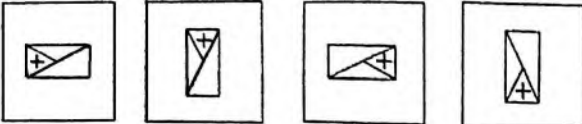
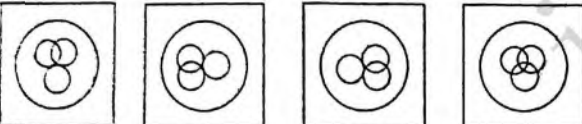

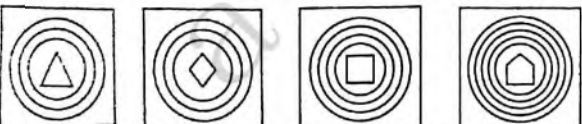


Previous Paper (Solved)
JAWAHAR NAVODAYA VIDYALAYA
Class-VI, Entrance Exam, 2019*

SECTION-I : MENTAL ABILITY TEST

PART-I

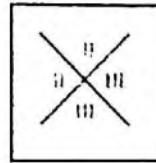
Directions (Qs. No. 1 to 4): In these questions, four figures (A), (B), (C) and (D) have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different.

1. 
A B C D
2. 
A B C D
3. 
A B C D
4. 
A B C D

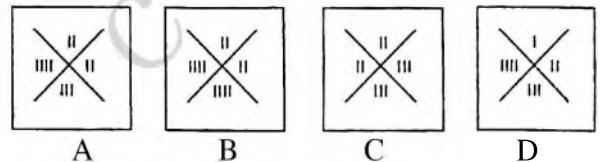
PART-II

Directions (Qs. No. 5 to 8): In these questions, a question figure and four answer figures marked (A), (B), (C) and (D) are given. Select the answer figure which is exactly the same as the question figure.

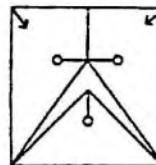
5. Question Figure



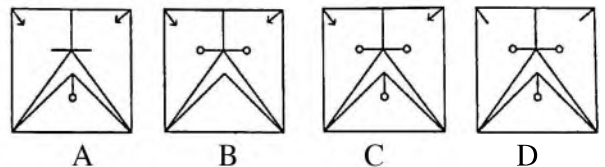
Answer Figures



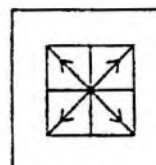
6. Question Figure



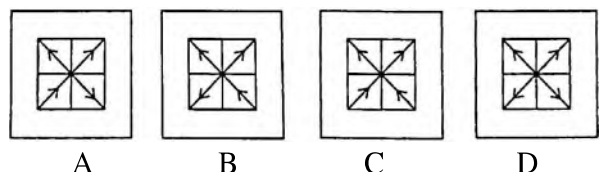
Answer Figures



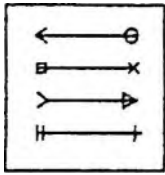
7. Question Figure



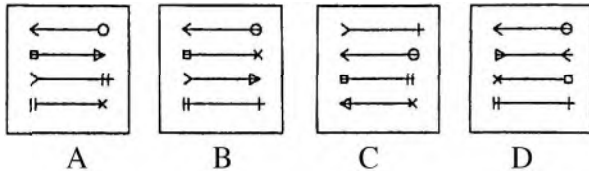
Answer Figures



8. Question Figure



Answer Figures



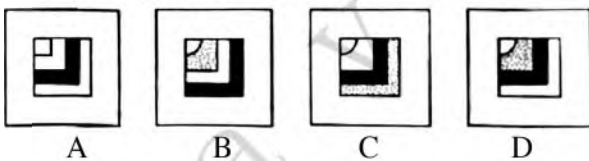
PART-III

Directions (Qs. No. 9 to 12): In these questions, there is a question figure, a part of which is missing. Observe the answer figures (A), (B), (C) and (D) 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.

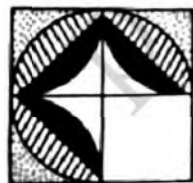
9. Question Figure



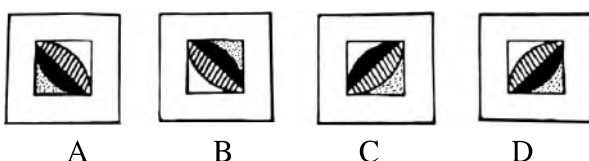
Answer Figures



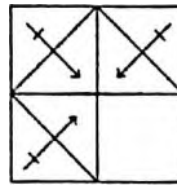
10. Question Figure



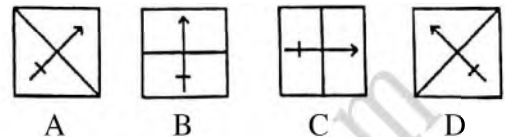
Answer Figures



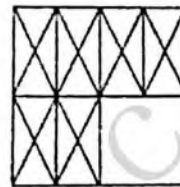
11. Question Figure



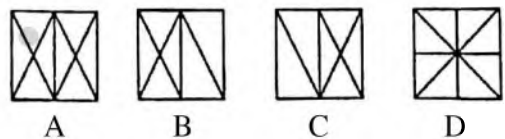
Answer Figures



12. Question Figure



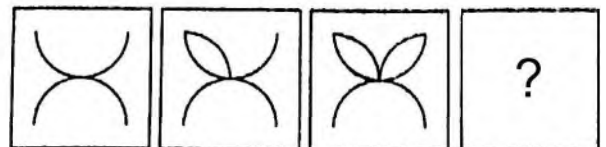
Answer Figures



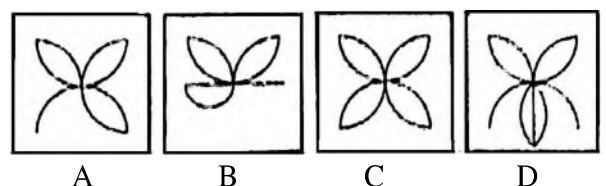
PART-IV

Directions (Qs. No. 13 to 16): In these questions, there are three question figures and the space for the fourth figure is left blank. The question figures are in a series. Find out one figure from among the answer figures given which occupies the blank space for the fourth figure and completes the series.

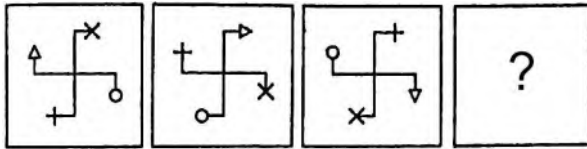
13. Question Figure



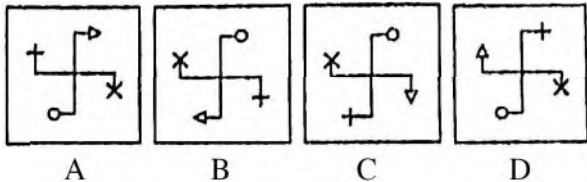
Answer Figures



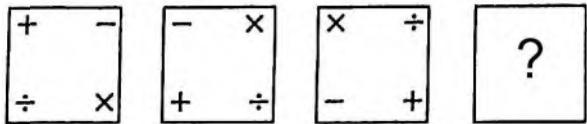
14. Question Figure



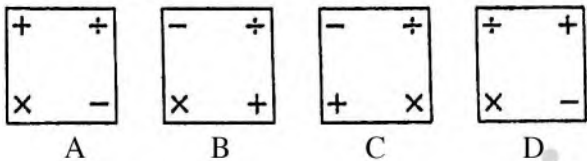
Answer Figures



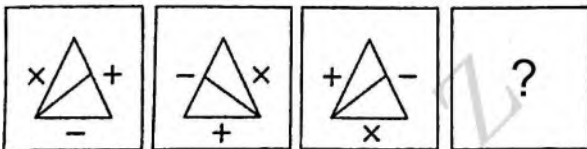
15. Question Figure



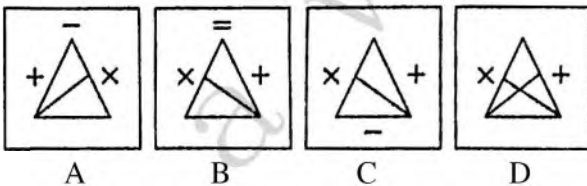
Answer Figures



16. Question Figure



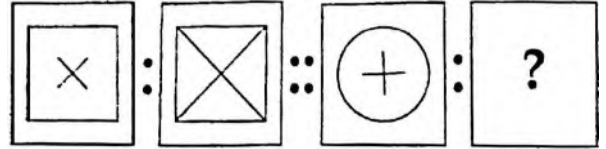
Answer Figures



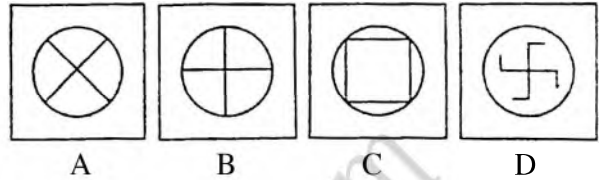
PART-V

Directions (Qs. No. 17 to 20): In these questions, 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 figure. Similar relationship should exist between the third and fourth question figure. Select one of the answer figures which replaces the mark of interrogation.

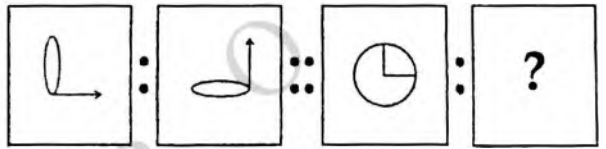
17. Question Figure



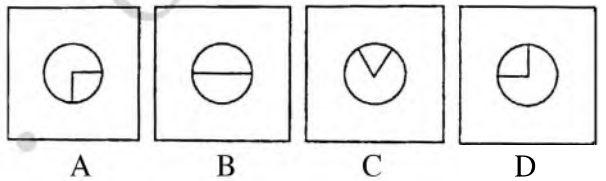
Answer Figures



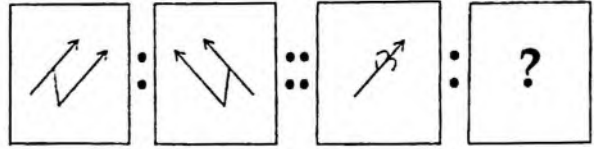
18. Question Figure



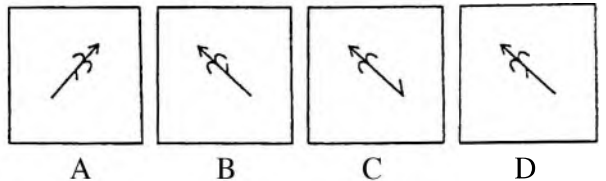
Answer Figures



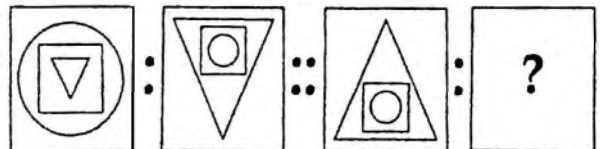
19. Question Figure



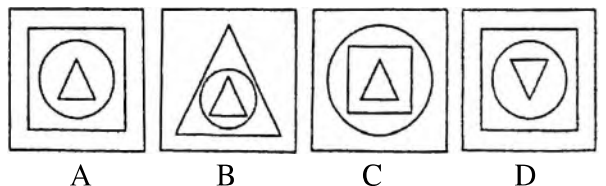
Answer Figures



20. Question Figure



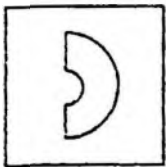
Answer Figures



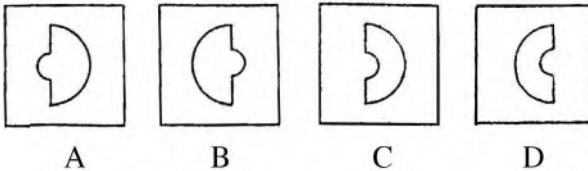
PART-VI

Directions (Qs. No. 21 to 24): In these questions, one part of a geometrical figure (Triangle, Square, Circle) is given a question figure and the other one is among the four answer figures (A), (B), (C) and (D) are given. Find the figure that completes the geometrical figure.

21. Question Figure



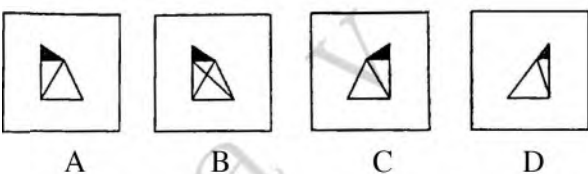
Answer Figures



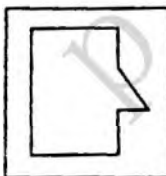
22. Question Figure



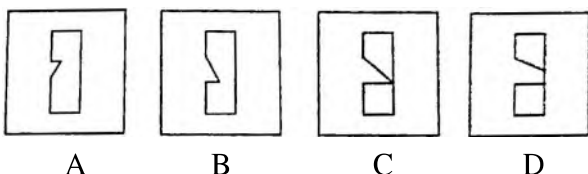
Answer Figures



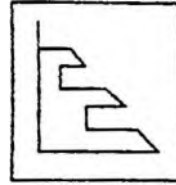
23. Question Figure



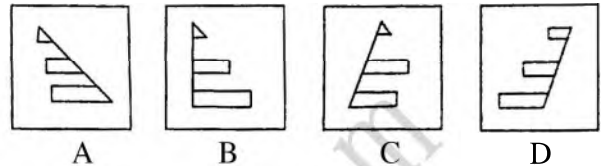
Answer Figures



24. Question Figure



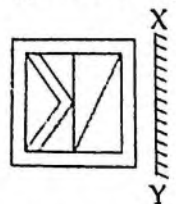
Answer Figures



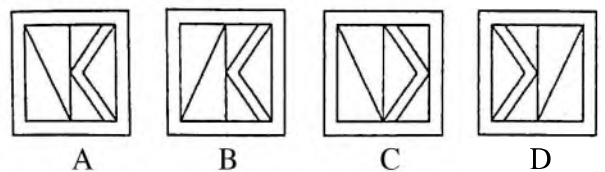
PART-VII

Directions (Qs. No. 25 to 28): In these questions, there is a question figure is given 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.

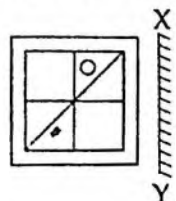
25. Question Figure



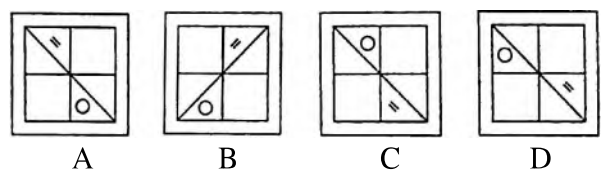
Answer Figures



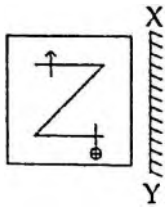
26. Question Figure



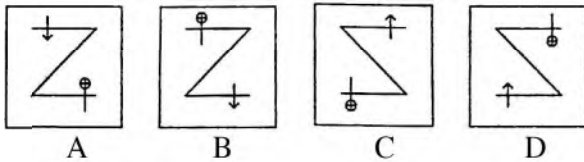
Answer Figures



27. Question Figure



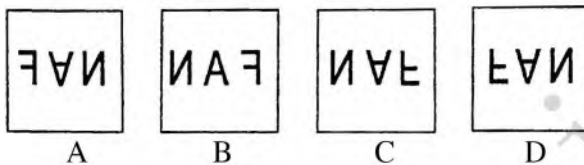
Answer Figures



28. Question Figure



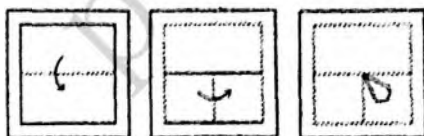
Answer Figures



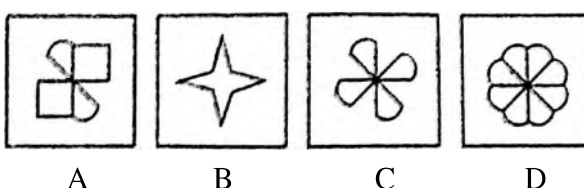
PART-VIII

Directions (Qs. No. 29 to 32): In these questions, 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). Indicate your answer to the question.

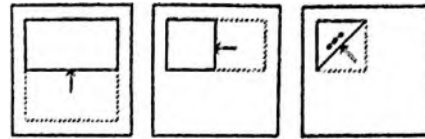
29. Question Figures



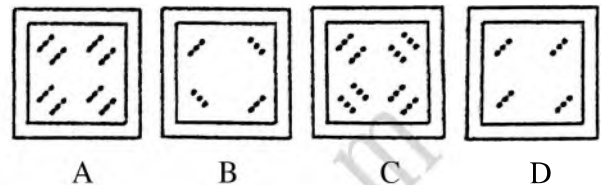
Answer Figures



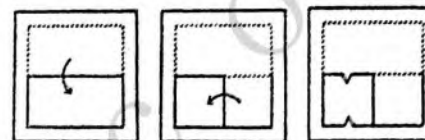
30. Question Figures



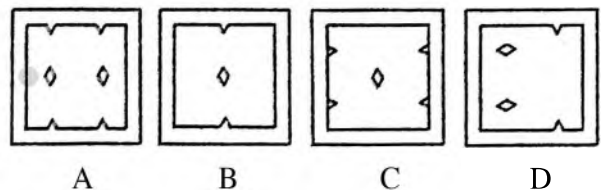
Answer Figures



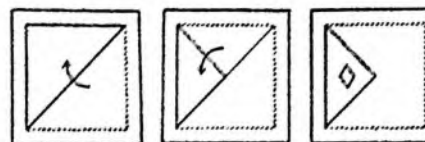
31. Question Figures



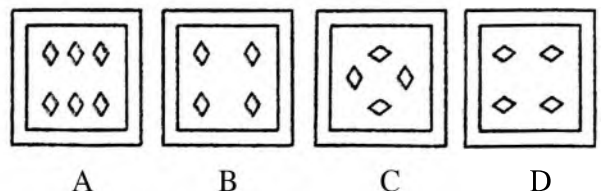
Answer Figures



32. Question Figures



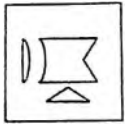
Answer Figures



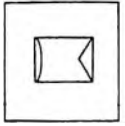
PART-IX

Directions (Qs. No. 33 to 36): In these questions, a question figure 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.

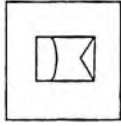
33. Question Figure



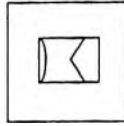
Answer Figures



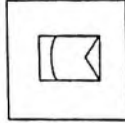
A



B

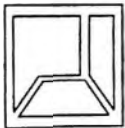


C

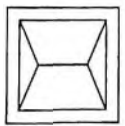


D

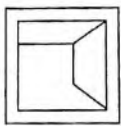
34. Question Figure



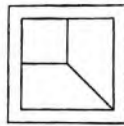
Answer Figures



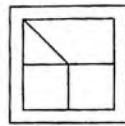
A



B

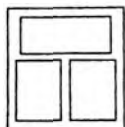


C

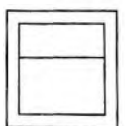


D

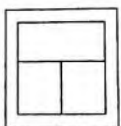
35. Question Figure



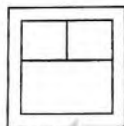
Answer Figures



A



B



C

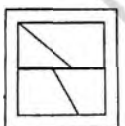


D

36. Question Figure



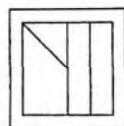
Answer Figures



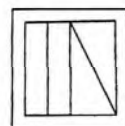
A



B



C



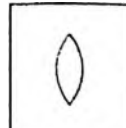
D

PART-X

Directions (Qs. 37-40): In these questions, a question figure and four answer figures, marked (A), (B), (C) and (D) are given. Select the answer figure in which the question figure is hidden/embedded.

and (D) are given. Select the answer figure in which the question figure is hidden/embedded.

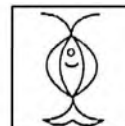
37. Question Figure



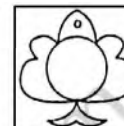
Answer Figures



A



B



C

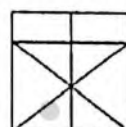


D

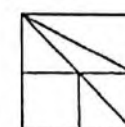
38. Question Figure



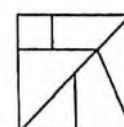
Answer Figures



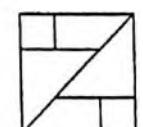
A



B



C

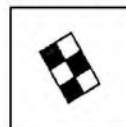


D

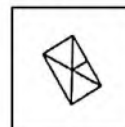
39. Question Figure



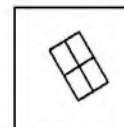
Answer Figures



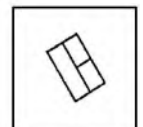
A



B

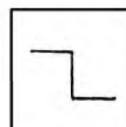


C

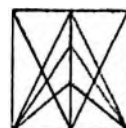


D

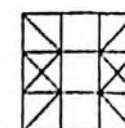
40. Question Figure



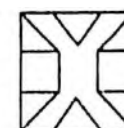
Answer Figures



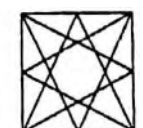
A



B



C



D

SECTION-II : ARITHMETIC TEST

Directions: 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.

41. What sum will amount to ₹ 6,600 in 4 years at 8% per annum simple interest?

A. ₹ 6,000 B. ₹ 5,000
C. ₹ 4,000 D. ₹ 6,200

42. 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. $\frac{11}{2}$

43. Which of the following numbers is divisible by 3, 4, 5 and 6?

A. 36 B. 60
C. 80 D. 90

44. 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

45. 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

46. If a man travels at a speed of 30 km/hr, he reaches his destination 10 minutes late and if he travels at a speed of 42 km/hr, he reaches his destination 10 minutes early. The distance travelled is:

A. 36 km B. 35 km
C. 40 km D. 42 km

47. A passenger train, running at a speed of 80 km/hr leaves a railway station 6 hours after a goods train leaves and overtakes it in 4 hours. What is the speed of the goods train?

A. 32 km/hr B. 48 km/hr
C. 60 km/hr D. 50 km/hr

48. 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

49. 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%

50. 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

51. Two solid cubes of side 10 cm each are joined end to end. What is the volume of the resulting cuboid?

A. 500 cm³ B. 2000 cm³
C. 1000 cm³ D. 10000 cm³

52. 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

53. When -1 is multiplied by itself 100 times, the product is:

A. 1 B. -1
C. 100 D. -100

54. 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:

- | | |
|--|---|
| <p>A. 64 m B. 32 m</p> <p>C. 16 m D. 12 m</p> <p>55. The number of numbers which are multiples of both 3 and 5 in the first 100 natural numbers is:</p> <p>A. 10 B. 9</p> <p>C. 7 D. 6</p> <p>56. What is the sum of the place values of 5 in the number 5,84,356?</p> <p>A. 10 B. 50,050</p> <p>C. 5,050 D. 5,00,050</p> <p>57. The difference between the greatest and the smallest 5-digit numbers, formed by the digits 0, 3, 6, 7 and 9 without repetition, is:</p> | <p>A. 93951 B. 67061</p> <p>C. 66951 D. 60840</p> <p>58. 5,045 grams is equal to:</p> <p>A. 50 kg, 45 g B. 5 kg, 45 g</p> <p>C. 5 kg, 450 g D. 50 kg, 450 g</p> <p>59. 150% is equal to:</p> <p>A. 1.5 B. 5.1</p> <p>C. 0.15 D. 15.0</p> <p>60. Simplification of $2.75 - 1.25 + 4.75 - 3.80$ in fractional form is:</p> <p>A. $2\frac{9}{20}$ B. $2\frac{9}{10}$</p> <p>C. $1\frac{9}{10}$ D. $5\frac{9}{20}$</p> |
|--|---|

SECTION-III : LANGUAGE TEST

Directions (Qs. 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**. Choose the correct answer.

PASSAGE-1

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 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.

61. A pharmacy is:
- A. farm land.
- B. a medical store.
- C. a playground.
- D. a farm house.
62. The part of the neem tree that is useful to the farmers is:

- A. seeds B. bark
- C. twigs D. leaves

63. Which one of the following is not a synonym of 'perfect'?
- A. faultless B. flawless
- C. seamless D. blemished
64. The word 'pest' in the passage means:
- A. an insect that destroys crops.
- B. an angry person.
- C. dirty water.
- D. pollution.
65. Neem _____ are used as toothbrushes in villages.
- A. roots B. leaves
- C. twigs D. seed cakes

PASSAGE-2

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.

66. Ajit's best birthday gift was a:
A. race car B. shirt
C. rose sapling D. book
67. As soon as Ajit woke up he:
A. started studying.
B. rushed to see the sapling.
C. had a bath.
D. went to school.
68. How many rose buds appeared first?
A. one B. four
C. two D. many
69. Ait gifted the first two roses to:
A. his friends.
B. his aunt.
C. his mother and sister.
D. his mother and aunt.
70. The word 'thrilled' means:
A. sad B. excited
C. afraid D. surprised

PASSAGE-3

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 of 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.

71. Holy places are visited by religious people, sight-seers as well as _____.
A. children B. travellers
C. traders D. voyagers
72. Which one of the following is a synonym of the word – 'generally'?
A. usually B. publicly
C. occasionally D. eventually

73. 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

74. People come to bathe and worship in the Ganga as its water is:

- A. holy B. clear and clean
C. cool D. healthy

75. People go on a pilgrimage because they are:

- A. curious B. religious
C. explorers D. old

PASSAGE-4

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.

76. _____ 'discovered' chewing gum.
A. The Mayans B. Sapodillas
C. Chicleros D. Gum factories
77. _____ are the workers who collect chicle.
A. Sapodillas B. The Mayans
C. Chicleros D. Gummers
78. Slabs of chicle are sent to:
A. recycling centers.
B. gum factories.
C. the Mexican jungles.
D. candy stores.
79. Several ingredients are added to chicle to do all of the following *except* to _____ it.
A. soften B. flavour
C. thicken D. sweeten
80. A suitable title for the passage will be:
A. The Gum
B. Chiclero
C. The Story of Chiclero
D. The Story of Chewing Gum

ANSWERS

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

EXPLANATORY ANSWERS

41. Let,

$$\therefore \text{Sum} = ₹ x$$

$$\text{SI} = 6600 - x$$

$$\therefore \text{SI} = \frac{P \times r \times t}{100}$$

$$6600 - x = \frac{x \times 8 \times 4}{100}$$

$$32x = 660000 - 100x$$

$$132x = 660000$$

$$x = \frac{660000}{132} = 5000$$

So, Sum = ₹ 5000.

42. $15\frac{1}{2} - \left[\frac{12}{5} \times \frac{5}{8} + \left(7 \div 1\frac{3}{4} \right) \right] \times 2$

According to BODMAS rule,

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

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

$$= \frac{31}{2} - \left[\frac{44}{8} \right] \times 2$$

$$= \frac{31}{2} - 11 = \frac{9}{2}$$

43. The number which is divisible by 3, 4, 5 and 6
 = LCM (3, 4, 5, 6)
 = $2 \times 2 \times 3 \times 5 = 60$.

45. No. of Broken egg = $500 \times \frac{3}{25} = 60$

Remaining eggs = $500 - 60 = 440$
 The number of eggs which are sold

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

The number of eggs which are left
 = $500 - (60 + 352)$
 = $500 - 412 = 88$.

46. Let the distance travelled is x km

Then, Time = $\frac{\text{Distance}}{\text{Speed}}$

$$\therefore \frac{x}{30} - \frac{10}{60} = \frac{x}{42} + \frac{10}{60}$$

$$\frac{x}{30} - \frac{x}{42} = \frac{20}{60}$$

$$\frac{7x - 5x}{210} = \frac{1}{3}$$

$$2x \times 3 = 210$$

$$x = \frac{210}{6} = 35$$

$$\therefore \text{Distance} = 35 \text{ km.}$$

47. Let the speed of goods train = x km/h

Distance covered by goods train in 6 hour

$$= x \times 6 = 6x \text{ km}$$

Relative speed of both trains = $80 - x$

$$\therefore \text{Distance} = \text{Speed} \times \text{Time}$$

$$6x = (80 - x) \times 4$$

$$6x = 320 - 4x$$

$$10x = 320$$

$$x = 32 \text{ km/hr}$$

So, the speed of goods train = 32 km/h.

48. Let the C.P. of an article.

According to question,

$$3 \times (\text{Loss incurred on selling for ₹ 500}) \\ = \text{Profit gained on selling for ₹ 700}$$

$$3(x - 500) = (700 - x)$$

$$3x - 1500 = 700 - x$$

$$4x = 2200$$

$$x = 550$$

So, cost price of the article = ₹ 550.

49. Cost price of one lemon = ₹ $\frac{1}{2}$

Selling price of one lemon = ₹ $\frac{3}{5}$

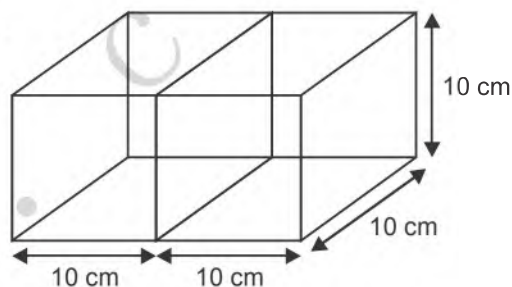
$$\% \text{ profit} = \frac{\text{SP} - \text{CP}}{\text{CP}} \times 100$$

$$= \frac{\frac{3}{5} - \frac{1}{2}}{\frac{1}{2}} \times 100$$

$$\begin{aligned} &= \frac{6-5}{\frac{1}{2}} \times 100 \\ &= \frac{1 \times 2}{10} \times 100 = 20\%. \end{aligned}$$

$$\begin{aligned} 50. \text{ No. of rectangular slabs} &= \frac{\text{Area of floor}}{\text{Area of 1 slab}} \\ &= \frac{(12 \times 100) \text{ cm} \times (10 \times 100) \text{ cm}}{10 \text{ cm} \times 8 \text{ cm}} \\ &= \frac{1200 \times 1000}{80} \\ &= 15000. \end{aligned}$$

51.



$$\begin{aligned} \text{Length of cuboid (l)} &= 10 + 10 \\ &= 20 \text{ cm} \end{aligned}$$

$$\text{Breath of cuboid (b)} = 10 \text{ cm}$$

$$\text{Height of cuboid (h)} = 10 \text{ cm}$$

$$\begin{aligned} \therefore \text{Volume of cuboid} &= l \times b \times h \\ &= 20 \times 10 \times 10 \\ &= 2000 \text{ cm}^3. \end{aligned}$$

52. 5 minutes past 3, in the afternoon is written as 3 : 05 pm.

$$\begin{aligned} 53. (-1 \times -1 \times -1 \times -1 \times \dots \times -1) 100 \text{ times} \\ = 1 \quad [\because -1 \times -1 = 1]. \end{aligned}$$

54. Let the length of the plot (l) = x m

$$\text{Then, the breadth of the plot (b)} = \frac{x}{2} \text{ m}$$

$$\begin{aligned} \text{Area of square swimming pool} &= (8)^2 \\ &= 64 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} \text{Then, Area of plot} &= 8 \times 64 = 512 \text{ m}^2 \\ (l \times b) &= 512 \end{aligned}$$

$$\left(x \times \frac{x}{2}\right) = 512$$

$$\frac{x^2}{2} = 512$$

$$x^2 = 512 \times 2$$

$$x^2 = 1024$$

$$x = 32$$

∴ Length of plot = 32 m.

55. Number which is multiple of both 3 and 5
= LCM (3, 5) = 15

∴ So, numbers are 15, 30, 45, 60, 75, 90

Total number of numbers = 6.

56. Sum of the place values of 5 = 500000 + 50
= 500050.

57. Greatest 5 digit no. formed by the given digit
= 97630

Smallest 5 digit no. formed by the given digit
= 30679

$$\begin{aligned}\text{Required difference} &= 97630 - 30679 \\ &= 66951.\end{aligned}$$

58. ∴ 1 kg = 1000 g
5045 grams = 5000 g + 45 g
= 5 kg, 45g.

$$\textbf{59. } 150\% = 150 \times \frac{1}{100} = 1.5.$$

$$\textbf{60. } 2.75 - 1.25 + 4.75 - 3.80$$

$$= \frac{275}{100} - \frac{125}{100} + \frac{475}{100} - \frac{380}{100}$$

$$= \frac{275 - 125 + 475 - 380}{100}$$

$$= \frac{750 - 505}{100}$$

$$= \frac{245}{100} = \frac{49}{20} = 2\frac{9}{20}.$$