12 & \text{mm}^2 \\ \hline & & 300 & \text{mm}^2 \end{array}$$
Hence, required area of the figure = 300 mm²

73.
$$\text{Time} = \frac{\text{Distance}}{\text{Speed}}$$
$$= \frac{300}{80} = \frac{15}{4} \text{ hours}$$

$$= 3 \text{ hours } \frac{3}{4} \times 60 \text{ minutes}$$

$$= 3 \text{ hours } 45 \text{ minutes}$$

Hence, Bus will reach at 1:30 p.m.

74. $\qquad$ 12 Men = 15 Women

$$1 \text{ Man} = \frac{15}{12} = \frac{5}{4} \text{ Women}$$

$$7 \text{ Men} = \frac{5}{4} \times 7 \text{ Women}$$

$$= \frac{35}{4} \text{ Women}$$

$\frac{35}{4}$ Women + 10 Women = $\frac{75}{4}$ Women

∵ 15 Women can do a work in 10 days

∴ 1 women can do this work in 15 × 10 days

∴ $\frac{75}{4}$ women can do this work in $\frac{15 \times 10 \times 4}{75}$ days

$$= 8 \text{ days.}$$

75. Capacity of tank = 36 kl

Water tank is half full

Water taken out from tank

$$= \frac{1}{3} \times 18$$

$$= 6 \text{ kl}$$

Remaining water in the tank

= 18 − 6 = 12 kl

Hence, adding 24 kl water then tank will be full.