Jawhar Navodaya Vidyalaya
Entrance Exam (Class VI)

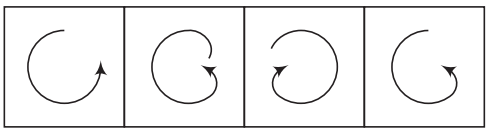
PRACTICE SET 4

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.

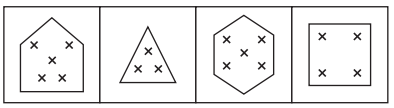


(1) (2) (3) (4)

2.

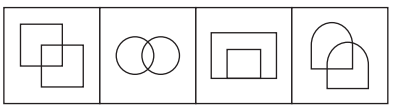
(1) (2) (3) (4)

3.



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

4.



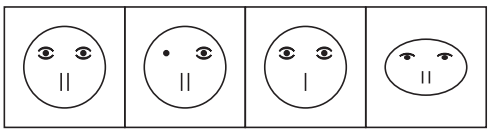
(1) (2) (3) (4)

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

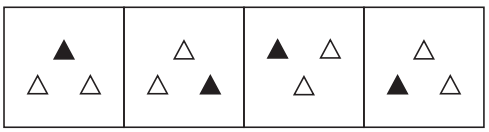
Answer Figures



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

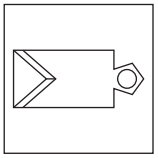
6. Question Figure

Answer Figures

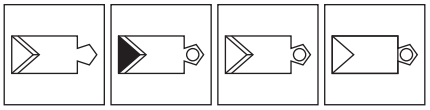


(1) (2) (3) (4)

7. Question figure

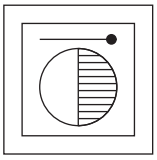


Answer figures

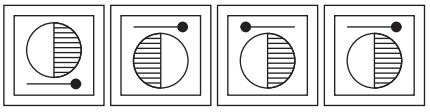


(1) (2) (3) (4)

8. Question Figure



Answer figures

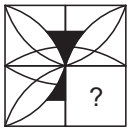


(1) (2) (3) (4)

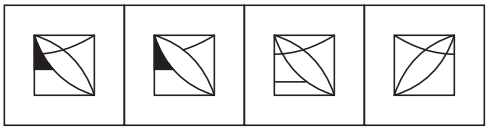
Part III

Directions (Q.Nos. 9-12) *In questions, there is a question figure, 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

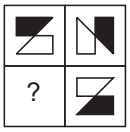


Answer Figures

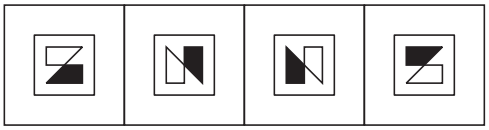


(1) (2) (3) (4)

10. Question Figure

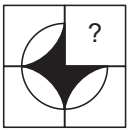


Answer Figures

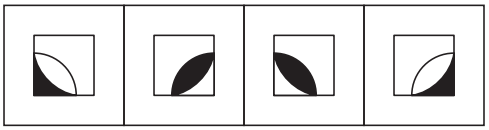


(1) (2) (3) (4)

11. Question Figure

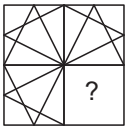


Answer Figures

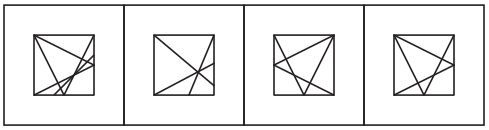


(1) (2) (3) (4)

12. Question Figure



Answer Figures

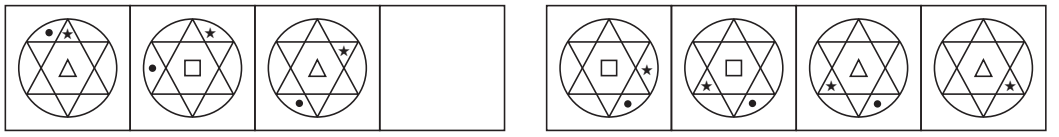


(1) (2) (3) (4)

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 a series. Find out one figure among the answer figures given, which occupies the blank space for the fourth figure and completes the series.*

13. Question Figures **Answer Figures**



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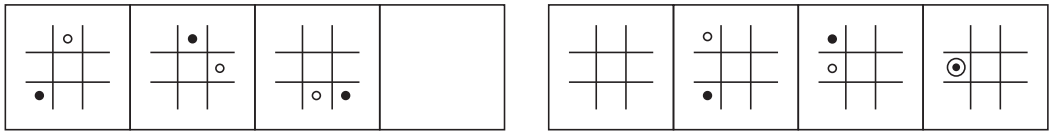
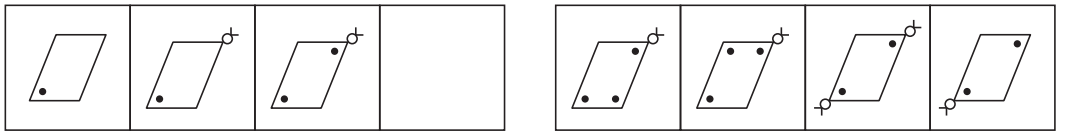
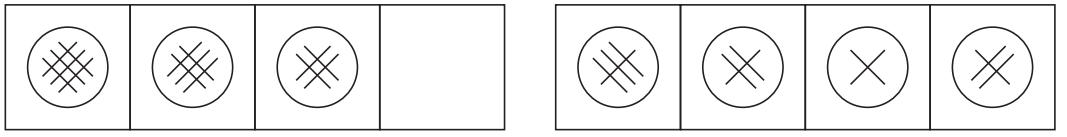


15.



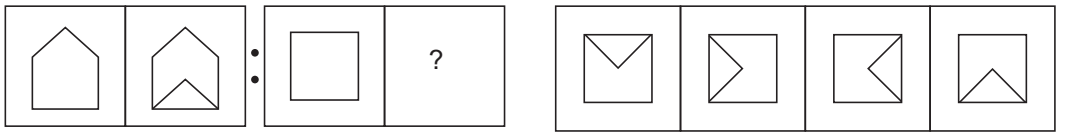
16.



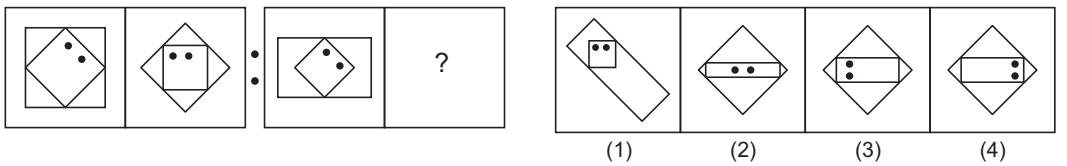
Part V

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

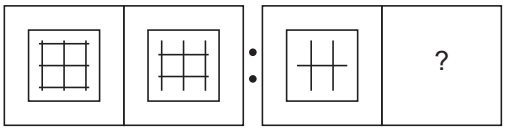
17. Question Figures **Answer Figures**



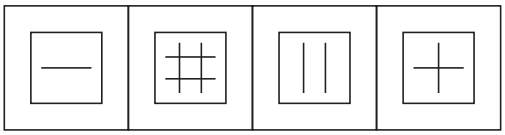
18.



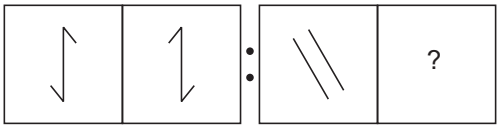
19. Question Figures

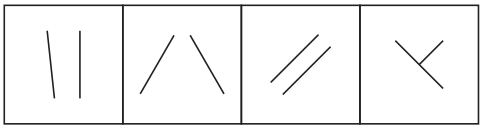


Answer Figures



20.



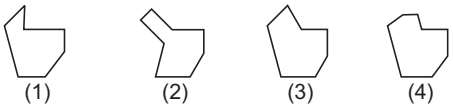


Part VI

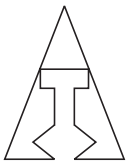
Directions (Q.Nos. 21-24) *In questions, one part of geometrical figure is given as question figure and the other one is among the four answer figures* 1, 2, 3 *and* 4 *are also given. Find out the figure that completes the geometrical figure.*

21. Question Figure

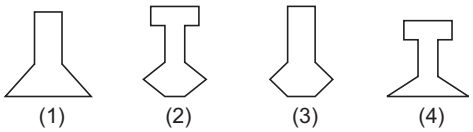
Answer Figures



22. Question Figure

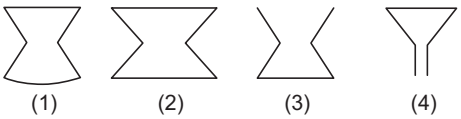


Answer Figures

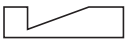


23. Question Figure

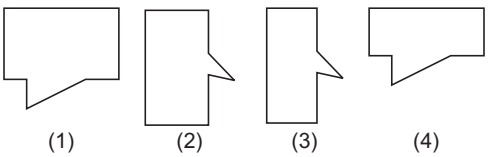
Answer Figures



24. Question Figure



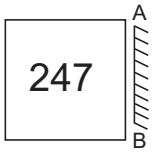
Answer Figures



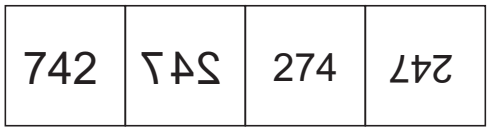
Part VII

Directions (Q.Nos. 25-28) *In question, 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.

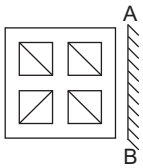
25. Question Figure



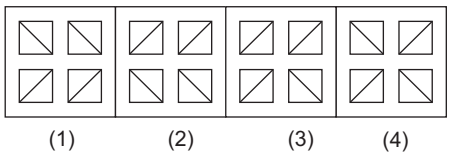
Answer Figures



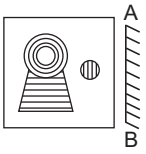
26. Question Figure



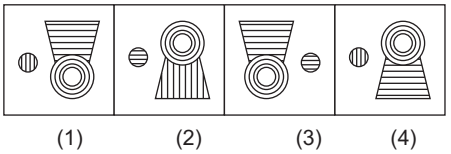
Answer Figures



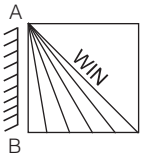
27. Question Figure



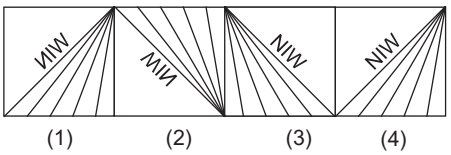
Answer Figures



28. Question Figure



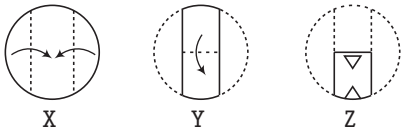
Answer Figures



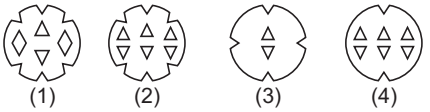
Part VII

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 indicats how the paper will appear when opened (unfolded).*

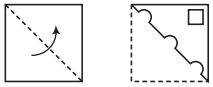
29. Question Figures



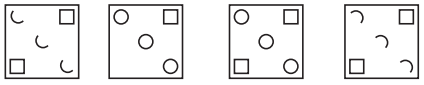
Answer Figures



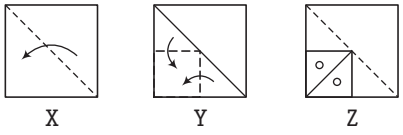
30. Question Figures



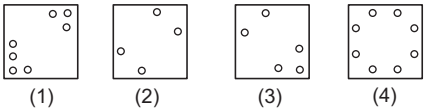
Answer Figures



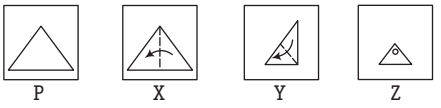
31. Question Figures



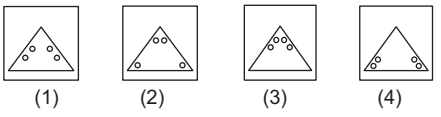
Answer Figures



32. Question Figures



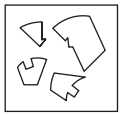
Answer Figures



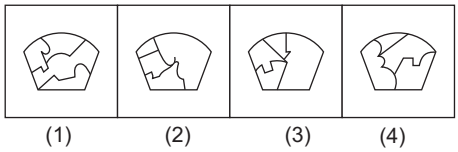
Part IX

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 in the question figure.*

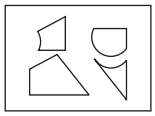
33. Question Figure



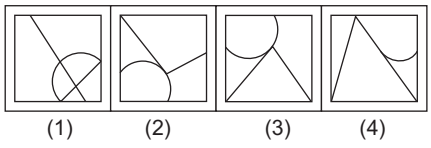
Answer Figures



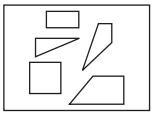
34. Question Figure



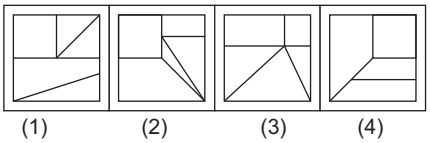
Answer Figures



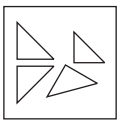
35. Question Figure



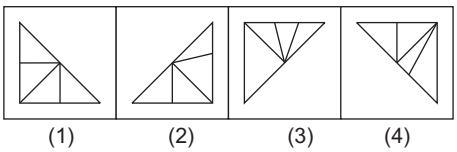
Answer Figures



36. Question Figure



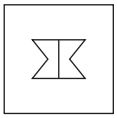
Answer Figures



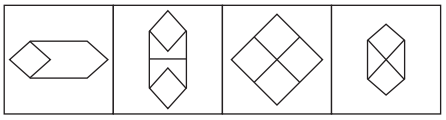
Part X

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 in hidden/embedded.*

37. Question Figure



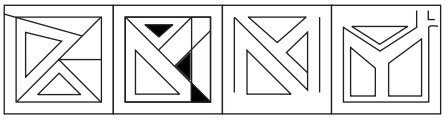
Answer Figures



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

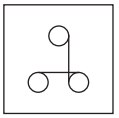
38. Question Figure

Answer Figures

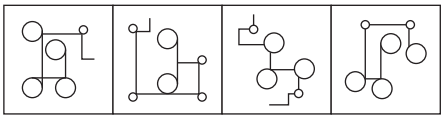


(1) (2) (3) (4)

39. Question Figure

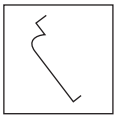


Answer Figures

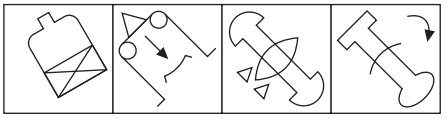


(1) (2) (3) (4)

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. What is the smallest 5 digit number which can be formed with the digits 4, 0 and 9?

(1) 40940 (2) 40009
(3) 99940 (4) 90004

42. What is the LCM of 16, 80 and 48?

(1) 8 (2) 16
(3) 240 (4) 480

43. How many seconds are there in 24 h?

(1) 30 (2) 60
(3) 3600 (4) 86400

44. In per cent, what is 10.01 written as?

(1) 10.01% (2) 10%
(3) 1001% (4) 100100%

45. In what time ₹ 3500 will become ₹ 4130 when annual rate of interest is 6%.

(1) 4 yr (2) 3 yr
(3) 6 yr (4) 5 yr

46. A man buys a TV at ₹ 18200. He spends ₹ 1800 on repairing of TV. If he want ₹ 3000 as profit. What is the selling price of TV?

(1) ₹ 20430 (2) ₹ 21200
(3) ₹ 23000 (4) ₹ 25200

47. On dividing 93.45 by 0.015, what is the approximate answer?

(1) 0.6 (2) 60
(3) 600 (4) 6000

48. What is the result of simplification of the expression?

$2.5 \div 0.5 \times 0.1 - 0.05$

(1) 0.45 (2) 49.95 (3) 0.25 (4) 100

49. A soapcake measures 7 cm in length, 5 cm in breadth and 2.5 cm in height. How many soapcakes can be placed in a cardboard box whose length, breadth and height are, respectively, 56 cm, 40 cm and 25 cm?

(1) 64 (2) 640 (3) 6400 (4) 6440

50. If 1 cm = 10 mm, how much is 10 cu cm?

(1) 100 cm mm (2) 1000 cu mm
(3) 10000 cu mm (4) 100000 cu mm

51. The product of two fractions is 6. If one fraction is $\frac{5}{3}$. Find the other.

(1) $\frac{3}{5}$ (2) $\frac{4}{5}$ (3) $\frac{18}{5}$ (4) $\frac{12}{5}$

52. Four pieces of 75 cm were cut from a piece of 14 m 25 cm of fabric. Find the length of remaining fabric.

(1) 13 m 50 cm (2) 11 m 25 cm
(3) 10 m 50 cm (4) 10 m 25 cm

53. Pictograms shows the number the number of plants sold through a nursery from Monday to Friday.

Days	Sold Plants
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

= 20 plants

Find the number of plants sold from Monday to Friday.

(1) 19 (2) 190
(3) 250 (4) 380

54. A moped costs ₹ 7250. A scooter costs ₹ 3750 more. What is the total cost of moped and a scooter?

(1) ₹ 18250 (2) ₹ 11000
(3) ₹ 14750 (4) ₹ 3500

55. What is the prime factorisation of 37800?

(1) $2 \times 2 \times 3 \times 3 \times 5 \times 5 \times 7 \times 7$
(2) $2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 5 \times 5 \times 7$
(3) $8 \times 27 \times 25 \times 7$
(4) $2 \times 4 \times 25 \times 27 \times 7$

56. The difference between the LCM and HCF of the numbers 30, 36 and 90 is

(1) 366 (2) 354
(3) 186 (4) 174

57. In a race of 1 km *A* defeats *B* by 36 m or 18 s. How much time (in s) did *A* take to complete the full distance?

(1) 500
(2) 582
(3) 460
(4) 482

58. The number of 15 cm sq tiles required to lay a floor of size 3.6 m ×4.6 m is

(1) 720
(2) 360
(3) 10800
(4) 5400

59. Find the average of the following set of scores 567, 434, 323, 290, 401.

(1) 398
(2) 412
(3) 407
(4) 403

60. *A*, *B* and *C* will divide an amount of ₹ 9861 amongst themselves in the ratio of 3 : 11 : 5, respectively. What is the *B*'s share in the amount?

(1) ₹ 4671
(2) ₹ 5709
(3) ₹ 6228
(4) ₹ 7266

SECTION III Language Test *(English)*

Directions (Q Nos. 61–80) *There are four passages in this section. Each passage is followed by five questions. Read each passage carefully and answer the questions that follow. For each question four probable answers bearing numbers* 1, 2, 3 *and* 4 *are given. Only one out of these is correct. You have to choose the correct answer.*

Passage 1

I felt lonely in a classroom full of boys and girls and a teacher. The teacher walked up to me smiling. She put her hand tenderly on my shoulder and asked—"What is your name?" "Abhayankar…"— I whispered.
"Say aloud, so I can hear it," she said. I tried but I could not. My lips were dry, perhaps sealed. I could not open my mouth. Then the teacher asked me to write my name on the blackboard. I went up to the blackboard, lifted the white chalk and as I was about to write, my mind went blank. I knew my name, I knew how to write it, but standing in front of so many boys and girls and the teacher made me uncomfortable.

61. Which of the following words does not describe the narrator?
(1) Nervous
(2) Uncomfortable
(3) Confident
(4) Timid

62. The most appropriate heading for this passage would be
(1) how to write ones name
(2) first day in the class
(3) a rude teacher
(4) a shy boy

63. Select the most suitable synonym of 'Uncomfortable'.
(1) Inconvenient (2) Comfortable
(3) Convenient (4) Satisfying

64. The boy could not write his name, because he was
(1) lonely (2) afraid
(3) sick (4) nervous

65. The teacher was … towards the boy.
(1) sympathetic (2) rude
(3) unhelpful (4) indifferent

Passage 2

It was a cold and dark night. Passing through the street, I heard a woman scream—"Help! Help". I stopped and looked around. There was no light in most of the houses. Everyone seemed to be sleeping. It could be my imagination—I thought and continued walking homewards. Suddenly I heard the same voice again, "Please, do not kill me! Take my money … my ornaments, but leave me …!" So, it was not my imagination. Some woman was in distress in the house nearby. I must save her. I rushed to the door of the house and with all my strength, pushed it open. I could still hear some sobs coming from the bedroom. So I ran into his bedroom, searched but could find no woman there. The radio was on. I heard the announcer, saying, "You had just heard a radio play 'Stranger murder'. Now, please standby for the news that follows".

66. He thought everyone was asleep, because
(1) it was a cold night
(2) there was no light in the houses
(3) no one responded to the screams
(4) there was darkness everywhere

67. Why did the narrator enter the bedroom?
(1) To look for the murderer of some woman
(2) To save the woman from being killed
(3) To pick up a fight with the murderer
(4) To listen to the radio play

68. "You had just heard a radio play …" here 'you' refers to
(1) the narrator (2) the tall man
(3) the woman (4) the listener

69. What compelled the narrator to enter the house?
(1) His sense of bravery
(2) Fellow feeling
(3) His desire to help someone in distress
(4) His need of some mysterious story

70. Which of the following is the correct synonym of the given word 'Distress' ?
(1) Pleasure (2) Relief
(3) Happiness (4) Anguish

Passage 3

India is very hot, especially in summer. It is easy to grow cotton and produce silk here. Cotton and silk can be made into thin clothes. People who live in hot countries often wear white clothes because white does not absorb heat as quickly as other colours do. Saris are also comfortable to wear because they do not cling to the body.

We can often tell about the jobs of the people by looking at their clothes. Cooks usually wear white aprons so that they can see when their clothes are dirty. Policemen, firemen and soldiers have special uniforms. Students too wear uniforms to show which school they belong to.

71. If 'cold' is an opposite word for 'hot' what will be opposite for 'summer'?
(1) Rains (2) Spring
(3) Winter (4) Snowfall

72. Which of the following need not wear a uniform?
(1) A school student (2) A policeman
(3) An army man (4) A minister

73. Cooks wear white aprons, because
(1) they want to look smart
(2) it helps them cook fast
(3) white is a cool colour
(4) they can see when it is dirty

74. Saris are comfortable to wear, because
(1) they are made of one piece
(2) they do not cling to the body
(3) they are not very costly
(4) they help one look beautiful

75. Indians wear cotton clothes in summer, because cotton
(1) keeps their body cool
(2) is cheaper than wool and silk
(3) is easy to wash
(4) is available in attractive colours

Passage 4

The boys and the girls divided the work among themselves. Anil and Zeenat fetched two big baskets from their homes. The children picked up the pieces of paper, empty bottles and plastic bags that lay about. They put them into the baskets and emptied them into the garbage bin nearby. They knew a garbage truck come daily to clean out the bin. By the end of the morning, the park looked much cleaner and tidier. From that day onwards, the children made sure that their park looked clean and litter-free. Anil's father helped them to make flower beds. The children took turns to water the seeds. When the flowers bloomed, everyone in the neighbourhood was happy.

76. 'Picked up' means
(1) collected
(2) sought
(3) carried
(4) cleaned

77. People in the neighbourhood were happy, because
(1) they could walk in the park
(2) the park has been made litter-free
(3) the flowers in the park had bloomed
(4) the children helped themselves

78. The children did not pick up
(1) pieces of paper (2) plastic bags
(3) empty bottles (4) the garbage bin

79. The opposite word for 'sad' used in the passage above is
(1) neat (2) happy
(3) tidy (4) wise

80. They fetched the baskets to
(1) collect the flowers (2) collect the litter
(3) carry manure (4) carry seeds

Answers

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

Hints and Solutions

1. Except figure (3) in all the other figures, sign of arrow is in anti-clockwise direction. Hence, figure (3) is odd one out.

2. Except figure (2), all other words are consonants. Whereas, word in the figure (2) is vowel. Hence, figure (2) is odd one out.

3. Except figure (3), in all other figures number of inside symbols are same as the number of lines in the outside figure. Hence, figure 3 is odd one out.

4. Except figure (3), in all others, two same figures are overlapping each other. Hence, figure (3) is odd one out.

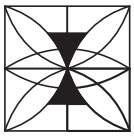
5. Answer figure (1) is similar as the given question figure.

6. Answer figure (3) is similar as the given question figure.

7. Answer figure (3) is similar as the given question figure.

8. Answer figure (4) is similar as the given question figure.

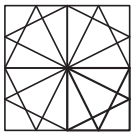
9. Answer figure (1) will complete the given question figure.



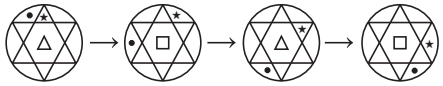
10. Answer figure (3) will complete the given question figure.

11. Answer figure (1) will complete the given question figure.

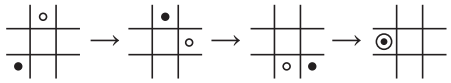
12. Answer figure (4) will complete the given question figure.



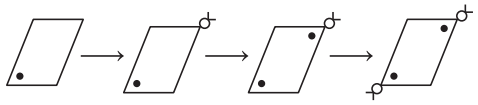
13. In every successive figure, darken smaller circle moving ahead in anti-clockwise direction upto two vacant space and darken star like design moving ahead upto one vacant space and inside the middle of the figure, triangle and square taken place on alter basis. Hence, answer figure (1) will complete the series.



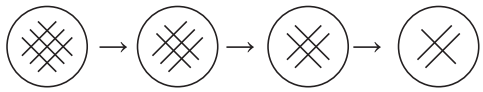
14. In every successive figure, blank circle moving ahead in clockwise direction upto one vacant space and darken smaller circle moving ahead in clockwise direction upto two vacant space. Hence, answer figure (4) will complete the series.



15. In every successive figure, a design is increasing as well as dot. Hence, answer figure (3) will complete the series.



16. In every successive figure, a diagonal line is missing. Hence, answer figure (4) will complete the series.



17. As in question figure, second figure has extra triangle on the base as compare to first one. In the same way, fourth figure has extra triangle on the base as compare to third one.

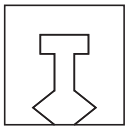
18. As in question figure, interchange occurs from innermost to its outer one with dots horizontal. In the same way, interchange occurs again with getting dots horizontal.

19. As in question figure, horizontal line getting lesser as compare to figure one. In the same way, horizontal line getting lesser as compare to figure three.

20. As in question figure, mirror image of first figure produces the second one. In the same way, mirror image of third one produces the fourth one.

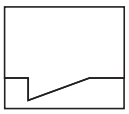
21. Answer figure (3) will complete the given geometrical figure.

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

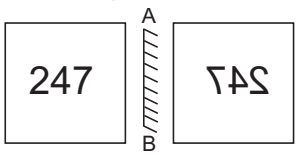


23. Answer figure (1) will complete the given geometrical figure.

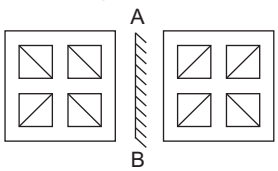
24. Answer figure (1) will complete the given geometrical figure.



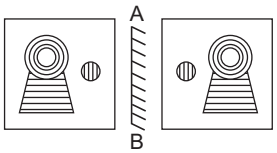
25. Answer figure (2) is the correct mirror image of the given question figure.



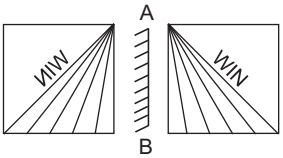
26. Answer figure (3) is the correct mirror image of the given question figure.



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



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



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

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

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

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

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

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

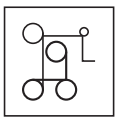
35. Answer figure (2) can be formed by using the cut pieces.

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

37. The question figure is embedded in the answer figure (2).

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

39. The question figure is embedded in the answer figure (1).



40. The question figure is embedded in the answer figure (1).

42. LCM of 16, 80 and 48

2	16, 80, 48
2	8, 40, 24
2	4, 20, 12
2	2, 10, 6
	1, 5, 3

$\text{LCM} = 2\times2\times2\times2\times5\times3 = 16\times15 = 240$

44. $10.01 = \frac{1001}{100} = 1001\%$

45. Simple interest = 4130 – 3500 = 630

We know that, $\text{SI} = \frac{P\times R\times T}{100}$

Where, P = Principal, R = Rate, T = Time

$630 = \frac{3500\times6\times T}{100} \Rightarrow T = \frac{630}{35\times6} = \frac{630}{210} = 3\text{ yr}$

46. Total cost price of TV = ₹ (18200 + 1800)

= ₹ 20000

Profit = ₹ 3000 [given]

We know that,

Selling price = Cost price + Profit

= 20000 + 3000 = ₹ 23000

47. $93.45 \div 0.015 = \frac{93450}{15} = 6230$

= 6000 (approx.)

48. Expression $= 2.5 \div 0.5 \times 0.1 - 0.05$

$= \frac{2.5}{0.5}\times0.1 - 0.05 = 5\times0.1 - 0.05$

$= 0.5 - 0.05 = 0.45$

49. Volume of a soapcake = 7 × 5 × 2.5 cu cm

Volume of the cardboard box

= 56 × 40 × 25 cu cm

Number of cakes that can be put inside the cardboard box $= \frac{56\times40\times25}{7\times5\times2.5} = 640$

50. 1 cm = 10 mm

1 cu cm = 10 × 10 × 10 cu mm

10 cu cm = 10 × 10 × 10 × 10 = 10000 cu mm

51. Let x be the other fraction.

Then, $x\times\frac{5}{3} = 6 \Rightarrow \frac{5x}{3} = 6$

$\therefore \quad x = \frac{6\times3}{5} = \frac{18}{5}$

52. Total length of fabric = 14 m 25 cm

= 1400 + 25 = 1425 cm

Length of 4 pieces of 75 cm = 75 × 4 = 300 cm

Remaining length = 1425 cm – 300 cm

= 1125 cm = 11 m 25 cm

53. Number of plant sold from Monday to Friday

$= 20\times(2+4+5+3+5) = 20\times19 = 380$

54. Cost of the maped = ₹ 7250

Cost of the scooter = ₹ 7250 + 3750 = ₹ 11000

$\therefore$ Total cost of both the vehicles = 11000 + 7250

= ₹ 18250

55.

2	37800
2	18900
2	9450
3	4725
3	1575
3	525
5	175
5	35
	7

Prime factorisation

$= 2\times2\times2\times3\times3\times3\times5\times5\times7$

56.

2	30, 36, 90
2	15, 18, 45
3	15, 9, 45
3	5, 3, 15
5	5, 1, 5
	1, 1, 1

$\text{LCM} = 2\times2\times3\times3\times5 = 180$

$30 = 2\times3\times5 \Rightarrow 36 = 2\times2\times3\times3$

$90 = 2\times3\times3\times5$

$\text{HCF} = 2\times3 = 6$

$\therefore$ Required difference = 180 – 6 = 174

57. B, runs 36 m in 18 s

B will run 1000 m in $= \frac{18}{3}\times1000\text{ s} = 500\text{ s}$

So, taken time by A for complete the race

= 500 – 18 = 482 s

58. Number of tiles required

$= \frac{\text{Area of floor}}{\text{Area of one tile}} = \frac{3.6\times4.5}{0.15\times0.15}$

$= \frac{36}{10}\times\frac{45}{10}\times\frac{100}{15}\times\frac{100}{15} = 720$

59. $\text{Average} = \frac{567+434+323+290+401}{5} = \frac{2015}{5}$

= 403

60. B's share in the amount $= \frac{9861\times11}{19}$

= ₹ 5709