Jawahar Navodaya Vidyalaya

Entrance Exam, (Class-VIth)

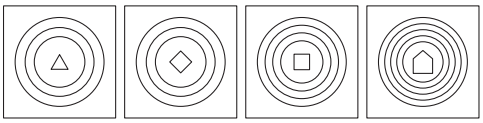
Solved Paper 2019

SECTION I : Mental Ability Test

Part I

Directions *In Question Nos.* 1 *to* 4, *four figures* (a), (b), (c) *and* (d) *have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different.*

1.

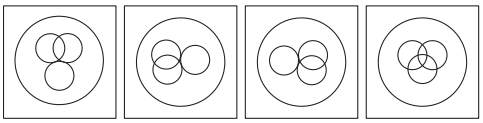


(a) (b) (c) (d)

2.

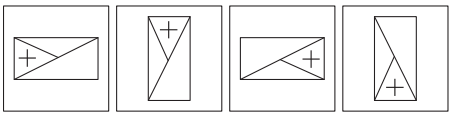
(a) (b) (c) (d)

3.



(a) (b) (c) (d)

4.

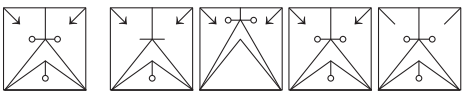


(a) (b) (c) (d)

Part II

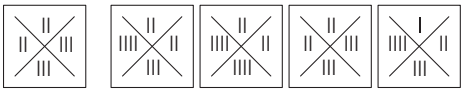
Directions *In Question Nos.* 5 *to* 8, *a question figure is given on the left side and four answer figures marked* (a), (b), (c) *and* (d) *are given in right side. Select the answer figure which is exactly the same as the question figure.*

5. **Que. Fig** **Answer Fig.**



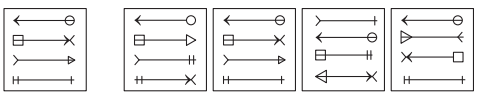
(a) (b) (c) (d)

6. **Que. Fig** **Answer Fig.**



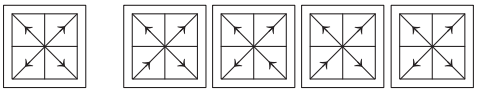
(a) (b) (c) (d)

7. **Que. Fig.** **Answer Fig.**



(a) (b) (c) (d)

8. **Que. Fig.** **Answer Fig.**

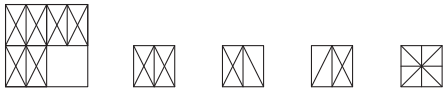


(a) (b) (c) (d)

Part III

Directions *In Question Nos.* 9 *to* 12*, there is a question figure on the left side, a part of which is missing. Observe the answer figures* (a), (b), (c) *and* (d) *on the right side and find out the answer figure which without changing the direction, fits in the missing part of the question figure in order to the complete pattern in the question figure.*

9. **Que. Fig.** **Answer Fig.**



10. **Que. Fig.** **Answer Fig.**

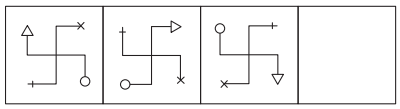
11. **Que. Fig.** **Answer Fig.**

12. **Que. Fig.** **Answer Fig.**

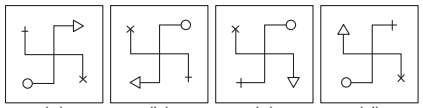
Part IV

Directions *In Question Nos.* 13 *to* 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 given which occupies the blank space for the fourth figure and completes the series.*

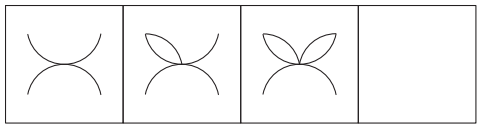
13. **Question Figures**



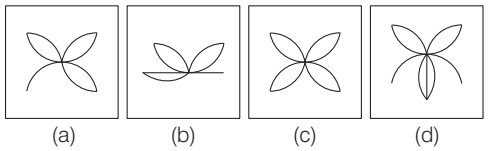
Answer Figures



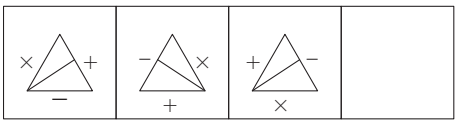
14. **Question Figures**



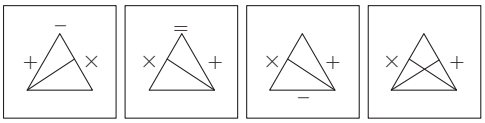
Answer Figures



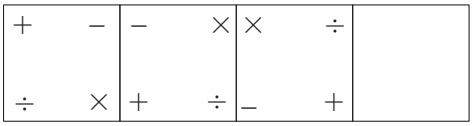
15. **Question Figures**



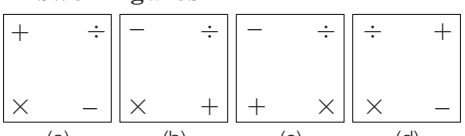
Answer Figures



16. **Question Figures**



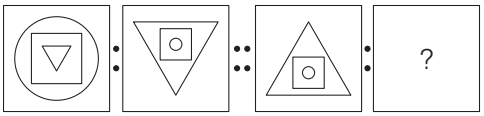
Answer Figures



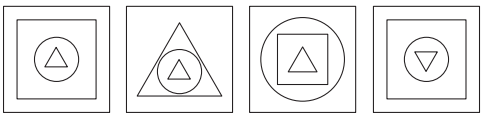
Part V

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

17. **Question Figures**

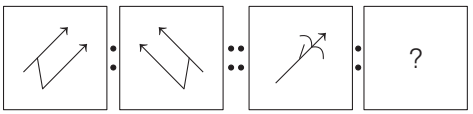


Answer Figures

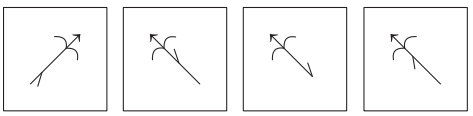


(a) (b) (c) (d)

18. **Question Figures**

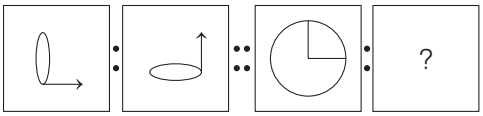


Answer Figures

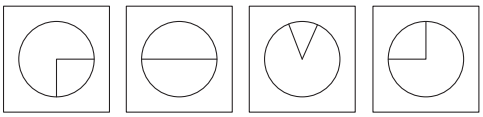


(a) (b) (c) (d)

19. **Question Figures**

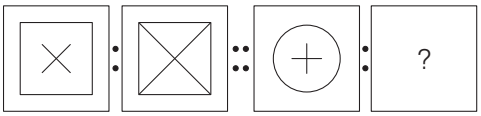


Answer Figures

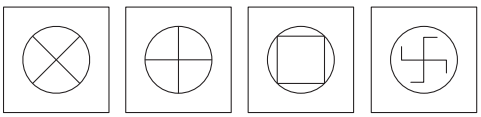


(a) (b) (c) (d)

20. **Question Figures**



Answer Figures

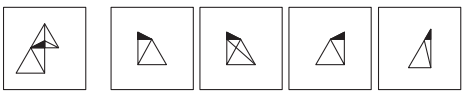


(a) (b) (c) (d)

Part VI

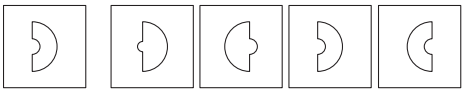
Directions *In Question Nos.* 21-24, *one part of a geometrical figure (Triangle, Square, Circle) is on the left side as question figure and the other one is among the four answer figures* (a), (b), (c) *and* (d). *Find the figure on the right side that completes the geometrical figure.*

21. **Que. Fig.** **Answer Fig.**



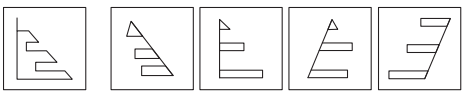
(a) (b) (c) (d)

22. **Que. Fig.** **Answer Fig.**



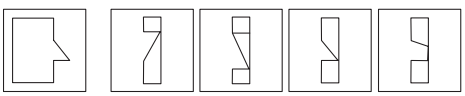
(a) (b) (c) (d)

23. **Que. Fig.** **Answer Fig.**



(a) (b) (c) (d)

24. **Que. Fig.** **Answer Fig.**



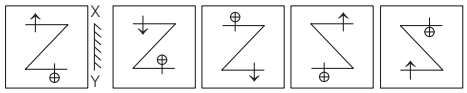
(a) (b) (c) (d)

Part VII

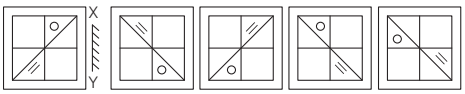
Directions *In Question Nos.* 25-28, *there is a question figure is given on left side and four answer figures marked* (a), (b), (c) *and* (d) *are given. Select the answer figure which is exactly the mirror image of the question figure when the mirror is held at XY.*

25. **Que. Fig.** **Answer Fig.**

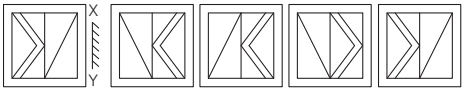
26. **Que. Fig.** **Answer Fig.**



27. **Que. Fig.** **Answer Fig.**



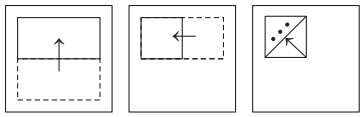
28. **Que. Fig.** **Answer Fig.**



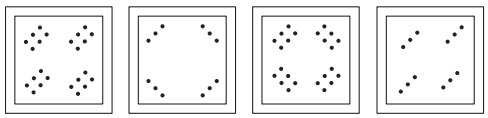
Part VIII

Directions *In Question Nos.* 29 *to* 32, *a piece of paper is folded and punched as shown in question figures and four answer figures marked* (a), (b), (c) *and* (d) *are given. Select the answer figure which indicates how the paper will appear when opened (unfolded).*

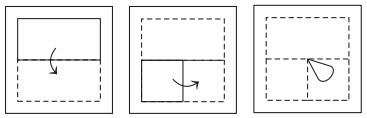
29. **Question Figures**



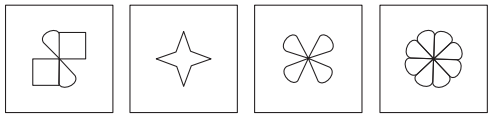
Answer Figures



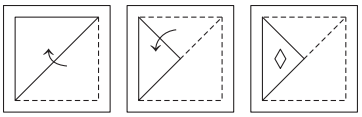
30. **Question Figures**



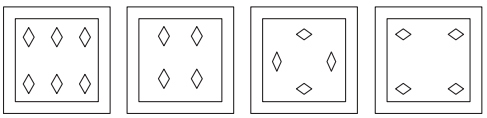
Answer Figures



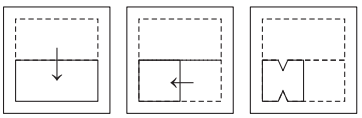
31. **Question Figures**



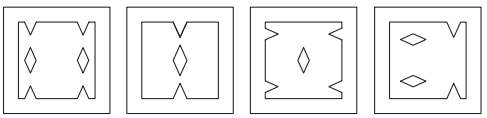
Answer Figures



32. **Question Figures**



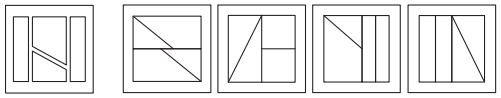
Answer Figures



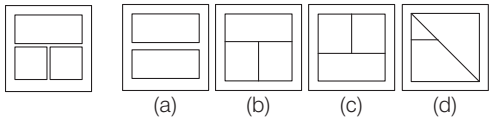
Part IX

Directions *In Question Nos.* 33 *to* 36, *a question figure is given and four answer figures marked* (a), (b), (c) *and* (d) *are given. Select the answer figure which can be formed from the cut-out pieces given in the question figure.*

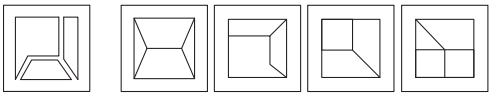
33. **Que. Fig.** **Answer Fig.**



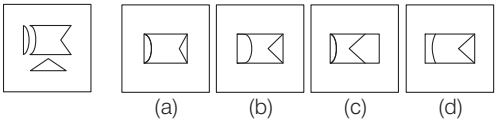
34. **Que. Fig.** **Answer Fig.**



35. **Que. Fig.** **Answer Fig.**



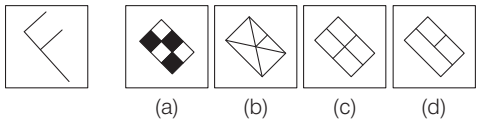
36. **Que. Fig.** **Answer Fig.**



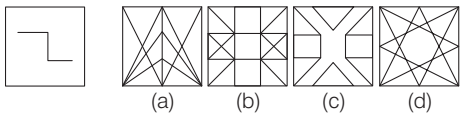
Part X

Directions *In question nos.* 37 *to* 40, *a question figure is given and four answer figures marked* (a), (b), (c) *and* (d). *Select the answer figure in which the question figure is hidden / embedded.*

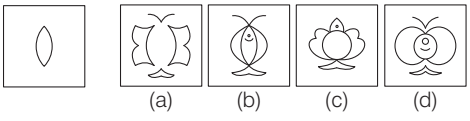
37. **Que. Fig.** **Answer Fig.**



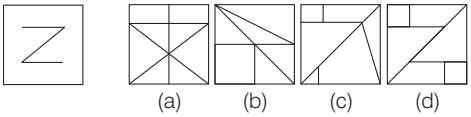
38. **Que. Fig.** **Answer Fig.**



39. **Que. Fig.** **Answer Fig.**



40. **Que. Fig.** **Answer Fig.**



SECTION II : Arithmetic Test

Directions (Q. Nos. 41-60) *For every question, four probable answers as (a), (b), (c) and (d) are given. Only one out of these is correct. Choose the correct answer and darken the circle in the OMR Answer Sheet against the number corresponding to the question.*

41. Simplification of the following gives

$$15\frac{1}{2}-\left[\frac{12}{5}\times\frac{5}{8}+\left(7\div 1\frac{3}{4}\right)\right]\times 2$$

(a) $\frac{2}{9}$ (b) $\frac{7}{2}$

(c) $\frac{9}{2}$ (d) $\frac{11}{2}$

42. The number of numbers which are multiples of both 3 and 5 in the first 100 natural numbers is

(a) 10 (b) 9 (c) 7 (d) 6

43. Which of the following statements is correct?

(a) Zero is an odd number
(b) Zero is an even number
(c) Zero is a prime number
(d) Zero is neither odd nor even number

44. If a man travels at a speed of 30 km/h, he reaches his destination 10 min late and if he travels at a speed of 42 km/h, he reaches his destination 10min early. The distance travelled is
(a) 36 km (b) 35 km (c) 40 km (d) 42 km

45. A passenger train, running at a speed of 80 km/h leaves a railway station 6h after a goods train leaves and overtakes it in 4 h. What is the speed of the goods train?
(a) 32 km/h (b) 48 km/h (c) 60 km/h (d) 50 km/h

46. What sum will amount to ₹ 6600 in 4 yrs at 8% per annum simple interest?
(a) ₹ 6000 (b) ₹ 5000 (c) ₹ 4000 (d) ₹ 6200

47. 5045 grams is equal to
(a) 50 kg, 45 gm (b) 5 kg, 45 gm
(c) 5 kg, 450 gm (d) 50 kg, 450 gm

48. How many rectangular slabs of 10 cm × 8 cm are required to cover the floor of a hall of 12 m × 10 m?
(a) 12000 (b) 15000 (c) 10000 (d) 18000

49. What is the sum of the place value of 5 in the number 584356?
(a) 10 (b) 50050 (c) 5050 (d) 500050

50. Two solid cubes of side 10 cm each are joined end to end. What is the volume of the resulting cuboid?
(a) 500 cm^3 (b) 2000 cm^3
(c) 1000 cm^3 (d) 10000 cm^3

51. 150% is equal to
(a) 1.5 (b) 5.1 (c) 0.15 (d) 15.0

52. A fruit seller buys lemons at 2 for a rupee and sells them at 5 for three rupees. What is his profit per cent?
(a) 8% (b) 10% (c) 15% (d) 20%

53. Which of the following numbers is divisible by 3, 4, 5 and 6?
(a) 36 (b) 60 (c) 80 (d) 90

54. There are 500 eggs in a box. $\frac{3}{25}$ got broken, $\frac{4}{5}$ of the remaining eggs were sold. The number of eggs left is
(a) 80 (b) 88 (c) 40 (d) 36

55. 5 minutes past 3, in the afternoon, is written as
(a) 5 : 30 am (b) 5 : 30 pm
(c) 3 : 50 pm (d) 3 : 05 pm

56. The difference between the greatest and the smallest 5-digit numbers, formed by the digits 0, 3, 6, 7 and 9 without repetition, is
(a) 93951 (b) 67061
(c) 66951 (d) 60840

57. An article is sold for ₹ 500 and hence a loss is incurred. Had the article been sold for ₹ 700, the shopkeeper would have gained three times the former loss. What is the cost price of the article?
(a) ₹ 525 (b) ₹ 550 (c) ₹ 600 (d) ₹ 650

58. When –1 is multiplied by itself 100 times, the product is
(a) 1 (b) –1 (c) 100 (d) –100

59. Simplification of 2.75 – 1.25 + 4.75 – 3.80 in fractional form is
(a) $2\frac{9}{20}$ (b) $2\frac{9}{10}$ (c) $1\frac{9}{10}$ (d) $5\frac{9}{20}$

60. The length of a rectangular plot of land is twice its breadth. A square swimming pool of side 8 m, occupies one-eighth part of the plot. The length of the plot is
(a) 64 m (b) 32 m (c) 16 m (d) 12 m

SECTION III : Language Test

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 as* (a), (b), (c) *and* (d) *are given. Only one out of these is correct.*

Passage I

Chewing gum was discovered a thousand years ago by the Mayans in the Mexican jungles. They found a liquid leaking from a sapodilla tree. As it oozed out, it thickened into something that they called chicle which was chewable and tasty. Today, workers called chicleros still collect chicle. The chicle is boiled to remove the water. It is then made into slabs about 30 pounds each or 14 kilograms each. These slabs are sent to gum factories. There it is mixed with several ingredients to sweeten, soften, flavour and colour the gum.

61. ..... discovered chewing gum.
(a) The Mayans (b) Sapodillas
(c) Chicleros (d) Gum factories

62. ..... are the workers who collect chicle.
(a) Sapodillas (b) The Mayans
(c) Chicleros (d) Gummers

63. Slabs of chicle are sent to
(a) recycling centers (b) gum factories
(c) the Mexican jungles (d) candy stores

64. Several ingredients are added to chicle to do all of the following except to ..... it.
(a) soften (b) flavour
(c) thicken (d) sweeten

65. A suitable title for the passage will be
(a) The Gum
(b) Chiclero
(c) The Story of Chiclero
(d) The Story of Chewing Gum

Passage 2

India is a land of pilgrims and pilgrimages. These holy places, whether in the hills or in the plains, are **generally** situated on river banks or by the sea. It is not only the religious people who visit these places of pilgrimages, but also travellers and sight-seers from all over India and abroad. Wherever two or more rivers meet, pilgrims come to bathe and worship because that place is supposed to be holy. One such place is Haridwar which is situated on the bank of river Ganga.

66. Holy places are visited by religious people, sight-seers as well as ..... .
(a) children
(b) travellers
(c) traders
(d) voyagers

67. Which one of the following is a synonym of the word 'generally'?
(a) usually
(b) publicly
(c) occasionally
(d) eventually

68. The place is considered 'holy' where two or more rivers meet.
Here the antonym of the word 'holy' is
(a) godly (b) religious
(c) cursed (d) pious

69. People come to bathe and worship in the Ganga as its water is
(a) holy (b) clear and clean
(c) cool (d) healthy

70. People go on a pilgrimage because they are
(a) curious (b) religious
(c) explorers (d) old

Passage 3

It was Ajit's birthday. All his friends and relatives had gathered. He received many gifts. There were books, toys and clothes. Ajit's aunt gave him a surprise gift-a rose sapling. Ajit liked his aunt's gift the best and at once ran to the garden and planted the sapling. Ajit watered the plant everyday. As soon as he woke up in the morning, he would rush to see how much the plant had grown. One day he saw two little rose buds peeping out. He kept watching the buds bloom into beautiful yellow roses. He was happy and thrilled. With his mother's help, he plucked the flowers. He gifted the first two roses to his mother and sister. Ajit decided to plant more saplings in his garden.

71. Ajit's best birthday gift was a
(a) race car
(b) shirt
(c) rose sapling
(d) book

72. As soon as Ajit woke up he
(a) started studying
(b) rushed to see the sapling
(c) had a bath
(d) went to school

73. How many rose buds appeared first?
(a) one (b) four
(c) two (d) many

74. Ajit gifted the first two roses to
(a) his friends (b) his aunt
(c) his mother and sister (d) his mother and aunt

75. The word 'thrilled' means
(a) sad (b) excited
(c) afraid (d) surprised

Passage 4

The neem tree is known as a village pharmacy due to the medicinal benefits of its seeds, bark and leaves. It is called *arista* in Sanskrit which means perfect, imperishable and complete. Neem oil plays an important role in pest control and can also be used as a replacement for mosquito repellent. Neem seed cakes are used as fertilizer. A paste of neem leaves is used to treat chickenpox. Neem twigs commonly referred to as 'datun' are used as toothbrushes in villages. The bark and roots are also used, in powdered form, to control fleas and ticks on pets.

76. A pharmacy is
(a) farm land (b) a medical store
(c) a playground (d) a farm house

77. The part of the neem tree that is useful to the farmers is
(a) seeds (b) bark (c) twigs (d) leaves

78. Which one of the following is not a synonym of 'perfect'?
(a) faultless (b) flawless
(c) seamless (d) blemished

79. The word 'pest' in the passage means
(a) an insect that destroys crops
(b) an angry person
(c) dirty water
(d) pollution

80. Neem … are used as toothbrushes in villages.
(a) roots
(b) leaves
(c) twigs
(d) seed cakes

Answers

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

Hints and Solutions

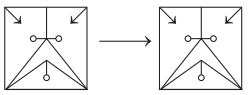
1. (b) Except figure (b), in all other figures the innermost geometrical figure is made up of similar number staight lines as there are circles.
Hence, figure (b) is different.

2. (c) Except figure (c), all other figures consist of three letters R, U and N. But in figure (c), letter 'K' is used in place of 'R'.
Hence, figure (c) is different.

3. (d) Except figure (d), all other figures have only two intersecting circles. But in figure (d), all the three circles are intersecting each other.
Hence, figure (d) is different.

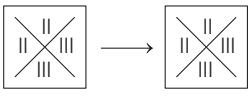
4. (b) Except figure (b), all other figures are same when rotated.

5. (c) Answer figure (c) is similar to the given question figure.



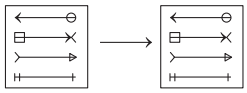
Que. Fig. Answer Fig. (c)

6. (c) Answer figure (c) is similar to the given question figure.



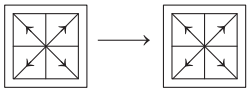
Que. Fig. Answer Fig. (c)

7. (b) Answer figure (b) is similar to the given question figure.



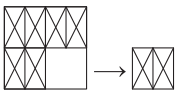
Que. Fig. Answer Fig. (b)

8. (d) Answer figure (d) is similar to the given question figure.

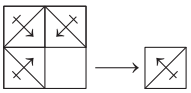


Que. Fig. Answer Fig.

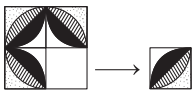
9. (a) Answer figure (a) will complete the given question figure.



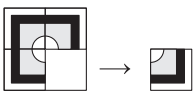
10. (d) Answer figure (d) will complete the given question figure.



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



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



13. (b) The elements are moving from one corner to other in clockwise direction in each step. Hence, answer figure (b) will complete the given series.

14. (a) One half-leaf is added in each step in clockwise direction. Hence, answer figure (a) will complete the given series.

15. (c) The symbols are moving from one side of triangle to other in clockwise direction in each step and the line inside the triangle is same in each alternative figure. Hence, answer figure (c) will complete the series.

16. (d) The symbols are changing their position from one corner to other in anti-clockwise direction in each step. Hence, answer figure (d) will complete the given series.

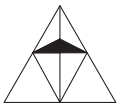
17. (c) The innermost element is enlarged and becomes the outermost element. The outermost element reduces in size and becomes the inner most element. Hence, figure (c) is the correct answer.

18. (b) Second figure is the mirror image of first figure. Hence, answer figure (b) will replace the question mark.

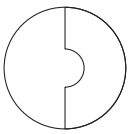
19. (d) From first figure to second figure, whole figure is rotated 90° anti-clockwise. Hence, answer figure (d) is correct choice.

20. (b) From first figure to second the inner element is enlarged. Hence, answer figure (b) is the correct choice.

21. (a) Answer figure (a) will complete the geometrical figure as follows

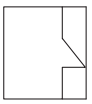


22. (b) Answer figure (b) will complete the geometrical figure as follows

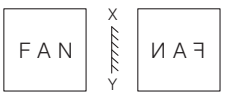


23. (a) Answer figure (a) will complete the geometrical figure as follows

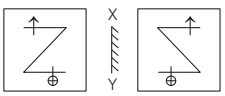
24. (c) Answer figure (c) will complete the geometrical figure as follows



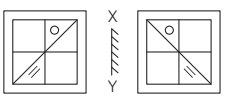
25. (b) Answer figure (b) is the correct mirror image of the given question figure.



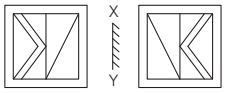
26. (c) Answer figure (c) is the correct mirror image of the given question figure.



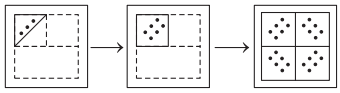
27. (c) Answer figure (c) is the correct mirror image of the given question figure.



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

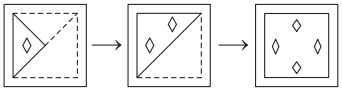


29. (c) When the paper is unfolded, it will appear as shown in answer figure (c).

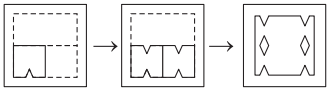


30. (c) When the paper is unfolded, it will appear as shown in answer figure (c).

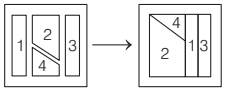
31. (c) When the paper is unfolded, it will appear as shown in answer figure (c).



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

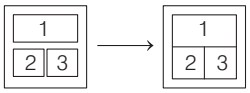


33. (c) Answer figure (c) can be formed from the cut out pieces given in the question figure.



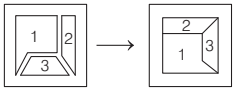
(c)

34. (b) Answer figure (b) can be formed from the cut out pieces given in the question figure.



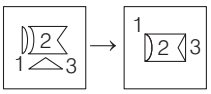
(b)

35. (b) Answer figure (b) can be formed from the cut out pieces given in the question figure.



(b)

36. (a) Answer figure (a) can be formed from the cut out pieces given in the question figure.

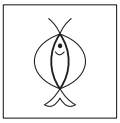


(a)

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

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

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



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

41. (c) Given expression,

$$15\frac{1}{2} - \left[\frac{12}{5} \times \frac{5}{8} + \left(7 \div 1\frac{3}{4}\right)\right] \times 2$$

By applying VBODMAS,

$$= \frac{31}{2} - \left[\frac{12}{5} \times \frac{5}{8} + \left(7 \div \frac{7}{4}\right)\right] \times 2$$

$$= \frac{31}{2} - \left[\frac{12}{5} \times \frac{5}{8} + \frac{7 \times 4}{7}\right] \times 2 = \frac{31}{2} - \left[\frac{3}{2} + 4\right] \times 2$$

$$= \frac{31}{2} - \left[\frac{11}{2}\right] \times 2 = \frac{31}{2} - 11 = \frac{31 - 22}{2} = \frac{9}{2}$$

42. (d) ∵ LCM of 3 and 5 = 15

The numbers which are multiples of both 3 and 5
= 15 × 1, 15 × 2, 15 × 3, 15 × 4, 15 × 5, 15 × 6
= 15, 30, 45, 60, 75, 90
Total numbers = 6

43. (d) Zero is neither odd nor even number.

44. (b) According to the question, speed = 30 km/h,

$$\text{time} = \left(t + \frac{10}{60}\right)\text{h} = \left(t + \frac{1}{6}\right)\text{h}$$

By using, $\text{Speed} = \frac{\text{Distance}}{\text{Time}}$

Distance $(S) = 30 \times \left(t + \frac{1}{6}\right)$ …(i)

According to the question,

Speed = 42 km/h

Time $= \left(t - \frac{10}{60}\right)$ h $= \left(t - \frac{1}{6}\right)$ h

$\Rightarrow$ Distance $(S) = 42 \times \left(t - \frac{1}{6}\right)$ …(ii)

From Eqs. (i) and (ii),

Distance $(S) = 30\left(t + \frac{1}{6}\right) = 42 \times \left(t - \frac{1}{6}\right)$

$\Rightarrow \quad 5\left(t + \frac{1}{6}\right) = 7\left(t - \frac{1}{6}\right)$

$\Rightarrow \quad 5t + \frac{5}{6} = 7t - \frac{7}{6} \quad \Rightarrow \quad 2t = \frac{12}{6}$

$\therefore \quad t = 1$ h

Hence, distance $(S) = 30\left(t + \frac{1}{6}\right)$

$= 30\left(1 + \frac{1}{6}\right) = 30 \times \frac{7}{6} = 35$ km

45. (a) According to the question,

Speed of passenger train = 80 km/h

Time taken by passenger train = 4 h

Let, speed of goods train = v

Time taken by goods train = 6 + 4 = 10 h

$\because$ Distance covered by both the trains is same.

Now, by using, Speed $= \frac{\text{Distance}}{\text{Time}}$

Distance = Speed × Time

Distance = $80 \times 4 = v \times 10 \Rightarrow v = 32$ km/h

46. (b) According to the question,

Amount (A) = ₹ 6600

time (t) = 4 yr

rate (r) = 8%

By using, Simple Interest $= \frac{\text{Principal} \times \text{rate} \times \text{time}}{100}$

$\text{SI} = \frac{Prt}{100}$

$\Rightarrow \quad \text{SI} = \frac{P \times 4 \times 8}{100}$ …(i)

But, Amount $(A) = P +$ SI

From Eq. (i),

$A = P + \frac{P \times 4 \times 8}{100}$

$\Rightarrow \quad 6600 = P + \frac{8P}{25}$

$\Rightarrow \quad 6600 = \frac{33P}{25} \Rightarrow P = 200 \times 25$

$\therefore \quad P =$ ₹ 5000

47. (b) 1 kg = 1000 gm

Given, 5045 gm = (5000 + 45) gm

This can be written as 5 × 1000 × 45 gm

i.e. 5 kg. 45 gm

48. (b) According to the question,

Size of a rectangular slab = Length × Breadth

= 10 cm × 8 cm

Size of a hall = Length × Breadth = 12 m × 10 m

= 1200 cm × 1000 cm [$\because$ 1 m = 100 cm]

Total number of slabs $= \frac{\text{Size of a hall}}{\text{Size of a rectangular slab}}$

$= \frac{1200 \times 1000}{10 \times 8} = 15000$

$\therefore$ Total number of rectangular slabs = 15000

49. (d) Given, 5 84 356

Place values of 5 → $\boxed{5}$ 84 3 $\boxed{5}$ 6

i.e. 500000 and 50

Sum of place values of 5 = 500000 + 50 = 500050

50. (b) According to the question,

Side of a cube = 10 cm

When, two cubes are joined end to end

Length of a cuboid (l) = 20 cm, breadth (b) = 10 cm,

height (h) = 10 cm

By using, volume of a cuboid = $l \times b \times h$

$= 20 \times 10 \times 10 = 2000$ cm^3

51. (a) Given, 150%

150% is written as $\frac{150}{100} = \frac{15}{10} = 1.5$

52. (d) Seller buys 2 lemons in = ₹ 1

Cost price of 1 lemon (CP) $= \frac{1}{2}$ …(i)

Seller sells 5 lemon in = ₹ 3

Selling price of 1 lemon (SP) $= \frac{3}{5}$ …(ii)

But, profit % $= \frac{\text{SP} - \text{CP}}{\text{CP}} \times 100 = \frac{\frac{3}{5} - \frac{1}{2}}{\frac{1}{2}} \times 100$

$= \frac{\frac{6-5}{10}}{\frac{1}{2}} \times 100 = \frac{2}{10} \times 100 = 20\%$

53. (b) From the options,

Multiples of 60 = 2 × 2 × 3 × 5 or 4 × 3 × 5 or 6 × 10

Hence, number 60 is divisible by 3, 4, 5 and 6.

54. (b) According to the question,

Total eggs = 500 $\Rightarrow \frac{3}{25}$ got broken

i.e. broken eggs $= \frac{3}{25} \times 500 = 60$

$\therefore$ Remaining eggs = 500 − 60 = 440

Now, $\frac{4}{5}$ of the remaining eggs were sold i.e.

$$= \frac{4}{5} \times 440 = 88 \times 4 = 352$$

Hence, number of eggs left = 500 − (60 + 352)

= 500 − 412 = 88

55. (d) According to the question,

$\Rightarrow$ 5 min past 3 in the afternoon is written as 3 : 05 pm.

i.e. 3 hrs 5 minutes in the afternoon.

56. (c) Given digits = 0, 3, 6, 7, 9

Greatest 5-digit number = 97630

Smallest 5-digit number = 30679

$\therefore$The difference between the greatest and the smallest numbers = 97630 − 30679 = 66951

57. (b) According to the question,

When Selling Price (SP_1) = ₹ 500, there is a loss L.

When Selling Price (SP_2) = ₹ 700, there is a profit i.e. 3 times the former loss = $3L$

By using,

$$SP = \left(\frac{100 \pm \text{Profit / Loss}}{100}\right) \times \text{Cost price}$$

$$SP_1 = 500 = \frac{100 - L}{100} \times CP \quad \ldots(i)$$

$$SP_2 = 700 = \frac{100 + 3L}{100} \times CP \quad \ldots(ii)$$

From Eqs. (i) and (ii),

$$\frac{500}{700} = \frac{100 - L}{100 + 3L}$$

$$500 + 15L = 700 - 7L$$

$$22L = 200$$

$$L = \frac{200}{22} = 9.09$$

From Eq. (i),

$$SP_1 = 500 = \frac{100 - 9.09}{100} \times CP$$

$$CP = \frac{500 \times 100}{90.91} = 550$$

Hence, the CP of the article = ₹ 550

58. (b) According to the question,

$\therefore$ Required answer = $(-1) \times (1)^{100} = (-1)^{101} = -1$

59. (a) According to the question,

Given expression = 2.75 − 1.25 + 4.75 − 3.80

By BODMAS rule,

= 2.75 + 4.75 − 1.25 − 3.80

$$= 7.5 - 5.05 = 2.45 = \frac{245}{100} = \frac{49}{20} = 2\frac{9}{20}$$

60. (b) According to the question,

Let breadth of a rectangular plot = B

Length of a rectangular plot (l) = $2B$

$\therefore$ A square swimming pool of side 8 m occupies one-eighth part of the plot.

$\therefore$ Area of swimming pool

$$= \frac{1}{8} \times \text{area of a rectangular plot}$$

$$\text{or } (\text{Side})^2 = \frac{1}{8} \times l \times b$$

$$(8)^2 = \frac{1}{8} \times 2B \times B$$

$$64 = \frac{1}{4} \times B^2$$

$$B^2 = 64 \times 4$$

$$= 256$$

$$B = 16 \text{ m}$$

Hence, length of the plot = 2 × 16 = 32 m

61. (a) The Mayans discovered chewing gum.

62. (c) Chicleros are the workers who collect chicle.

63. (b) Slabs of chicle are sent to gum factories.

64. (c) Except to thicken it several ingredients are added to chicle to soften, add flavour and colour to the gum.

65. (d) A suitable title for the passage will be 'The story of Chewing Gum'.

66. (b) Holy places are visited by religious people, sight-seers as well as travellers.

67. (a) 'Generally' means 'usually'. So, 'usually' is the correct synonym of 'generally'.

68. (c) 'Holy' means 'religious', its antonym is 'cursed'.

69. (a) People come to bathe and worship in the Ganga as its water is holy.

70. (b) According to the passage, people go on a pilgrimage because they are religious.

71. (c) Ajit's best birthday gift was a rose sapling.

72. (b) As soon as Ajit woke up, he rushed to see the sapling.

73. (c) Firstly, two rose buds are appeared.

74. (c) Ajit gifted the first two roses to his mother and sister.

75. (b) The word 'thrilled' means excited.

76. (b) A pharmacy is a medical store.

77. (a) The part of the neem tree that is useful to the farmers is its seeds.

78. (d) 'Perfect' means faultless, flawless, seamless etc. Blemished is not a synonym of 'Perfect'.

79. (a) The word 'Pest' in the passage means, an insect that destroys crops.

80. (c) Neem twigs are used as toothbrushes in villages.