Jawhar Navodaya Vidyalaya
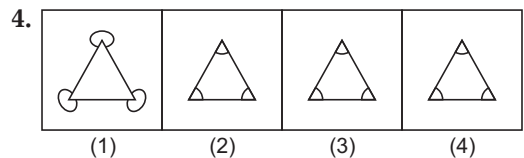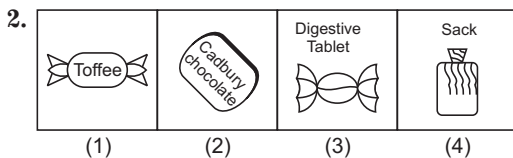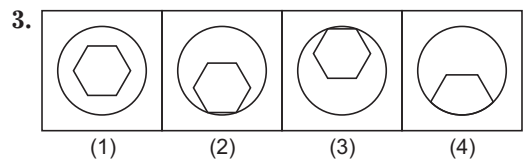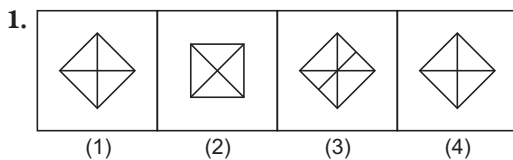## Entrance Exam (Class VI)

PRACTICE SET 3

## Section I Mental Ability Test

Part I

Directions (Q.Nos. 1-4) *In questions, four figures 1, 2, 3 and 4 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.*
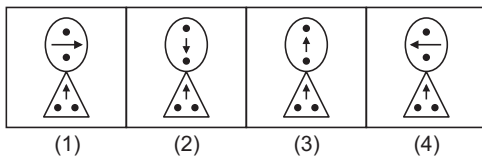
1.

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

3.

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

2.

| Toffee | Cadbury chocolate | Digestive Tablet | Sack |
| (1) | (2) | (3) | (4) |

4.

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

Part II

Directions (Q. Nos. 5-8) *In questions, a question figure is given and four answer figures marked 1, 2, 3 and 4 are also given. Select the answer figure which is exactly the same as the question figure.*
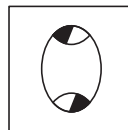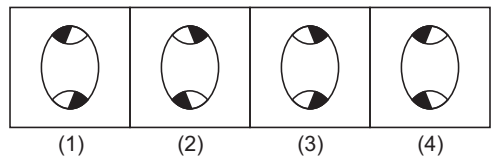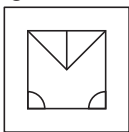
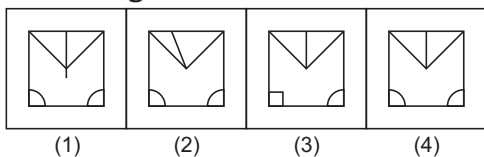**5. Question Figure**
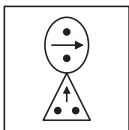
Answer Figures

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

6. Question Figure

Answer Figures

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

7. Question Figure

Answer Figures

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

8. Question Figure

Answer Figures

(1)   (2)   (3)   (4)
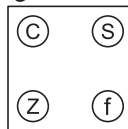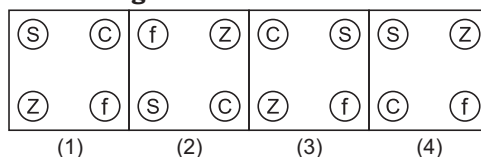
Part III

Directions (Q. Nos. 9-12) *In questions, there is a question figure given, a part of which is missing. Observe the answer figures 1, 2, 3 and 4 and find out the answer figure which without changing the direction, fits in the missing part of the question figure in order to complete the pattern in the question figure.*

9. Question Figure

Answer Figures

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

10. Question Figure

Answer Figures

(1)   (2)   (3)   (4)
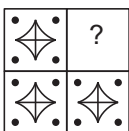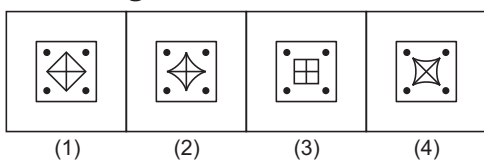
11. Question Figure

Answer Figures

(1)   (2)   (3)   (4)
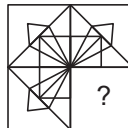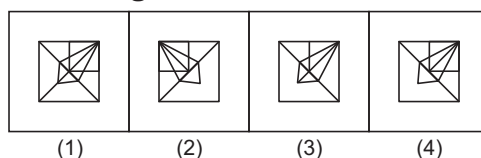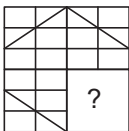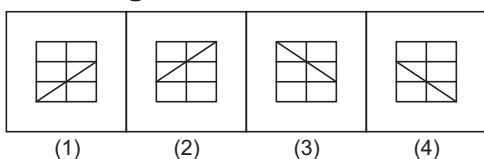
12. Question Figure

Answer Figures

(1)   (2)   (3)   (4)
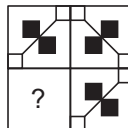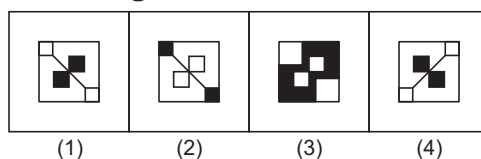
Part IV

Directions (Q. Nos. 13-16) *There are three question figures and the space for the fourth figure is left blank. The question figures are in series. Find out one figure among the answer figures, which occupies the blank space for the fourth figure and completes the series.*

13. Question Figures   **Answer Figures**

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

14.

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

15.

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

16.

                                     (1)   (2)   (3)   (4)
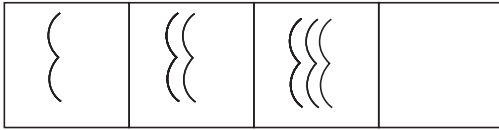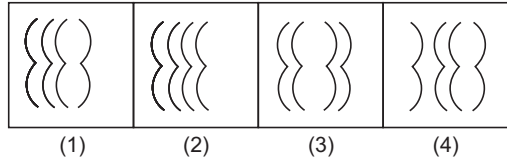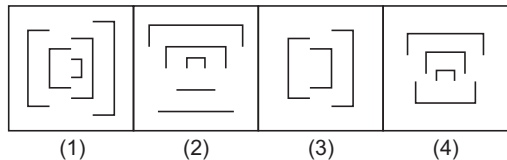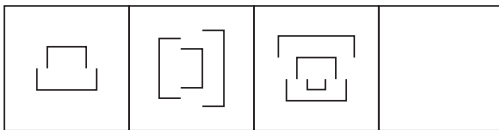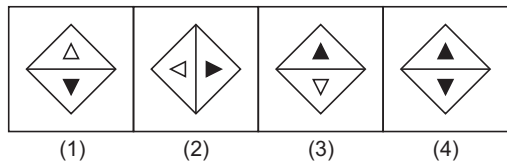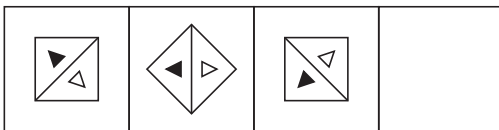
Part V

Directions (Q.Nos. 17-20) *In questions, there are two sets of two question figures each. The second set has a mark of interrogations* (?). *There exists a relationship between the first two question figure, similar relationship should exist between the third and fourth question figure. Select one of the answer figure which replaces the mark of interrogation.*

17. Question Figures   **Answer Figures**

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

18.

                                     (1)   (2)   (3)   (4)
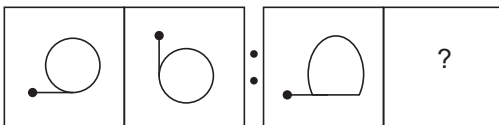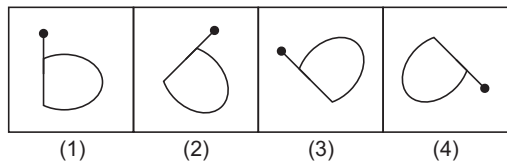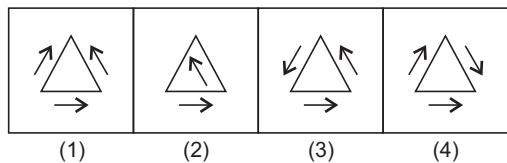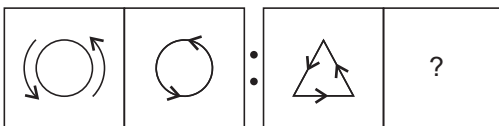
19. Question Figures

Answer Figures

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

20.

(1)   (2)   (3)   (4)
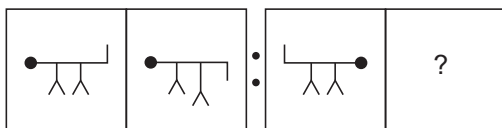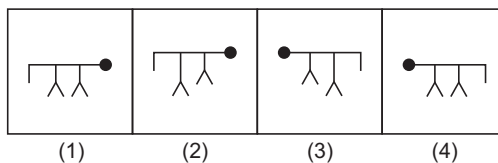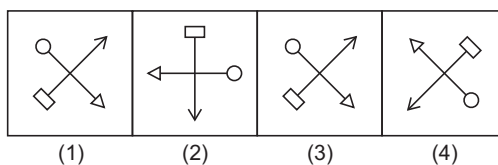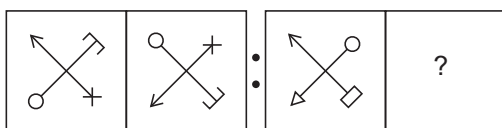
Part VI

Directions (Q. Nos. 21-24) *In questions, one part of a geometrical figure is given as question figure and the other one is among the four answer figures 1, 2, 3 and 4 are also given. Find out the figure that completes the geometrical figure.*

21. Question Figure

Answer Figures

(1)   (2)   (3)   (4)
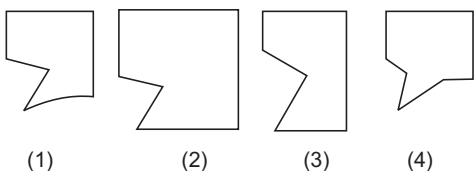
22. Question Figure

Answer Figures

(1)   (2)   (3)   (4)
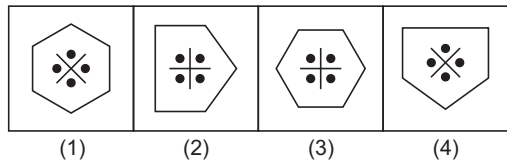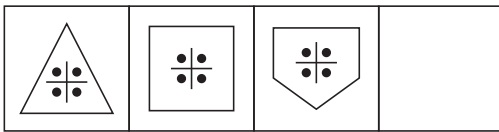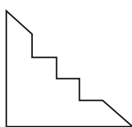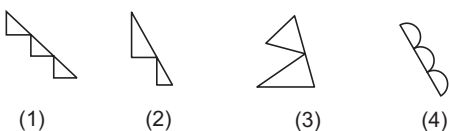
23. Question Figure

Answer Figures

(1)   (2)   (3)   (4)
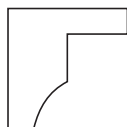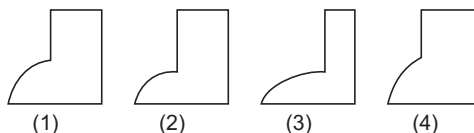
24. Question Figure

Answer Figures

(1)   (2)   (3)   (4)
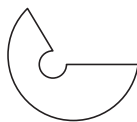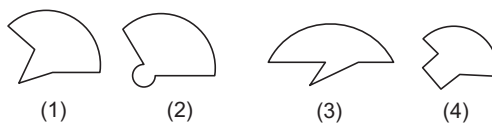
Part VII

Directions (Q.Nos. 25-28) *In questions, there is a question figure and four answer figures marked 1, 2, 3 and 4 are also given. Select the answer figure which is exactly the mirror image of the question figure when the mirror is held at AB.*

25. Question Figure
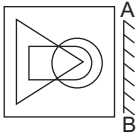
Answer Figures

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

26. Question Figure

Answer Figures

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

27. Question Figure

MALA

Answer Figures

ALAM	AJAM	LAMA	MALA
(1)	(2)	(3)	(4)
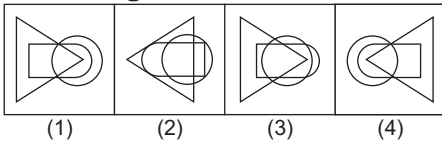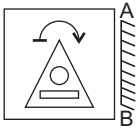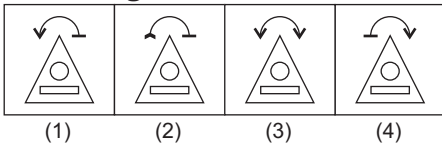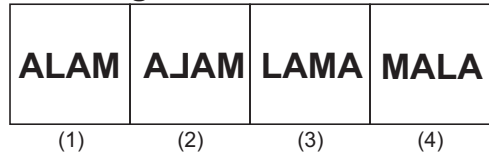
28. Question Figure

Answer Figures

(1)   (2)   (3)   (4)
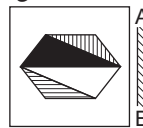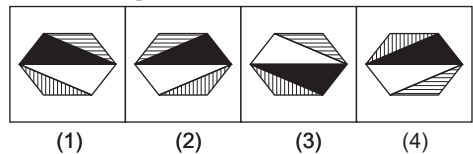
Part VIII

Directions (Q.Nos. 29-32) *In questions, a piece of paper is folded and punched as shown in question figures and four answer figures marked 1, 2, 3 and 4 are also given. Select the answer figure which indicates how the paper will appear when opened (unfolded).*

29. Question Figure

Answer Figures

(1)   (2)   (3)   (4)
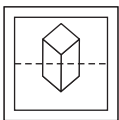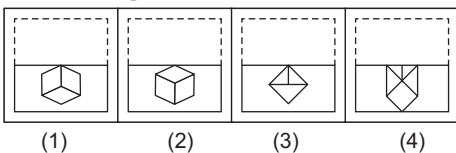
30. Question Figure

Answer Figures

(1)   (2)   (3)   (4)
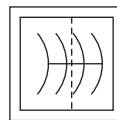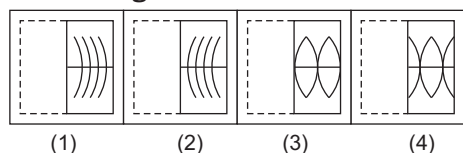
31. Question Figure

Answer Figures

| (1) | (2) | (3) | (4) |
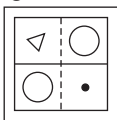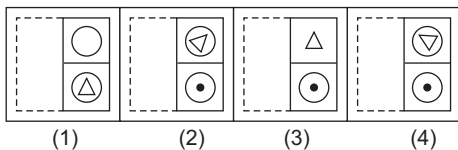
32. Question Figure

Answer Figures

| (1) | (2) | (3) | (4) |
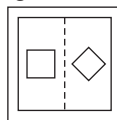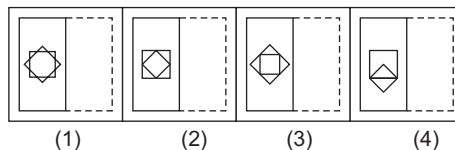
Part IX

Directions (Q.Nos. 33-36) *In questions, a question figure is given and four answer figures marked 1, 2, 3 and 4 are also given. Select the answer figure which can be formed from the cut off pieces given the question figure.*

33. Question Figure

Answer Figures

| (1) | (2) | (3) | (4) |
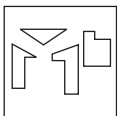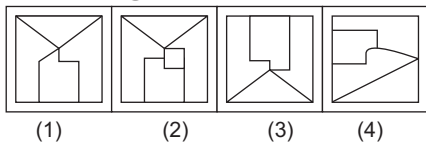
34. Question Figure

Answer Figures

| (1) | (2) | (3) | (4) |
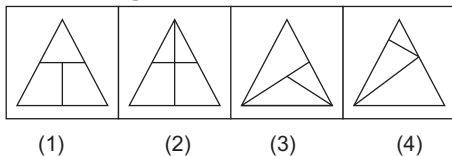
35. Question Figure

Answer Figures

| (1) | (2) | (3) | (4) |
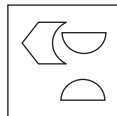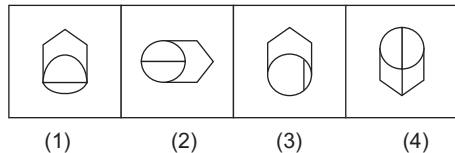
36. Question Figure

Answer Figures
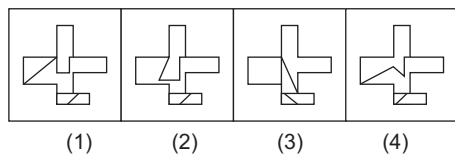
| (1) | (2) | (3) | (4) |

Part X

Directions (Q.Nos. 37-40) *In questions, a question figure is given and four answer figures, marked* 1, 2, 3 *and* 4 *are also given. Select the answer figure in which the question figure is hidden/embedded.*

37. Question Figure
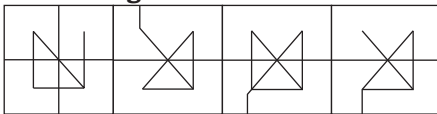
Answer Figures

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

38. Question Figure
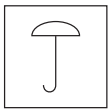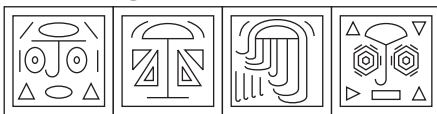
Answer Figures

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

39. question Figure
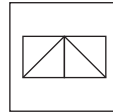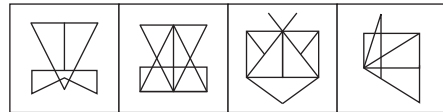
Answer Figures

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

40. Question Figure
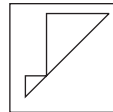
Answer Figures
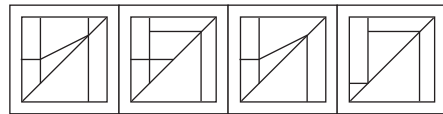
(1)   (2)   (3)   (4)

SECTION II Arithmetic Test

**Directions** (Q.Nos. 41-60) *For every question four probable answers bearing numbers* 1, 2, 3 *and* 4 *are given. Only one out of these is correct. You have to choose the correct answer.*

41. The smallest 4 digit even number formed by the digits 0, 1, 2 and 3 is
(1) 1023   (2) 1032
(3) 3201   (4) 3210

42. The sum of two numbers is 11009. If one number is 9999, the other number is
(1) 1010   (2) 1110
(3) 2110   (4) 21008

43. The place value of 5 in 214.56
(1) 5×1 (2) 5×10
(3) 5×0.1 (4) 5×0.01

44. The simplification of $6 \div 6 + 6 \times 6 - 6$ gives
(1) 1   (2) 7   (3) 31   (4) 36

45. The sum of the fractions $\dfrac{4}{3}, \dfrac{5}{9}$ and $\dfrac{6}{18}$ is
(1) $\dfrac{2}{5}$ (2) $\dfrac{11}{18}$
(3) $\dfrac{19}{9}$ (4) $\dfrac{20}{9}$

46. The LCM of 8, 12, 20 and 36 is
(1) 120   (2) 180
(3) 360   (4) 720

47. The HCF of two co-prime numbers is
(1) 1
(2) 0
(3) sum of the numbers
(4) difference of the numbers

48. Convert 4 m 2604 cm into centimetres.
(1) 3040 cm   (2) 3400 cm
(3) 3004 cm   (4) 6604 cm

49. 10 m is what per cent of 10 km?
(1) 0.1%   (2) 1.0%   (3) 10.0%   (4) 40.0%

50. Which of the following numbers are in ascending order?
(1) $\dfrac{1}{3}, \dfrac{1}{2}, 0.25$ (2) $0.25, \dfrac{1}{2}, \dfrac{1}{3}$
(3) $0.25, \dfrac{1}{3}, \dfrac{1}{2}$ (4) $\dfrac{1}{2}, \dfrac{1}{3}, 0.25$

51. A bus left Delhi for Amritsar at 5 : 30 pm and reached Amritsar at 7 : 36 am next day. How much time did it take to reach Amritsar?
(1) 2 h 6 min
(2) 14 h 6 min
(3) 13 h 6 min
(4) 12 h 6 min

52. The area of a square, whose perimeter is 48 m, will be
(1) 48 sq m
(2) 144 sq m
(3) 1152 sq m
(4) 2304 sq m

53. After bought a ceilling fan on ₹ 750, one sells it with a profit of 18% then find the selling price.
(1) ₹ 850   (2) ₹ 885
(3) ₹ 860   (4) ₹ 855

54. The simplification of $1 + \dfrac{1}{10} + \dfrac{1}{100} + \dfrac{1}{1000}$ in decimal form gives
(1) 1.0001   (2) 1.111   (3) 1.001   (4) 0.111

55. Factors of 30 are
(1) 2, 3, 5
(2) 1, 2, 3, 5, 10
(3) 1, 2, 3, 10, 10
(4) 1, 2, 3, 5, 6, 10, 15, 30

56. What is the volume of a box whose each edge measures 3 m in length?
(1) 54 cu m   (2) 27 cu m
(3) 18 cu m   (d) 9 cu m

57. The simple interest on ₹ 300 at the rate of 6% per annum in $2\dfrac{1}{2}$ yr will be
(1) ₹ 18   (2) ₹ 36   (3) ₹ 40   (4) ₹ 45

58. The area of circle is 38.5 sq cm. What will be its circumference?
(1) 2.2 cm   (2) 22 cm   (3) 220 cm   (4) 185 cm

59. How much time will be taken to cover a distance of 100 km as a speed of 10 km/h?
(1) 10 h   (2) 15 h   (3) 5 h   (4) 20 h

60. Dia bought rice bag ₹ 500 per bag. Due to spoilage she had to sold them for ₹ 450 per bag. Find the gain or loss per cent.
(1) 10% loss   (2) 10% gain
(3) $33\dfrac{1}{3}$ % loss   (4) $33\dfrac{1}{3}$ % gain

SECTION III Language Test *(English)*

Directions (Q.Nos. 61-80) *There are four passages. 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* 1, 2, 3 *and* 4 *are given. Only one out of these is correct. You have to choose the correct answer.*

Passage 1

There are so many ways in which we can avoid waste. We can see that taps are turned off properly so that water is not wasted. We must save energy and energy means everything from electricity to petrol to cooking gas and firewood. Energy is useful in running all our factories, our transport, even the water pumps in the fields. Careful use of our energy resources can save us millions of rupees.

We must not waste food. There are many people less fortunate than us who do not get enough. We must also save paper and take care of our books. Wasteful use of paper means more felling of trees.

61. Which of the following is not true?
(1) We must save water
(2) We must save electricity
(3) We must save factories
(4) We must save paper

62. Which of the following does not provide us energy?
(1) Electricity
(2) Transport
(3) Firewood
(4) Petrol

63. Many poor people do not get enough
(1) food
(2) trees
(3) books
(4) paper

64. By saving energy we can save
(1) money (2) people (3) taps (4) books

65. The word 'Fortunate' means
(1) Lucky (2) Strong
(3) God (4) Unlucky

Passage 2

One day Tansen sang one of the songs taught by his master and deliberately introduced a false note. It had almost an electric effect on the saint; his aesthetic nature received a rude shock. He turned to Tansen and rebuked him, saying, "What has happened to you, Tansen, that you, a pupil of mine, should commit such a gross blunder ?"

He then started singing the piece correctly, the mood came upon him and enveloped him, and he forgot himself in the music which filled the earth and heaven and Akbar and Tansen themselves in the sheer melody and charm of the music. It was a unique experience. When the music stopped, Akbar turned to Tansen and said, "You say you learnt music from this saint and yet you seem to have missed the living charm of it all. Yours seems to be chaff beside this soul stirring music".

66. 'It had almost an electric effect on the saint'. Here 'saint' refers to
(1) Akbar
(2) Tansen
(3) Tansen's Guru
(4) some other courtier

67. Which word did Akbar use to describe Tansen's music?
(1) Charming
(2) Thrilling
(3) Soul stirring
(4) Chaff

68. Tansen's Guru rebuked Tansen because
(1) he sang a classical song
(2) he sang a song with a false note
(3) he tried to show his superiority over his master
(4) he sang a song not suitable to the occasion

69. What did Akbar miss in Tansen's music?
(1) Chaff (2) Right tunes
(3) Living charm (4) Inspiration

70. Which one of the following is the antonym of the word 'Blunder'?
(1) Fault (2) Misstep
(3) Fluff (4) Accurate

Passage 3

Edward was glad because he had escaped from Hugo and his deceitful game. But he was very tired and hungry. He reached a farm house on the way. He saw an open door of a store of straw of paddy and wheat. He was shivering with cold and the store was hot. Therefore, he went into the room. He saw a blanket in the corner of the store. He took the blanket and covered himself and lay on the straw.

At the same moment, something touched him but he could not see that thing due to darkness. He wanted to sleep soon because he was tired but again his hand touched a smooth and warm thing. He caught hold of it. Was it a rope? But it had a lock of hair. He sat up holding it. He realised soon that it was not a rope but the tail of a calf.

71. Edward
(1) like to live with Hugo and his deceitful game
(2) did not wish to live with Hugo and his deceitful game
(3) wanted to live with Hugo but wanted to escape from his deceitful game
(4) did not want to live with Hugo but wanted to live with thieves

72. Edward went into the store because
(1) he was hungry and tired
(2) he wanted to sleep
(3) he was feeling cold
(4) he was in need of straw

73. In the store
(1) there was no animal
(2) there was no door
(3) there was no blanket
(4) there was no rope

74. Edward was holding
(1) a rope (2) a tail
(3) a snake (4) any other thing

75. Which of the following is synonym of the word 'Glad' ?
(1) Happy (2) Beautiful
(3) Sad (4) Joy

Passage 4

There was a poor man. He was thought to bring bad luck. Akbar heard of this man's reputation and wanted to see him. He was brought to Akbar. The emperor took a look at him and asked him to be brought back in the evening. That day Akbar was very busy and even forgot to eat. By the evening, he was very tired. He was informed that his son Prince Salim had fallen ill. It was that man's fault, Akbar decided. He called his courtiers and told them that he wanted to hang that man. All of them agreed immediately. But Birbal said, "Your face was the first face that man saw today and he has to die because of it." Akbar realised his mistake and rewarded Birbal for his wisdom.

76. Why had Akbar not eaten his food?
(1) He was ill
(2) He had seen that man
(3) He was very busy
(4) He was not hungry

77. Who was not well on that day?
(1) King Akbar   (2) His courtier
(3) The poor man   (4) Prince Salim

78. Why did the king decide to hang the poor man?
(1) The poor man refused to meet him

(2) The poor man was really very unlucky
(3) Birbal advised him to do so
(4) The king had a very good day

79. Birbal was rewarded because
(1) he was in king's favour
(2) he brought the poor man to the king
(3) he made the king realise his mistake
(4) he taught the poor man a lesson

80. The opposite word for 'forget' is
(1) forgive   (2) active
(3) remember   (4) meet

Answers

1 (3)	**2** (4)	**3** (4)	**4** (1)	**5** (1)	**6** (1)	**7** (4)	**8** (3)	**9** (2)	**10** (1)
11 (2)	**12** (1)	**13** (2)	**14** (3)	**15** (1)	**16** (1)	**17** (1)	**18** (3)	**19** (2)	**20** (4)
21 (1)	**22** (1)	**23** (4)	**24** (2)	**25** (4)	**26** (1)	**27** (2)	**28** (4)	**29** (4)	**30** (3)
31 (4)	**32** (1)	**33** (3)	**34** (3)	**35** (2)	**36** (1)	**37** (1)	**38** (3)	**39** (3)	**40** (4)
41 (2)	**42** (1)	**43** (3)	**44** (3)	**45** (4)	**46** (3)	**47** (1)	**48** (3)	**49** (1)	**50** (3)
51 (2)	**52** (2)	**53** (2)	**54** (2)	**55** (4)	**56** (2)	**57** (4)	**58** (2)	**59** (1)	**60** (1)
61 (3)	**62** (2)	**63** (1)	**64** (1)	**65** (1)	**66** (3)	**67** (4)	**68** (2)	**69** (3)	**70** (3)
71 (2)	**72** (3)	**73** (4)	**74** (2)	**75** (1)	**76** (3)	**77** (4)	**78** (2)	**79** (3)	**80** (3)

Hints and Solutions

1. Except figure (3), all the other are divided into four parts. Hence, figure (3) is odd one out.

2. Except figure (4), all the other are related to suck or edible stuff. Hence, figure (4) is odd one out.

3. Except figure. (4), there is a hexagon inside the circles in all the figures. Hence, figure (4) is odd one out.

4. Except figure (1), all the figures are similar. Hence, figure (1) is odd one out.

5. Answer figures (1) is same as the given question figure.

6. Answer figure (1) is same as the given question figure.

7. Answer figure (4) is same as the given question figure.

8. Answer figure (3) is same as the given question figure.

9. Answer figure (2) will complete the given pattern.
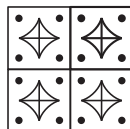
10. Answer figure (1) will complete the given figure.
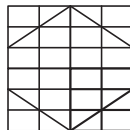
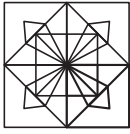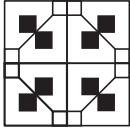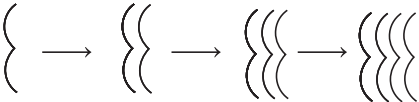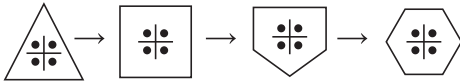**11.** Answer figure (2) will complete the given figure.

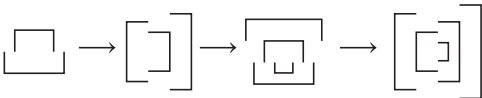**12.** Answer figure (1) will complete the given figure.

**13.** In every successive figure, one design is increasing. Hence, answer figure (2) will complete the series.

14. In every successive figure, a new arm is increasing in outer figure. Hence, answer figure (3) will complete the series.

15. In every step, figure is rotating 90° anti-clockwise and a figure is increasing in inner space. Hence, answer figure (1) will complete the series.

16. In every step, figure is rotating 45° anti-clockwise. Hence, answer figure (1) will complete the series.
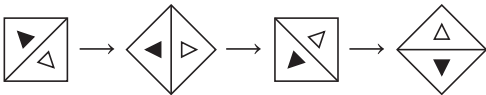
17. As in question figure, first figure rotates 90° clockwise. In the same way, third figure rotates 90° clockwise. Hence, answer figure (1) is the correct choice.

18. As in question figure, arrow from first figure resolve in second one. In the same way, third figure resolve in fourth one. Hence, answer figure (3) is the correct choice.

19. As in question figure, line from upper side of first figure getting lowered in the next one and hence increase the length of design. In the same way, line from upper side of third figure getting lowered in the next one and increase the length of design. Hence, answer figure (2) is the correct choice.

20. As in question figure, second figure is water image of first one. In the same way, fourth one is water image of third one. Hence, answer figure (4) is the correct choice.

21. Answer figure (1) will complete the given geometrical figure.
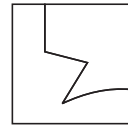
22. Answer figure (1) will complete the given geometrical figure.
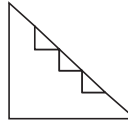
23. Answer figure (4) will complete the given geometrical figure.

24. Answer figure (2) will complete the given geometrical figure.

25. Answer figure (4) is the correct mirror image of the given question figure.

26. Answer figure (1) is the correct mirror image of the given question figure.

27. Answer figure (2) is the correct mirror image of the given question figure.

28. Answer figure (4) is the correct mirror image of the given question figure.
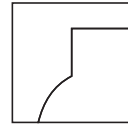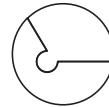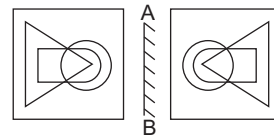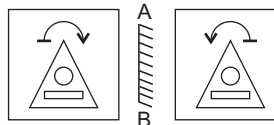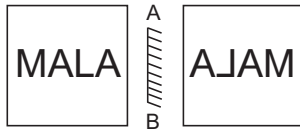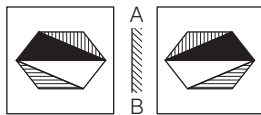

29. When the paper is folded, it is shown as in the answer figure (4).

30. When the paper is folded, it is shown as in the answer figure (3).

31. When the paper is folded, it is shown as in the answer figure (4).

32. When the paper is folded, it is shown as in the answer figure (1).

33. Answer figure (3) can be formed by using the cut pieces.

34. Answer figure (3) can be formed by using the cut pieces.

35. Answer figure (2) can be formed by using the cut pieces.

36. Answer figure (1) can be formed by using the cut pieces.

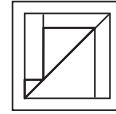**37.** The question figure is embedded in the answer figure (1).
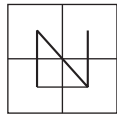
38. The question figure is embedded in the answer figure (3).

39. The question figure is embedded in the answer figure (3).

40. The question figure is embedded in the answer figure (4).

41. Smallest four digit even number = 1032

42. The sum of two numbers = 11009

     One number = 9999

∴ Other number = 11009 − 9999 = 1010

43. 214.56

     $\longrightarrow 5 \times 0.1$

Hence, place value of 5 in 214. 56

     $= 5 \times 0.1$

44. $6 \div 6 + 6 \times 6 - 6 = 1 + 6 \times 6 - 6$

                  $= 1 + 36 - 6 = 37 - 6 = 31$

45. $\dfrac{4}{3} + \dfrac{5}{9} + \dfrac{6}{18} = \dfrac{6 \times 4 + 2 \times 5 + 1 \times 6}{18}$

              $= \dfrac{24 + 10 + 6}{18} = \dfrac{40}{18} = \dfrac{20}{9}$

46.

2	8, 12, 20, 36
2	4, 6, 10, 18
3	2, 3, 5, 9
	2, 1, 5, 3

   $\text{LCM} = 2 \times 2 \times 3 \times 2 \times 5 \times 3 = 360$

47. ∴ Required number = 1

48. ∵ 1 m = 100 cm

     4 m = 400 cm

Now, 400 cm + 2604 cm = 3004 cm

49. ∵ 10 km = 10 × 1000 m = 10000 m

Let x% of 10 km = 10 m

∴ $\dfrac{x}{100} \times 10000$ m = 10 m

            $x = \dfrac{10 \times 100}{10000}$

              $= \dfrac{1}{10} = 0.1\%$

50. ∵ $\dfrac{1}{3} = 0.33; \dfrac{1}{2} = 0.50$

∴ In ascending order the numbers will be written as

            $0.25 < 0.33 < 0.50$

or $0.25, \dfrac{1}{3}, \dfrac{1}{2}$

51. $\because$ Bus left Delhi at $= 5 : 30$ pm

       Reached Amritsar at $= 7 : 36$ am

       Time from $5 : 30$ pm to $12 : 00$ pm (mid-night)

                  $= 12 : 00 - 5 : 30$

                  $= 6$ h 30 min

       Time from $12 : 00$ to $7 : 36$ am $= 7$ h 36 min

       $\therefore$ Total time $= 6$ h 30 min $+ 7$ h 36 min

                  $= 14$ h 6 min

52. $\because$ The side of a square $= \dfrac{\text{Perimeter}}{4}$

       $\therefore$ The side of given square $= \dfrac{48}{4} = 12$ m

       $\therefore$ Area $=$ Side $\times$ Side

              $= 12 \times 12$

              $= 144$ sq m

53. Let the cost price $= 100\% = ₹\,750$

      Then, profit percentage $= (100 + 18)$

                  $= 118\%$

      The selling price $= \dfrac{118 \times 750}{100} = ₹\,885$

54. $1 + \dfrac{1}{10} + \dfrac{1}{100} + \dfrac{1}{1000}$

       $= 1 + 0.1 + 0.01 + 0.001 = 1.111$

55. $30 = 1 \times 30 = 2 \times 15 = 3 \times 10 = 5 \times 6$

       $\therefore$ Factors of 30 are $1, 2, 3, 5, 6, 10, 15, 30$.

56. Volume of box $= (\text{side})^3$

                 $= 3 \times 3 \times 3 = 27$ cu m

57. Simple Interest $= \dfrac{\text{Principal} \times \text{Rate} \times \text{Time}}{100}$

                    $= \dfrac{300 \times 6 \times 5}{100 \times 2} = ₹\,45$

58. $\because$ Area of circle $= \pi r^2$

            $38.5 = \dfrac{22}{7} \times r^2$

      $\Rightarrow$ $r^2 = \dfrac{269.5}{22} = 12.25$

      $\therefore$ $r = \sqrt{12.25} = 3.5$ cm

      Hence, circumference of circle

                $= 2\pi r = 2 \times \dfrac{22}{7} \times 3.5$

                $= 22$ cm

59. Time taken to cover 10 km $= 1$h

       Time taken to cover 1 km $= \dfrac{1}{10}$ h

      $\therefore$ Time taken to cover 100 km $= \dfrac{1}{10} \times 100 = 10$ h

60. Here, CP $= ₹\,500$ per bag

                 SP $= ₹\,450$ per bag

      As, SP $<$ CP, therefore Dia suffer a loss.

        Loss $=$ CP $-$ SP $= 500 - 450 = ₹\,50$ per bag

      $\therefore$ Loss % $= \dfrac{\text{Loss}}{\text{CP}} \times 100$

              $= \dfrac{50}{500} \times 100 = 10\%$