CLASS 6

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Jawahar Navodaya Vidyalaya

Entrance Exam 2021

Conducted by Navodaya Vidyalaya Samiti

SOLVED PAPERS

2020-2003

Jawahar Navodaya Vidyalaya

Entrance Exam 2021

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CONTENTS

SOLVED PAPERS

Solved Paper 2020	1-13
Solved Paper 2019	1-12
Solved Paper 2018	1-16
Solved Paper 2017	1-16
Solved Paper 2016	1-12
Solved Paper 2015	1-16
Solved Paper 2014	3-17
Solved Paper 2013	18-32
Solved Paper 2012	33-45
Solved Paper 2011	46-56
Solved Paper 2010	57-69
Solved Paper 2009	70-83
Solved Paper 2008	84-94
Solved Paper 2007	95-106
Solved Paper 2006	107-118
Solved Paper 2005	119-131
Solved Paper 2004	132-143
Solved Paper 2003	144-156

Jawahar Navodaya Vidyalaya

Entrance Exam (Class-VIth)

Solved Paper 2020

SECTION I : Mental Ability Test

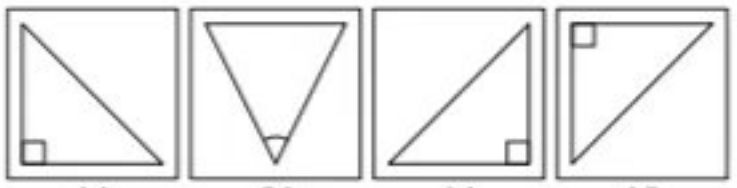
Part I

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. Darken the circle for answer in the OMR Answer Sheet against the number corresponding to the question.*

1.

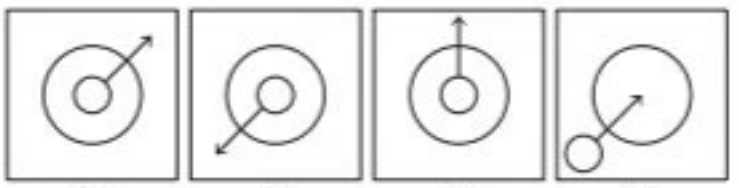
(a) (b) (c) (d)

2.



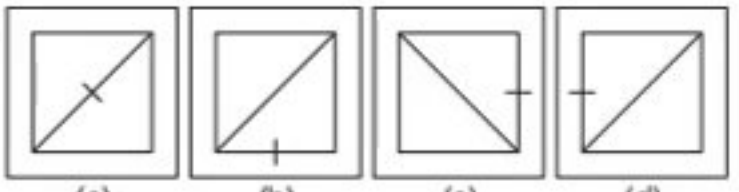
(a) (b) (c) (d)

3.



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

4.

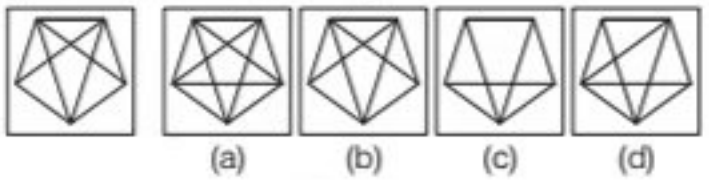


(a) (b) (c) (d)

Part II

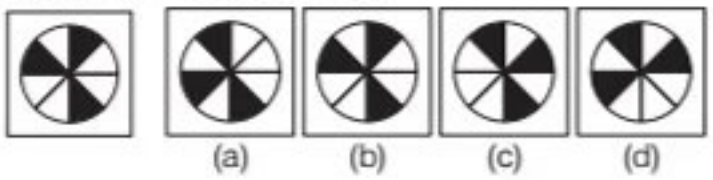
Directions *In Question Nos. 5 to 8, a question figure is given on the left side and four answer figures marked* (a), (b), (c) *and* (d) *are given on the right side. Select the answer figure which is exactly the same as the question figure and darken the circle in the OMR Answer Sheet against the number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

5. Que. Fig Answer Fig.



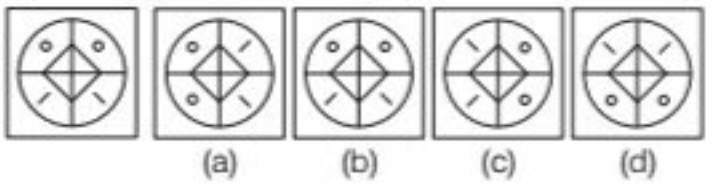
(a) (b) (c) (d)

6. Que. Fig Answer Fig.



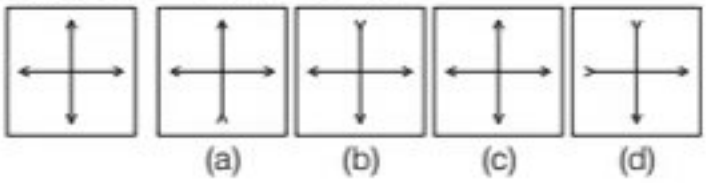
(a) (b) (c) (d)

7. Que. Fig Answer Fig.



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

8. Que. Fig Answer Fig.

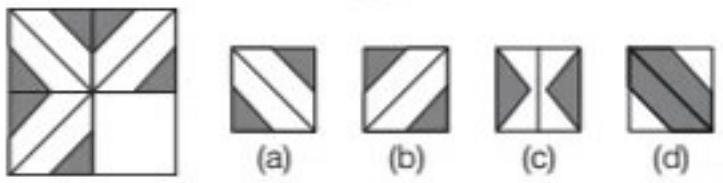


(a) (b) (c) (d)

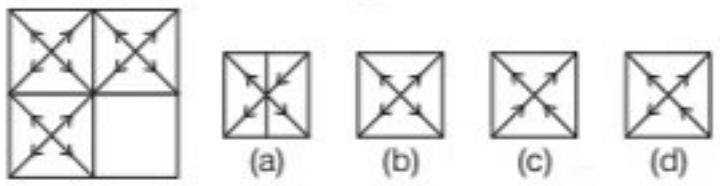
Part III

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 figure* (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 complete the pattern in the question figure. Indicate your answer by darkening the circle in the OMR Answer Sheet against the number corresponding to the question.*

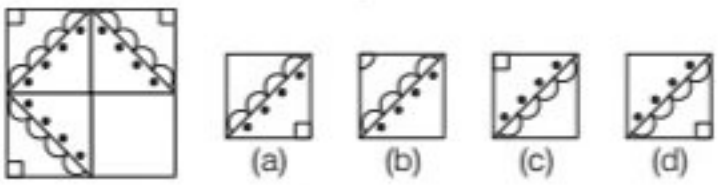
9. Que. Fig Answer Fig.



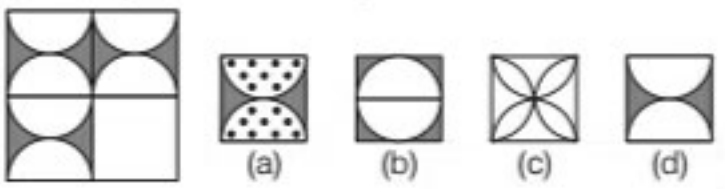
10. Que. Fig Answer Fig.



11. Que. Fig Answer Fig.



12. Que. Fig Answer Fig.



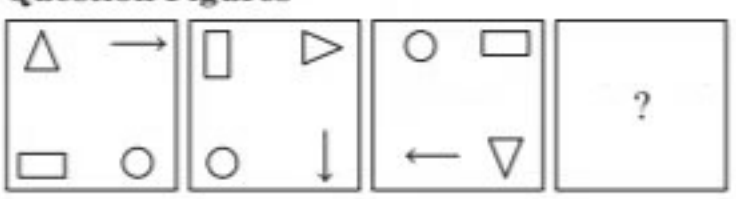
Part IV

Directions *In Question Nos.* 13 *to* 16, *there are three question figures on the left side 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 on the right side which occupies the blank space for the fourth figure on the left side and completes the series. Indicate your answer by darkening the circle in the OMR Answer Sheet against the number corresponding to the question.*

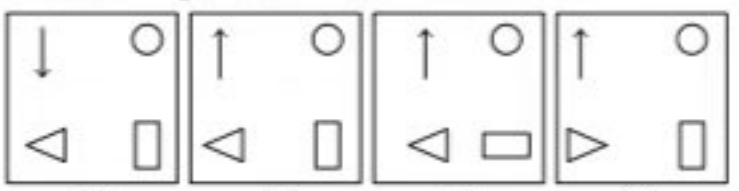
13. Question Figures

Answer Figures

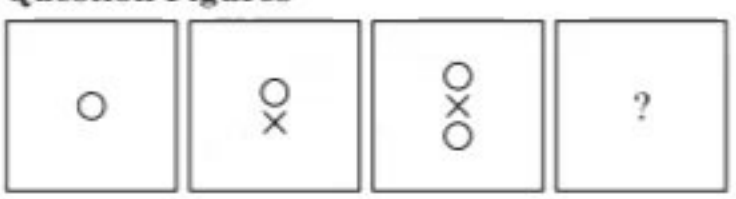
14. Question Figures



Answer Figures

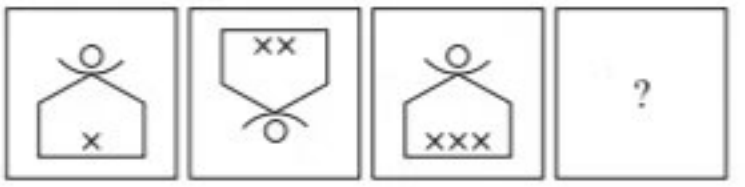


15. Question Figures

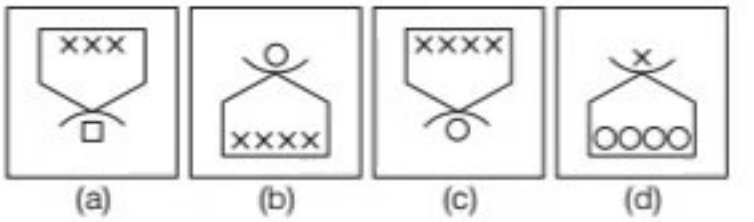


Answer Figures

16. Question Figures



Answer Figures

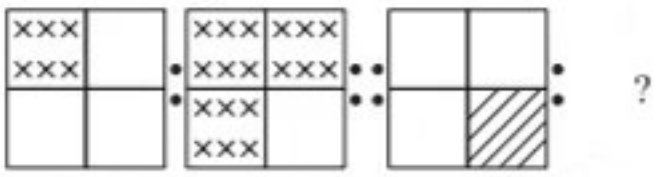


(a) (b) (c) (d)

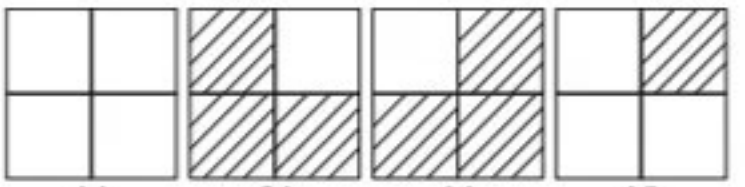
Part V

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 the fourth question figure. Select one of the answer figures which replaces the mark of interrogation. Darken the circle in the OMR Answer Sheet against the number corresponding to the question.*

17. Question Figures

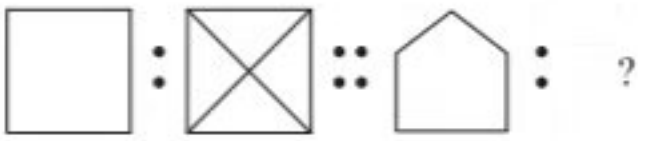


Answer Figures

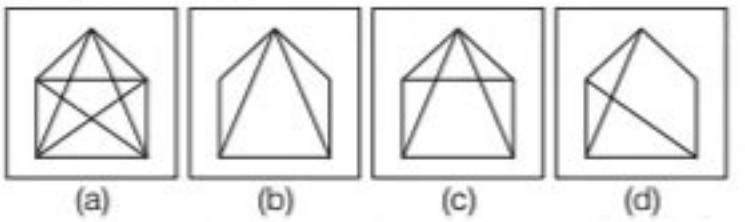


(a) (b) (c) (d)

18. Question Figures

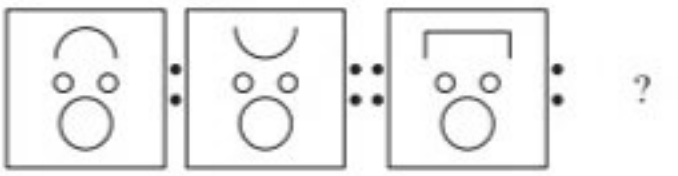


Answer Figures



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

19. Question Figures



Answer Figures

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

20. Question Figures

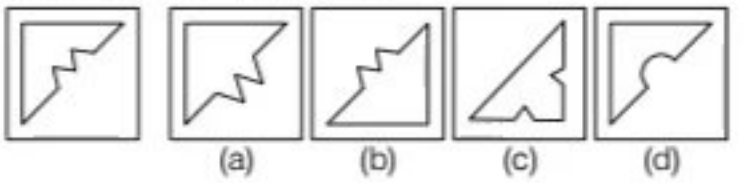
Answer Figures

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

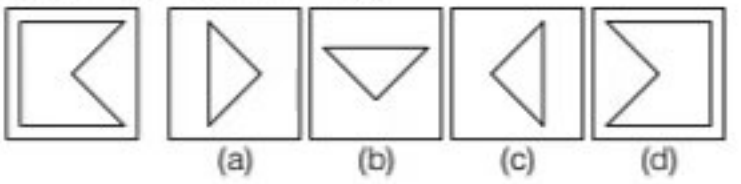
Part VI

Directions *In Question Nos.* 21 *to* 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) on the right side. Find the figure on the right side that completes the geometrical figure and darken the circle in the OMR Answer Sheet against the number corresponding to the question.*

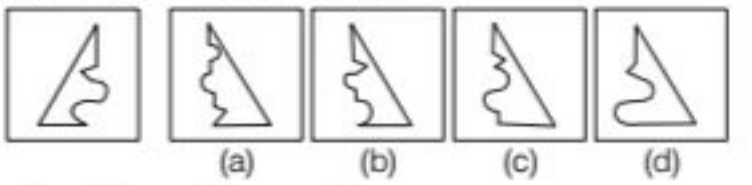
21. Que. Fig. Answer Fig.



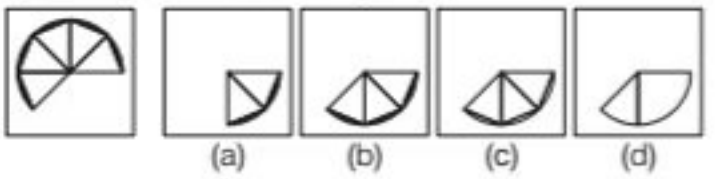
22. Que. Fig. Answer Fig.



23. Que. Fig. Answer Fig.



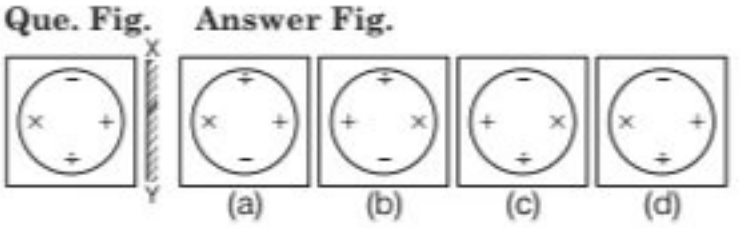
24. Que. Fig. Answer Fig.



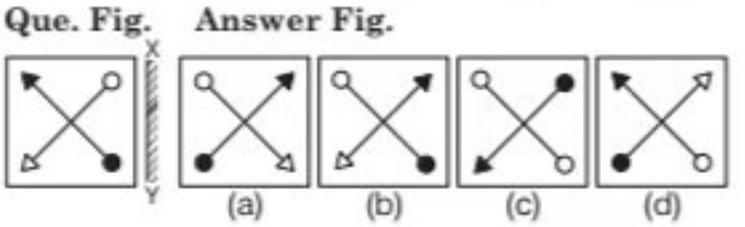
Part VII

Directions *In Question Nos.* 25 *to* 28, *there is a question figure on the left side and four answer figures marked* (a), (b), (c) *and* (d) *are given on the right side. Select the answer figure which is exactly the mirror image of the question figure when the mirror is held at XY. Indicate your answer by darkening the circle in the OMR Answer Sheet against the number corresponding to the question.*

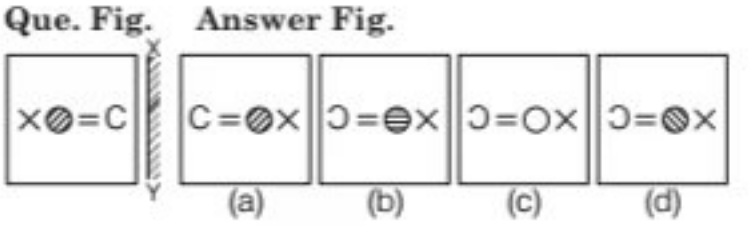
25. Que. Fig. Answer Fig.



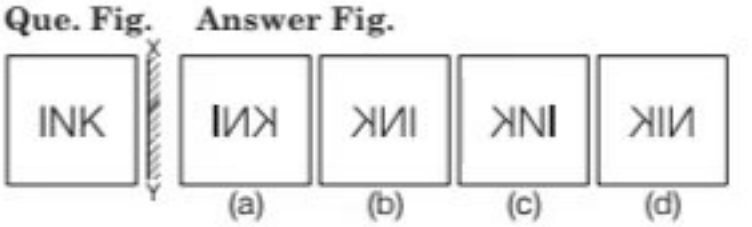
26. Que. Fig. Answer Fig.



27. Que. Fig. Answer Fig.



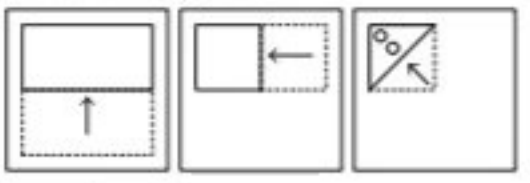
28. Que. Fig. Answer Fig.



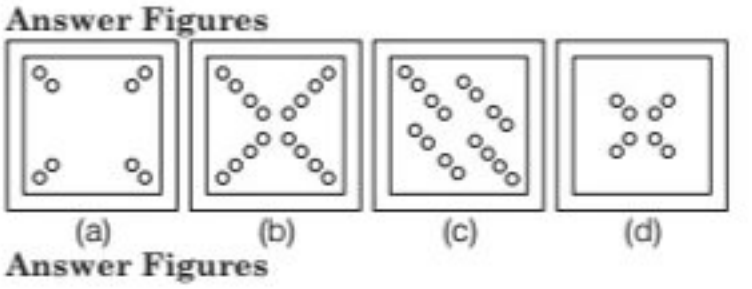
Part VIII

Directions *In Question Nos.* 29 *to* 32, *a piece of paper is folded and punched as shown in question figures on the left side and four answer figures marked* (a), (b), (c) *and* (d) *are given on the right side. Select the answer figure which indicates how the paper will appear when opened (unfolded). Indicate your answer by darkening the circle in the OMR Answer Sheet against the number corresponding to the question.*

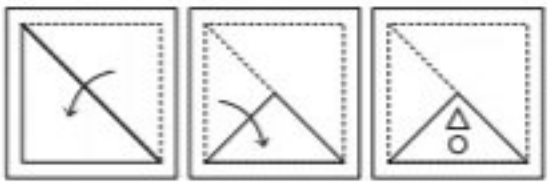
29. Question Figures



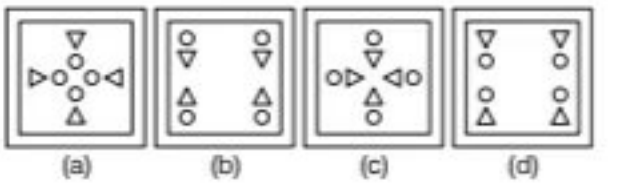
Answer Figures



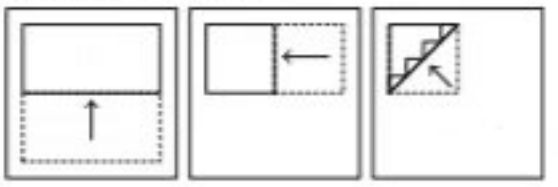
30. Question Figures



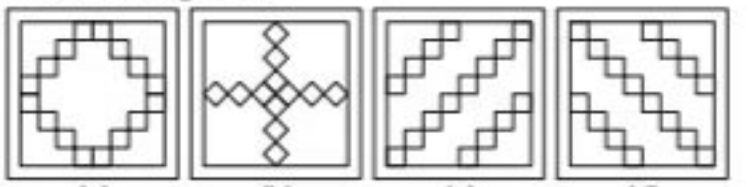
Answer Figures



31. Question Figures

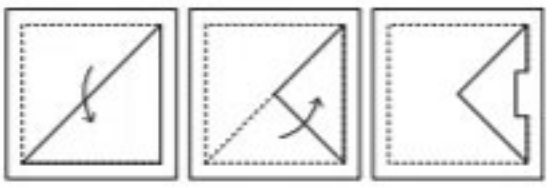


Answer Figures

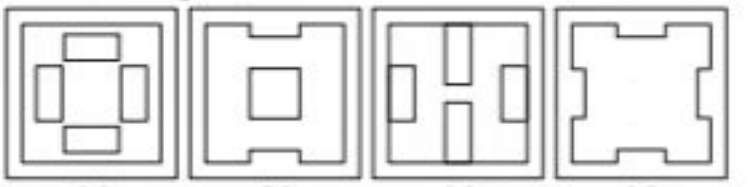


(a) (b) (c) (d)

32. Question Figures



Answer Figures



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

Part IX

Directions *In Question Nos.* 33 *to* 36, *a question figure is given on the left side and four answer figures marked* (a), (b), (c) *and* (d) *are given on the right side. Select the answer figure which can be formed from the cut-out pieces given in the question figure. Darken the circle in the OMR Answer Sheet against the number corresponding to the question.*

33. Que. Fig Answer Fig.

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

34. Que. Fig Answer Fig.

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

35. Que. Fig Answer Fig.

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

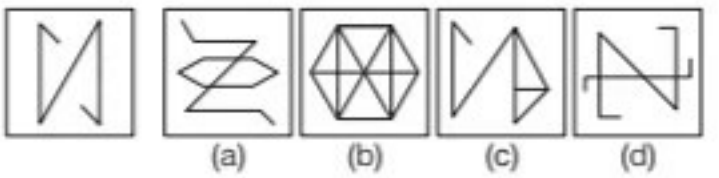
36. Que. Fig Answer Fig.

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

Part X

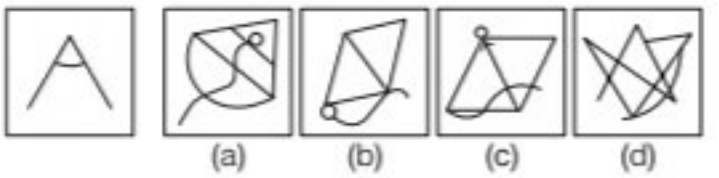
Directions *In Question Nos.* 37 *to* 40, *a question figure is given on the left side and four answer figures marked* (a), (b), (c) *and* (d) *are given on the right side. Select the answer figure in which the question figure is hidden / embedded. Darken the circle in the OMR Answer Sheet against the number corresponding to the question.*

37. Que. Fig Answer Fig.



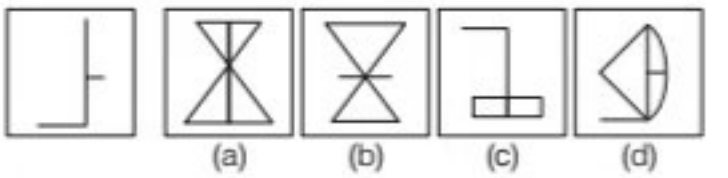
(a) (b) (c) (d)

38. Que. Fig Answer Fig.



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

39. Que. Fig Answer Fig.



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

40. Que. Fig Answer Fig.

(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 and darken the circle in the OMR Answer Sheet against the number corresponding to the question.*

41. What is the difference between the greatest 7-digit number and the smallest 4-digit number?
(a) 9990999 (b) 9993999
(c) 9996999 (d) 9998999

42. What will be the difference between the greatest 6-digit number and the greatest 5-digit number?
(a) 100000 (b) 100001
(c) 99999 (d) 900000

43. Which of the following is not equal to 25?
(a) $50 - (100 \div 4)$
(b) $20 + (20 \div 4)$
(c) $10 + (5 \times 2) + (10 - 5)$
(d) $24 + (2 \times 1)$

44. The value of x which makes the following statement true is $\left(3\frac{7}{11} \times \frac{11}{5}\right) \div \left(\frac{3}{7} \times x\right) = \frac{4}{3}$
(a) $\frac{7}{2}$ (b) 14 (c) 7 (d) 28

45. The sum of HCF and LCM of 45, 60 and 75 is
(a) 330 (b) 960 (c) 915 (d) 630

46. $\frac{3}{8} \div \left(\frac{5}{3} - \frac{1}{6}\right) + \frac{5}{8}$ is equal to
(a) $\frac{3}{8}$ (b) $2\frac{5}{8}$ (c) $\frac{7}{8}$ (d) $1\frac{1}{8}$

47. If $15 - 15 \div 15 \times 6 = x$, then the value of x is
(a) 6 (b) 0 (c) 9 (d) 84

48. The value of $0.9 \div (0.3 \times 0.3)$ is
(a) 0.01 (b) 0.1 (c) 1 (d) 10

49. If the number B is 10% less than another number C and C is 5% more than 150, then B is equal to
(a) 157.85 (b) 153.85
(c) 151.75 (d) 141.75

50. 5% of 10% of 175 grams is equal to
(a) 8.75 gm (b) 0.5 gm
(c) 0.875 gm (d) 17.5 gm

51. Find the approximate result of the following expression (in whole numbers).
$49.6 \times 10.2 - 7.1 \times 29.7 - 5.1 \times 20.1$
(a) 390 (b) 290
(c) 209 (d) 190

52. A park is 1500 m long and 750 m wide. A cyclist has to take four rounds of this park. How much time will he take at the speed of 4.5 km/h?
(a) 40 h (b) 20 h (c) 10 h (d) 4 h

53. One-fourth of birds of a flock are at a river bank and one-fifth of that flock are in their nest. Remaining 22 birds are wandering in search of food. What is the number of birds which are in their nest?
(a) 40 (b) 18 (c) 10 (d) 8

54. Amit bought a table for ₹ 1200 and spent ₹ 200 on its repair. He sold if for ₹ 1680. His profit or loss per cent is
(a) 12% profit (b) $16\frac{2}{3}$% profit
(c) 20% loss (d) 20% profit

55. A square and a rectangle have the same perimeter. If the side of the square is 16 m and the length of the rectangle is 18 m, the breadth of the rectangle is
(a) 14 m (b) 15 m (c) 16 m (d) 17 m

56. How many bricks will be required for a wall 8 m long, 6 m high and 22.5 cm thick, if each brick measures 25 cm × 11.25 cm × 6 cm?
(a) 640 (b) 1380 (c) 6400 (d) 7600

57. We reached our destination at 2:45 pm after travelling for $4\frac{1}{2}$ h. When did we start?
(a) 9 : 00 am (b) 10 : 00 am
(c) 10 : 15 am (d) 8 : 15 am

58. The prime factorisation of 640 is
(a) $2 \times 2 \times 2 \times 2 \times 2 \times 5$
(b) $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 5$
(c) $2 \times 2 \times 2 \times 2 \times 2 \times 5 \times 5$
(d) $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 5$

59. In how many years does the sum of ₹ 1200 become ₹ 1800 at the rate of simple interest of 5% per annum?
(a) 10 (b) 20
(c) 15 (d) 25

60. 140.75×0.01 is equal to
(a) 140.75 (b) 14000.75
(c) 1.4075 (d) 0.14075

SECTION III : Language Test

Directions *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 and darken the circle in the OMR Answer Sheet against the number corresponding to the question.*

Passage 1

Travelling is both recreational and educative. It has always been regarded as an important part of education. In Europe, a young man is considered fully educated only when he has travelled through many countries of Europe. In ancient India also, our sages understood the great value of travelling. They made it a pious duty to visit various pilgrim centres situated in different parts of India. This encouraged the feeling of oneness among Indians.

61. It is important to ..... if one wants to get real education.
(a) study (b) work
(c) travel (d) meditate

62. Which one of the following words is a synonym of "recreational"?
(a) educational (b) thrilling
(c) tiring (d) sight-seeing

63. Visiting the ..... centres was considered holy in ancient India.
(a) training (b) pilgrim
(c) city (d) business

64. People have a feeling of oneness with others if they ..... a lot.
(a) travel (b) talk
(c) play (d) question

65. A sage is a person who is ..... .
(a) learned (b) smart
(c) free (d) wicked

Passage 2

Fire is to blame for the loss of countless lives and billions of rupees each and every year. Firefighters help protect people and their property from injury and damage. They put their lives on the line every time they respond to a call.

While on duty, firefighters must be ready to respond in a matter of minutes to just about any disaster that may occur. At every fire scene, a superior fire officer takes command and directs the jobs of all the people at the scene. Some firemen connect the hose lines to hydrants. Others manually operate the pumps to send water to the hoses. Teams of firefighters also operate ladders used to reach distances high in the air.

66. Which is not true about the firefighters?
(a) They are brave
(b) They often put their lives in danger
(c) They never put their lives in danger
(d) They are highly trained.

67. A firefighter has to prepare to extinguish a fire in
(a) minutes (b) hours
(c) days (d) weeks

68. Firefighters put their lives on the line means
(a) they stand in a line
(b) they fight fire
(c) they put their lives in danger
(d) they connect the hose line to hydrant

69. To 'operate manually' means to
(a) make a man work
(b) work with their hands
(c) use a machine
(d) use one's body

70. The word 'occur' means the same as
(a) come
(b) happen
(c) call
(d) fire

Passage 3

Hema lay on her bed staring at the stars stuck on the ceiling of her room. She was upset as none of the clothes seemed to fit her. She wore them again one by one but they were either too tight or too short. A cupboard full of clothes and she could not wear any of them. She then had a bright idea, her eyes lit up and she ran to her mother's room. "Ma, I need new clothes," she said, "but only after I donate all my old clothes to charity. No more amassing of clothes". Her mother smiled and hugged her. She did have a kind daughter!

71. Hema lay on her bed because she
(a) was tired
(b) liked looking at the stars
(c) was wondering what to wear
(d) was a lazy girl

72. She could not wear any of her clothes because
(a) they were not fashionable
(b) they were too colourful
(c) she did not know what to choose
(d) none of them fitted her

73. The synonym of the word, 'amassing' is
(a) collecting (b) distributing
(c) sharing (d) gifting

74. Hema is
(a) greedy (b) charitable
(c) selfish (d) miserly

75. The opposite of the word 'donate' is
(a) give (b) receive
(c) distribute (d) spend

Passage 4

To be fit and healthy, you need to be physically active. Regular physical activity protects you from serious diseases such as obesity, heart disease, cancer, mental illness, diabetes and arthritis. Riding a bicycle regularly is one of the best ways to reduce your risk of health problems associated with a sedentary lifestyle. Cycling is a healthy, low-impact exercise that can be enjoyed by people of all ages, from young children to older adults. It is also fun, cheap and good for the environment. Riding to work or the shop is one of the most time-efficient ways to combine regular exercise with everyday routine. An estimated one billion people ride bicycles every day for transport, recreation and sport. Cyclinig is a good way to reduce weight as it builds muscle and burns body fat. Research suggests that by cycling for half an hour everyday we can shed atleast five kilos of weight in a year.

76. The main focus of the passage is to tell us the advantages of
(a) keeping fit
(b) cycling
(c) exercising
(d) reducing weight

77. When the writer says "Cycling is good for the environment", which of the following is not correct?
(a) It does not emit any unhealthy gas
(b) It can be run without petrol or diesel
(c) It does not pollute air
(d) It can be ridden by all age groups

78. The word which means the opposite of the word 'sedentary' is
(a) active (b) lazy
(c) inactive (d) deskbound

79. A low-impact exercise is one which is
(a) not tiring (b) not costly
(c) not efficient (d) not boring

80. Regular cycling helps us in all of the following except to
(a) reduce fat and strengthen muscles
(b) combine fun with work
(c) prevent serious accidents
(d) remain healthy

Answers

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

Hints and Solutions

1. (d) Except option (d), in all the other options, letters 'K', 'I' and 'T' are used but in option (d) letter 'C' is used in place of letter 'T'.

2. (b) Except figure (b), in all the other figures, an angle of 90° is marked within the triangle.

3. (d) Except figure (d), all the other figures are same and can be obtained by rotating the other figure.

4. (a) Except figure (a), in all the other figures, a small line is intersecting the side of the square but in figure (a), the small line is intersecting the diagonal inside the square.

5. (b) Answer figure (b) is exactly the same as the question figure.

Question Figure

Answer Figure (b)

6. (b) Answer figure (b) is exactly the same as the question figure.

Question Figure

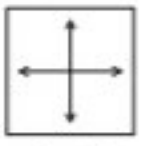
Answer Figure (b)

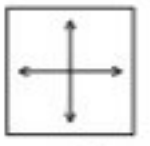
7. (b) Answer figure (b) is exactly the same as the question figure.

Question Figure

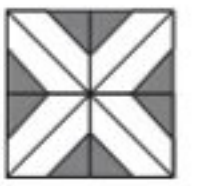
Answer Figure (b)

8. (c) Answer figure (c) is exactly the same as the question figure.

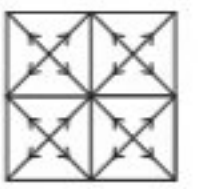

Question Figure


Answer Figure (c)

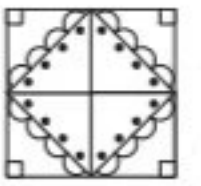
9. (a) Answer figure (a) will complete the pattern of the question figure.



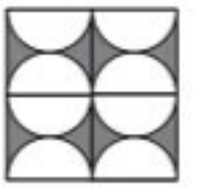
10. (b) Answer figure (b) will complete the pattern of the question figure.



11. (d) Answer figure (d) will complete the pattern of the question figure.



12. (d) Answer figure (d) will complete the pattero of the question figure.



13. (b) In each step, the given figure is rotating 90° in anti-clockwise direction.

Hence, answer figure (b) will complete the given series.

14. (b) In each step all the four designs are moving from one corner to the other in clockwise direction. Also, each design is rotating 90° in clockwise direction. Hence, answer figure (b) will complete the given series.

15. (c) A sign of multiplication (×) and a sign of circle (O) is increasing alternatively. Hence, answer figure (c) will complete the given series.

16. (c) In each step, the main figure is inverted and also a sign of cross (×) is increasing within the main figure. Hence, answer figure (c) will complete the given series.

17. (c) In second figure the design appeared in all the blocks except the block which is diagonally opposite to the block which has design in first figure. Following the same pattern from figure third to forth answer figure (c) will replace the question mark.

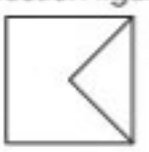
18. (a) From the first figure to the second, lines meeting all the corners with each other are drawn with in the figure. Similarly, in third figure on drawing the lines from one corner to the others, we get answer figure (a).

19. (c) The topmost curved line in first figure is inverted in second figure. Similarly, the topmost design in third figure will be inverted in four figure as shown in answer figure (c).

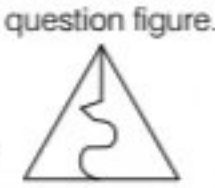
20. (b) From first figure to second figure, the lower design within the circle is placed inside the upper design. Similarly, from third figure to fourth the lower designed i.e. circle within the triangle will be placed inside the upper design i.e. square as shown in answer figure (b).

21. (b) Answer figure (b) will complete the incomplete square given in question figure.

22. (c) Answer figure (c) will complete the incomplete square given in question figure.

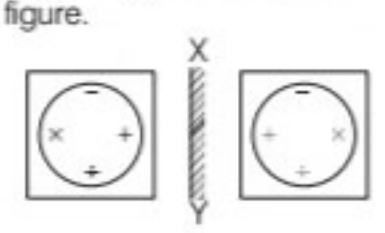


23. (d) Answer figure (d) will complete the incomplete triangle given in question figure.

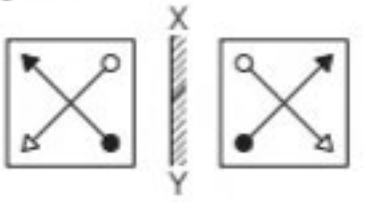


24. (b) Answer figure (b) will complete the incomplete circle given in question figure.

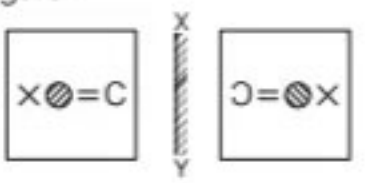
25. (c) Answer figure (c) is the correct mirror image of the question figure.



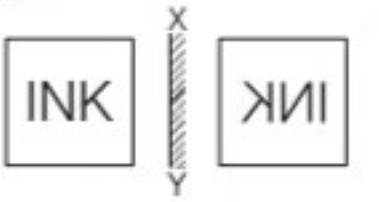
26. (a) Answer figure (a) is the correct mirror image of the question figure.



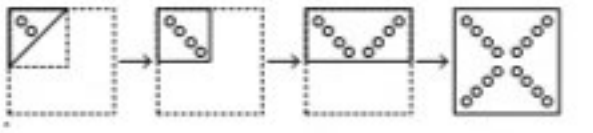
27. (d) Answer figure (d) is the correct mirror image of the question figure.



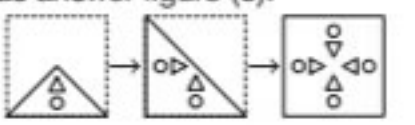
28. (b) Answer figure (b) is the correct mirror of the question figure.



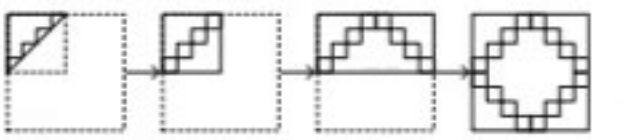
29. (b) After unfolding the folded and punched sheet it will look like as answer figure (b).



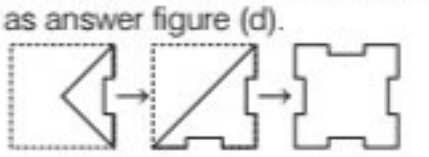
30. (c) After unfolding the folded and punched sheet it will look like as answer figure (c).



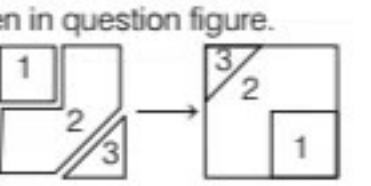
31. (a) After unfolding the folded and punched sheet it will look like as answer figure (a).



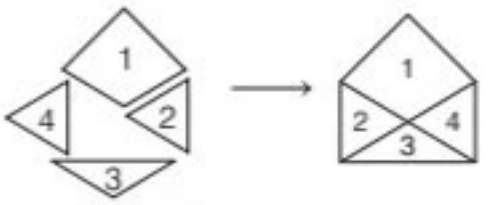
32. (d) After unfolding the folded and punched sheet it will look like as answer figure (d).



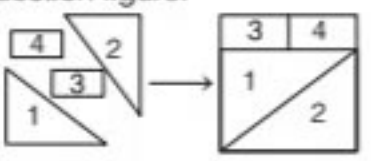
33. (d) Answer figure (d) can be formed from the cut-out pieces given in question figure.



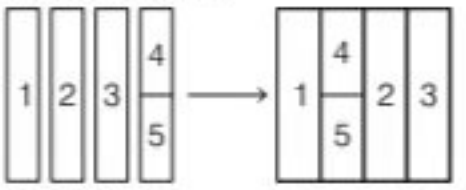
34. (b) Answer figure (b) can be formed from the cut pieces given in question figure.



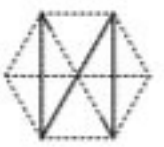
35. (b) Answer figure (b) can be formed from the cut pieces given in question figure.



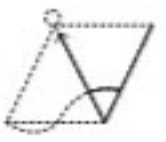
36. (b) Answer figure (b) can be formed from the cut pieces given in question figure.



37. (b) The question figure is embedded in answer figure (b).

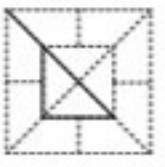


38. (c) The question figure is embedded in answer figure (c).



39. (d) The question figure is embedded in answer figure (d).

40. (b) The question figure is embedded in answer figure (b).



41. (d) The greatest 7-digit number = 9999999

The smallest 4-digit number = 1000

∴ Required difference (difference of these both numbers) = 9999999 − 1000 = 9998999

42. (d) The greatest 6-digit number = 999999

The greatest 5-digit number = 99999

∴ Required difference (difference of these both number) = 999999 − 99999 = 900000

43. (d) Option (a), 50 − (100 ÷ 4) = 50 − 25 = 25, this option is not the answer.

option (b), 20 + (20 ÷ 4) = 20 + 5 = 25, this option is not the answer.

option (c), 10 + (5 × 2) + (10 − 5)

$= 10 + 10 + 5 = 25$,

this option is not the answer.

Option (d), 24 + (2 × 1) = 24 + 2 = 26 ≠ 25, this option is the answer.

44. (b) $\left(3\frac{7}{11} \times \frac{11}{5}\right) \div \left(\frac{3}{7} \times x\right) = \frac{4}{3}$

$\Rightarrow \quad \left(\frac{40}{11} \times \frac{11}{5}\right) \div \left(\frac{3x}{7}\right) = \frac{4}{3}$

$\Rightarrow \quad 8 \times \frac{7}{3x} = \frac{4}{3}$

$\Rightarrow \quad 12x = 8 \times 7 \times 3$

$\Rightarrow \quad x = \frac{8 \times 7 \times 3}{12} = 14$

45. (c) Prime factors of 45, 60 and 75

$45 = 3 \times 3 \times 5$; $60 = 2 \times 2 \times 3 \times 5$; $75 = 3 \times 5 \times 5$

∴ HCF = 3 × 5 [to take common factors]

= 15

LCM = 2 × 2 × 3 × 3 × 5 × 5

(to take the higest power of prime factor)

= 900

∴ Sum of HCF and LCM = 15 + 900 = 915

46. (c) $\frac{3}{8} \div \left(\frac{5}{3} - \frac{1}{6}\right) + \frac{5}{8} = \frac{3}{8} \div \left(\frac{10-1}{6}\right) + \frac{5}{8}$

$= \frac{3}{8} \times \frac{6}{9} + \frac{5}{8} = \frac{1}{4} + \frac{5}{8}$

$= \frac{2+5}{8} = \frac{7}{8}$

47. (c) $15 - 15 \div 15 \times 6 = x$

$\Rightarrow \quad 15 - 15 \times \frac{1}{15} \times 6 = x$

$\Rightarrow \quad 15 - 1 \times 6 = x$

$\Rightarrow \quad 15 - 6 = x \Rightarrow x = 9$

48. (d) 0.9 ÷ (0.3 × 0.3)

= 0.9 ÷ (0.09)

$= \frac{0.9}{0.09} = \frac{90}{9} = 10$

49. (d) According to the question,

C = 5% more than 150

$= 150 + 150 \times \frac{5}{100}$

$= 150 + 7.5 = 157.5$

and B = 10% less than C $= 157.5 - 157.5 \times \frac{10}{100}$

[∵ $C = 157.5$]

$= 157.5 - 15.75$

$= 141.75$

50. (c) 5% of 10% of 175 g

$$= 175 \times \frac{10}{100} \times \frac{5}{100}$$

$$= \frac{175 \times 5}{1000} = \frac{875}{1000} = 0.875 \text{ g}$$

51. (d) $49.6 \times 10.2 - 7.1 \times 29.7 - 5.1 \times 20.1$

$= 50 \times 10 - 7 \times 30 - 5 \times 20$

[to take value in nearest integer]

$= 500 - 210 - 100$

$= 500 - 310 = 190$

52. (d) Length of park = 1500 m

Breadth of park = 750 m

Cover distance in 1 round of park = Perimeter of park

$= 2$ (Length + Breadth)

$= 2(1500 + 750)$

$= 2 \times 2250 = 4500$ m

$\therefore$ Cover distance in 4 rounds = 4 × cover distance in 1 round $= 4 \times 4500 = 18000$ m

$= \frac{18000}{1000}$ km [$\because$ 1 km = 1000 m]

$= 18$ km

To take time in complete 4 rounds of park of cyclist

$$= \frac{\text{Distance}}{\text{Speed}} = \frac{18}{4.5} = \frac{180}{45} = 4 \text{ h}$$

53. (d) Let total number of birds be x,

According to the question,

$$\frac{x}{4} + \frac{x}{5} + 22 = x$$

$$\Rightarrow \quad \frac{5x + 4x}{20} + 22 = x$$

$$\Rightarrow \quad x - \frac{9x}{20} = 22$$

$$\Rightarrow \quad \frac{20x - 9x}{20} = 22$$

$$\Rightarrow \quad \frac{11x}{20} = 22$$

$$\Rightarrow \quad x = \frac{22 \times 20}{11} = 40$$

Hence, total number of birds are 40.

Number of birds in their nest $= \frac{1}{5} \times x$

$$= \frac{1}{5} \times 40 = 8$$

Hence, the birds in their nest are 8.

54. (d) Amit bought a table = ₹ 1200

Spent on its repair = ₹ 200

$\therefore$ Total cost price of table = ₹ (1200 + 200) = ₹ 1400

Selling price of table = ₹ 1680

$\therefore$ Profit = Selling price − Cost price [$\because SP > CP$]

= 1680 − 1400 = ₹ 280

$\therefore$ Profit per cent

$$= \frac{\text{Profit}}{\text{Total cost price}} \times 100$$

$$= \frac{280}{1400} \times 100 = 20\%$$

55. (a) Given, side of square = 16 m

Length of rectangle = 18 m

According to the question,

Perimeter of rectangle = Perimeter of square

$\Rightarrow 2$ (Length + Breadth) $= 4 \times$ side

$\Rightarrow 2$ (18 + Breadth) $= 4 \times 16$

$$18 + \text{Breadth} = \frac{4 \times 16}{2}$$

$\Rightarrow$ Breadth = 32 − 18 = 14 m

56. (c) Length of wall = 8 m = 800 cm [$\because$ 1 m = 100 cm]

Breadth of wall = 6 m = 600 cm

Height of wall = 22.5 cm

$\therefore$ Volume of wall = Length × Breadth × Height

$= 800 \times 600 \times 22.5 \text{ cm}^3$

Volume of 1 brick $= 25 \times 11.25 \times 6 \text{ cm}^3$

$\therefore$ Required number of bricks of wall

$$= \frac{\text{Volume of wall}}{\text{Volume of 1 brick}}$$

$$= \frac{800 \times 600 \times 22.5}{25 \times 11.25 \times 6}$$

= 6400 bricks

57. (c) Time for travel begin

$= \text{Time for reaching place} - 4\frac{1}{2}\text{ h}$

= 2 : 45 pm − 4 : 30

= 14 : 45 − 4 : 30

= 10 : 15 am

58. (d) Prime factorisation of 640

2	640
2	320
2	160
2	80
2	40
2	20
2	10
5	5
	1

$\therefore 640 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 5$

59. (a) Principal = ₹ 1200, Rate = 5% per annum (rate of SI)

Amount = ₹ 1800

$\therefore$ Simple interest = Amount − Principal

$$\Rightarrow \quad \frac{P \times r \times t}{100} = 1800 - 1200$$

$$\Rightarrow \quad 1200 \times 5 \times t = 600 \times 100$$

$$\Rightarrow \quad t = \frac{600 \times 100}{1200 \times 5} = 10 \text{ yr}$$

60. (c) $140.75 \times 0.01 = 1.4075$

[decimal in product is the sum of digits after decimal in both numbers]

61. (c) According to the passage, it is important to travel if one wants to get real education. So, option (c) 'travel' is the correct choice.

62. (b) 'Recreational' means 'connected with ways of enjoying oneself when one is not working'. So, its correct synonym will be 'thrilling', which means 'causing excitement and pleasure'.

63. (b) 'Pilgrim' is the suitable word to fill the blank as visiting the pilgrim centres was considered holy in ancient India.

64. (a) According to the passage, people have a feeling of oneness with others if they travel a lot. So, option (a) 'travel' is the correct choice.

65. (a) A sage is a person who is learned and wise.
So, option (a) is the correct choice.

66. (c) Fire fighters are brave and highly trained persons who often put their lives in danger. So, option (c) 'They never put their lives in danger' is not true about the fire fighters.

67. (a) A fire fighter has to prepare to extinguish a fire in minutes. So, option (a) is the correct choice.

68. (c) Idiom 'Put life on line' means 'to put one's life in danger'. So, firefighters put their lives on the line means that they put their lives in danger.

69. (b) To 'operate manually' means 'to work or operate with one's hands'. So, option (b) is the correct choice.

70. (b) The word 'occur' means 'happen or take place'.
So, option (b) 'happen' is the correct choice.

71. (c) Hema lay on her bed because she was wondering what to wear.

72. (d) Hema could not wear any of her clothes because none of them fitted her and were either too tight or too short for her.

73. (a) 'Amassing' means 'to gather or collect something in large amount'. So, option (a) 'collecting' is the correct synonym of the given word.

74. (b) Hema is a charitable person as she wanted to donate all her old clothes.

75. (b) The word 'donate' means 'to give something like money or goods to some cause such as charity'.
So, option (b), 'receive' is its correct antonym which means 'to take or accept something'.

76. (b) The main focus of the passage is to tell us the advantages of cycling. In the passage, the author tells about the benefits of cycling and how it helps in reducing the health related problems.

77. (d) When the writer says that "Cycling is good for the environment". He means that it does not emit any unhealthy gas, can be run without petrol or diesel and does not pollute air.
So, option (d) "It can be ridden by all age groups" is not correct in the context of the given statement.

78. (a) 'Sedentary' means 'involving' little exercise or physical activity'. So, option (a) 'active' is its correct antonym which means 'involving physical effort and action'.

79. (a) A low-impact exercise is one which is not tiring. Cycling is one of the best example of low-impact exercises that can be enjoyed by people of all ages.

80. (b) Regular cycling helps us to reduce fat and strengthen then muscles and remain healthy and preventing serious accidents. It does not help in combine fun with work, so option (b) is the correct choice.

Jawahar Navodaya Vidyalaya

Entrance Exam, Class-VIth

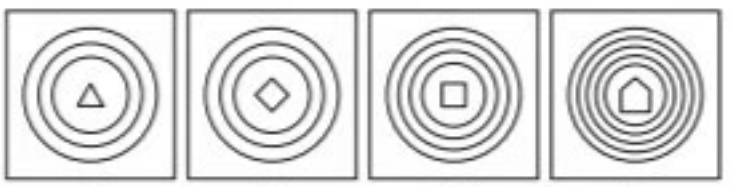
Solved Paper -2019

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.

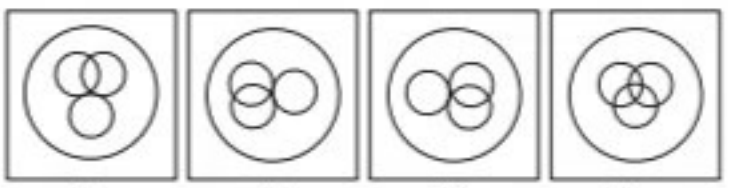


(a) (b) (c) (d)

2.

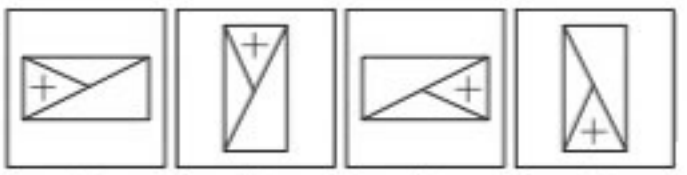
(a) (b) (c) (d)

3.



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

4.

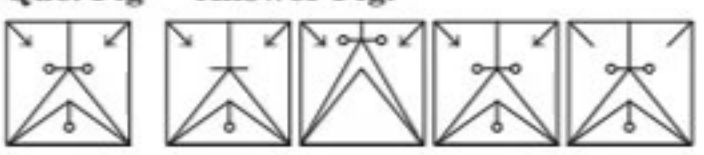


(a) (b) (c) (d)

Part II

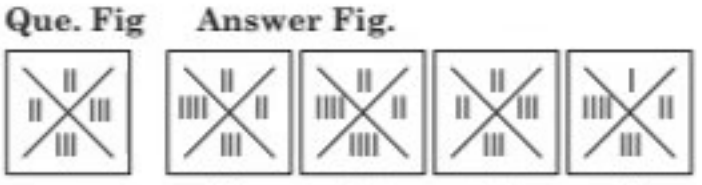
Directions *In Question Nos.* 5 *to* 8, *a question figure is given on the left side and four answer figures marked* (a), (b), (c) *and* (d) *are given in right side. Select the answer figure which is exactly the same as the question figure.*

5. Que. Fig Answer Fig.



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

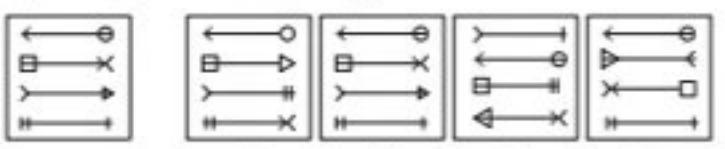
6. Que. Fig Answer Fig.



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

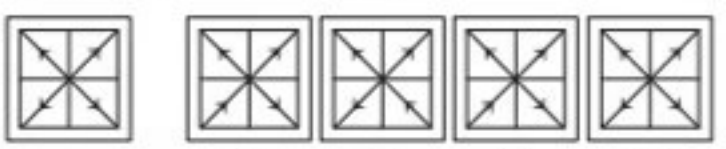
7.

Que. Fig. Answer Fig.



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

8. Que. Fig. Answer Fig.

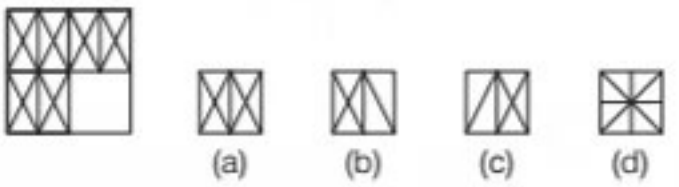


(a) (b) (c) (d)

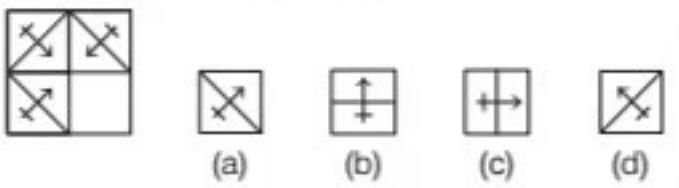
Part III

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.



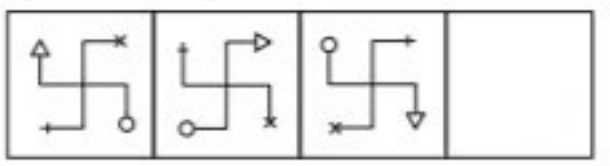
11. Que. Fig. Answer Fig.

12. Que. Fig. Answer Fig.

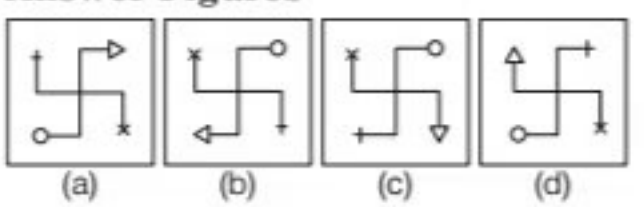
Part IV

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.*

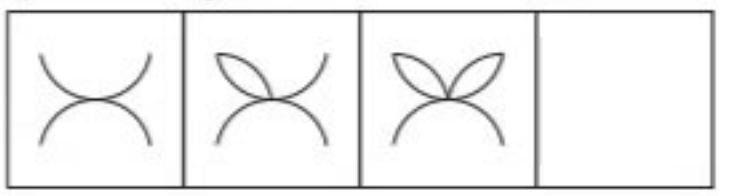
13. Question Figures



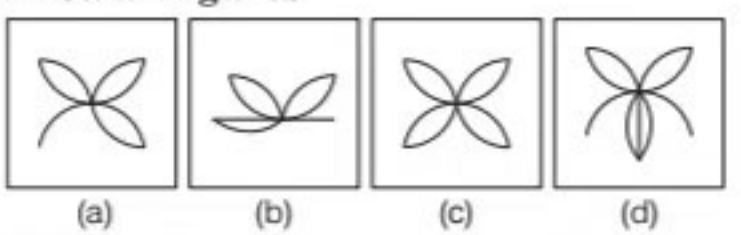
Answer Figures



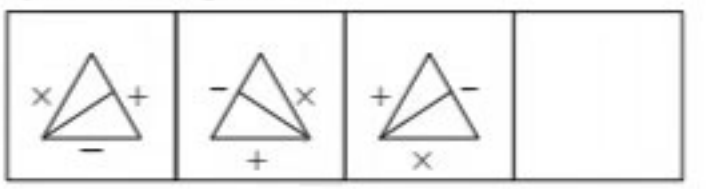
14. Question Figures



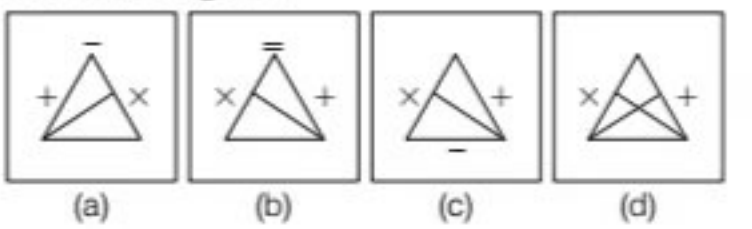
Answer Figures



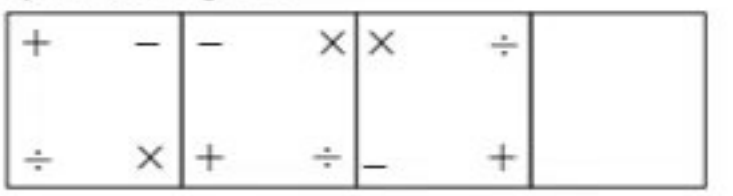
15. Question Figures



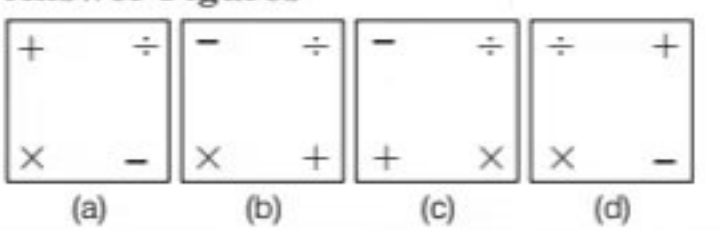
Answer Figures



16. Question Figures



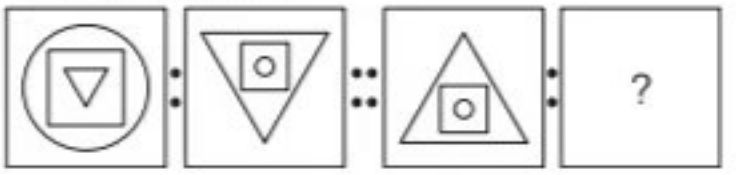
Answer Figures



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.*

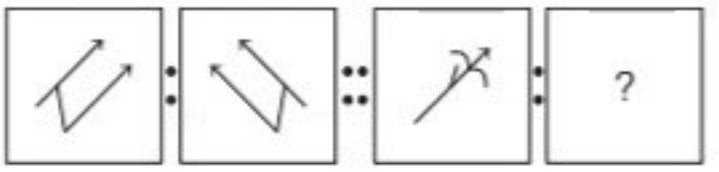
17. **Question Figures**



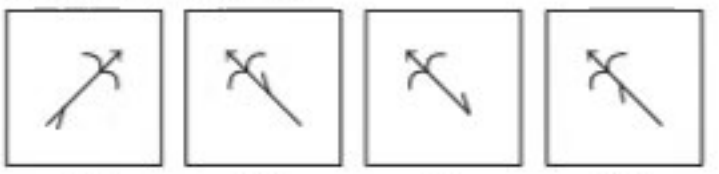
Answer Figures

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

18. **Question Figures**

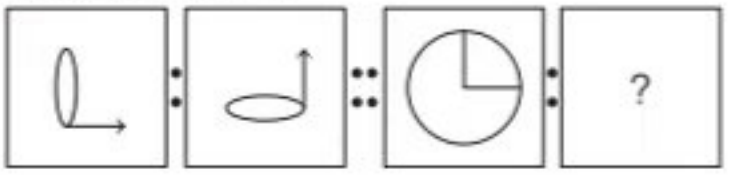


Answer Figures

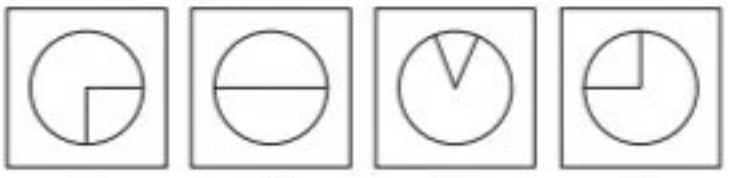


(a) (b) (c) (d)

19. **Question Figures**

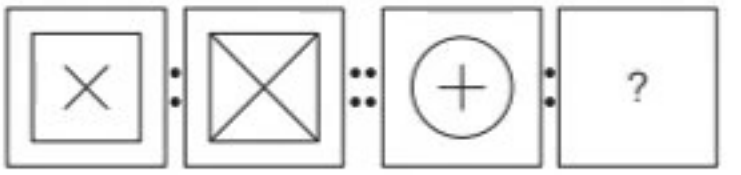


Answer Figures

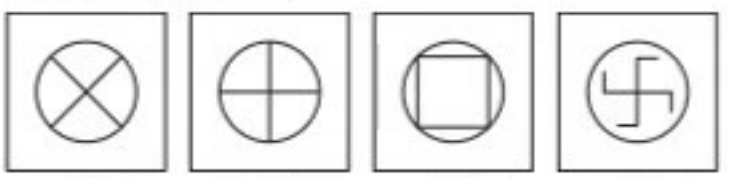


(a) (b) (c) (d)

20. **Question Figures**



Answer Figures



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

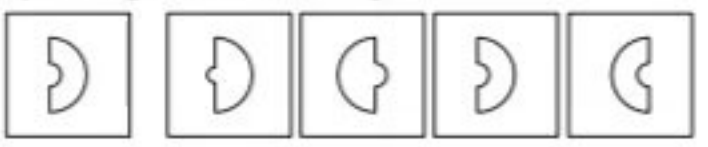
Part VI

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.**

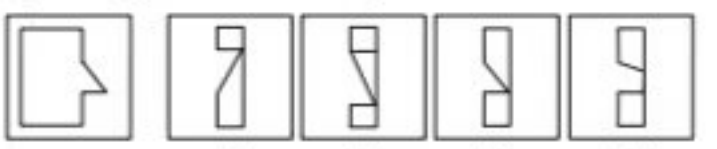


(a) (b) (c) (d)

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

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

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



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

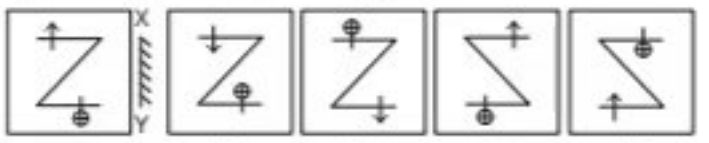
Part VII

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.

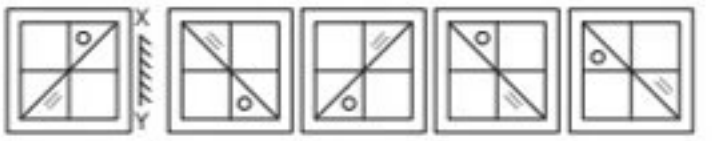
(a) (b) (c) (d)

26. Que. Fig. Answer Fig.



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

27. Que. Fig. Answer Fig.



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

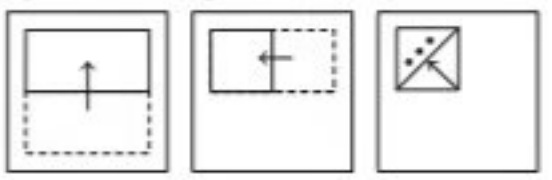
28. Que. Fig. Answer Fig.

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

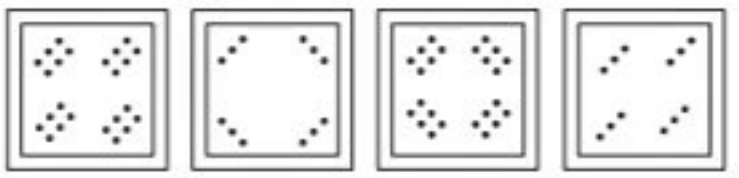
Part VIII

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

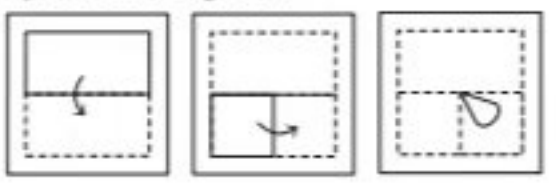


Answer Figures

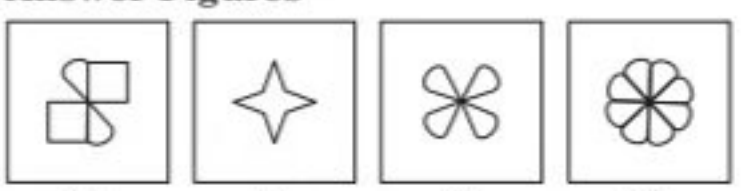


(a) (b) (c) (d)

30. Question Figures

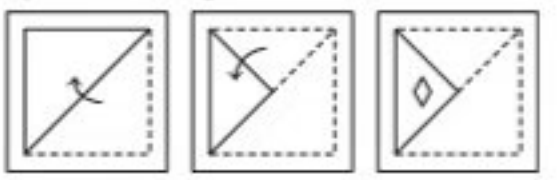


Answer Figures

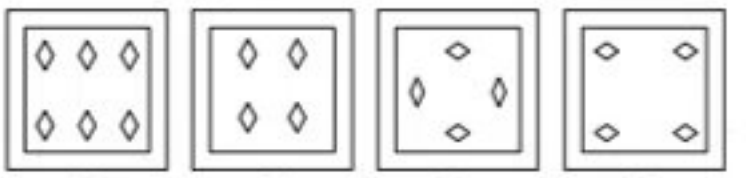


(a) (b) (c) (d)

31. Question Figures

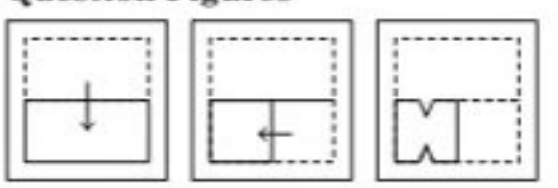


Answer Figures

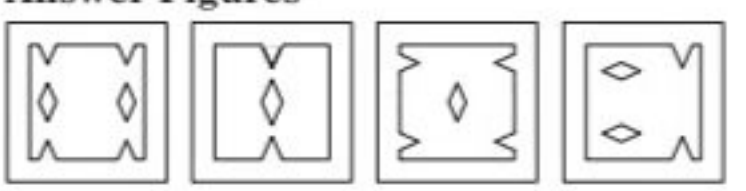


(a) (b) (c) (d)

32. Question Figures



Answer Figures

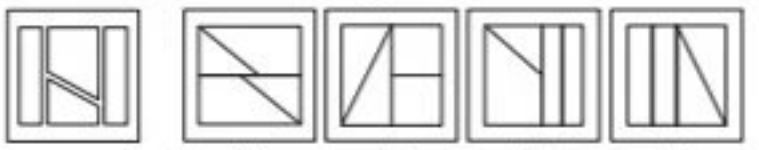


(a) (b) (c) (d)

Part IX

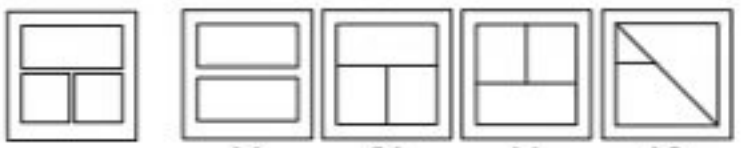
Directions *In Question Nos.* 33 *to* 36, *a question figure is given and four answer figures marked* (a), (b), (c) *and* (d) *are given. Select the answer figure which can be formed from the cut-out pieces given in the question figure.*

33. Que. Fig. Answer Fig.



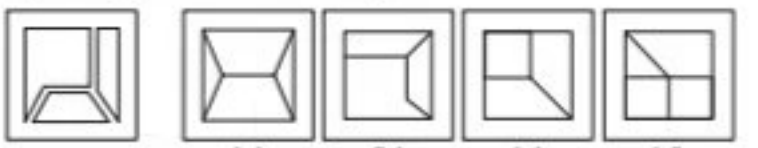
(a) (b) (c) (d)

34. Que. Fig. Answer Fig.



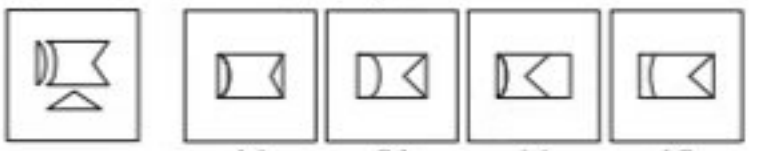
(a) (b) (c) (d)

35. Que. Fig. Answer Fig.



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

36. Que. Fig. Answer Fig.

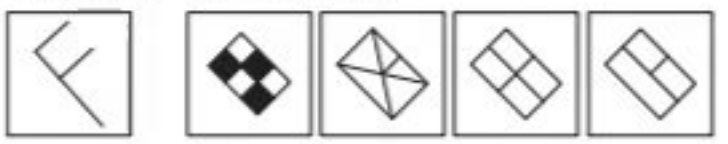


(a) (b) (c) (d)

Part X

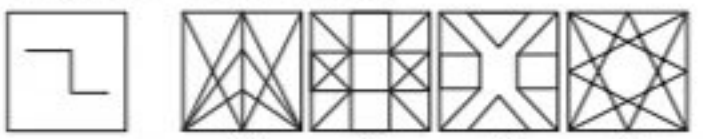
Directions *In question nos.* 37 *to* 40, *a question figure is given and four answer figures marked* (a), (b), (c) *and* (d). *Select the answer figure in which the question figure is hidden / embedded.*

37. Que. Fig. Answer Fig.



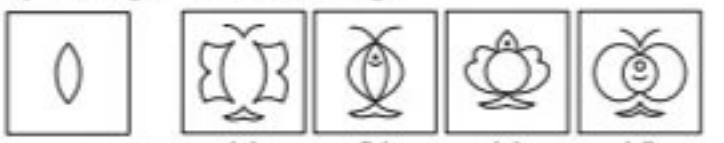
(a) (b) (c) (d)

38. Que. Fig. Answer Fig.



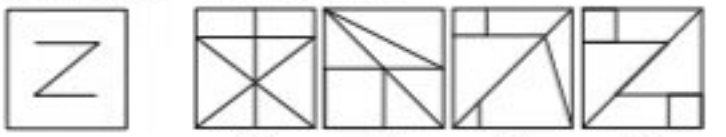
(a) (b) (c) (d)

39. Que. Fig. Answer Fig.



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

40. Que. Fig. Answer Fig.



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

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

$$15\frac{1}{2}-\left[\frac{12}{5}\times\frac{5}{8}+\left(7\div1\frac{3}{4}\right)\right]\times2$$

(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'.

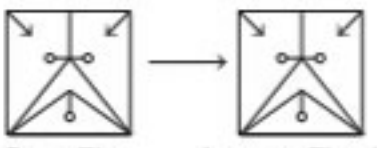
Hence, figure (c) is different.

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.

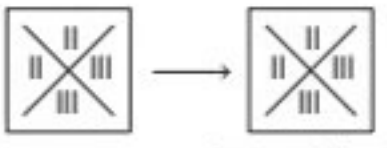
4. (b) Except figure (b), all other figures are same when rotated.

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



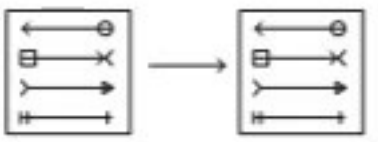
Que. Fig. Answer Fig. (c)

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



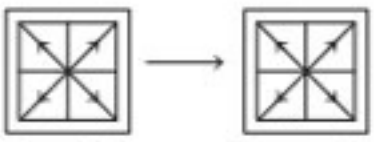
Que. Fig. Answer Fig. (c)

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



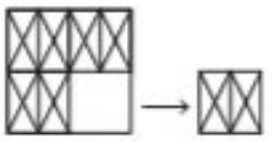
Que. Fig. Answer Fig. (b)

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

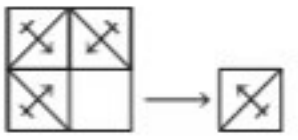


Que. Fig. Answer Fig.

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

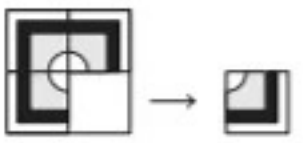


10. (d) Answer figure (d) will complete the given question figure.



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.

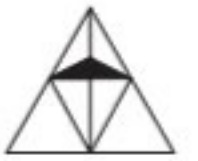
17. (c) The innermost element is enlarged and becomes the outermost element. The outermost element reduces in size and becomes the inner most element. Hence, figure (c) is the correct answer.

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

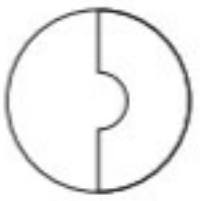
19. (d) From first figure to second figure, whole figure is rotated 90° anti-clockwise. Hence, answer figure (d) is correct choice.

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

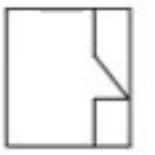


22. (b) Answer figure (b) will complete the geometrical figure as follows

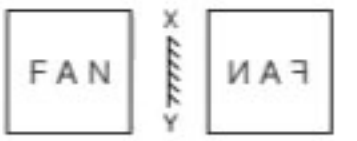


23. (a) Answer figure (a) will complete the geometrical figure as follows

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

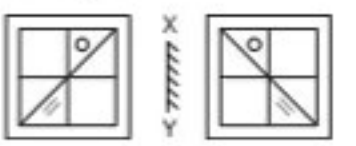


25. (b) Answer figure (b) is the correct mirror image of the given question figure.

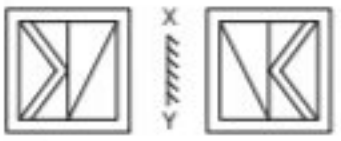


26. (c) Answer figure (c) is the correct mirror image of the given question figure.

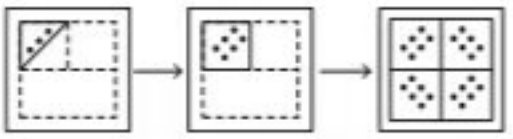
27. (c) Answer figure (c) is the correct mirror image of the given question figure.



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

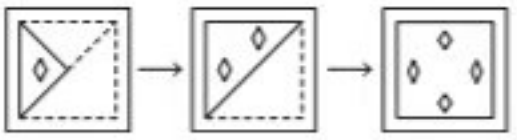


29. (c) When the paper is unfolded, it will appear as shown in answer figure (c).



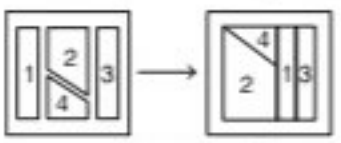
30. (c) When the paper is unfolded, it will appear as shown in answer figure (c).

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



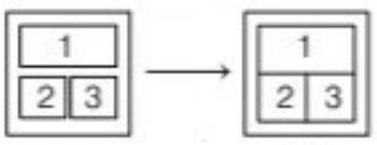
32. (a) When the paper is unfolded, it will appear as shown in answer figure (a).

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



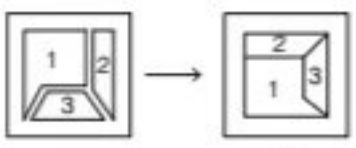
(c)

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



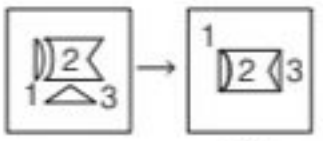
(b)

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



(b)

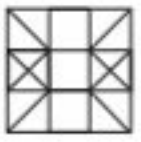
36. (a) Answer figure (a) can be formed from the cut out pieces given in the question figure.



(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) $\because$ LCM of 3 and 5 = 15

The numbers which are multiples of both 3 and 5

$= 15 \times 1, 15 \times 2, 15 \times 3, 15 \times 4, 15 \times 5, 15 \times 6$

$= 15, 30, 45, 60, 75, 90$

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, $\text{Speed} = \dfrac{\text{Distance}}{\text{Time}}$

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

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

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

$\therefore t = 1$ 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 $= \frac{\text{Principal} \times \text{rate} \times \text{time}}{100}$

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

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

But, Amount $(A) = P + \text{SI}$

From Eq. (i),

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

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

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

$\therefore P =$ ₹ 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 $= 2 \times 16 = 32$ 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.

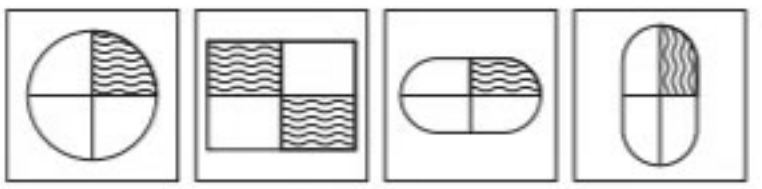
Jawahar Navodaya Vidyalaya
Entrance Exam
Solved Paper-2018

SECTION I : Mental Ability Test

Part I

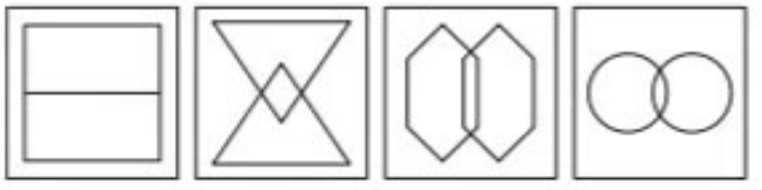
Directions (Q. Nos. 1-5) *Four figures* (1), (2), (3) *and* 4 *have been given in the each question of these four figures three figures, are similar in some way and one figure is different. Select the figures which is different and write your answer only in english numbers* (*i.e.* 1,2,3,4) *in the box against the number corresponding to the question.*

1.



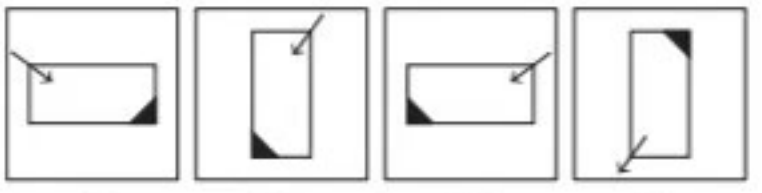
(1) (2) (3) (4)

2.



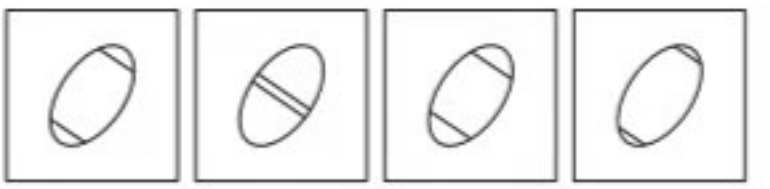
(1) (2) (3) (4)

3.



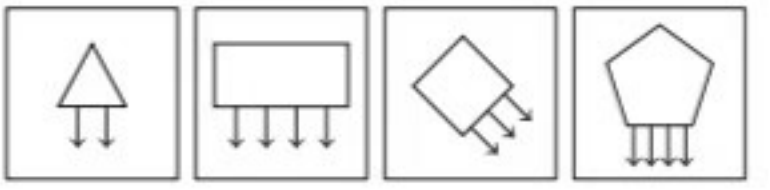
(1) (2) (3) (4)

4.



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

5.



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

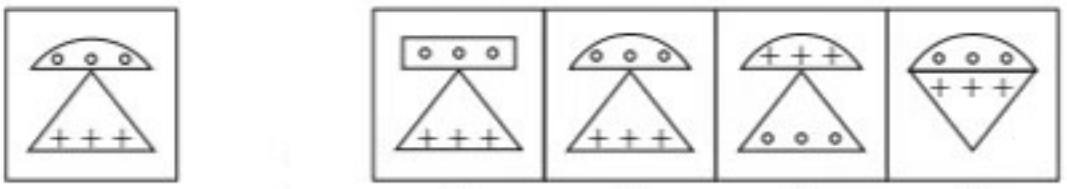
Part II

Directions (Q. Nos. 6-10) *A question figure is given on the left side and four answer figures marked* (1), (2), (3) *and* (4) *are given on the right side. Select the answer figure which is exactly the same as question figure and write your answer only in english numbers* (*i.e* 1, 2, 3, 4) *in the box against the number corresponding to the question.* .

6. **Question Figure** **Answer Figures**

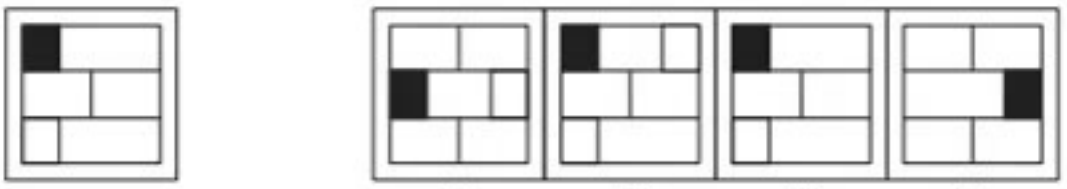
(1) (2) (3) (4)

7.



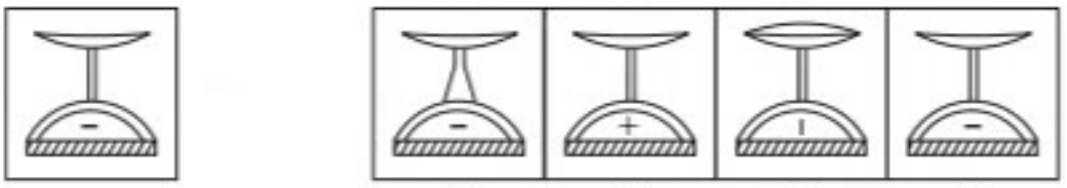
(1) (2) (3) (4)

8.



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

9.



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

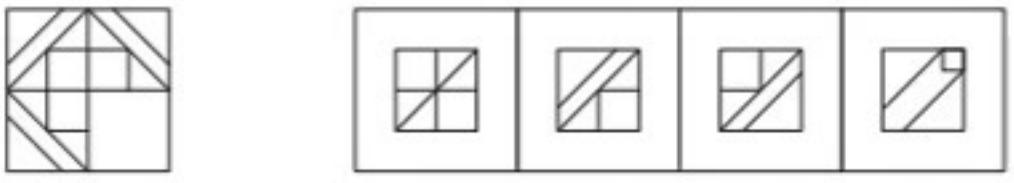
10.

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

Part III

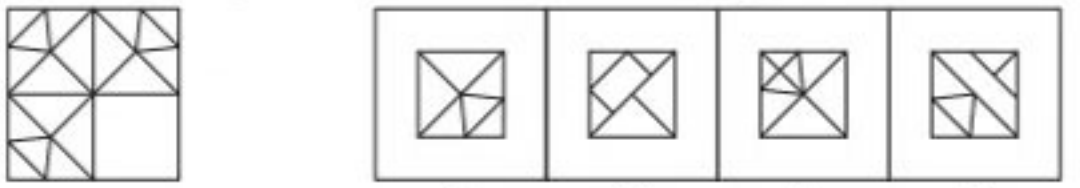
Directions (Q. Nos. 11-15) *There is a question figure on the left hand side, a part of which is missing. Observed the answer figures* 1,2,3,4 *on the right hand side and find out the answer figure which without changing the direction, fits in the missing part of the question figure in order to complete the pattern in the question figure. Indicate your answer by number of the answer figure chosen by your in the box against the number corresponding to the question.*

11. **Question Figure** **Answer Figures**



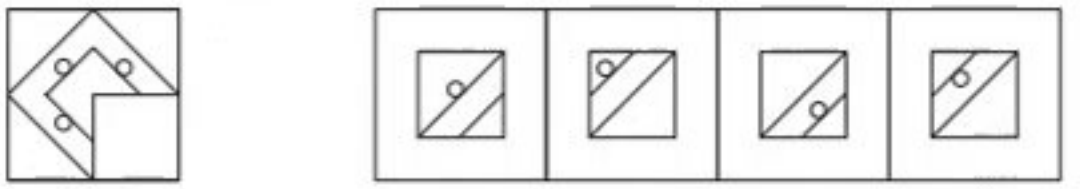
(1) (2) (3) (4)

12. **Question Figure** **Answer Figures**



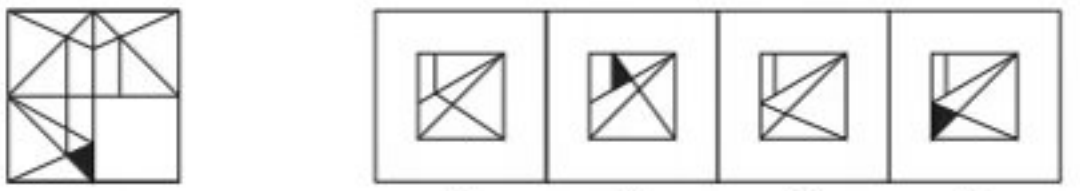
(1) (2) (3) (4)

13.



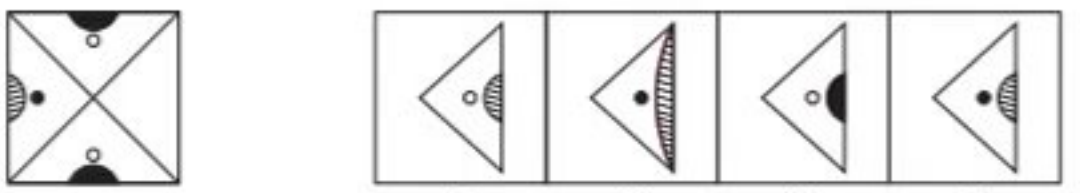
(1) (2) (3) (4)

14.



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

15.

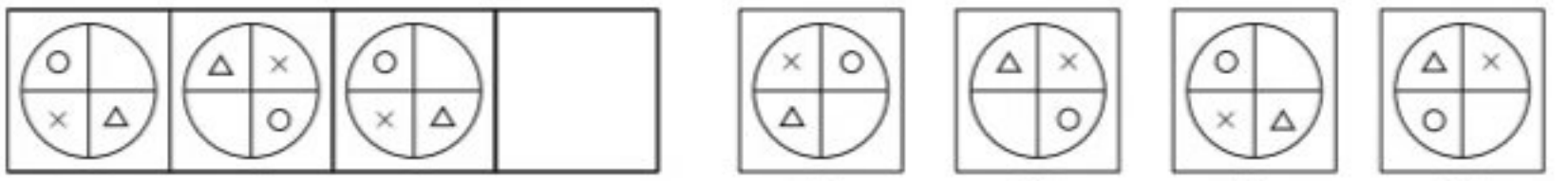


(1) (2) (3) (4)

Part IV

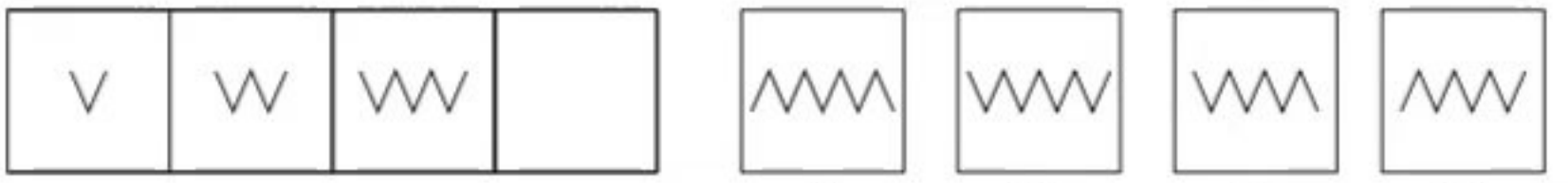
Directions (Q. Nos. 16-20) *There are three questions figures on the left hand side and the space for the fourth figure is left blank. Question figures are in a series. Find out one figure from among the answer figures given on the right hand side which occupies the blank space for the fourth figure on the left hand side and completes the series. Indicate your answer by number to the answer figure chosen by you in the box against the number corresponding to the question.*

16. **Question Figures** **Answer Figures**



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

17.

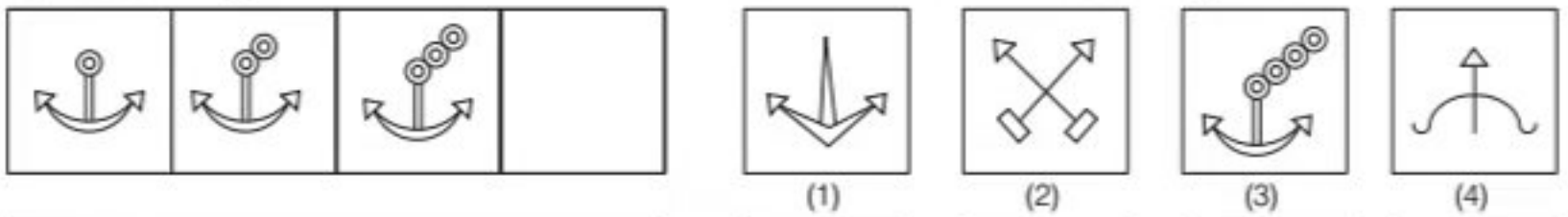


(1) (2) (3) (4)

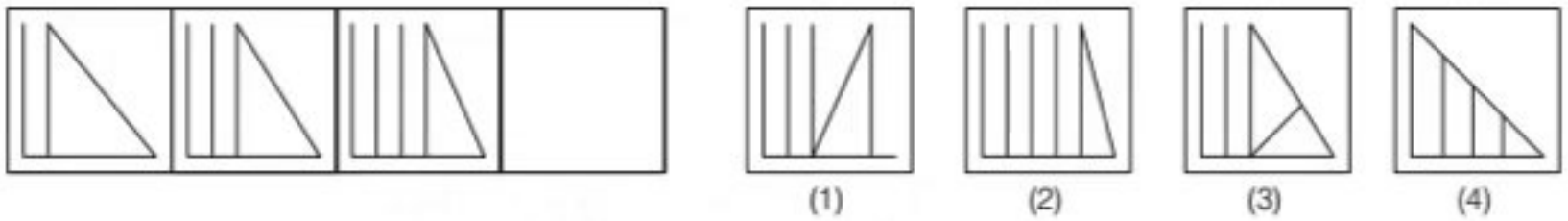
18.

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

19. **Question Figure** **Answer Figures**



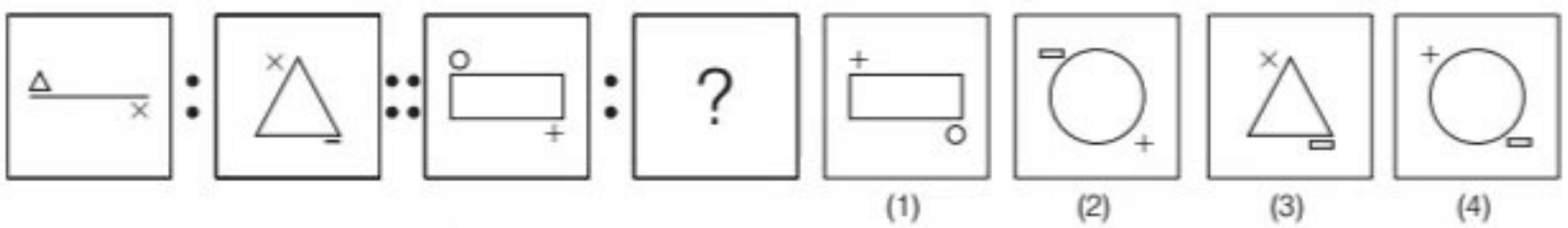
20.



Part V

Directions (Q. Nos. 21-25) *There are two sets of two question figures each. The second set has a question mark '?'. 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 figures which replaces the question mark. Write the number of the answer figure selected by you in the box against the number corresponding the question.*

21. **Question Figures** **Answer Figures**



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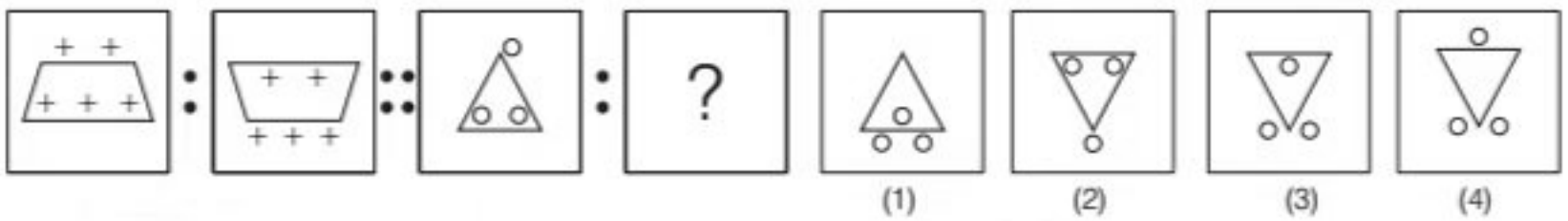

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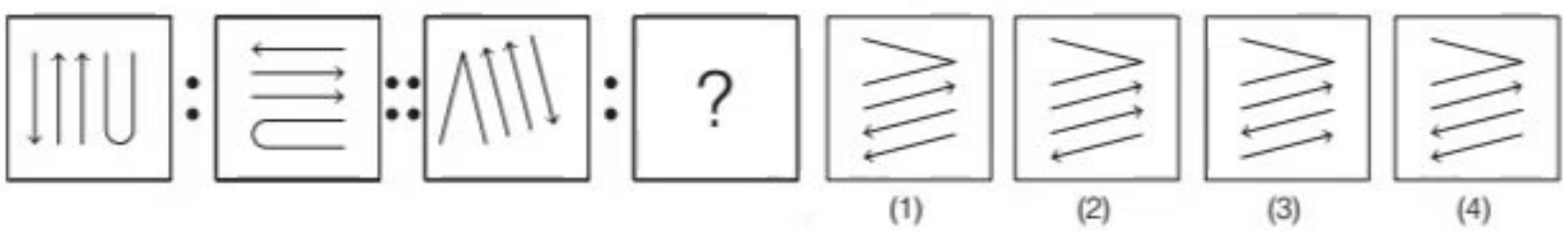

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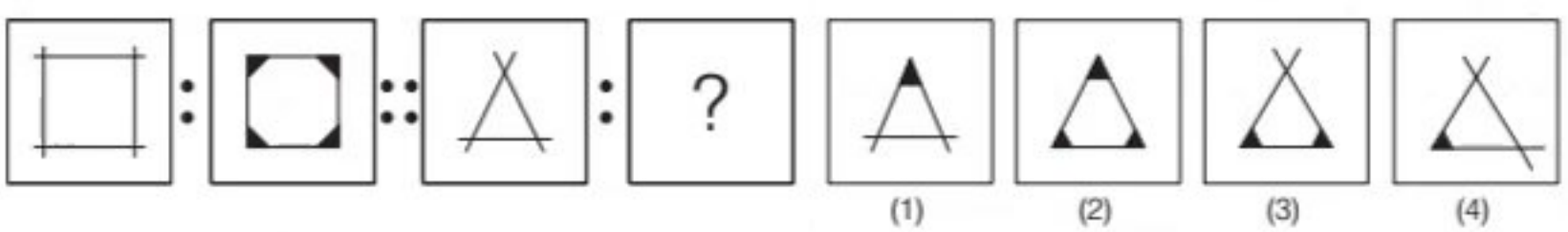

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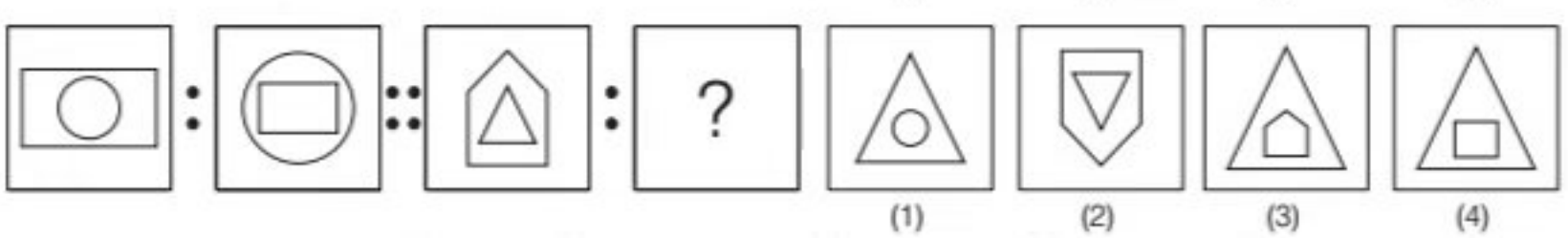
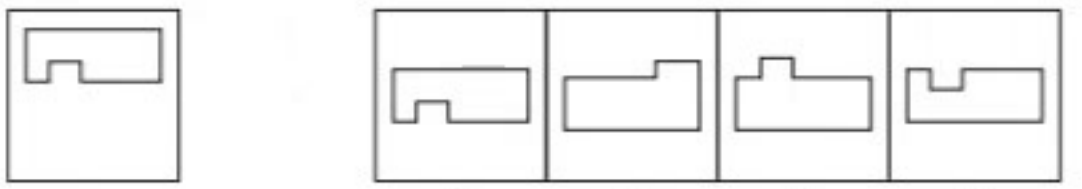


Part VI

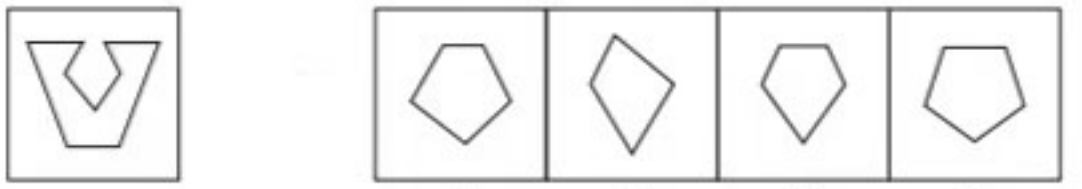
Directions (Q. Nos. 26-30) *One part of a geometrical figure is on left hand side as question figure and the other one is among the four answer figures* (1), (2), (3), (4), *on the right hand side. Find the figure on the right hand side that complete the geometrical figure and write the number given below that figure in the box against the number corresponding to the question.*

26. **Question Figure** **Answer Figures**



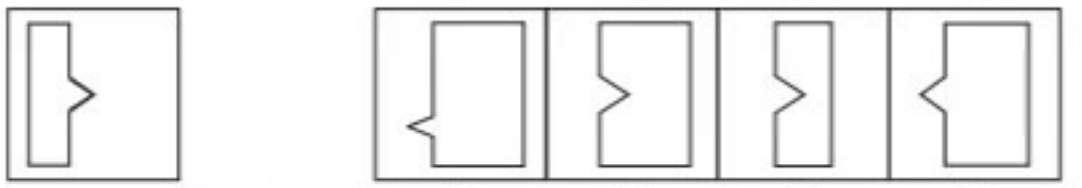
(1) (2) (3) (4)

27.



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

28.



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

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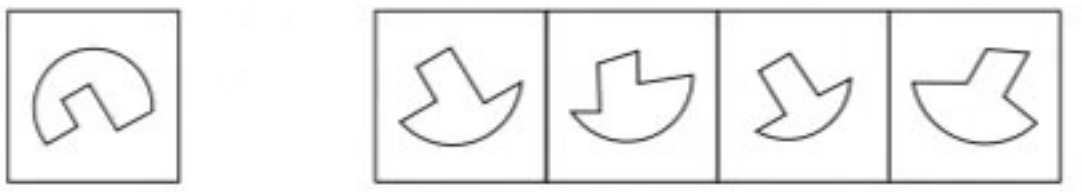
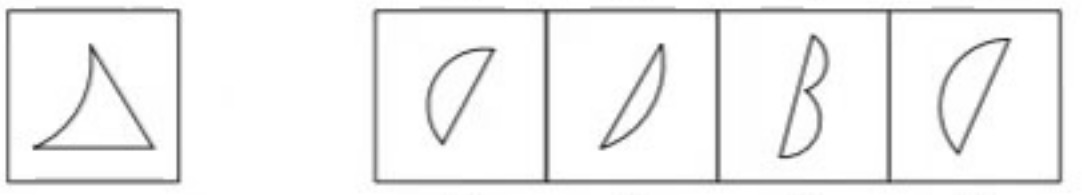


(1) (2) (3) (4)

30.

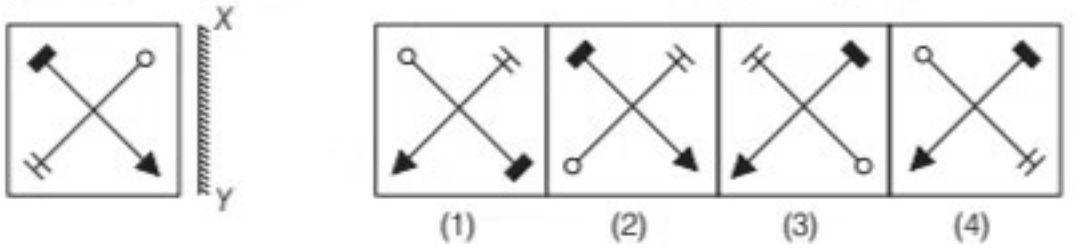


(1) (2) (3) (4)

Part VII

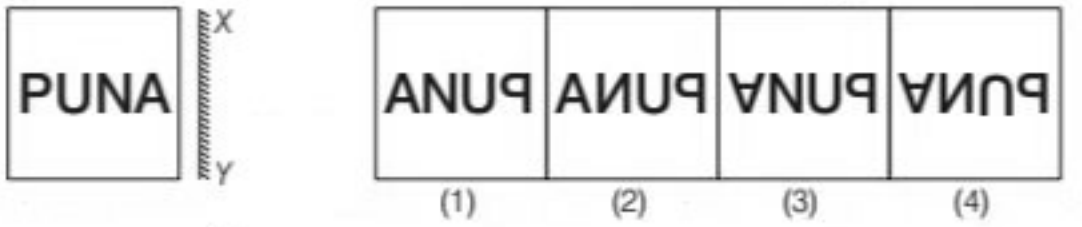
Directions (Q. Nos. 31-35) *There is a question figure on the left side and four answer figures marked* 1, 2, 3, 4 *are given on the right side. Select the answer figure which is exactly the mirror image of the question figure when the mirror is held at XY. Indicate your answer by number of the answer figure chosen by you in the box against the number corresponding to the question.*

31. **Question Figure** **Answer Figures**

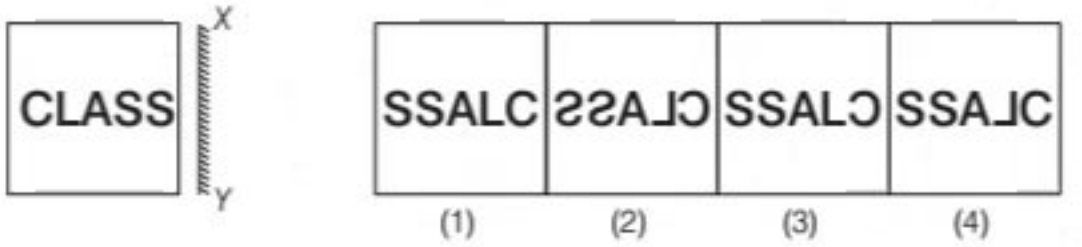


(1) (2) (3) (4)

32. **Question Figure** **Answer Figures**



33.



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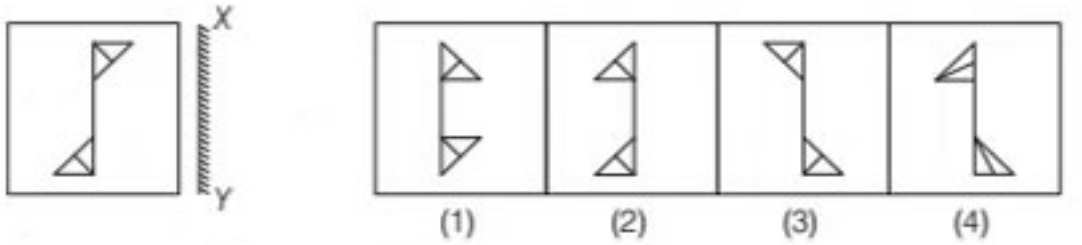
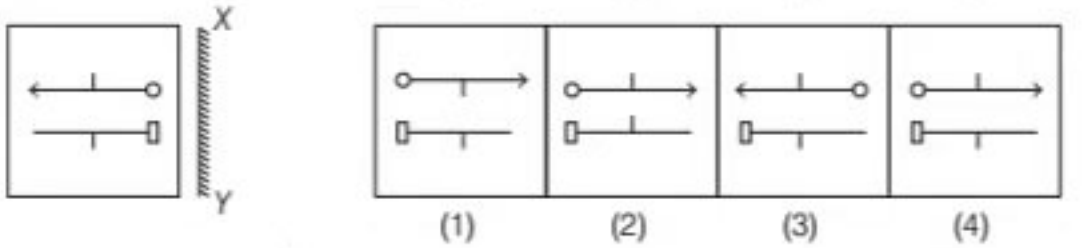


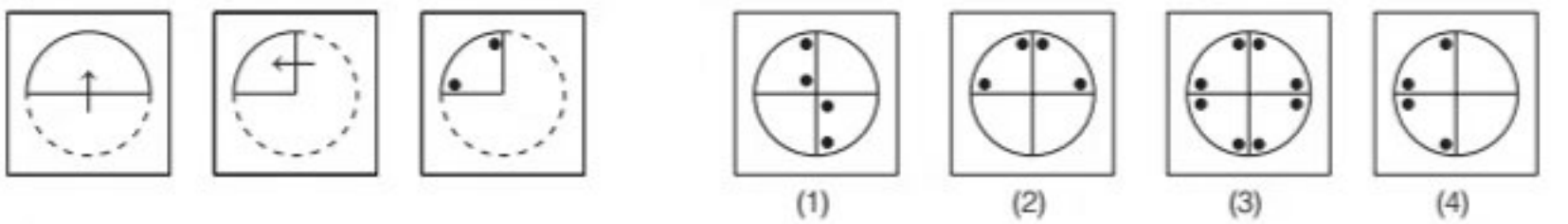
35.



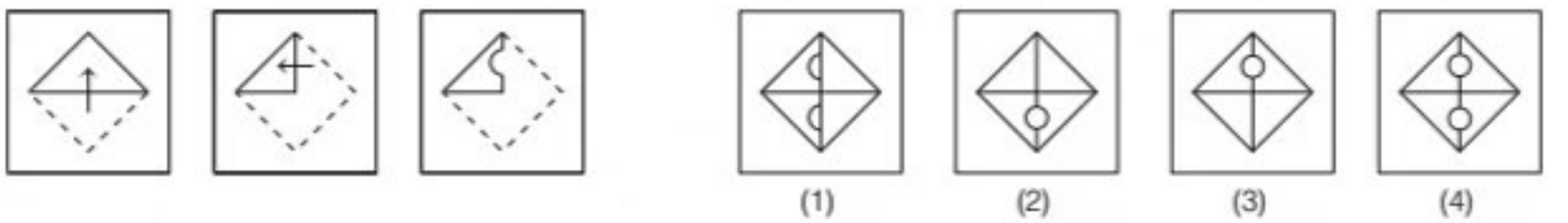
Part VIII

Directions (Q. Nos. 36-40) *A piece of paper is folded and punched as shown in question figures on the left side and four answer figures marked,* 1, 2, 3, 4 *are given on right side. Select the answer figure which indicate how the paper will appear when opened (unfolded). Indicate your answer by number of the answer figure chosen by you in the box against the number corresponding to the question.*

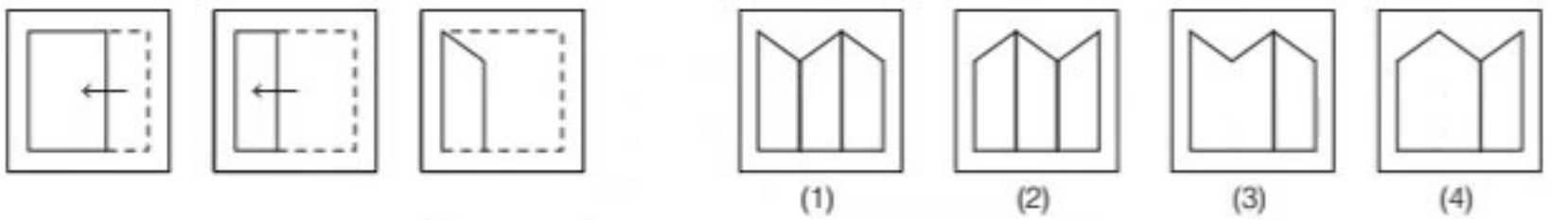
36. **Question Figures** **Answer Figures**



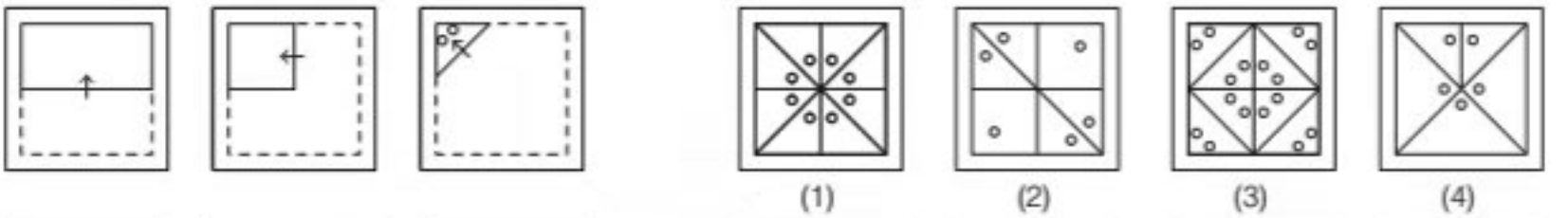
37.



38.

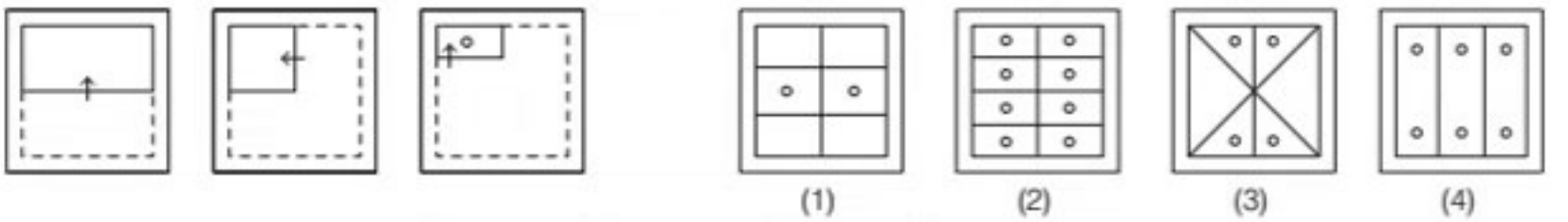


39. **Question Figures** **Answer Figures**



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

40.

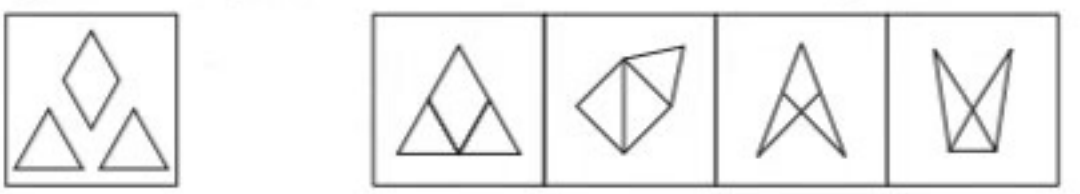


(1) (2) (3) (4)

Part IX

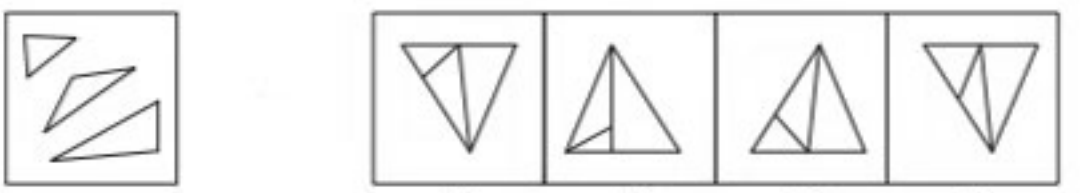
Directions (Q. Nos. 41-45) *A question figure is given on the left side and four answer figures, marked* 1, 2, 3, 4 *are given on the right side. Select the answer figure which can be formed from the cut-out pieces given in the question figure and write your answer only in english numbers* (*i.e.* 1, 2, 3, 4) *in the box against the number corresponding to the question.*

41. **Question Figure** **Answer Figures**



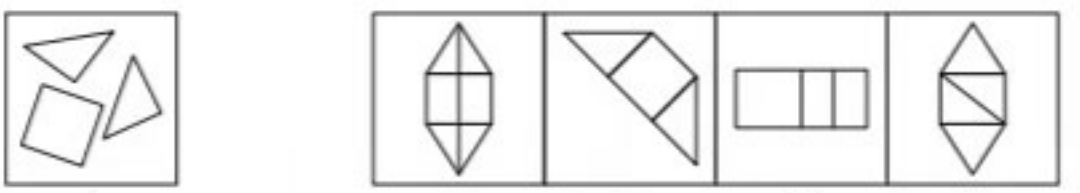
(1) (2) (3) (4)

42.



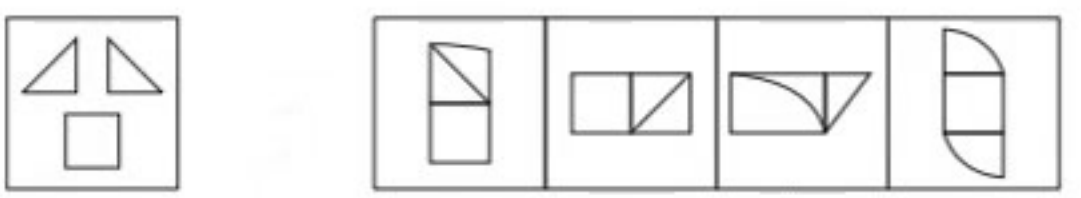
(1) (2) (3) (4)

43.



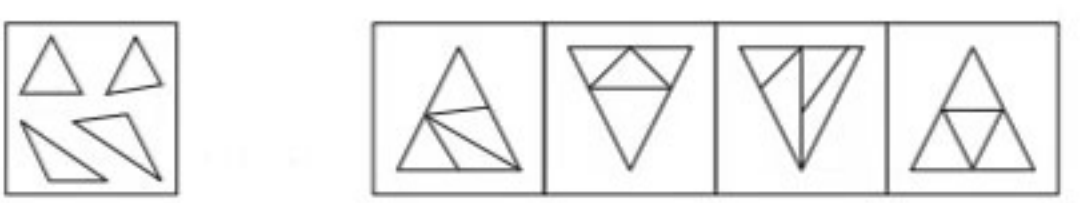
(1) (2) (3) (4)

44.



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

45.

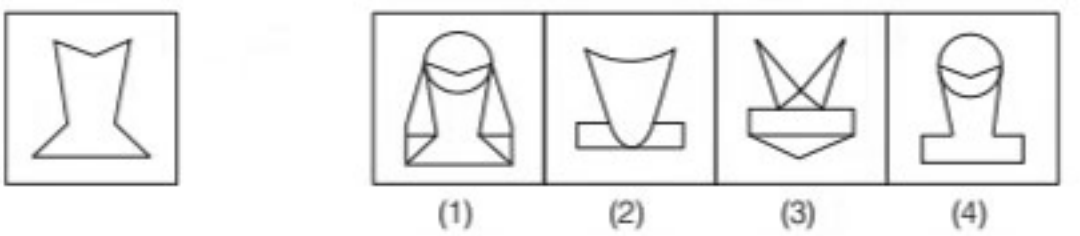


(1) (2) (3) (4)

Part X

Directions (Q. Nos. 46-50) *A question figure is given on the left side and four answer figures, marked* 1, 2, 3, 4 *are given on the right side. Select the answer figures which the question figure is hidden/embedded and write your answer only in english numbers* (*i.e.* 1, 2, 3, 4) *in the box against the number corresponding to the question.*

46. **Question Figure** **Answer Figures**



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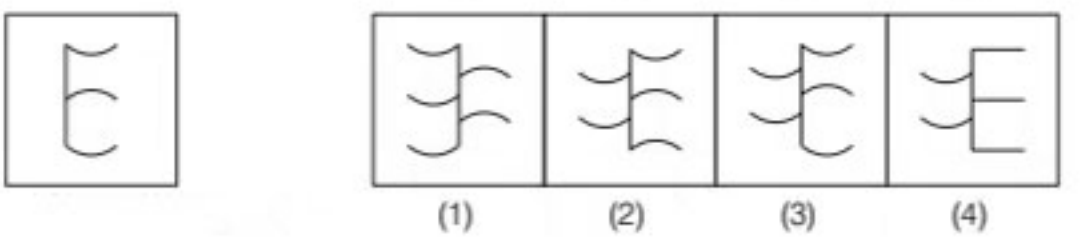
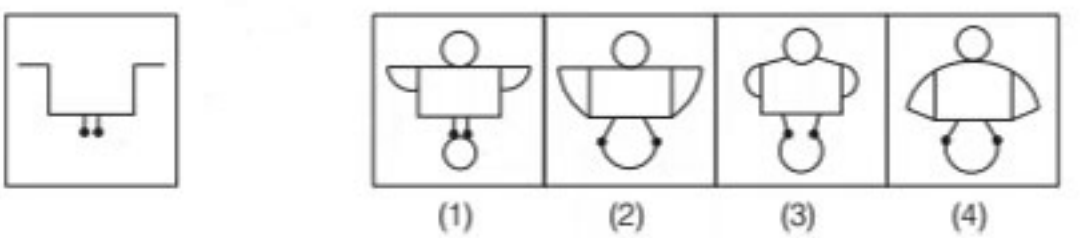


48.



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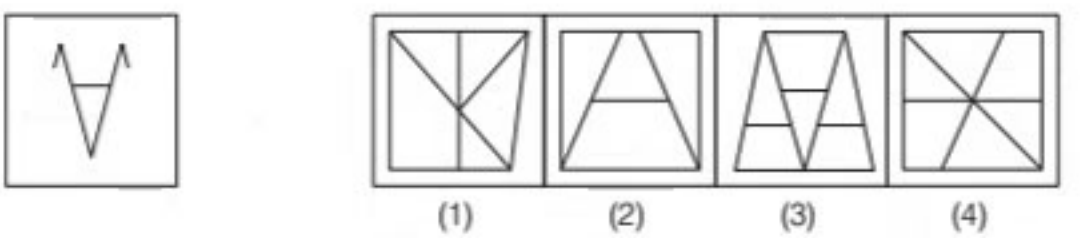
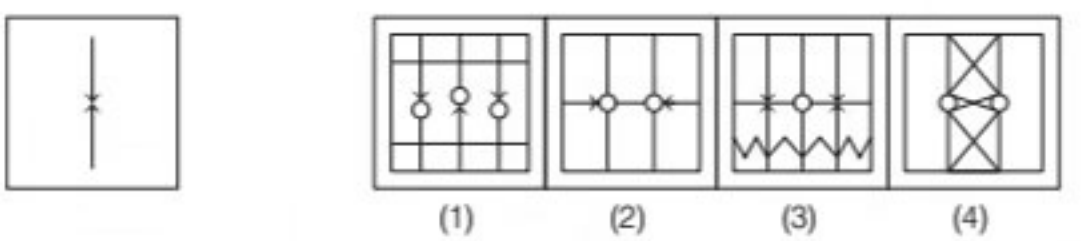


50.



SECTION II : Arithmetic Test

Directions (Q. Nos. 51-75) *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 give the correct answer and write the number in the box against the number corresponding to the questions in the answer sheet.*

51. If $23200 \div 145 = 160$, then $23.2 \div 1.45$ is equal to

(1) 160 (2) 16

(3) 1.60 (4) 0.16

52. 84% is equal to

(1) $\frac{42}{100}$ (2) $\frac{42}{50}$

(c) $\frac{84}{225}$ (d) 8.4

53. 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

54. 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

55. What is quotient when 76076 is divided by 13?
(1) 5652 (2) 5852 (3) 5762 (4) 5662

56. A common multiple of both 9 and 7 is A. This number is in between 1200 and 1300. What is number A?
(1) 1197 (2) 1260 (3) 1206 (4) 1266

57. 9, 13, 17, 21, 25, ?
What is the next term in the given series?
(1) 26 (2) 27 (3) 29 (4) 33

58. In which of the following numbers only one prime number lie.
(1) 40 and 50 (2) 60 and 70
(3) 80 and 90 (4) 90 and 100

59. Find the sum of 7.7+ 7.77+ 7.777+ 7.777.
(1) 28. 2828 (2) 28. 2847
(3) 30.0247 (4) 31.0247

60. A rectangular plot has sides 100 m × 80 m. Find the length of wire to surround it three times.
(1) 180 m (2) 1080 m (3) 360 m (4) 720 m

61. A person covered $47\frac{1}{2}$ km in one day. If the covered $29\frac{1}{3}$km by scooter, $8\frac{5}{6}$,km by bicycle and rest of the distance on foot. Find the distance covered on foot?
(1) $8\frac{1}{3}$ (2) $10\frac{1}{3}$ (3) $9\frac{1}{3}$ (4) $12\frac{2}{3}$

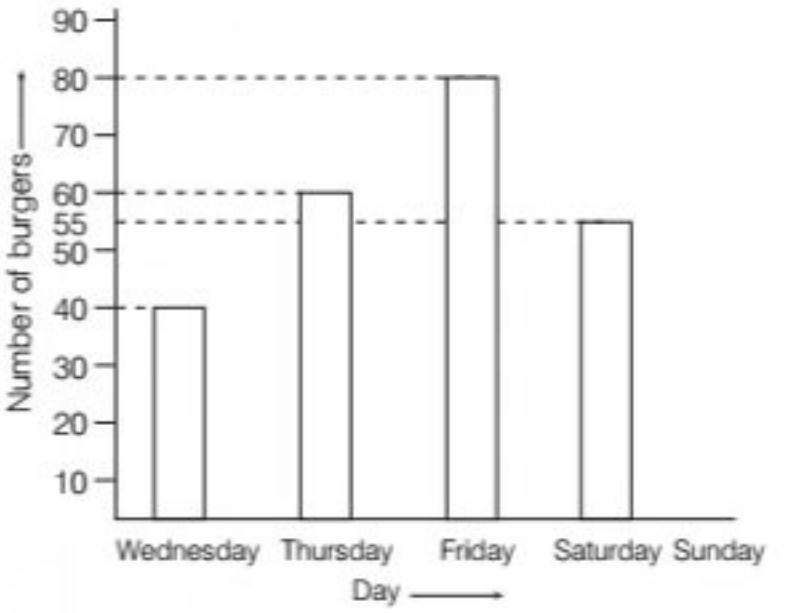
62. 12 Men or 15 women can do a piece of work in 21 days. Find the number of days required to complete the same work by 6 men and 10 women.
(1) 15 (2) 18 (3) 21 (4) 24

63. A fish tank length, breadth and height is 40cm , 60cm and 50cm respectively. It contains 50 liter of water, How much water is needed to fill it completely.
(1) 50 L (2) 60 L (3) 70 L (4) 120 L

64. A store sells a packet of 5 apples in ₹25 and a single apple in ₹ 6, if a lady purchase 27 apples. How much money will she pay?
(1) ₹ 128 (2) ₹ 130 (3) ₹ 137 (4) ₹ 150

65. Kaku got 7 marks less than Bakshi while Raman got 3 marks more than Kaku. If the total marks obtained by all three is 76. Find the marks obtained by Raman.
(1) 22 (2) 25 (3) 29 (4) 31

66. The following bar diagram shows the sale (number of burgers)of a burger saler during 5 days.



If total sale of burger was 320. Then number of burger sold on Sunday?
(1) 85 (2) 80 (3) 75 (4) 90

67. Four pieces of 75 cm were cut from a piece of 14m 25cm of fabric. Find the length of remaining fabric.
(1) 13 m 50 cm (2) 11 m 25 cm
(3) 10 m 50 cm (4) 10m 25 cm

68. Pictograms shows 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 fo Friday.
(1) 19 (2) 190 (3) 250 (4) 380

69. Find the differences between 5 digits greater and 5 digits smaller number with different digits.
(1) 41976 (2) 88531
(3) 98531 (4) 108999

70. Using the different digits, find the smallest number of 4 digits in which 9 is in tens place.
(1) 1290 (2) 1092
(3) 2091 (4) 2190

71. Which is the smallest 5 digit number formed by digits 5,1,6 when two digits can be used twice?
(1) 11565 (2) 51156
(3) 11556 (4) 11655

72. The HCF of two numbers 14 and 28 is 14. Find the LCM.
(1) 28 (2) 196 (3) 298 (4) 98

73. What is the four digit smallest number which is completely divided by 2,3,8,10?
(1) 1020 (2) 1060
(3) 1080 (4) 1120

74. The product of two numbers is 18.75. If one number is thrice of another. Find the larger number.
(1) 2.5 (2) 9.5 (3) 4.5 (4) 7.5

75. Find the value of $3 \times 0.3 \times 0.03 \times 0 \times 30$.
(1) 81 (2) 8.1 (3) 0.81 (4) 0

SECTION III : Language Test (English)

Directions (Q. Nos. 76-100) *Read the following passages carefully and answer the questions by choosing the options that you consider the most appropriate.*

Passage I

Our voyage was very prosperous, but I shall not trouble the reader with a journal of it. The captain called in at one or two ports and sent in his long-boat for provisions and fresh water, but I never went out of the ship still we came into the Downs, which was on the 3rd day of June, 1706, about nine months after my escape. I offered to leave my goods in security for payment of my freight, but the captain protested he would not receive one farthing. We took kind leave of each other, and I made him promise that he would come to see me at my house in Redriff. I hired a house and a guide for five shillings which I borrowed from the captain.

76. When the writer uses the word 'prosperous' to describe the voyage, he means that
(1) it made him rich (2) it made him healthy
(3) it was very pleasant (4) it was uneventful

77. On the voyage, the author
(1) left the ship at intervals
(2) was not able to leave the ship because it did not stop
(3) never left the ship at all
(4) never left the ship till they came into the Downs

78. In the context of the passage, the word 'provisions' means
(1) mainly food (2) mainly security
(3) money (4) mainly ammunition

79. For the payment of the author's freight, the captain
(1) kept his goods as security
(2) refused to accept any money
(3) protested against being paid only a farthing
(4) accepted a sum of money

80. From the passage, it is clear that the captain's attitude to the author was
(1) one of hostility
(2) one of indifference
(3) one of extreme friendliness and kindness
(4) one of disgust and irritation

Passage II

A story tells that two friends were walking through the desert. During some point of the journey they had an argument, and one friend slapped the other one in the face. The one who got slapped was hurt, but without saying anything, wrote in the sand: "TODAY MY BEST FRIEND SLAPPED ME IN THE FACE." They kept on walking until they found an oasis, where they decided to take a bath. The one who had been slapped got stuck in the mire and started drowning, but the friend saved him. After the friend recovered from the near drowning, he wrote on a stone: "TODAY MY BEST FRIEND SAVED MY LIFE." The friend who had slapped and saved his best friend asked him, "After I hurt you, you wrote in the sand, and now, you write on a stone. Why?"

The other friend replied: "When someone hurts us, we should write it down in sand where winds of forgiveness can erase it away. But, when someone does something good for us, we must **engrave** it in stone where no wind can ever erase it."

81. Why did the friend who got hurt write on the sand?
(1) Because he was very kind-hearted
(2) Because he was too weak to take revenge
(3) Because he knew that his feeling of hurt was temporary
(4) Because he loved his friend too much

82. What is an oasis?
(1) An oasis is a tall tree found in a desert.
(2) An oasis is a water body found in a desert.
(3) An oasis is a creature like centipede.
(4) An oasis is grassland.

83. What did one of the friends do after recovering from the near drowning?
(1) He rebuked his friend.
(2) He avenged by slapping his friend in his face.
(3) He wrote something on sand in his praise.
(4) He wrote something about his friend to express his gratitude.

84. What does writing on the stone suggest?
(1) Writing something on stone means expressing one's love for another.
(2) Writing on stone means writing something with an intention to make it last forever.
(3) Writing something on stone means expressing one's extreme anger.
(4) Writing something on stone means writing something with a view to preaching one and all.

85. What is the synonym of the word 'engrave' as used in the passage?
(1) dislodge (2) neglect
(3) aid (4) inscribe

Passage III

I woke up one August morning in a warm sweat. I ran to the refrigerator to get a cold drink, but the refrigerator was broken and all the drinks were as hot as me. I walked over to my electric fan, but it wasn't working either. I then turned on the television and finally realized that the electricity in my house was out. Later that day, I went to the pool to cool off. I dived right in! I swam eight laps before I got tired. My friend Lucy then bought me an ice-cream cone. I got a vanilla ice-cream cone with rainbow sprinkles. Even though it was really hot, I did have a lot of fun.

86. What did the narrator want from the refrigerator?
(1) a ham sandwich (2) a fan
(3) a drink (4) an apple

87. Why does the electric fan not work?
(1) it was broken
(2) it needed batteries
(3) the power was out
(4) it wasn't oiled

88. How many laps did it take for the narrator to tire of the pool?
(1) two (2) four (3) six (4) eight

89. Who bought the narrator an ice-cream cone?
(1) Lucy (2) Sam (3) Peter (4) Prince

90. What was the flavour of the ice-cream?
(1) rainbow (2) vanilla
(3) chocolate (4) strawberry

Passage IV

Once upon a time I went for a week's holiday in the Continent with an Indian friend. We both enjoyed ourselves and were sorry when the week was over, but on parting our behaviour was absolutely different. He was plunged in despair. He felt that because the holiday was over all happiness was over until the world ended. He could not express his sorrow too much, but in me the Englishman came out strong. I could not see what there was to make a fuss about. It was not as if we were parting forever or dying. 'Buck up', I said, 'do buck up'. He refused to buck up, and I left him plunged in gloom.

91. What is the Continent in the context of the passage?
(1) An island (2) The countryside
(3) African safari (4) Europe

92. What does the author mean by 'buck up'?
(1) Buckle yourself up
(2) Stand up
(3) Cheer up
(4) Shut up

93. Why was the Indian friend plunged in despair?
(1) He was hopeless
(2) He experienced racial discrimination
(3) He would never be so happy again
(4) He had spend lot of money

94. What does 'but in me the Englishman came out strong' imply?
(1) He was strong Englishman
(2) He had the typical English character
(3) The Englishman went out of him
(4) He started following Indian traditions

95. What is the author's intension in the passage?
(1) To contrast the Indian character with the English character
(2) To show that an Indian is sorrowful
(3) To ridicule the Indian traditions
(4) To praise the Englishman

Passage V

One day a wolf found a sheepskin. He covered himself with the sheepskin and got into a flock of sheep grazing in a field. He thought, "The shepherd will shut the sheep in the pen after sunset. At night I will run away with a fat sheep and eat it."

All went well till the shepherd shut the sheep in the pen and left. The wolf waited patiently for the night to advance and grow darker. But then an unexpected thing happened. One of the servants of the shepherd entered the pen. His master had sent him to bring a fat sheep for supper. As luck would have it, the servant picked up the wolf dressed in the sheepskin. That night the shepherd and his guests had wolf for supper.

96. Why did the wolf cover himself with the sheepskin and get into a flock of sheep?
(1) He wanted to look like a beautiful sheep.
(2) He wanted to eat a sheep.
(3) He wanted to enter into the pen.
(4) He wanted to make friends with the sheep.

97. How did the wolf meet his end?
(1) All the sheep attacked the wolf and killed him.
(2) The shepherd recognised the wolf in sheep's clothing and killed him.
(3) The shepherd's servant picked up the wolf dressed in the sheepskin for supper.
(4) The wolf died of a serious disease.

98. What is the moral of the passage?
(1) An evil design has an evil end.
(2) Pen is mightier than the sword.
(3) Might is right
(4) Die in harness

99. Why did the servant pick the wolf for supper? Select the most appropriate answer.
1. Because he wanted to have the tasty meat of wolf.
2. Because the wolf was in sheep's clothing.
3. Because the servant thought the wolf to be a fat sheep.
(1) Only 1 (2) Only 2 (3) Only 3 (4) Only 1 and 2

100. What is the antonym of the word 'shut' as used in the passage?
(1) kill (2) close (3) imprison (4) free

Answers

1	(2)	**2**	(1)	**3**	(4)	**4**	(2)	**5**	(2)	**6**	(3)	**7**	(2)	**8**	(3)	**9**	(4)	**10**	(1)
11	(3)	**12**	(1)	**13**	(4)	**14**	(4)	**15**	(4)	**16**	(2)	**17**	(2)	**18**	(4)	**19**	(3)	**20**	(2)
21	(4)	**22**	(3)	**23**	(2)	**24**	(2)	**25**	(3)	**26**	(3)	**27**	(3)	**28**	(2)	**29**	(1)	**30**	(2)
31	(4)	**32**	(2)	**33**	(2)	**34**	(3)	**35**	(4)	**36**	(3)	**37**	(4)	**38**	(1)	**39**	(3)	**40**	(2)
41	(1)	**42**	(4)	**43**	(2)	**44**	(2)	**45**	(1)	**46**	(1)	**47**	(3)	**48**	(1)	**49**	(3)	**50**	(3)
51	(2)	**52**	(2)	**53**	(3)	**54**	(2)	**55**	(2)	**56**	(2)	**57**	(3)	**58**	(4)	**59**	(4)	**60**	(2)
61	(3)	**62**	(2)	**63**	(3)	**64**	(3)	**65**	(2)	**66**	(1)	**67**	(2)	**68**	(4)	**69**	(2)	**70**	(2)
71	(3)	**72**	(1)	**73**	(3)	**74**	(4)	**75**	(4)	**76**	(3)	**77**	(4)	**78**	(1)	**79**	(2)	**80**	(3)
81	(3)	**82**	(2)	**83**	(4)	**84**	(2)	**85**	(4)	**86**	(3)	**87**	(3)	**88**	(4)	**89**	(1)	**90**	(2)
91	(4)	**92**	(3)	**93**	(1)	**94**	(2)	**95**	(1)	**96**	(2)	**97**	(3)	**98**	(1)	**99**	(3)	**100**	(4)

Hints and Solutions

1. Figure number (2) is different from other in given four figures.

2. Figure number (1) is different from given figures.

3. Figure number (4) is different from given figures.

4. Figure number (2) is different from given figures.

5. Figure number (2) is different from given figures.

6. Answer figure (3) is same as given question figures.

7. Answer figure (2) is same as given question figures.

8. Answer figures (3) is same as given question figures.

9. Answer figure (4) is same as given question figures.

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

11. Answer figure (3) will be complete the pattern of given question figure.

(3)

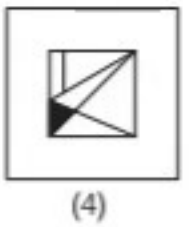
12. Answer figure (1) will be complete the pattern of given question figure.

(1)

13. Answer figure (4) will be complete the pattern to given question figure.

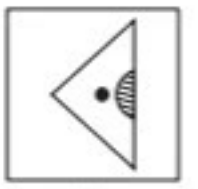
(4)

14. Answer figure (4) will be complete the pattern of given question figure.



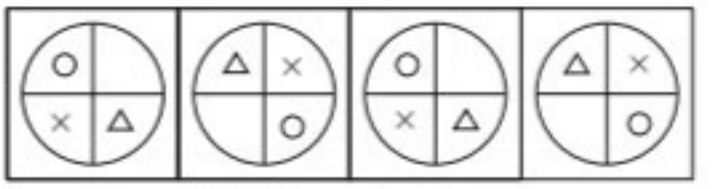
(4)

15. Answer figure (4) will be complete the pattern of given question figure.



(4)

16. The following pattern of series is.

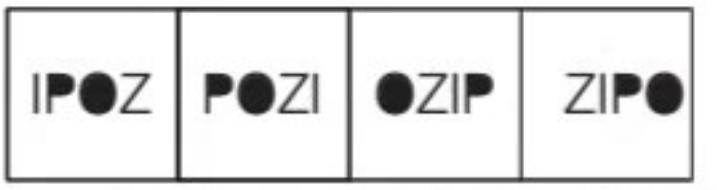


Answer figure (2) will complete the series.

17. The following pattern of series is

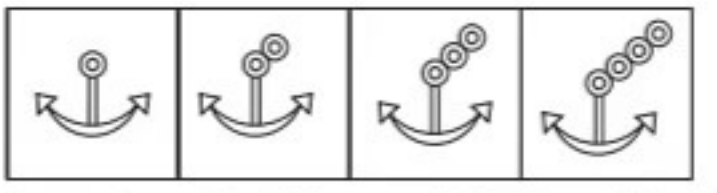
Answer figure (2) will be come in the place of blank in given series.

18. The following pattern of the series is



Answer figure (4) will come in the place to blank in given question figure.

19. The following pattern of the series is

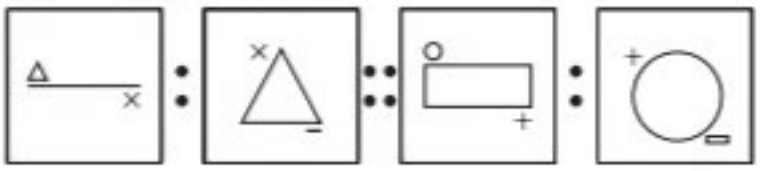


Answer figure (3) will be come in the place of blank in the given question figure.

20. One line in added vertically in each step. So, Answer figure (2) will come in the blank space.

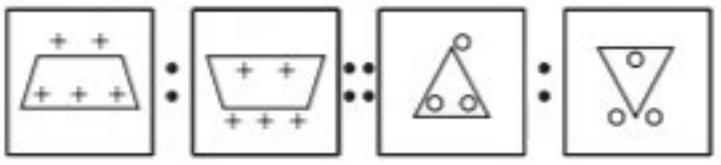
21. In the given first two question figures, Ist figure gets enlarged. Second figure go to bottom and IIIrd figure go on Top.

Similarly, figure (4) follows the correct pattern

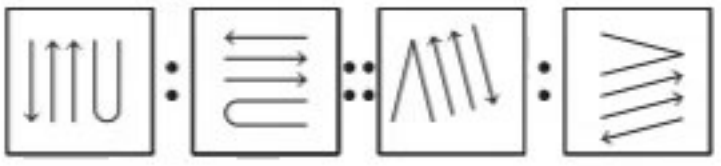


22. In the given question, outer figure (*i.e.* '+') come inside and inner figure goes outside. Also, the trapezium gets inverted.

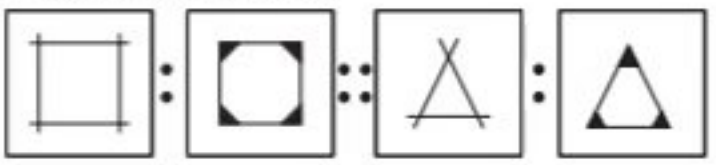
Similarly, figure number (3) follows the correct pattern.



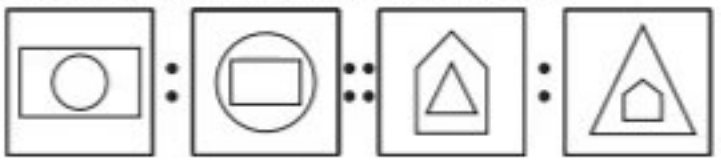
23. Here, figure rotates 90° clock wise.



24. The overlapping lines join to form a closed figure and the vertices get shaded..



25. Both the figures interchange their position.



26. Answer figure (3) is the missing part of the given question figure.

27. Answer figure (3) is the missing part of the given question figure.

28. Answer figure (2) is the missing part of the given question figure which will complete the figure.

29. Answer figure (1) is the missing part of the given question figure.

30. Answer figure (2) is the missing part of the given question figure.

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

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

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

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

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

36. When we open the question figure, it appears as answers figure (3).

37. When we open the given question figure, it appears as answer figure (4).

38. When we open the given question figure, it appears as answer figure (1).

39. When we open the given question figure, it appears as answer figure (3).

40. When we open the given question figure, it appears as answer figure (2).

41. After combining all parts the of given question figure answer figure(1) will be formed.

42. After combining all parts the of given question figure answer figure(4) will be formed.

43. After combining all parts the of given question figure answer figure(2) will be formed.

44. After combining all parts the of given question figure answer figure(2) will be formed.

45. After combining all parts the of given question figure answer figure(1) will be formed.

46. The given question figure is hidden/embedded in answer figure(1).

47. The given question figure is hidden/embedded in answer figure (3).

48. The given question figure is hidden /embedded in answer figure (1).

49. The given question figure is hidden/embedded in answer figure (3).

50. The given question figure is hidden/embedded in answer figure (3).

51. $23200 \div 145 = 160$ [given]

$\therefore 232 \div 1.45 = \frac{2320}{145} = 16$

52. $84\% = \frac{84}{100} = \frac{42}{50}$

53. Total cost price of TV = ₹ (18200 + 1800) = ₹ 20000

Profit = ₹ 3000 [given]

We know that,

Selling price = Cost price + Profit

= 20000 + 3000 = ₹ 23000

54. Simple interest = 4130 − 3500 = 630

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

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

$630 = \frac{3500 \times 6 \times T}{100}$

$T = \frac{630}{35 \times 6} = \frac{630}{210} = 3\,Yr$

55. 13)76076 | 5852 quotient

65
110
104
67
65
26
26
0 Remainder.

56. A common multiple of 9 and 7 both is A. Then number will completely divide both 9 and 7. We observed that only two number 1197 and 1260 is completely divide by 9 and 7. But only number 1260 is in between 1200 and 1300.

Thus, the number A is 1260.

57. The series follows the pattern as

$$9 + 4 = 13$$
$$13 + 4 = 17$$
$$17 + 4 = 21$$
$$21 + 4 = 25$$
$$25 + 4 = \boxed{29}$$

Therefore, 29 is the next term in the given series.

58. Between 90 and 100 only one prime number '97' exist.

59.
7.7000
7.7700
7.7770
+7.7777
31.0247

60. Given,

length of rectangular plot = 100m

Breadth of rectangular of plot = 80 m

As we know that perimeter of plot

= 2 (length+ Breadth)

Perimeter = 2(100+80)

= 2 × 180 = 360 m

length of wire to surround it three times

= 3 × 360 = 1080 m

61. Total distance = $47\frac{1}{2}$km = $\frac{95}{2}$km

Distance covered by scooter = $29\frac{1}{3}$km = $\frac{88}{3}$km

Distance covered by bicycle = $8\frac{5}{6} = \frac{53}{6}$km

Now, distance covered on foot = $\frac{95}{2} - \frac{88}{3} - \frac{53}{6}$

$$\frac{95}{2} - \frac{88}{3} - \frac{53}{6} = \frac{285 - 176 - 53}{6} = \frac{56}{6}$$

$$= \frac{28}{3}\text{ km} = 9\frac{1}{3}\text{ km}$$

62. 12 men = 15 women

$$1 \text{ man} = \frac{15}{12}\text{ women}$$

$$1 \text{ man} = \frac{5}{4}\text{ women}$$

∴ 6 men + 10 women

$$= \left(6 \times \frac{5}{4} + 10\right) = \left(\frac{15}{2} + 10\right) = \frac{35}{2}\text{ women}$$

$$\therefore \quad M_1 = 15, D_1 = 21, M_2 = \frac{35}{2}, D_2 = ?$$

$$W_1 = W_2 = 1$$

Therefore by using formula

$$M_1D_1W_2 = M_2D_2W_1$$

$$15 \times 21 \times 1 = \frac{35}{2} \times D_2 \times 1$$

$$D_2 = \frac{15 \times 21 \times 2}{35} = 18 \text{ days}$$

63. Amount of water stored in the tank = Volume of the tank

∴ Volume of tank = length × breadth × Height

$$\therefore \quad V = 40 \times 60 \times 50$$

$$V = 120000 \text{ cm}^3$$

As 1000 cm^3 1 litre

$$\therefore \quad V = 120\text{L}$$

As tank already stored 50 liters of water.

∴ Amount of water to fill the tank completely

$$= 120 - 50 = 70 \text{ L}$$

64. Price of packet of 5 apples is ₹ 25.

Price of a single apple = ₹ 6

Now, 27 apples = 5×5 packet + 2 apple

$$= 5 \times 25 + 2 \times 6 = 125 + 12 = ₹\ 137$$

∴ Price of 27 apples = ₹ 137

65. ∴ Let marks obtained by Kaku = x

Marks obtained by Raman = $x + 3$

Marks obtained by Bakshi = $x + 7$

According to the question

$$x + x + 3 + x + 7 = 76$$

$$3x + 10 = 76 \Rightarrow 3x = 66 = 22$$

∴ Marks obtains by Raman = $x + 3 = 22 + 3 = 25$

66. Total sale of Burger = 320

Burger sold on Wednesday = 40

Burger sold on Thursday = 60

Burger sold on Friday = 80

Burger sold on Saturday = 55

Now, burger sold on Sunday = Total sale − Sale on (Wed + Thu + Fri + Sat)

$$= 320 - (40 + 60 + 80 + 55)$$

$$= 320 - 235 = 85$$

67. Total length of fabric = 14m 25cm

= 1400 + 25 = 1425cm

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

Remaining length = 1425 cm − 300cm

= 1125cm = 11m 25cm

68. Number of plant sold from Monday to friday

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

$= 20 \times 19$

$= 380$

69. 5 digit largest number = 98765

5 digit smaller number = 10234

Required difference = 98765 − 10234 = 88531

70. The smallest number of four digits by using different digit = 1092

71. The 5 digit smallest number using digit 5,1, 6 by using two digits twice = 11556

72. We know that,

Product of two numbers = HCF × LCM

$14 \times 28 = 14 \times \text{LCM}$

$\text{LCM} = \frac{14 \times 28}{14} = 28$

73. LCM of 2,3,8,10

2	2	3	8	10
3	1	3	4	5
4	1	1	4	5
5	1	1	1	5
	1	1	1	1

$= 2 \times 3 \times 4 \times 5 = 120$

∴ The four digit smallest number is multiple of 120

$= 120 \times 9 = 1080$

74. Let smaller number = x

Larger number = $3x$

According to the question

$x \times 3x = 18.75$

$3x^2 = 18.75$

$x^2 = 6.25$

$x = \sqrt{6.25} = 2.5$

∴ Larger number $= 3x = 3 \times 2.5 = 7.5$

75. Any number multiplied by zero we get zero as resultant.

$\therefore 3 \times 0.3 \times 0.03 \times 0 \times 30 = 0$

76. When the writer uses the word 'prosperous' to describe the voyage, he means that it was very pleasant.

77. On the voyage, the author never left the ship till they came into the Downs.

78. Here the word 'provisions' means 'food'.

79. The captain of the ship refused to accept any money for the payment of the author's freight.

80. It can be inferred from the passage that the captain's attitude to the author was one of extreme friendliness and kindness.

81. The friend who got hurt wrote on the sand because he knew that his feeling of hurt was temporary.

82. An oasis is a water body found in a desert.

83. On of the friends wrote "TODAY MY BEST FRIEND SAVED MY LIFE" on a stone about his friend to express his gratitude after recovering from the near drowning.

84. Writing on stone means writing something with an intention to make it last forever.

85. Both 'engrave' and 'inscribe' mean cut or carve (a text or design) on the surface of a hard object. Hence, they are synonyms.

86. The narrator wanted a cold drink from the refrigerator.

87. The electric fan was not working because the power was out.

88. The narrator swam eight laps of the pool before he got tired.

89. The narrator's friend Lucy bought him an ice-cream cone.

90. It was a vanilla ice-cream with rainbow sprinkles.

91. Europe is the continent in the context of the passage.

92. The author means 'cheer up' by 'buck up'.

93. The Indian friend was plunged in despair because he was hopeless.

94. The clause 'but in me the Englishman came out strong' implies that he had the typical English character.

95. The author's intension in the passage is to contrast the Indian character with the English character.

96. The wolf covered himself with the sheepskin and get into a flock of sheep because he wanted to eat a sheep.

97. The wolf met his end as the shepherd's servant picked up the wolf dressed in the sheepskin for supper.

98. 'An evil design has an evil end' is the moral of the passage.

99. The servant picked the wolf for supper because he thought the wolf to be a fat sheep.

100. According to the passage, the word 'shut' means 'keep in a place by closing something such as a door' hence 'free' is the appropriate antonym of it.

Jawahar Navodaya Vidyalaya

Class 6

Entrance Exam

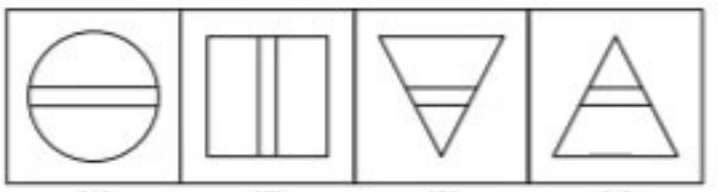
Model Solved Paper 2017

Section I Mental Ability Test

Part I

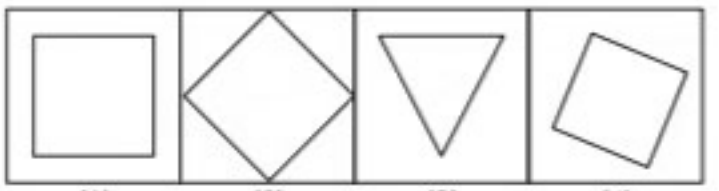
Directions (Q. Nos. 1-5) *In the following questions, four figures* (1), (2), (3) *and* (4) *have been given below. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and indicate the correct letter below it.*

1.



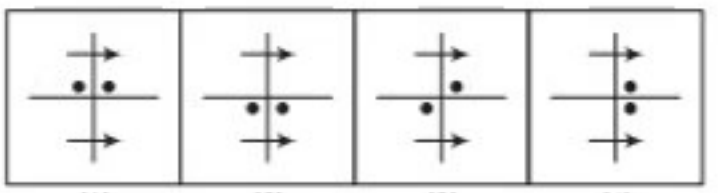
(1) (2) (3) (4)

2.



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

3.



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

4.

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

5.

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

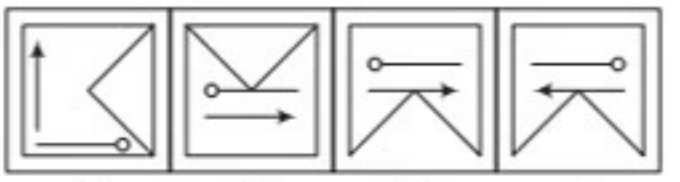
Part II

Directions (Q. Nos. 6-10) *In the following questions, a problem figure is given on the left hand side and four answer figures* (1), (2) (3) *and* (4) *are given on the right hand side. Select the answer figure which is exactly the same as the problem figure and indicate the letter below the correct answer figure.*

Problem Figure

6.

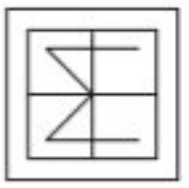
Answer Figures

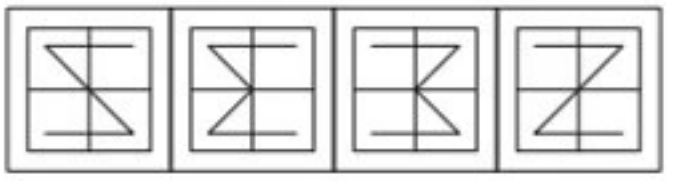


(1) (2) (3) (4)

Problem Figure **Answer Figures**

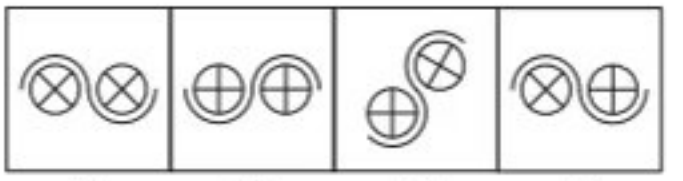
7.





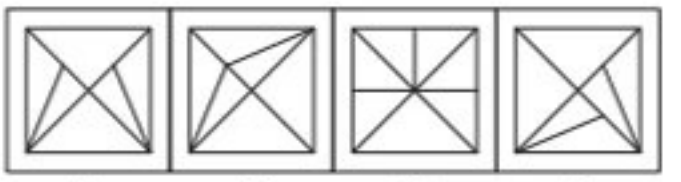
(1) (2) (3) (4)

8.



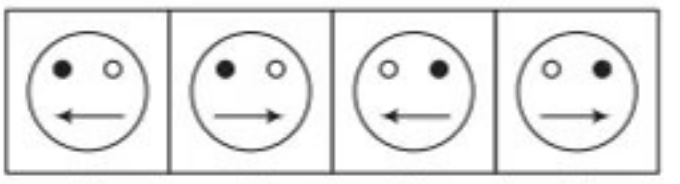
(1) (2) (3) (4)

9.



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

10.



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

Part III

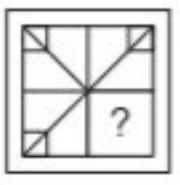
Directions (Q. Nos. 11-15) *In the following questions, there is a problem figure on the left hand side, a part of which is missing. Observe the answer figures* (1), (2), (3) *and* (4) *on the right hand side and find out the answer figure which without changing the direction, fits in the missing part of the problem figure in order to complete the pattern in the problem figure.*

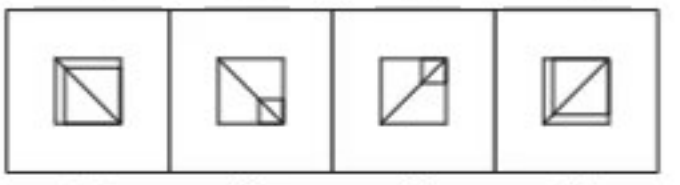
Problem Figure **Answer Figures**

11.

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

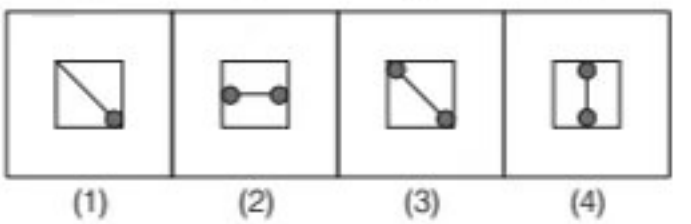
12.





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

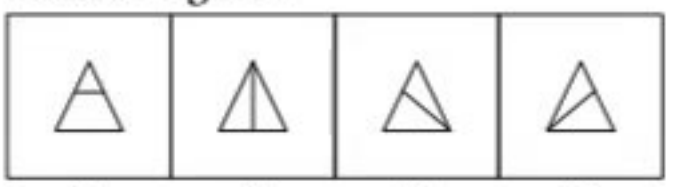
13.



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

Problem Figure **Answer Figures**

14.



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

15.

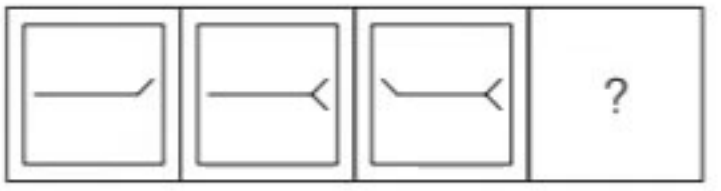
(1) (2) (3) (4)

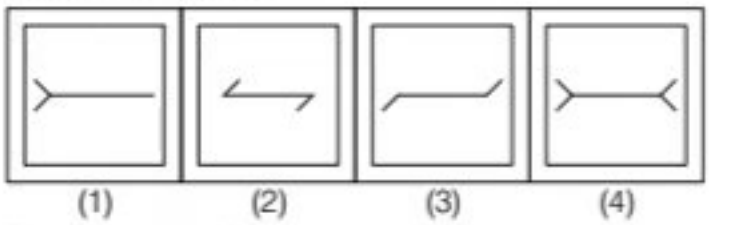
Part IV

Directions (Q. Nos. 16-20) *In the following questions, there are three problem figures and the space for the fourth figure. The problem figures are in a series. Find out one figure from among the answer figures which occupies the blank space for the fourth figure and which completes the series.*

Problem Figures **Answer Figures**

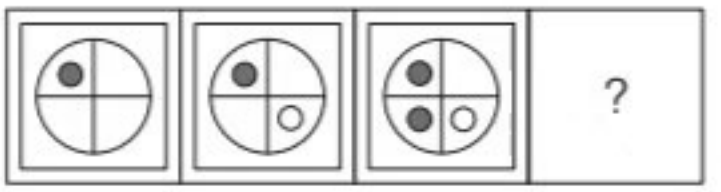
16.

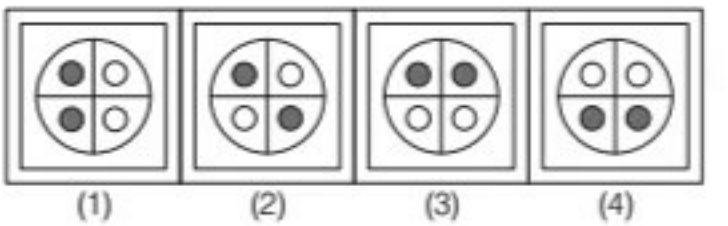




(1) (2) (3) (4)

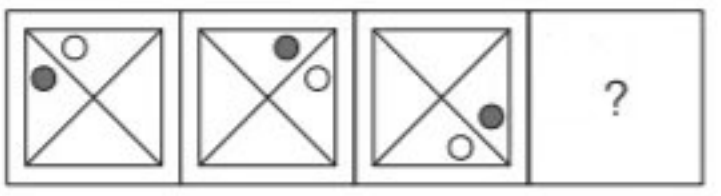
17.

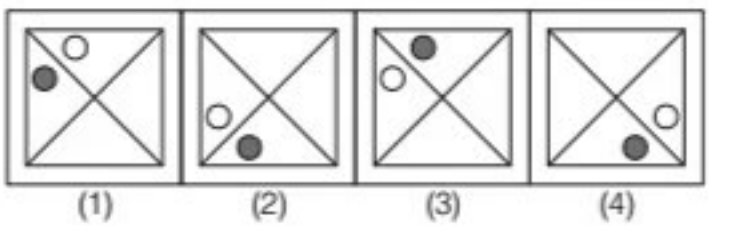




(1) (2) (3) (4)

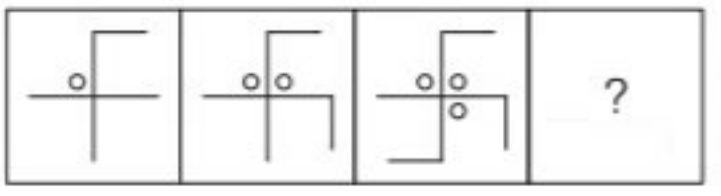
18.

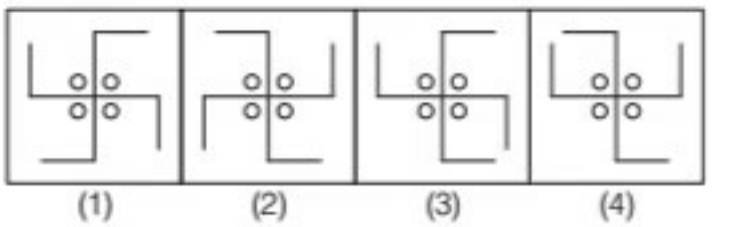




(1) (2) (3) (4)

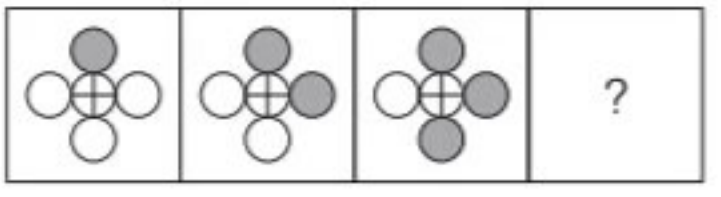
19.

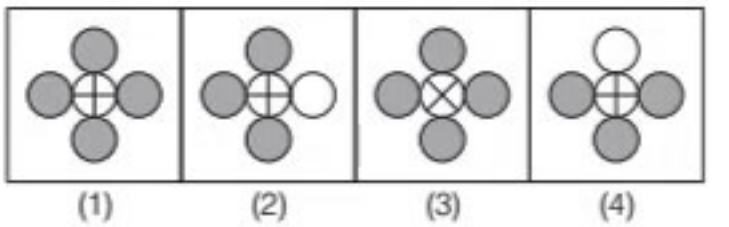




(1) (2) (3) (4)

20.





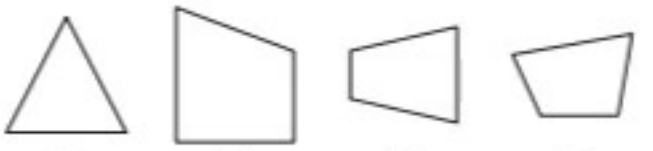
(1) (2) (3) (4)

Part V

Directions (Q. Nos. 21-25) *In the following questions, one part of a square is given on the left hand side and the other one is among the four figures* (1), (2), (3) *and* (4) *given on the right hand side. Find the figure on the right hand side that completes the square.*

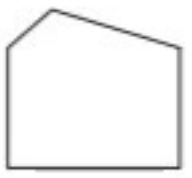
Problem Figure **Answer Figures**

21.



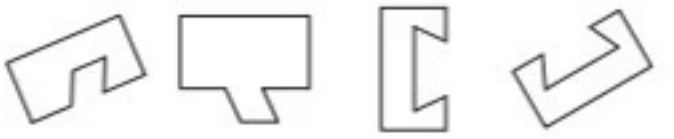
(1) (2) (3) (4)

22.



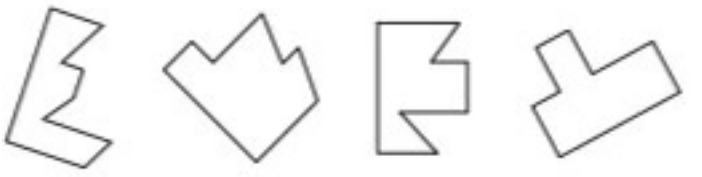
(1) (2) (3) (4)

23.



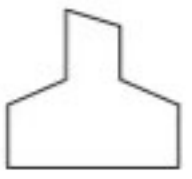
(1) (2) (3) (4)

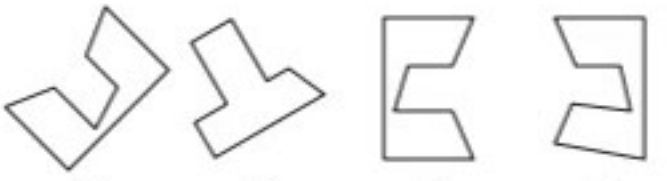
24.



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

25.





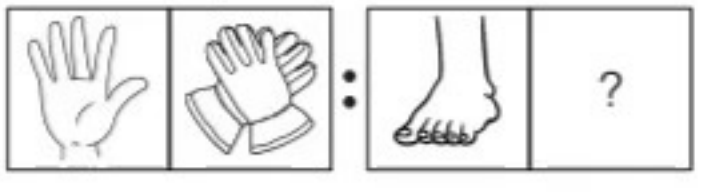
(1) (2) (3) (4)

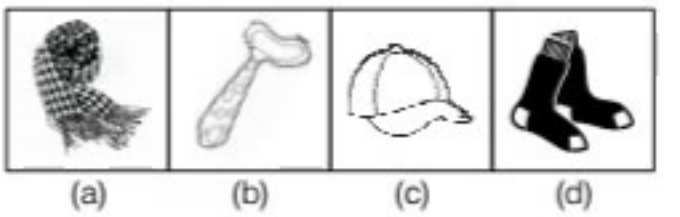
Part VI

Directions (Q. Nos. 26-30) *In the following questions, three problem figures are given. There is some relationship between the first and second figures. Same relationship should exist between the third and fourth figures. Fourth space is blank. Select the figures from the answer figure.*

Problem Figures **Answer Figures**

26.

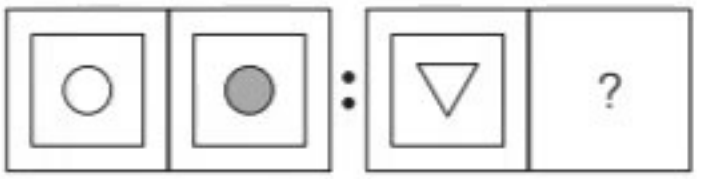


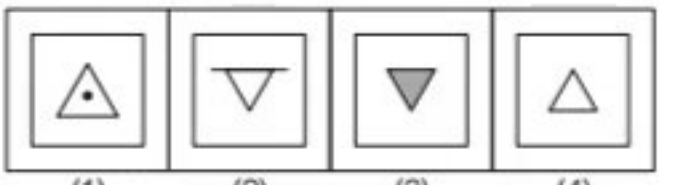


(a) (b) (c) (d)

Problem Figures **Answer Figures**

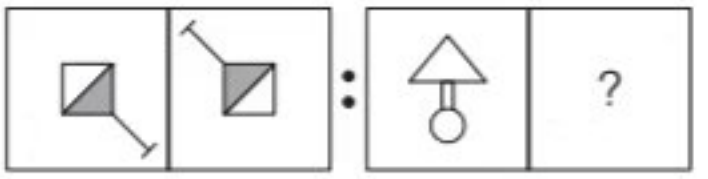
27.





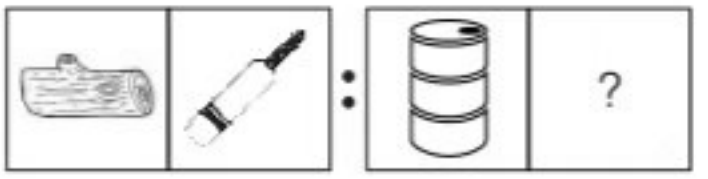
(1) (2) (3) (4)

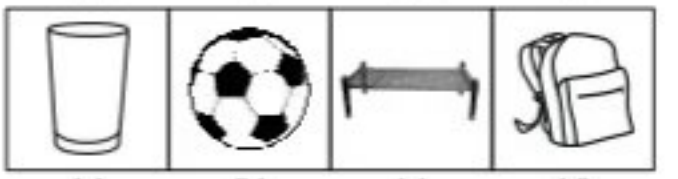
28.



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

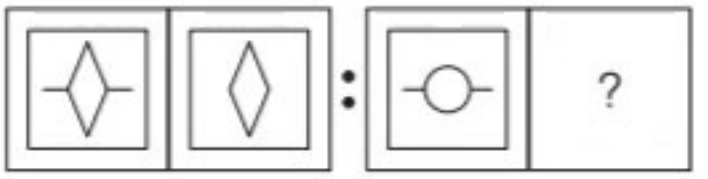
29.

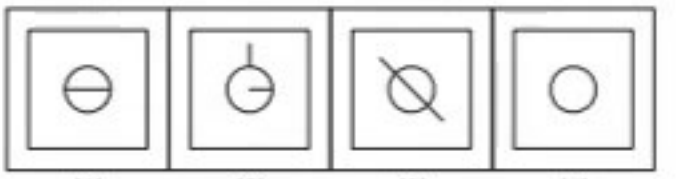




(a) (b) (c) (d)

30.





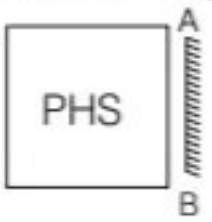
(1) (2) (3) (4)

Part VII

Directions (Q. Nos. 31-35) *In the given questions, there is a problem figure and four answer figures* (1), (2), (3) *and* (4). *Find out the correct figure when a mirror is held on* AB *line.*

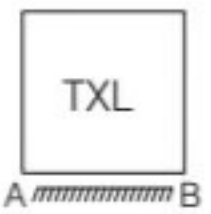
Problem Figure **Answer Figures**

31.



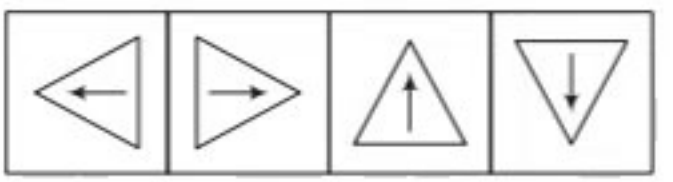
(1) (2) (3) (4)

32.



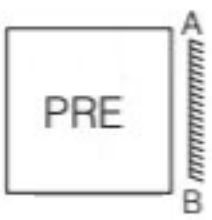
(1) (2) (3) (4)

33.



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

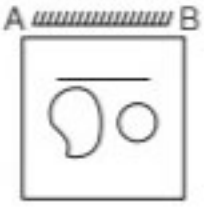
34.



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

Problem Figure **Answer Figures**

35. A B



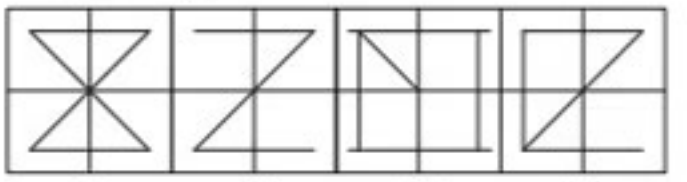
(1) (2) (3) (4)

Part VIII

Directions (Q. Nos. 36-40) *In the given questions, there is a problem figure and four answer figures* (1), (2), (3) *and* (4). *Select the one in which the problem figure is hidden?*

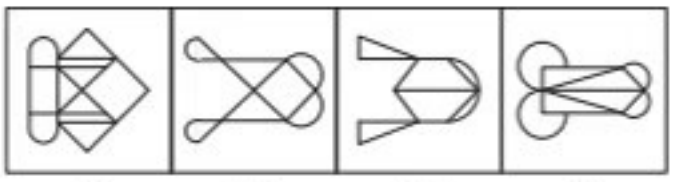
Problem Figure **Answer Figures**

36.



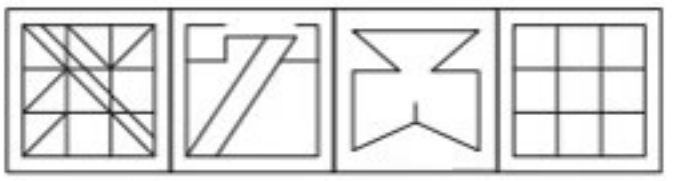
(1) (2) (3) (4)

37.



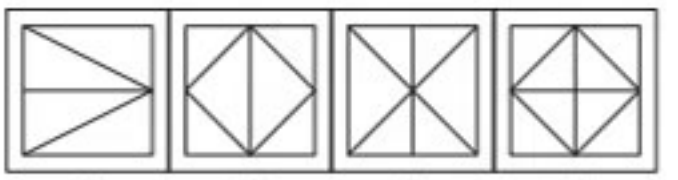
(1) (2) (3) (4)

38.



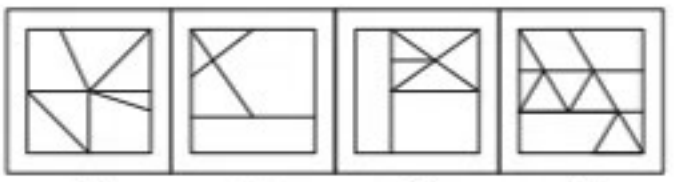
(1) (2) (3) (4)

39.



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

40.



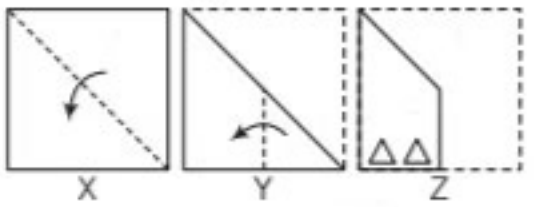
(1) (2) (3) (4)

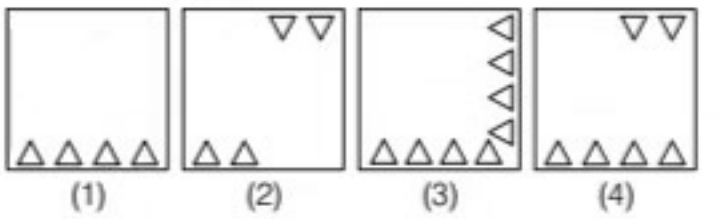
Part IX

Directions (Q. Nos. 41-45) *In each the following questions, a set of figures have been given showing a sequence in which paper is folded and finally cut from a particular or section. Below these figures a set of answer figures* (1), (2), (3) *and* (4) *showing the design which the paper actually acquires when it is unfolded. Choose the correct answer figures.*

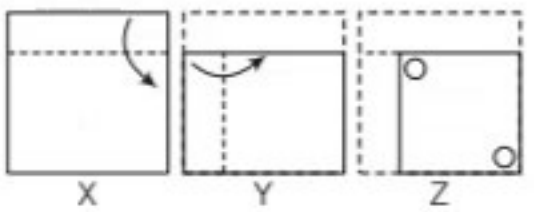
Problem Figures **Answer Figures**

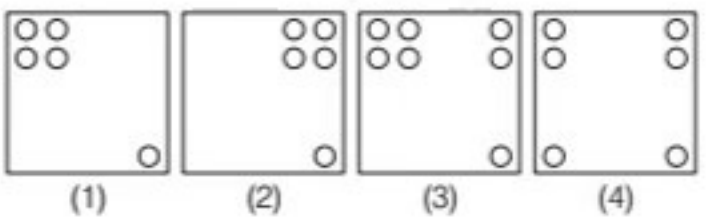
41.



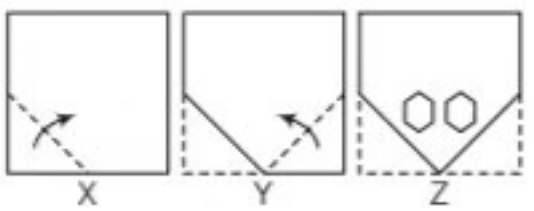


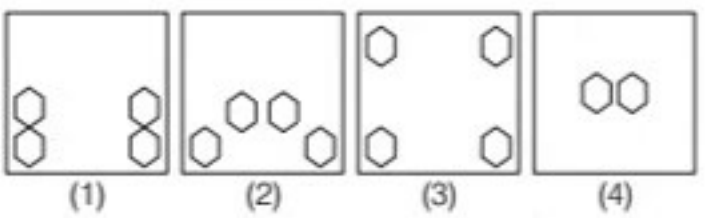
42.



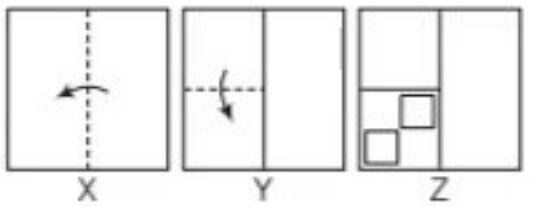


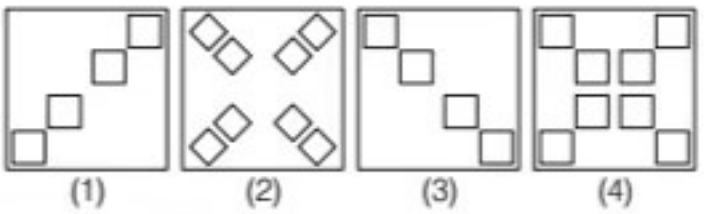
43.





44.





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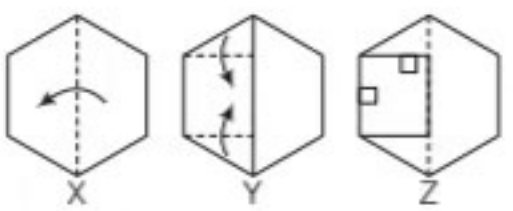
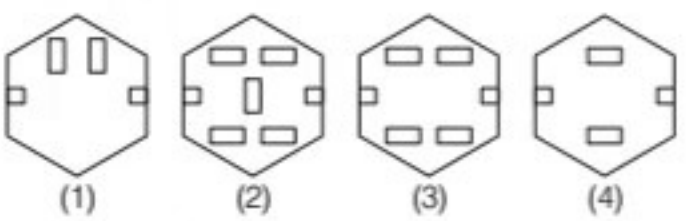


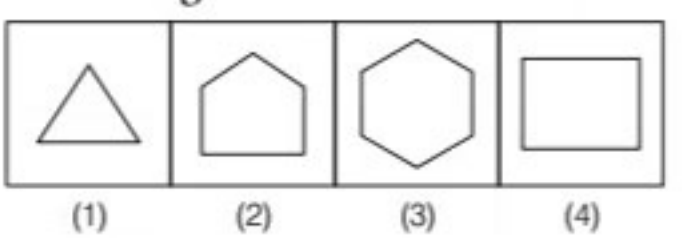


Part X

Directions (Q. Nos. 46-50) *In the given questions, there is a problem figures, observe the answer figures* (1), (2), (3) *and* (4) *and find out the answer figure which can be formed from the cut pieces of problem figures?*

Problem Figure **Answer Figures**

46.

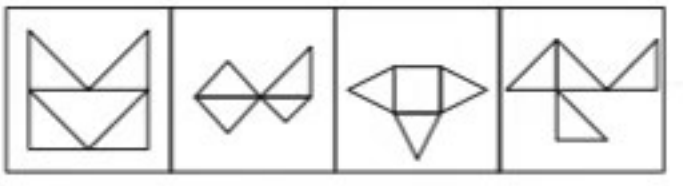


Problem Figure **Answer Figures**

47.

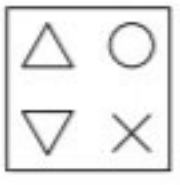
(1) (2) (3) (4)

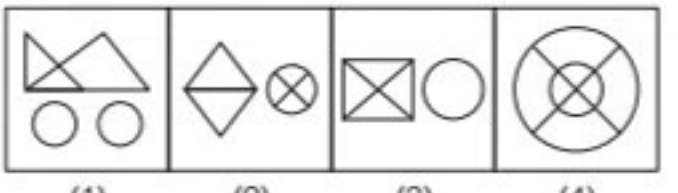
48.



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

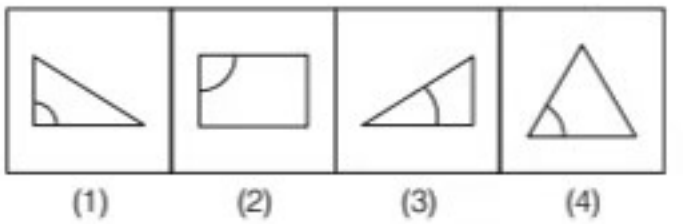
49.





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

50.



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

Section II Arithmetic Test

51. Read the given information carefully and answer the question.

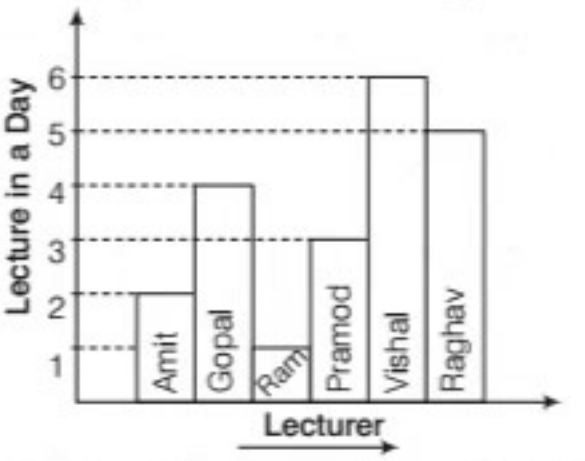
Months	Sold Bananas
March	▩ ▩ ▩ ▩ ▩ ▩
April	▩ ▩ ▩
May	▩ ▩ ▩ ▩ ▩
June	▩ ▩
July	▩ ▩ ▩ ▩ ▩ ▩ ▩

[Here, ▩ = 5 dozen]

What is the number of sold bananas during the given months?

(1) 1180 (2) 1380
(3) 1250 (4) 1450

52. Study the graph and answer the question.



What is the difference between the lecture taken by Amit and Raghav to the Gopal and Pramod during a week?

(1) 42 (2) 7 (3) 35 (4) 0

53. The area of square, whose perimeter is 48 m is
(1) 48 m^2 (2) 144 m^2 (3) 1152 m^2 (4) 2304 m^2

54. The average of 20 values is 18. If 3 is subtracted from each of the values, then the new average will be
(1) 21 (2) 15 (3) 16 (4) 17

55. Two numbers are in the ratio 2 : 3. If 9 is added to each, they will be in the ratio 3 : 4, the numbers are
(1) 12, 28 (2) 18, 27 (3) 8, 12 (4) 10, 15

56. What is the volume of a box whose each edge measures 3 m in length?
(1) 54 cu m (2) 27 cu m (3) 18 cu m (4) 9 cu m

57. A bus starts at 9 : 10 am from Delhi and reaches Chandigarh at 4 : 20 pm. The total time in this journey is
(1) 7 h 10 min (2) rightly 7 h
(3) 6 h 30 min (4) 7 h 20 min

58. A student scored 18 marks out of 25 marks in the first test of Math. In the second test he scored 22 marks in the second test exceeds his first test by
(1) 4% (2) 8% (3) 16% (4) 80%

59. By selling a dozen pencil at the cost of ₹ 30, the shopkeeper gains ₹ 10. His percentage of profit was
(1) 20 (2) 35 (3) 50 (4) 66

60. A drum is $\frac{2}{3}$ full, if 50 L more required to fill it up, how much is the capacity of the drum?
(1) 150 L (2) 120 L (3) 100 L (4) 90 L

61. A train is running at a uniform speed of 75 km/h. How much time does it take to cover a distance of 350 km?
(1) 4 h (2) 5 h
(3) 4 h 30 min (4) 4 h 40 min

62. A person borrowed a sum of ₹ 20000 for 2 yr on simple interest. He had to repay ₹ 24800 including interest after 2 yr. The rate of interest per annum was
(1) 48% (2) 24% (3) 12% (4) 6%

63. $\frac{1}{3}$ of a certain journey is covered at the rate of 25 km/h, $\frac{1}{4}$ at the rate of 30 km/h and the rest of 50 km/h. What is the average speed for the whole journey?
(1) 30 km/h (2) 33 km/h (3) $33\frac{1}{3}$ km/h (4) 32 km/h

64. Simplify

$$\frac{\frac{7}{3} \times \frac{2}{3} \div \frac{3}{5}}{2 + 1\frac{2}{3}}$$

(1) 99/70 (2) 70/99
(3) 33/30 (4) 70/27

65. After allowing a discount of 18%, a washing machine is available for ₹ 13489. What is the marked price of the washing machine?
(1) ₹ 16540 (2) ₹ 15450
(3) ₹ 16450 (4) ₹ 15540

66. 90% of 300 + 30% of 90 is equal to
(1) 287 (2) 297
(3) 237 (4) 277

67. The HCF of two numbers is 38 and their LCM is 98154. If one of the number is 1558. The other number is
(1) 1197 (2) 2394
(3) 4932 (4) 2384

68. A school collected ₹ 2304 as fees from its students. If each student paid as many as there were students in the school, how many students were there in the school?
(1) 240 (2) 460
(3) 480 (4) 440

69. Next term of 258, 130, 66, 34, 18, ... is
(1) 12 (2) 10
(3) 8 (4) 13

70. The product of two decimals is 20.7326. If one decimal is 4.13, what is the other decimal?
(1) 5.12 (2) 4.82
(3) 5.23 (4) 5.02

71. In an annual examination, Hardik got 500 marks out of 725. What is his approximate per cent in the examination?
(1) 88 (2) 79
(3) 54 (4) 70

72. Find the average of the following set of scores 567, 434, 323, 290, 401
(1) 398 (2) 412
(3) 407 (4) 403

73. *A*, *B* and *C* 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

74. There are 3450 employees in an organisation. Out of which 42% got promoted. How many such employees are there who got promoted?
(1) 1449 (2) 1518
(3) 1587 (4) 1656

75. The mean of 20 observations was found to be 65 but later on it was found that 69 was misread as 96. Find the correct mean.
(1) 63.65 (2) 12.37
(3) 69.50 (4) 65.95

Section III Language Test (English)

Directions (Q. Nos. 76-100) *There are five passages in this section. Each passage is followed by five questions. Read each passage carefully and answer the questions that follow. For each questions four probable answer bearing* (1), (2), (3) *and* (4) *are given. Only one out of these is correct. You have to choose the correct answer.*

Passage 1

Among the major tasks before us, none is of greater importance for our strength and stability than the task of building up the unity and solidarity of our people. Our country often stood like a solid rock in the face of common danger and there is a deep underlying unity which runs like a golden thread through all our seeming diversity. There have been occasions when unfortunate and disturbing divisions, some of them accompanied by violence, have appeared in our society.

Political democracy and the way it has functioned in our country is surely a great achievement. Here again we owe an immeasurable debt to Shri J L Nehruji for his deep attachment to democracy as a form of government and as a way of life. There is something in our older cultural heritage too. I have particularly in view that enduring strength in Indian life which can best be described as respect for human personality and the spirit of tolerance. I have no doubt in my mind that it is only by methods of persuasion and mutual accommodation and by a constant search for areas of agreement as the basis for action, that democracy and work. It is in this spirit that I shall devote myself to the duties and responsibilities of the office I have been called upon to fill.

76. The writer thinks that
(1) we have never faced dangers
(2) in our country there is unity underlying diversity
(3) our society is tribal in organisation
(4) stability of the nation depends upon many factors

77. The author believes that democracy can work
(1) if leaders are honest
(2) if people participate
(3) if method of persuasion and mutual adjustment are employed
(4) if people have faith in democracy

78. What is the permanent trend in Indian life?
(1) Respect for human personality
(2) Love for animals
(3) Worship of nature
(4) Hero-worshipping

79. Shri Nehru was deeply attached to
(1) democracy as a way of life
(2) democracy of the Western
(3) democracy which emerges from our culture
(4) the Indian way of living

80. The writer wants to work for
(1) just economic forces (2) just social order
(3) democratic forces (4) None of these

Passage 2

Desert is a place where there is sand all-around. It is a hot and dry place. There is very little rain in deserts. So, very few trees grow there. The only plants that grow in the deserts are cactus, date palms and thorny bushes which do not need much water to grow.

The Sahara is the biggest desert in the world. It stretches across the whole of North Africa. The Arabian desert is also a very large desert. In India too, there is a desert called Thar desert in Rajasthan. Life in a desert is tough. The days are very hot and nights are cool.

81. The biggest desert in the world is in
(1) India (2) Africa
(3) Arabia (4) America

82. In desert regions
(1) there is no rainfall (2) it rains heavily
(3) there is enough rain (4) there is a little rain

83. The climate in a desert is
(1) pleasant (2) difficult
(3) comfortable (4) cold

84. Date palms grow in
(1) plains
(2) hilly regions
(3) deserts
(4) snowy regions

85. Very few trees grow in deserts because
(1) most trees need water to grow
(2) there is sand all-around
(3) nights are very cold
(4) there is no one to take care of trees

Passage 3

About three hundred and fifty years age there lived in India an Emperor called Shah Jahan. He had a beautiful and intelligent wife, whom he loved very much. Her name was Mumtaz Mahal; its shortened form, Taj Mahal, means 'pride of the palace'. In the year 1630 this beloved wife of the emperor died. The emperor decided, out of love for his wife, to build her the most beautiful tomb that had ever been seen. Shah Jahan gathered the best artists and architects from India, Turkey, Persia and Arabia to design the building. It took more than 20000 men working over a period of 18 years to build the Taj Mahal, perhaps the most beautiful building in India.

86. Which of the following is the work of an 'architect'?
(1) To advise the king
(2) To build a palace
(3) To design a building
(4) To supervise cooking of meals

87. People consider Taj Mahal as
(1) a large river
(2) the most beautiful building in India
(3) a very tall building
(4) a memory of an emperor

88. Which one of the statements agrees with the paragraph?
(1) Shah Jahan wanted to build a palace for himself
(2) Artists and Architects from India asked Shah Jahan to give them work
(3) 'Pride of the palace' means 'Shah Jahan'
(4) Shah Jahan decided to build a beautiful tomb for his beloved wife

89. Which one of the following pairs is not associated with buildings?
(1) Painters and carpenters
(2) Teachers and doctors
(3) Architects and engineers
(4) Masons and plumbers

90. Taj Mahal was built
(1) out of love for Mumtaz Mahal
(2) because Mumtaz Mahal was intelligent
(3) to let the world know that Mumtaz Mahal was beautiful
(4) to protect Mumtaz Mahal from his enemies

Passage 4

Since, the most ancient times, India has been not only periodically invaded by greedy hordes but also visited by tradesman and travellers, scholars and sight-seers. Some of them have written books. The books of these writers become all the more important because there were not too many of them and they have served as rich sources for the historian. It is especially in this context that observations provided by the great Chinese writer Hiuen Tsang become very relevant.

Already in the 7th century, Buddhism was a powerful cultural force among the educated classes of China. It was common for Chinese pilgrims to come to India, the native land of the Buddha, to pay their respects to the founder of their religion. Perhaps the most famous of them all was this gentle observer who had studied and travelled extensively in China before entering the Indian sub-continent. Being both scholar and sophisticated, he was not given to easy praise. Within India itself he traversed deserts and climbed mountains, stayed in villages and lived in capitals, practised in monasteries and studied in universities and spent time in some royal courts as well.

91. Why are the writings of Hiuen Tsang considered as relevant?
(1) He had spent sometime in some royal courts
(2) He visited India as a trader and sight-seer
(3) He had travelled to many Asian countries
(4) He was a gentle observer

92. Chinese pilgrims commonly come to visit
(1) mountains
(2) villages
(3) deserts
(4) the native land of Buddha

93. What probably prompted Hiuen Tsang to travel to India?
(1) To study influence of Buddhism on Hindu religion
(2) To spread his religion in India
(3) To undertake pilgrimage and enhance knowledge
(4) To study the powerful cultural force in India

94. In the most ancient times, India was visited by except
(1) scholars (2) tradesman
(3) farmers (4) sight-seers

95. Hiuen Tsang did all of the following travel in India except
(1) travelled in deserts
(2) lived in villages
(3) followed the schedule in Monasteries
(4) taught in the university

Passage 5

Man-made satellites play a very important role in the modern man's world today. It helps in the study of space which has fascinated and inspired people for centuries and also helps us to find out more about the Earth and our Solar system. Advances in satellite technology have diversified to such an extent that it has improved our quality of life. Satellites help us communicate with people anywhere in the world, forecast weather, look at climate change and monitor disaster. Almost everyone today use satellite technology. Paying by credit card, or using an ATM machine-all involve satellite technology. Thus satellites have become an integral part of present-day man.

96. Satellites help in the study of
(1) animals (2) space
(3) plastics (4) bacteria

97. The word 'fascinated' used in the paragraph means
(1) pleased (2) interested
(3) affected (4) enthused

98. Which of the following sequences is correct as mentioned in the paragraph?
(1) Technology—Monitor—Study
(2) Monitor—Study—Technology
(3) Study—Monitor—Technology
(4) Technology—Study—Monitor

99. The phrase 'present-day man' means
(1) man who is present (2) man present everyday
(3) man of everyday (4) man of today

100. Satellite technology cannot be used for
(1) speaking to a friend in America
(2) washing and drying clothes
(3) taking out money from a bank
(4) warning against a storm

Answers

1. (2)	**2.** (3)	**3.** (4)	**4.** (4)	**5.** (3)	**6.** (3)	**7.** (2)	**8.** (4)	**9.** (1)	**10.** (2)
11. (4)	**12.** (2)	**13.** (3)	**14.** (3)	**15.** (1)	**16.** (4)	**17.** (1)	**18.** (2)	**19.** (1)	**20.** (1)
21. (2)	**22.** (4)	**23.** (2)	**24.** (2)	**25.** (3)	**26.** (4)	**27.** (3)	**28.** (1)	**29.** (3)	**30.** (4)
31. (4)	**32.** (3)	**33.** (4)	**34.** (1)	**35.** (4)	**36.** (1)	**37.** (3)	**38.** (1)	**39.** (3)	**40.** (1)
41. (3)	**42.** (1)	**43.** (2)	**44.** (4)	**45.** (1)	**46.** (3)	**47.** (1)	**48.** (1)	**49.** (2)	**50.** (4)
51. (2)	**52.** (4)	**53.** (2)	**54.** (2)	**55.** (2)	**56.** (2)	**57.** (1)	**58.** (4)	**59.** (3)	**60.** (1)
61. (4)	**62.** (3)	**63.** (3)	**64.** (2)	**65.** (3)	**66.** (2)	**67.** (2)	**68.** (3)	**69.** (2)	**70.** (4)
71. (4)	**72.** (4)	**73.** (2)	**74.** (1)	**75.** (1)	**76.** (2)	**77.** (3)	**78.** (1)	**79.** (1)	**80.** (2)
81. (2)	**82.** (4)	**83.** (2)	**84.** (3)	**85.** (1)	**86.** (3)	**87.** (2)	**88.** (4)	**89.** (2)	**90.** (1)
91. (4)	**92.** (4)	**93.** (3)	**94.** (3)	**95.** (4)	**96.** (2)	**97.** (2)	**98.** (3)	**99.** (4)	**100.** (2)

Hints and Solutions

1. All figures in serial numbers (1), (3) and (4) have two parallel lines drawn horizontally but in figure (2) the parallel lines are drawn vertically, therefore figure (2) is different from other remaining figures.
2. In the given figures all figures are quadrilaterals but figure (3) is a triangle. Therefore, figure (3) is different from other figures.
3. Considering the positions of two black small circles figure (4) is different from other figures.
4. All figures, have straight lines but figure (4) has a curved line which is different than the other figure.
5. A small circle has been drawn inside the figures in serial number (1), (2) and (4). But in figure (3) a small triangle has been drawn inside the figure (3).
6. Answer figure (3) resembles completely with the given problem figure.
7. In the problem figure the square has been divided into four equal parts by joining the mid points of the opposite sides. A 'W' type figure has been drawn at the centre of the square. Answer figure (2) resembles with the problem figure.
8. In problem figure signs of multiplication and addition are drawn under curved loop. Answer figure (4) resembles with the problem figure.
9. In the problem figure two diagonals of a square have been drawn intersecting each other. Mid point of the portion of the diagonals lying between the point of intersection and the upper are joined with two lines with the opposite vertices. The pattern in answer figure (1) resembles with the problem figure.
10. In the problem figure a blackened circle is followed by an empty circle. An arrow has been drawn horizontally pointing towards empty circle. The same figure pattern has been repeated in answer figure (2).
11. In the given pattern of the problem figure the missing part of this figure can be filled by answer figure (4) without changing the direction.
12. Shift answer figure (2) and put it on the missing part of the problem figure, it will complete the problem figure.
13. In the given positions of blackened circle and empty circle. In answer figure (3) will complete the given problem figure.
14. In the given problem figure answer figure (3) will complete the missing part of the problem figure.
15. Shift answer figure (1) on the missing part of the problem figure, if will complete the problem figure.
16. In problem figures one small lines are increasing in each problem figure. Therefore, answer figure (4) will occupy in the blank space.
17. Answer figure (1) will occupy the blank space.
18. In problem figures circles are moving in clockwise direction. Therefore, answer figure (2) will occupy the blank space.
19. In problem figures one small line and a small circle is increasing by one in subsequent figures. Therefore, answer figure (1) will occupy the blank space.
20. In problem figures the number of black shaded circles are increasing by (1) starting from zero. Therefore, answer figure (1) will occupy the blank space.
21. The square of the problem figure can be completed by turning the answer figure (2).
22. Answer figure (4) will be the correct figure which complete the square of the problem figure.
23. For completing the square of the problem figure, answer figure (2) should be turned and placed on the square.
24. For completing the problem figures, turn answer figure (2) and put it on the problem figure, we get the complete square of the problem figure.
25. Answer figure (3) will complete the square of the problem figure by shifting and turning.
26. As, men wear kurta, in the same way women wear saree.
27. As in problem figure (1) to (2), innermost design getting shade, in the same way changes occur in problem figure (3) to produce answer figure (3).
28. As in problem figure (1) to (2), whole figure rotate in either direction, in the same way changes occurs in problem figure (3) to produce answer figure (1).
29. As in problem figure (1) to (2), there is an increase of one design, in the same way changes occur in problem figure (3) to produce the answer figure (3).
30. As in problem figure (1) to (2), the two smaller lines adjoining main figure is disappeared, in the same way changes occur in problem figure (3), to produce the answer figure (4).

51. Number of sold bananas in March
$= 6 \times 12 \times 5 = 360$ bananas
Number of sold bananas in April
$= 3 \times 12 \times 5 = 180$ bananas
Number of sold bananas in May
$= 5 \times 12 \times 5 = 300$ bananas
Number of sold bananas in June
$= 2 \times 12 \times 5 = 120$ bananas
Number of sold bananas in July
$= 7 \times 12 \times 5 = 420$ bananas
Hence, number of sold bananas
$= 360 + 180 + 300 + 120 + 420$
$= 1380$ bananas

52. Lectures taken by Amit in a day = 2
Lectures taken by Raghav in a day = 5
Total number of lectures by Amit and Raghav
$= 2 + 5 = 7$
Total number of lectures in a week $= 7 \times 6 = 42$
Lectures taken by Gopal in a day = 4
Lectures taken by Pramod in a day = 3
Total number of lectures by Gopal and Pramod
$= 4 + 3 = 7$
Total number of lectures by Gopal and Pramod in a week $= 7 \times 6 = 42$
$\therefore$ Required difference $= 42 - 42 = 0$

53. Side of the square $= \frac{\text{Perimeter}}{4} = \frac{48}{4} = 12$ m
Area of the square = Side × Side
$= 12 \times 12 = 144\ m^2$

54. Previous total $= 20 \times 18 = 360$
New case $= 360 - 3 \times 20 = 360 - 60 = 300$
$\therefore$ New average $= \frac{300}{20} = 15$

55. Let numbers be $2x$ and $3x$
Then, $\frac{2x+9}{3x+9} = \frac{3}{4}$
$\Rightarrow \quad 4(2x + 9) = 3(3x + 9)$
$\Rightarrow \quad 8x + 36 = 9x + 27$
$\Rightarrow \quad 9x - 8x = 36 - 27 \Rightarrow x = 9$
$\therefore$ Numbers are $2 \times 9 = 18$
and $3 \times 9 = 27$

56. Volume of the box $= 3 \times 3 \times 3 = 27$ cu m

57. Time of start from Delhi = 9 : 10 am
Reaching time at Chandigarh = 4 : 20 pm
Time from 9 : 10 to 12 : 00 = 2 h 50 min
From 12 : 00 to 4 : 20 = 4 h 20 min
Total time taken = 7 h 10 min

58. Marks in Ist test = 18
Marks in IInd test = 22
Marks in (I + II) test = 18 + 22 = 40
Max. Marks = 25 + 25 = 50
$\because$ Marks in 50 = 40
$\therefore$ Marks in Percentage $= 40 \times 2 = 80\%$

59. Cost price = 30 – 10 = ₹ 20
$$\text{Percentage profit} = \frac{\text{Profit} \times 100}{\text{Cost price}}$$
$$= \frac{10 \times 100}{20} = 50\%$$

60. $\because$ Empty part of the drum $= 1 - \frac{2}{3} = \frac{1}{3}$
If $\frac{1}{3}$ part requires = 50 L
Then, 1 part requires $= 50 \div \frac{1}{3} = 50 \times 3 = 150$ L

61. Time $= \frac{\text{Distance}}{\text{Speed}} = \frac{350}{75} = \frac{14}{3}$ h $= 4\frac{2}{3}$ h = 4 h 40 min

62. $\because$ Amount = ₹ 24800
Principal = ₹ 20000
$\therefore$ SI = Amount – Principal = 24800 – 20000
= ₹ 4800
$$\text{Rate of interest} = \frac{SI \times 100}{P \times T}$$
$$= \frac{4800 \times 100}{20000 \times 2} = 12\%$$

63. Let the total journey be x km.
Then, $\frac{x}{3}$ is covered at 25 km/h, $\frac{x}{4}$ is at 30 km/h
$$\text{Rest of the distance} = x - \frac{x}{3} - \frac{x}{4}$$
$$= \frac{12x - 4x - 3x}{12} = \frac{5x}{12}$$
at the speed of 50 km/h
$\therefore$ Total time of journey
$$= \frac{x}{75} + \frac{x}{120} + \frac{5x}{12 \times 50}$$
$$= \frac{18x}{600} = \frac{3x}{100} \text{ h}$$
$$\text{Average speed} = \frac{x}{\frac{3x}{100}} = \frac{100}{3} = 33\frac{1}{3} \text{ km/h}$$

64. $$\frac{\frac{7}{3} \times \frac{2}{3} \div \frac{3}{5}}{2 + 1\frac{2}{3}} = \frac{\frac{7}{3} \times \frac{2}{3} \times \frac{5}{3}}{2 + \frac{5}{3}} = \frac{\frac{70}{27}}{\frac{11}{3}}$$
$$= \frac{70 \times 3}{27 \times 11} = \frac{70}{99}$$

65. Selling price of washing machine = ₹ 13489

Discount allowed = 18%

Let marked price of washing machine be ₹ x.

$\therefore \quad x - \frac{18x}{100} = 13489$

$\Rightarrow \quad \frac{82x}{100} = 13489$

$\Rightarrow \quad x = \frac{13489 \times 100}{82}$

$\therefore \quad$ = ₹ 16450

66. 90% of 300 + 30% of 90

$= \frac{90 \times 300}{100} + \frac{30 \times 90}{100}$

$= 90 \times 3 + 3 \times 9$

$= 270 + 27 = 297$

67. Other number $= \frac{\text{HCF} \times \text{LCM}}{\text{First number}}$

$= \frac{38 \times 98154}{1558} = 2394$

68. Total money collected = ₹ 2304 = 230400 paise

As number of students = Money paid by students

$\therefore$ Number of students in school $= \sqrt{230400} = 480$

69. 258 → 130 → 66 → 34 → 18 → $\boxed{10}$

÷2+1 ÷2+1 ÷2+1 ÷2+1 ÷2+1

70. Suppose second decimal = x

Then, $x \times 4.13 = 20.7326$

$\Rightarrow \quad x = \frac{20.7326}{4.13} = 5.02$

71. Required percentage $= \frac{500}{725} \times 100 = 68.9 = 70$

72. Average $= \frac{567 + 434 + 323 + 290 + 401}{5}$

$= \frac{2015}{5} = 403$

73. B's share in the amount $= \frac{9861 \times 11}{19}$ = ₹ 5709

74. $3450 \times \frac{42}{100} = \frac{144900}{100} = 1449$ got promotion

75. $\frac{x}{20} = 65 \Rightarrow x = 1300$

According to the question, $96 - 69 = 27$

$\therefore \quad$ New $x = 1300 - 27 = 1273$

$\Rightarrow \quad \frac{1273}{20} = 63.65$

Jawahar Navodaya Vidyalaya

Class VI Entrance Exam

Solved Paper 2016

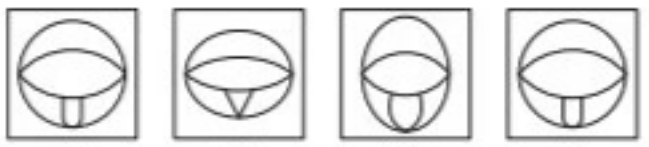
Exam Date 09-01-2016

Section I Mental Ability Test

Part I

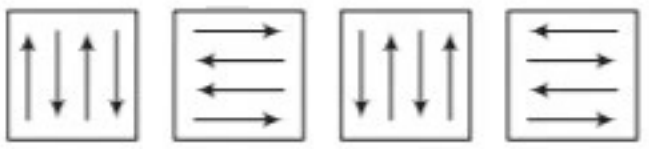
Directions (Q. Nos. 1-5) *There are four figures* (1), (2), (3) *and* (4). *Out of these four figures, three figures are similar but one figure is different. Spot out the different figure.*

1.



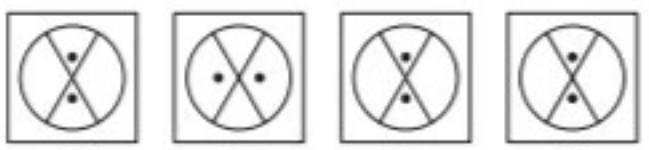
(1) (2) (3) (4)

2.



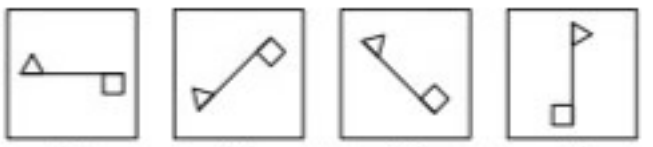
(1) (2) (3) (4)

3.



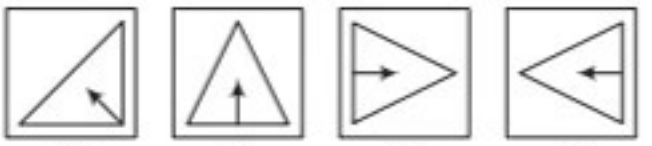
(1) (2) (3) (4)

4.



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

5.



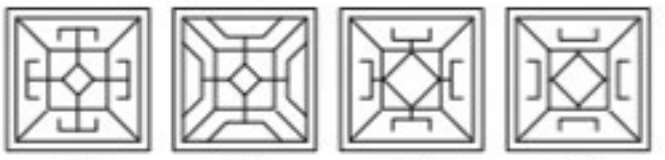
(1) (2) (3) (4)

Part II

Directions (Q. Nos. 6-10) *There is a given problem figure. There are four answer figures* (1), (2), (3) *and* (4). *You have to find out the answer figure which is similar to the given problem figure.*

6. Problem Figure

Answer Figures



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

7.

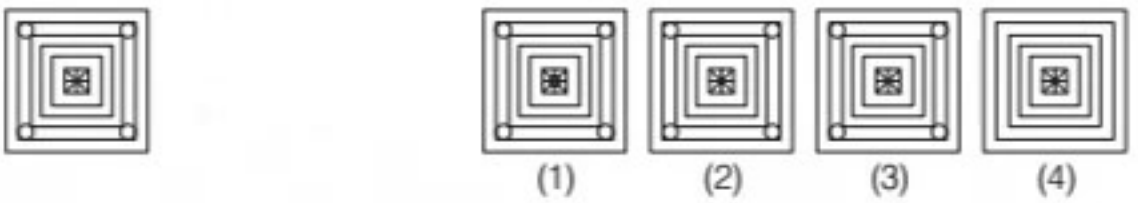
Problem Figure

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

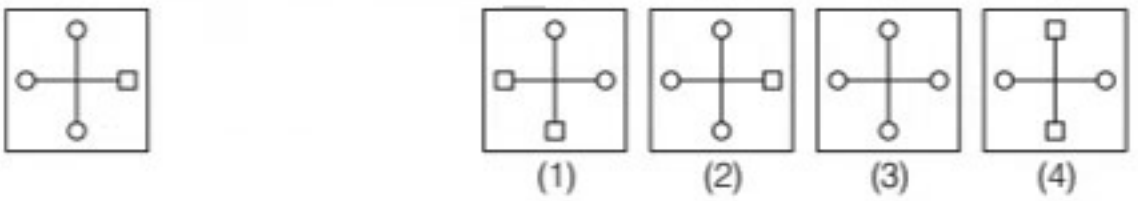
Answer Figures

Based on Memory

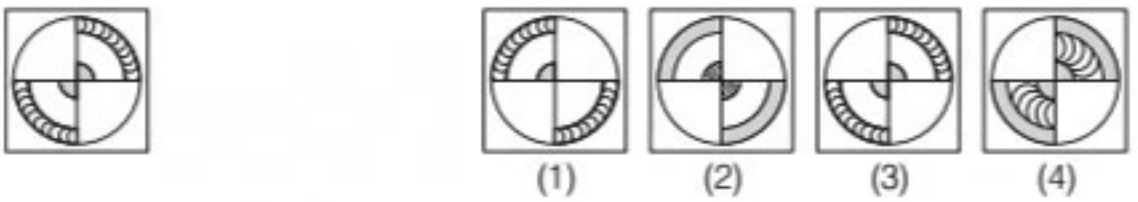
8.



9.



10.

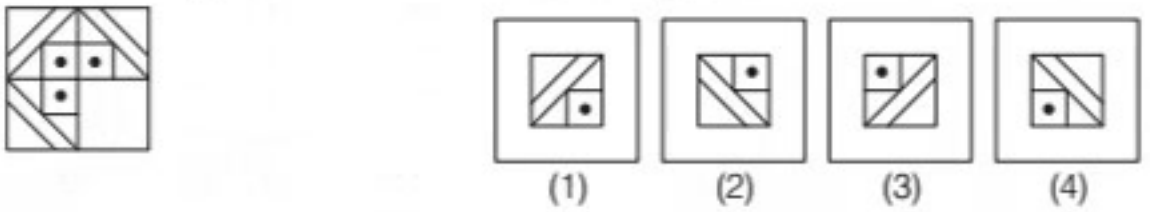


Part III

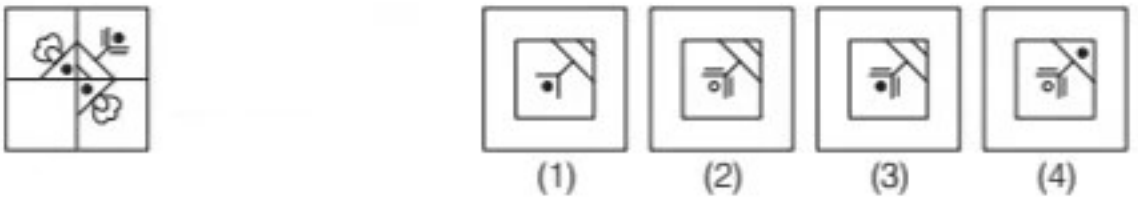
Directions (Q. Nos. 11-15) *There is a problem figure, a part of which is missing. Observe the answer figures* (1), (2), (3) *and* (4) *and find out the answer figure which without changing the direction, fits in the missing part in the problem figure in order to complete the pattern in the problem figure.*

Problem Figure **Answer Figures**

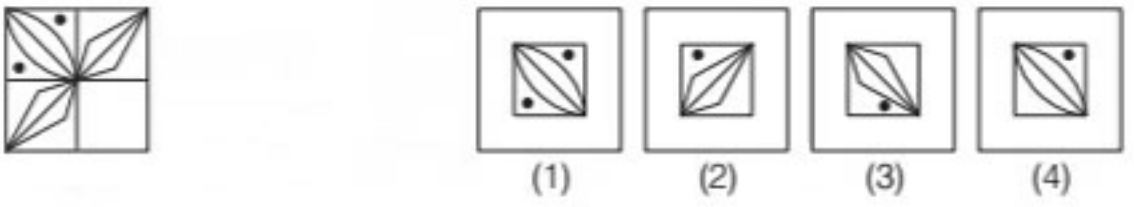
11.



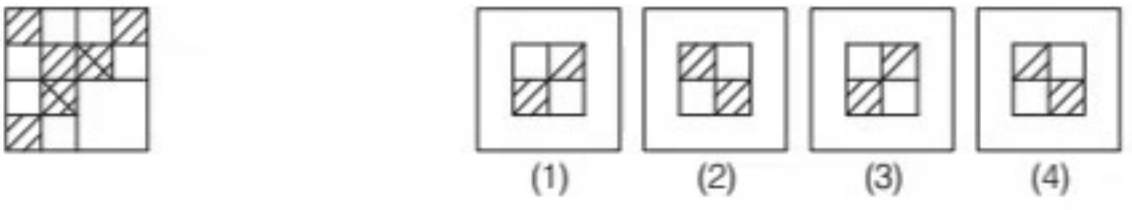
12.



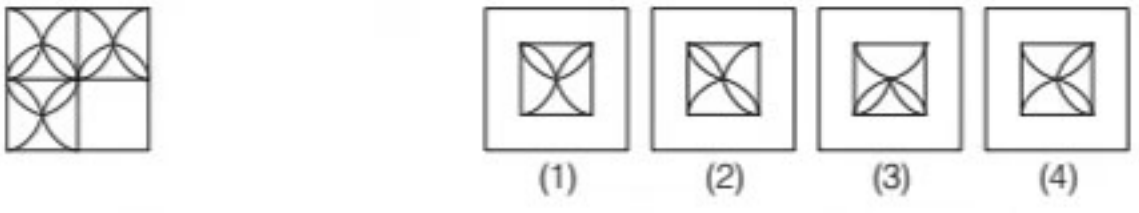
13.



14.



15.

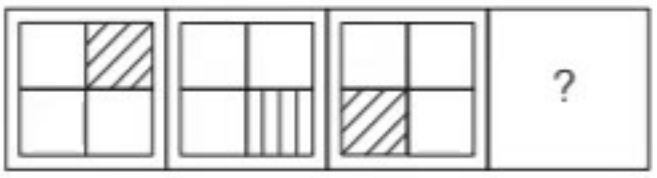


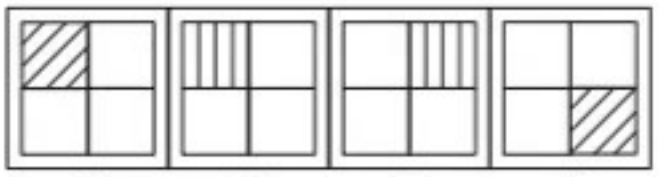
Part IV

Directions (Q. Nos. 16-20) *There are problem figures and the question mark (?) for fourth figure. The problem figures are in a series. Find out one figure among the answer figures which occupies the question mark (?) for the fourth figure and which completes the series.*

Problem Figures **Answer Figures**

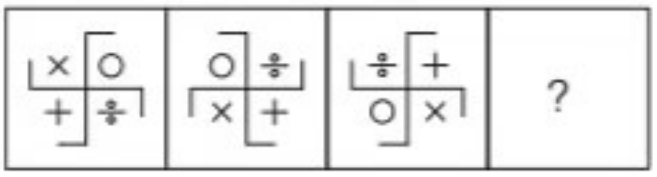
16.

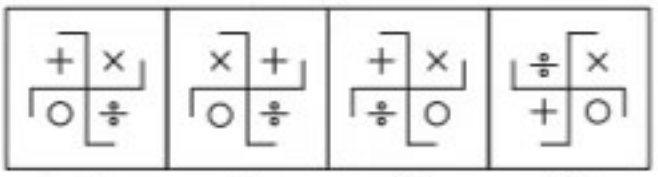




(1) (2) (3) (4)

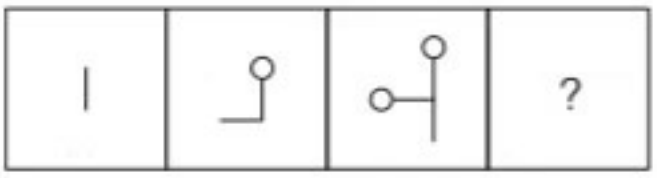
17.

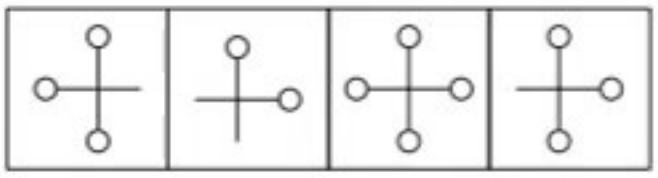




(1) (2) (3) (4)

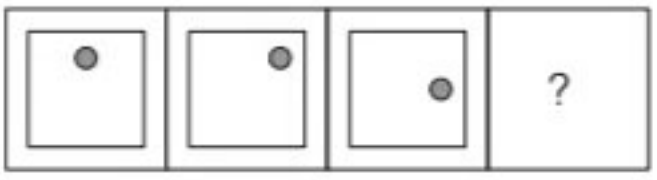
18.

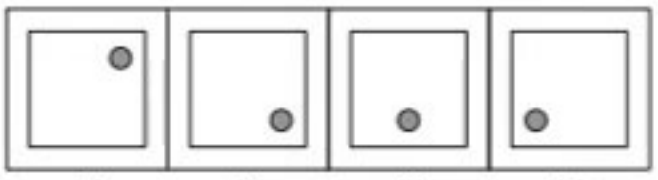




(1) (2) (3) (4)

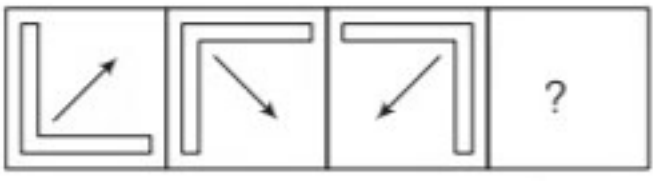
19.

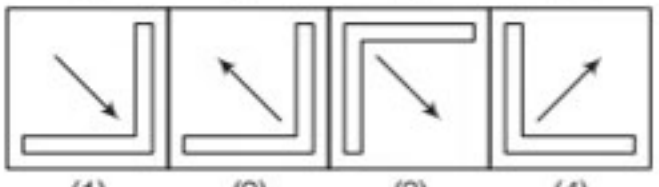




(1) (2) (3) (4)

20.





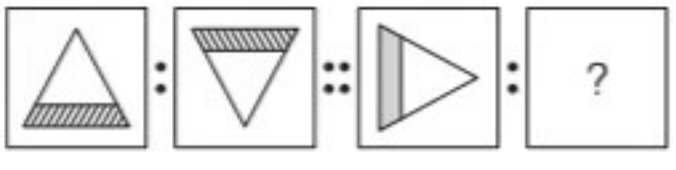
(1) (2) (3) (4)

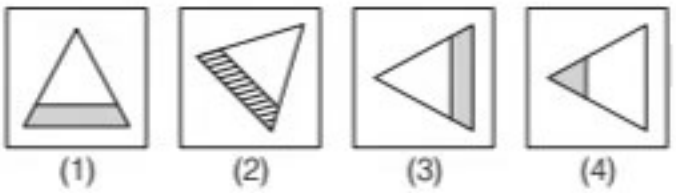
Part V

Directions (Q. Nos. 21-25) *There are three problem figures followed by a question mark (?) for the fourth one. There exists a relationship between first two problem figures. A similar relationship should exist between the third and the fourth problem figure. Select one figure from answer figures which replaces the question mark (?).*

Problem Figures **Answer Figures**

21.

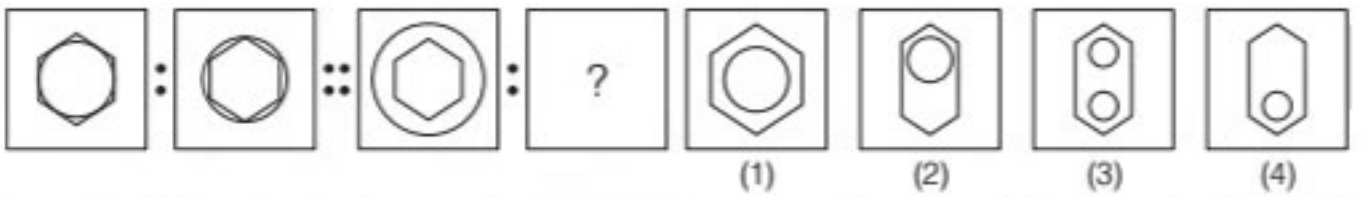




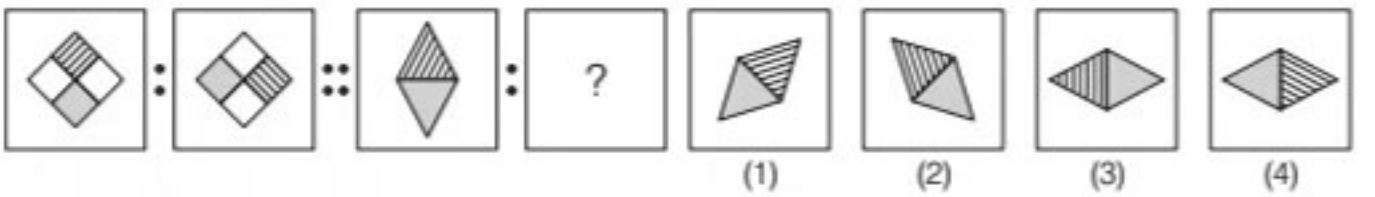
(1) (2) (3) (4)

Problem Figures **Answer Figures**

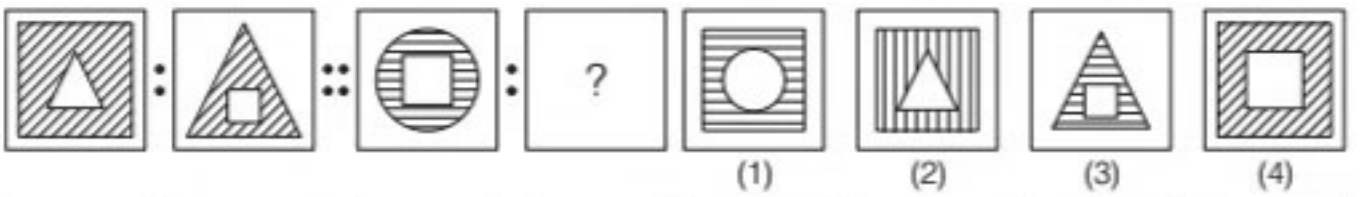
22.



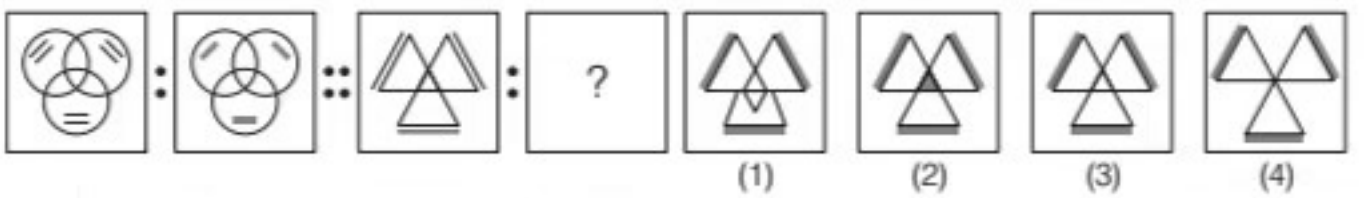
23.



24.



25.

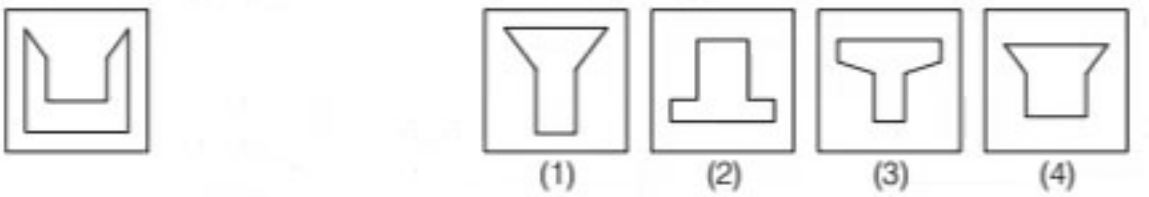


Part VI

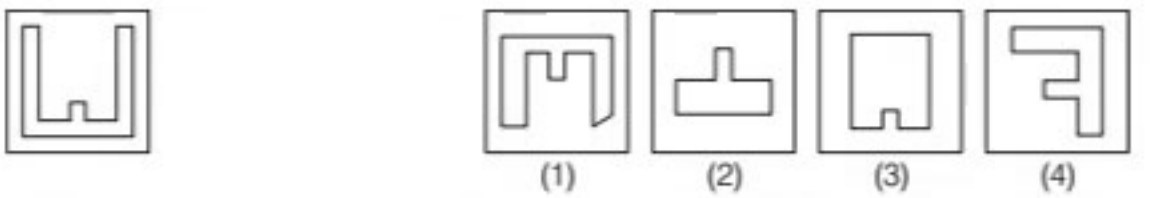
Directions (Q. Nos. 26-30) *There are four alternatives* (1), (2), (3) *and* (4) *given. You have to select the alternative which completes geometrical figure given in the problem figure.*

Problem Figure **Answer Figures**

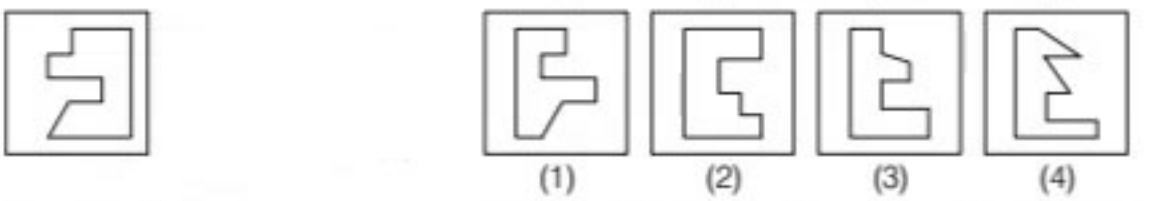
26.



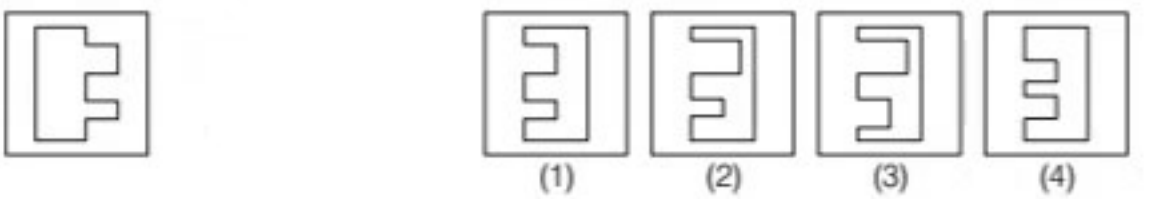
27.



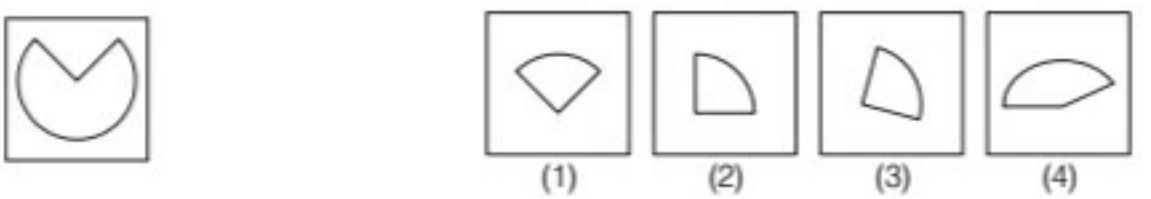
28.



29.



30.

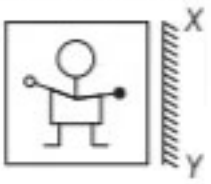


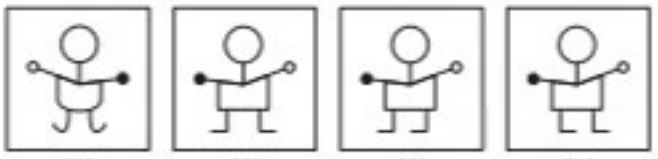
Part VII

Directions (Q. Nos. 31-35) *There are four alternatives* (1), (2), (3) *and* (4) *given. You have to choose the correct mirror image of the problem figure, when the mirror held on the line* XY.

Problem Figure **Answer Figures**

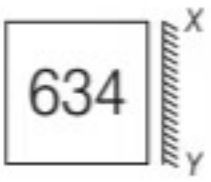
31.

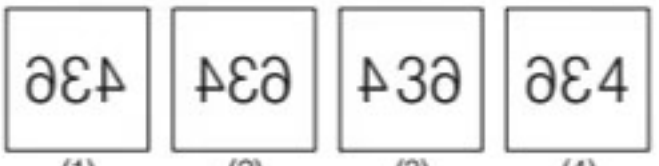




(1) (2) (3) (4)

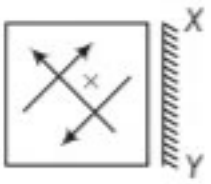
32.

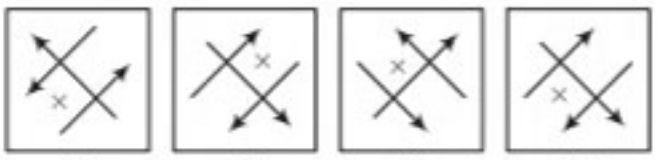




(1) (2) (3) (4)

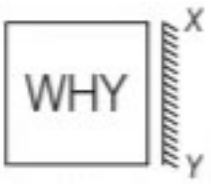
33.





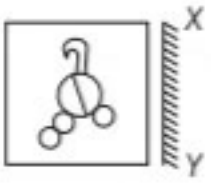
(1) (2) (3) (4)

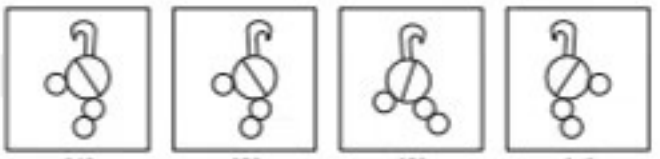
34.



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

35.





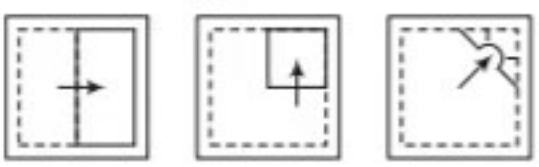
(1) (2) (3) (4)

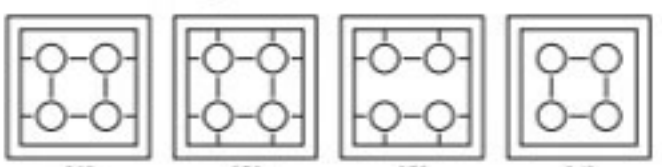
Part VIII

Directions (Q. Nos. 36-40) *Consist a set of three figures showing a sequence of folding a piece of paper, third problem figure show to manner in which the folded paper has been punched/cut. These three figures are followed by four answer figures from which you have to choose a figure which would appear on unfolding the third question figure.*

Problem Figures **Answer Figures**

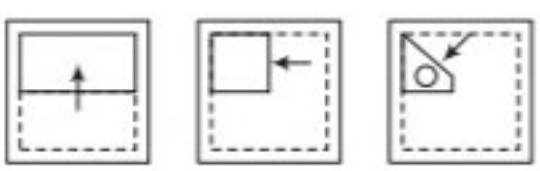
36.

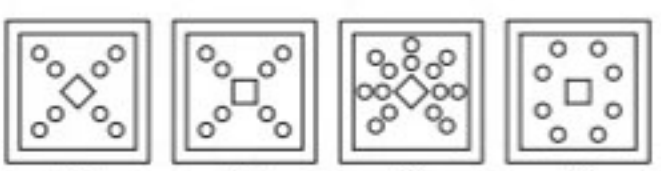




(1) (2) (3) (4)

37.

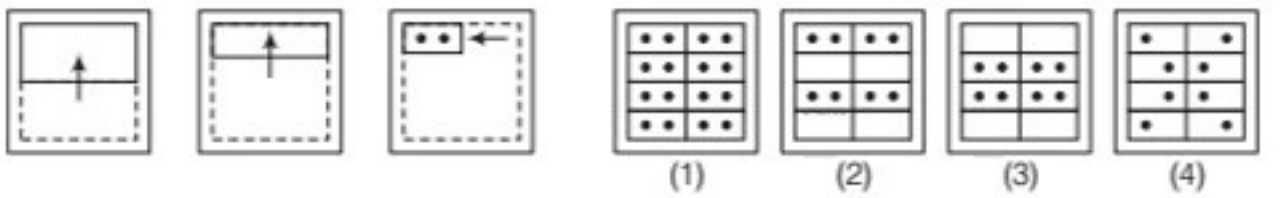




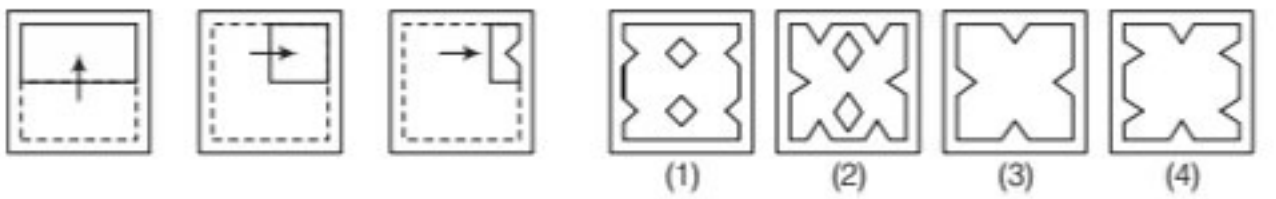
(1) (2) (3) (4)

Problem Figures **Answer Figures**

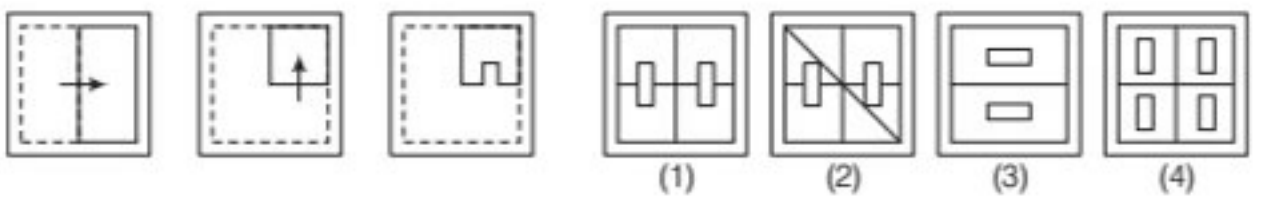
38.



39.



40.

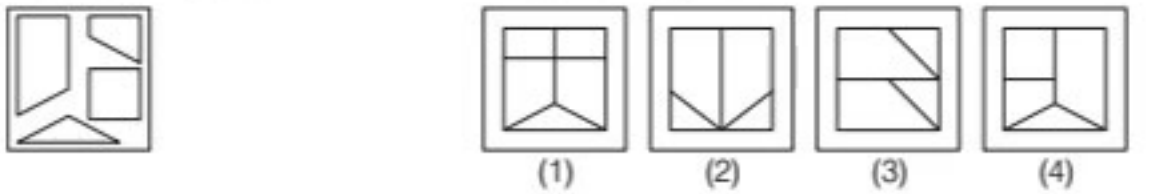


Part IX

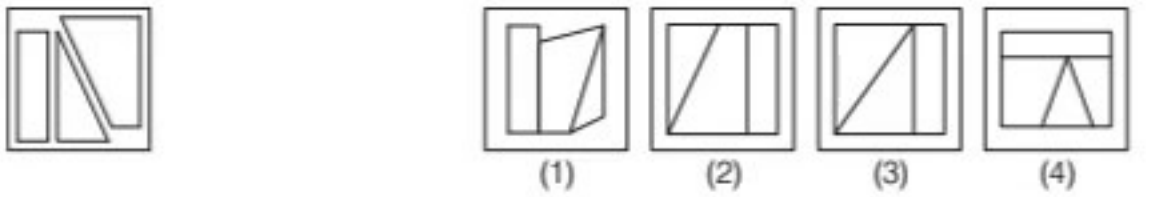
Directions (Q. Nos. 41-45) *Problem figure is followed by four alternatives, find out which of the figure from* (1), (2), (3) *and* (4) *can be formed from the pieces given in problem figure.*

Problem Figure **Answer Figures**

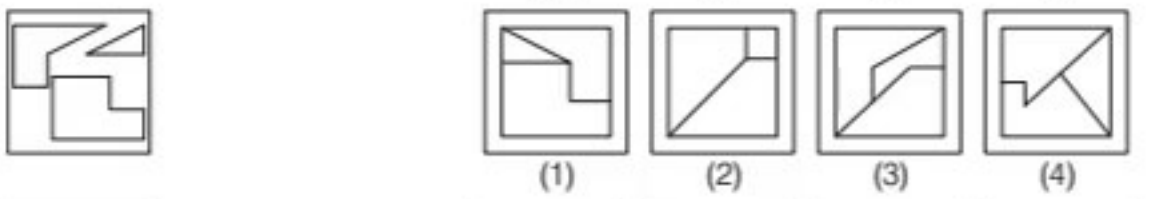
41.



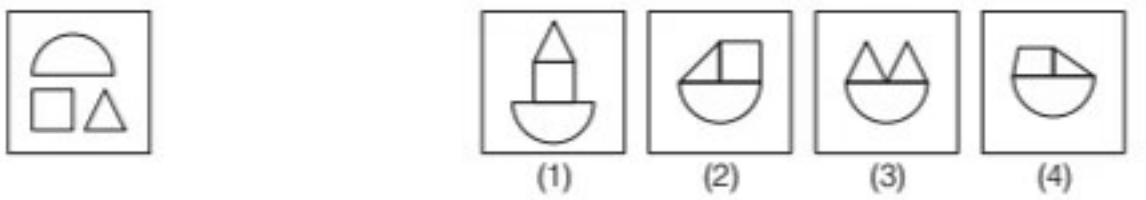
42.



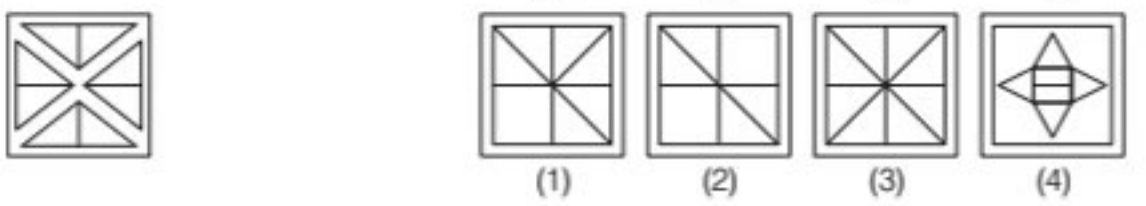
43.



44.



45.

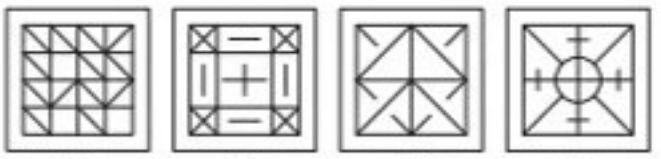


Part X

Directions (Q. Nos. 46-50) *In problem figure is embedded in anyone of the four alternatives* (1), (2), (3) *and* (4). *Find out the alternatives which contains problem figure as its part.*

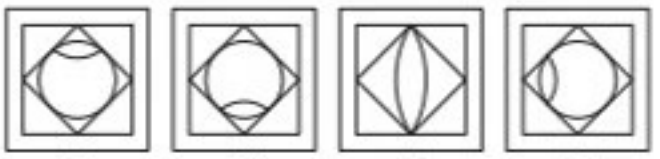
Problem Figure **Answer Figures**

46.



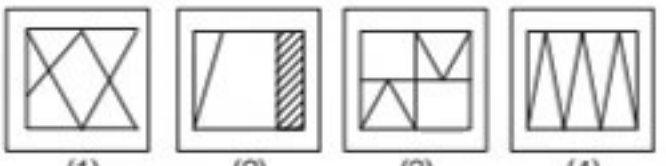
(1) (2) (3) (4)

47.



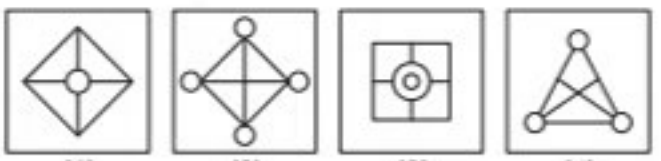
(1) (2) (3) (4)

48.



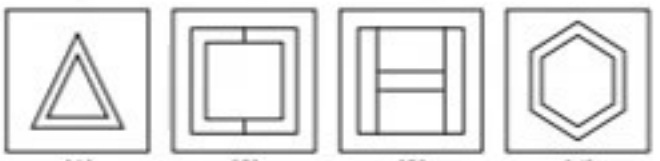
(1) (2) (3) (4)

49.



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

50.



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

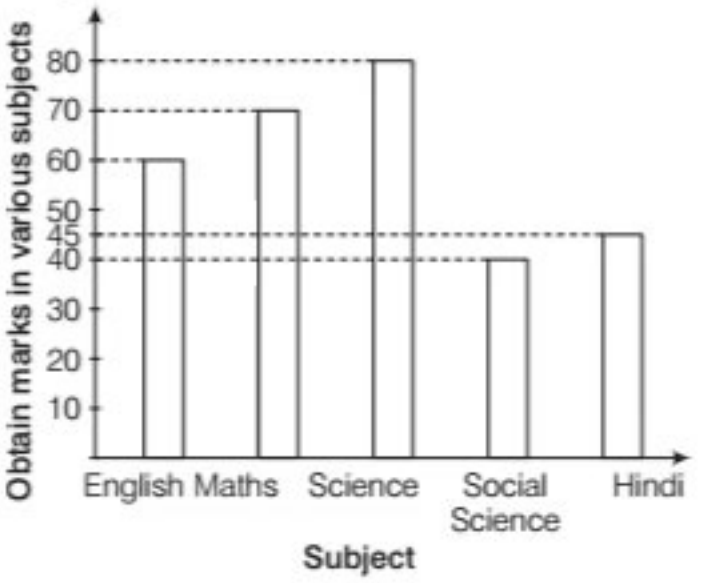
Section II Arithmetic Test

Directions (Q. Nos. 51-75) *For every question, four probable answers bearing* (1), (2), (3) *and* (4) given. *Only one out of these is correct. You have to choose the correct answer.*

51. If the cost price of 12 packets of biscuits is ₹ 240, the cost price of 8 packets of biscuits will be
(1) ₹ 160
(2) ₹ 140
(3) ₹ 120
(4) ₹ 240

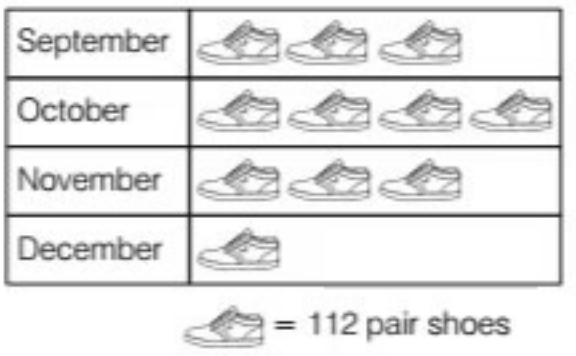
52. Ram got 8 marks more than Shyam in an examination. Anil got 4 marks more than Ram in the same examination. If all three of them got 128 marks together as a total, Ram's marks would be
(1) 36 (2) 44
(3) 48 (4) 54

53. Study the bar chart given below which shows Shyam's marks in S_1 examination in different subjects out of 100 marks each.



The percentage of Shyam's marks in Science is
(1) 50 (2) 80 (3) 70 (4) 60

54. Following graph represents the number of shoes sold by a shopkeeper in last 4 months.



What was the number of shoes sold by the shopkeeper in 4 months?
(1) 1130 (2) 1120 (3) 1242 (4) 1232

55. Which one is the smallest number?
(1) 7413 (2) 7130 (3) 7985 (4) 7545

56. The sum of the first four multiples of 6, is
(1) 66 (2) 56 (3) 72 (4) 60

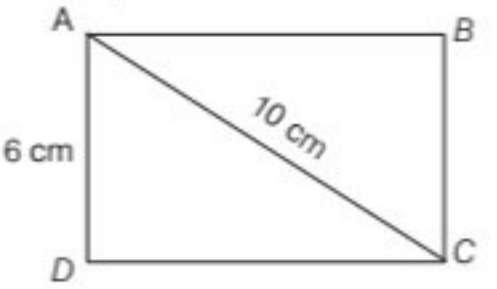
57. HCF of 128, 288 and 160 is
(1) 16 (2) 24 (3) 32 (4) 48

58. If the product of two co-prime numbers is 117, their LCM will be
(1) 9 (2) 13 (3) 39 (4) 117

59. 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

60. What is the product of
$9680 \times 10 \times 14 \times 0 \times 8$?
(1) 561260 (2) 642976 (3) 912040 (4) Zero

61. Find the length of *AB* in the given figure of a rectangle *ABCD*.



(1) 8 cm (2) 10 cm (3) 12 cm (4) 16 cm

62. If $4.75 \times 0.7 = 3.325$, then 475×0.7 is equal to
(1) 332.5 (2) 33.25 (3) 3.325 (4) 0

63. If $4854.3 \div 3.3 = 1471$, then $48.543 \div 33$ is equal to
(1) 1.471 (2) 14.71 (3) 147.1 (4) 0.1471

64. 26.2% is equal to
(1) 2.62 (2) 0.262 (3) 0.0262 (4) 262.0

65. A cellphone was bought for ₹ 1500 and then it was sold for ₹ 1650. What is the per cent profit?
(1) 10 (2) 15 (3) 20 (4) 16

66. What will be the rate of simple interest, at which ₹ 17500 will become ₹ 19250 in 2 yr?
(1) $12\frac{1}{2}$% (2) 10% (3) $7\frac{1}{2}$% (4) 5%

67. Find the next term of the series
3, 4, 6, 9, 13, ...
(1) 18 (2) 17 (3) 14 (4) 19

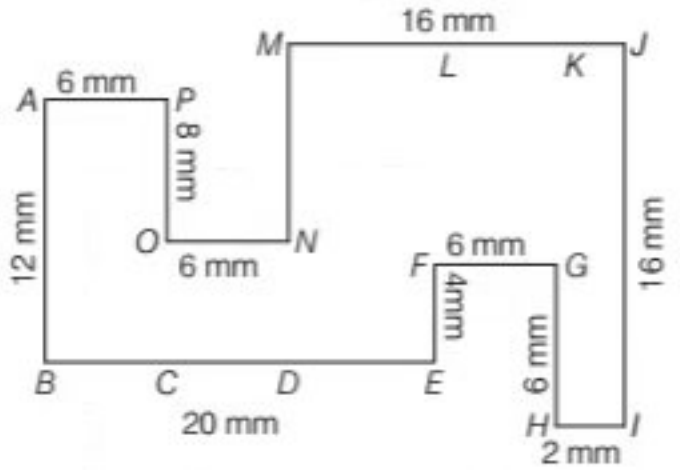
68. The difference between the smallest number of six-digits and the largest number of four-digits is
(1) 90001 (2) 91000
(3) 90100 (4) 90010

69. Which one of the following is the correct statement for the numbers 56 and 84?
(1) Both the numbers are prime
(2) Both the numbers are co-prime
(3) Both the numbers are multiple of 14
(4) Both the numbers are odd

70. Ram bought a book for ₹ 178.50, some medicines for ₹ 248.25 and gave a ₹ 500 note to the shopkeeper. The remaining amount is
(1) ₹ 126.50 (2) ₹ 70.50
(3) ₹ 75.50 (4) ₹ 73.25

71. The dimensions of a hall are 20 m × 12 m. How many square shaped tiles, with 4m side, will be required to cover the floor?
(1) 10 (2) 15 (3) 24 (4) 12

72. Find the area of the given figure.



(1) 240 mm²
(2) 280 mm²
(3) 300 mm²
(4) 440 mm²

73. A train leaves Delhi at 7 : 40 evening and reaches Mumbai next morning at 11:10. The total time taken by train during the journey is
(1) 15 h 26 min
(2) 14 h 15 min
(3) 15 h 30 min
(4) 16 h 20 min

74. 12 men or 15 women can finish a work in 10 days. How many days will 7 men and 10 women take to finish the same work together?
(1) 12
(2) 10
(3) 9
(4) 8

75. Square root of 4096 is
(1) 74
(2) 64
(3) 66
(4) 63

Section III Language (English)

Directions (Passages 1-5) *There are five passages in this section. Each passage is followed by five questions. Read each passage carefully and answer the question that follow. For each question four probable answers bearing lettes* (1), (2), (3) *and* (4) *are given. Only one out of these is correct. You have to choose the correct answer.*

Passage 1

Pinku was walking through a forest. He had a bag of mangoes. After sometime he felt tired. He took shelter under a tree and soon fell asleep. After a while, he felt that someone was trying to snatch his bag of mangoes. He woke up and caught the person. It was a witch who tried to frighten Pinku and ran away. But Pinku was strong and brave. He chased the witch and caught her. The witch removed her mask. She told Pinku that she was a poor and old widow. She had nobody to look after her. Therefore, she used to live in the forest. She used to wear mask to frighten people and take away their belongings. Pinku took pity on her and gave her the bag of mangoes.

76. Why did Pinku take shelter under a tree?
(1) He wanted to sleep
(2) He wanted to eat mangoes
(3) It was very hot
(4) He was tired

77. The witch was trying to
(1) climb up the tree
(2) hit Pinku
(3) take the bag of mangoes
(4) sleep under the tree

78. Pinku was a
(1) lazy boy
(2) shy boy
(3) courageous boy
(4) weak boy

79. The witch was
(1) a bad woman
(2) an old lady
(3) a poor and old widow
(4) very strong

80. The opposite word for 'brave' is
(1) gentle
(2) coward
(3) thin
(4) kind

Passage 2

Graham Bell was born at Edinborough, Scotland. He was a teacher and was dedicated to the noble cause of teaching the deaf and dumb. Due to severe illness, Bell was sent to Canada in 1870. Thereafter, he shifted to the USA. He continued his work by opening a school for deaf and dumb. Bell was fond of scientific inventions. He was always engaged in making some machines in his spare time. Apart from being an artist, he was a kind human being. He died in 1922 in Canada. The entire Northern America paid him a tribute by hanging up their telephones during his funeral.

81. Where was Bell born?
(1) USA (2) Canada
(3) Scotland (4) France

82. Bell was sent to Canada because
(1) he was a teacher
(2) his parents lived there
(3) he was severely ill
(4) he liked Canada

83. Bell was fond of
(1) teaching (2) travelling
(3) talking (4) scientific inventions

84. Bell shifted to
(1) Scotland (2) USA
(3) Edinborough (4) France

85. Bell used to teach the
(1) poor (2) blind (3) dumb (4) wealthy

Passage 3

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

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

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

88. Why did the king decide to hang the poor man?
(1) The poor man refused to meet him
(2) The poor man was really very unlucky
(3) Birbal advised him to do so
(4) The king had a very bad day

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

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

Passage 4

An old woman lived in a village with her youngest son. Her eldest son was a government servant. He lived with his wife and children in a far away city. Her second son had left home years ago. He was a merchant and travelled all over the world. The yearly festival was approaching fast. The old woman was sending out gifts to everyone. The store room was packed with silk fabrics, bowls full of sweets, gold ornaments and toys. When she had sent gifts to everyone. She asked her son what gift he would like to have. He replied that he didn't want any gift. He just wanted to live with her.

91. The eldest son was
(1) a servant (2) in government job
(3) unemployed (4) a leader

92. Why did the woman's second son travel?
(1) He did not want to stay at home
(2) He was very rich
(3) He was a merchant
(4) He was searching something

93. What was not in the store room?
(1) Sweets (2) Clothes (3) Toys (4) Fruits

94. The woman was sending gifts to
(1) the eldest son
(2) the children
(3) the second son
(4) All of them

95. The youngest son wanted ..... .
(1) to travel all over the world
(2) to get all the gifts
(3) to live with her mother
(4) to live with his brothers

Passage 5

There was a small and beautiful village. The men of that village were very lazy. They didn't do any work. Every morning they had their breakfast and gather in groups. They spent the day telling each other stories. They returned home only at lunch and dinner time. Women had to take all the responsibilities. They cooked food, cleaned the house and sent the children to school. They worked in the fields, took the crops to the market and manage everything. They were very sad because of all this.

96. What did the men do when they gathered in groups?
(1) They played cards (2) They sang songs
(3) They shared stories (4) They did nothing

97. The men returned home only when
(1) their children called them
(2) they were hungry
(3) the women worked
(4) they were ashamed

98. What was not in the village?
(1) School (2) Fields (3) Children (4) River

99. The opposite word for 'lazy' is
(1) healthy (2) strong (3) active (4) brave

100. The women were very sad because
(1) their children were naughty
(2) they were very poor
(3) they had to do everything
(4) their village was small

Answers

1. (2)	**2.** (2)	**3.** (2)	**4.** (3)	**5.** (1)	**6.** (2)	**7.** (3)	**8.** (3)	**9.** (2)	**10.** (3)
11. (3)	**12.** (3)	**13.** (1)	**14.** (2)	**15.** (1)	**16.** (2)	**17.** (3)	**18.** (1)	**19.** (2)	**20.** (2)
21. (3)	**22.** (1)	**23.** (4)	**24.** (1)	**25.** (3)	**26.** (4)	**27.** (3)	**28.** (1)	**29.** (1)	**30.** (1)
31. (2)	**32.** (2)	**33.** (3)	**34.** (3)	**35.** (3)	**36.** (2)	**37.** (4)	**38.** (1)	**39.** (1)	**40.** (1)
41. (4)	**42.** (2)	**43.** (1)	**44.** (1)	**45.** (3)	**46.** (1)	**47.** (3)	**48.** (4)	**49.** (1)	**50.** (2)
51. (1)	**52.** (2)	**53.** (2)	**54.** (2)	**55.** (2)	**56.** (4)	**57.** (3)	**58.** (4)	**59.** (4)	**60.** (4)
61. (1)	**62.** (1)	**63.** (1)	**64.** (2)	**65.** (1)	**66.** (4)	**67.** (1)	**68.** (1)	**69.** (3)	**70.** (4)
71. (2)	**72.** (3)	**73.** (3)	**74.** (4)	**75.** (2)	**76.** (4)	**77.** (3)	**78.** (3)	**79.** (3)	**80.** (2)
81. (3)	**82.** (3)	**83.** (4)	**84.** (2)	**85.** (3)	**86.** (3)	**87.** (4)	**88.** (4)	**89.** (3)	**90.** (3)
91. (2)	**92.** (3)	**93.** (4)	**94.** (4)	**95.** (3)	**96.** (3)	**97.** (2)	**98.** (4)	**99.** (3)	**100.** (3)

Hints and Solutions

51. $\because$ Cost price of 12 packets = ₹ 240

$\therefore$ Cost price of 1 packet $= \frac{240}{12} =$ ₹ 20

$\therefore$ Cost price of 8 packets $= 8 \times 20 =$ ₹ 160

52. Let the marks obtained by Shyam be x.
Then, marks obtained by Ram $= x + 8$
and marks obtained by Anil $= x + 8 + 4 = x + 12$
According to the question,

$$x + x + 8 + x + 12 = 128,\ 3x + 20 = 128$$
$$3x = 108,\ x = 36$$

So, marks obtained by Ram $= x + 8 = 36 + 8 = 44$

53. It is clear from the bar chart Shyam gets 80 marks in Science.

$\therefore$ Required per cent marks

$$= \frac{\text{Obtained marks in Science}}{\text{Total marks in Science}} \times 100 = \frac{80}{100} \times 100$$
$$= 80\%$$

54. Shoes sold in September month $= 2 \times 112 = 224$
Shoes sold in October month $= 3 \times 112 = 336$
Shoes sold in November month $= 4 \times 112 = 448$
Shoes sold in December month $= 1 \times 112 = 112$
$\therefore$ Total number of shoes sold in 4 months
$= 224 + 336 + 448 + 112 = 1120$

55. The smallest number is 7130.
Seven thousand one hundred thirty.

56. First four multiple of 6 = 6, 12, 18 and 24
Then, required sum $= 6 + 12 + 18 + 24 = 60$

57. $128 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$
$288 = 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3$
$160 = 2 \times 2 \times 2 \times 2 \times 2 \times 5$
So, the required HCF = Common factor
$= 2 \times 2 \times 2 \times 2 \times 2 = 32$

58. $\because 117 = 3 \times 3 \times 13$
Here, 9 and 13 are co-prime, so the required LCM
$= 9 \times 13 = 117$

59. B, runs 36 m in 18 s
B will run 1000 m in $= \frac{18}{3} \times 1000$ s $= 500$ s
So, taken time by A for complete the race
$= 500 - 18 = 482$ s.

60. We know that if we multiply by zero in any number, resultant will be zero.

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

61. Here, $AD = BC = 6$ cm

Now In ΔABC, AC(Hypo) = 10 cm , BC (Lat) = 6 cm

So, by Pythagorous Theorem,

$(\text{Base})^2 = (\text{Hyp})^2 - (\text{Lat})^2$, $AB^2 = AC^2 - BC^2$

$AB = 10^2 - 6^2 = 100 - 36 = 64 = \sqrt{64} = 8$ cm

62. Since, $4.75 \times 0.7 = 3.325$

So, $475 \times 0.7 = 332.5$

63. Since, $4854.3 \div 3.3 = 14.71$

So, $48.543 \div 33 = 1.471$

64. $26.2\% = \frac{26.2}{100} = 0.262$

65. The profit on cell phone = SP – CP

$= 1650 - 1500 =$ ₹ 150

Then, required per cent profit $= \frac{\text{Profit} \times 100}{\text{CP}}$

$= \frac{150 \times 100}{1500} = 10\%$

66. Let the rate of simple interest = r%

$\text{SI} = \frac{P\,T\,R}{100}$ (Formula)

$19250 - 17500 = \frac{17500 \times r \times 2}{100}$

(Here, SI = Compound amount – Principal amount)

$\Rightarrow 1750 = \frac{17500 \times r \times 2}{100} \Rightarrow r = \frac{1750 \times 100}{17500 \times 2}$

$r = 5\%$

67. 3 → 4 (+1) → 6 (+2) → 9 (+3) → 13 (+4) → $\boxed{18}$ (+5)

It is clear that next term of series is 18.

68. Smallest number of 6 digits = 100000

Largest number of 4 digits = 9999

Then, the required difference = 100000 – 9999

= 90001

69. $56 = 14 \times 4$ and $84 = 14 \times 6$

It is clear from the above factors both numbers are multiple of 14.

70. Here, Ram's expenses for medicine

= 178.50 + 248.25 = ₹ 426.75

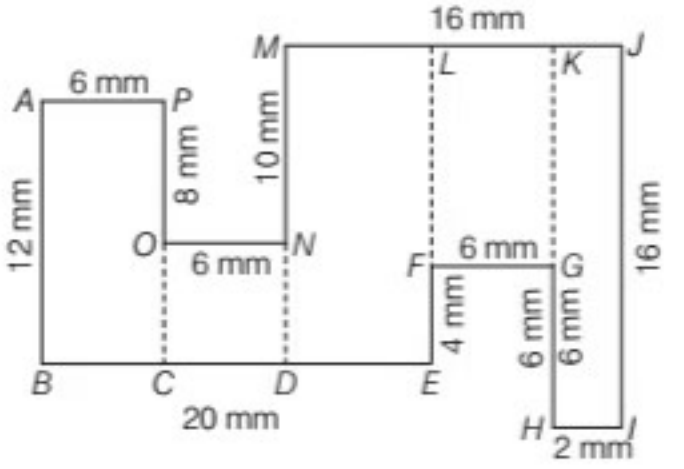
Then, amount returned to Ram by shopkeeper

= 500 – 426.75 = ₹ 73.25

71. The required number of tiles

$= \frac{\text{Area of Hall}}{\text{Area of one Tile}} = \frac{20 \times 12}{4 \times 4} = 15$

72. According to the condition and direction of question the diagram will be as follows



Area of figure

= Area of ($\square ABCP + \square OCDN + \square DMLE + \square FLKG + \square KHIJ$)

$= AB \times AP + OC \times ON + DE \times DM + FG \times GK + HI \times JI$

$= 12 \times 6 + (12 - 8) \times 6 + (20 - 12) \times (10 + 12 - 8) + 6 \times (16 - 6) + 2 \times 16$

$\left\{\begin{array}{c} \because OC = AB - PO, \\ DE = BE - (AP + ON) \\ \text{and } GK = JI - HG \end{array}\right\}$

$= 72 + 4 \times 6 + 8 \times 14 + 6 \times 10 + 32$

$= 72 + 24 + 112 + 60 + 32 = 300\ \text{mm}^2$

73. Time of departure from Dehli = 7 : 40 evening

Time arrival at Mumbai = 11 : 40 (Next morning)

∴ Total time = 7 : 40 evening to 12 : 00 am

+ 12 : 00 am + 11 : 10 am

= 4 h 20 min + 11 h 10 min = 15 h 30 min

74. Since, 12 males = 15 females, 4 males = 5 females

10 females = 8 males

Now, according to the question,

Work done by 12 males = 10 Days

Work done by 1 males = 120 Days

So, work done by (7 + 8) males

$= \frac{120}{7 + 8} = \frac{120}{15} = 8$ Days.

75.

	64
6	$\overline{40}\ \overline{96}$
6	36
124	496
4	496
128	x x x

∴ Square root of 4096 = 64

Solved Paper

Jawahar Navodaya Vidyalaya

Entrance Exam (Class 6th)

Solved Paper 2015

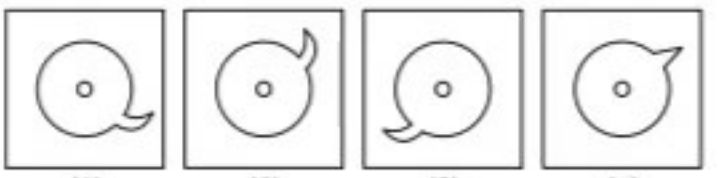
Exam Date 07-02-2015

Section I Mental Ability Test

Part I

Directions (Q. Nos. 1-5) *There are four figures* (1), (2), (3) *and* (4). *Out of these four figures, three figures are similar but one figure is different. Spot out the different figure.*

1.

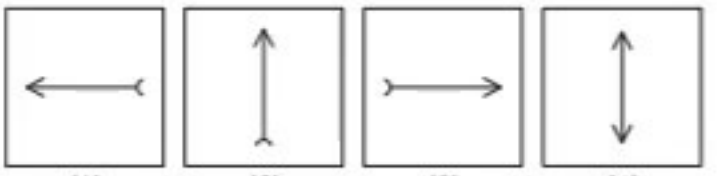


(1) (2) (3) (4)

2.

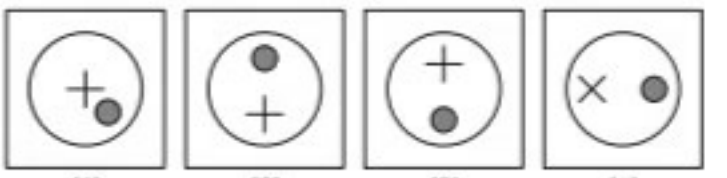
(1) (2) (3) (4)

3.



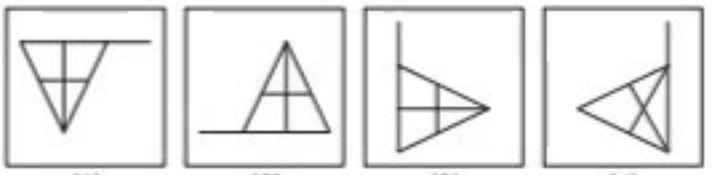
(1) (2) (3) (4)

4.



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

5.



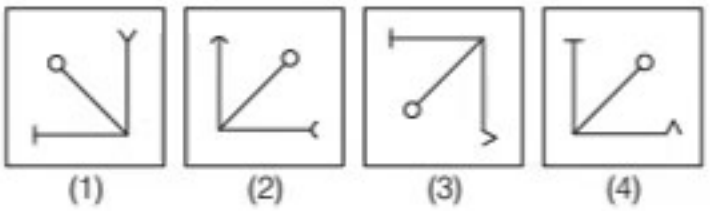
(1) (2) (3) (4)

Part II

Directions (Q. Nos. 6-10) *There is a given problem figure. There are four answer figures* (1), (2), (3) *and* (4). *You have to find out the answer figure which is similar to the given problem figure.*

6. Problem Figure

Answer Figures

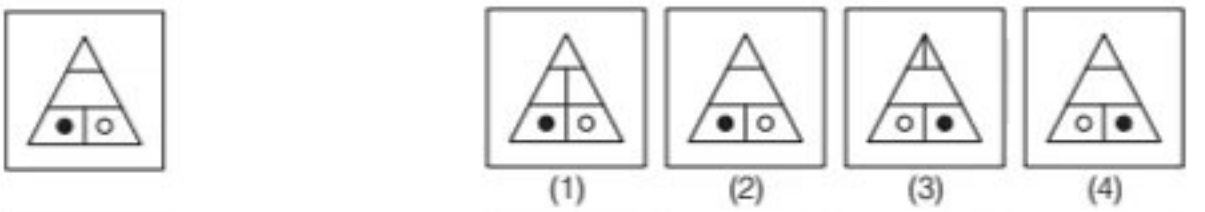


(1) (2) (3) (4)

Problem Figure **Answer Figures**

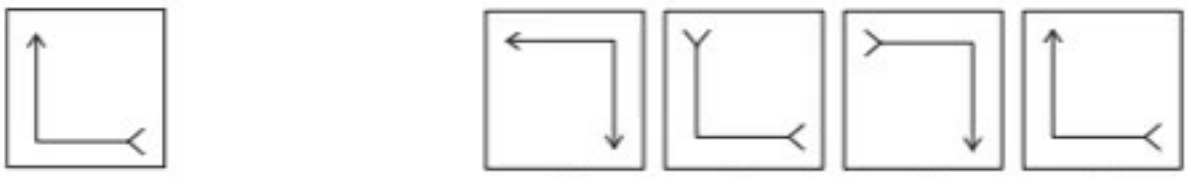
Based on Memory

7.



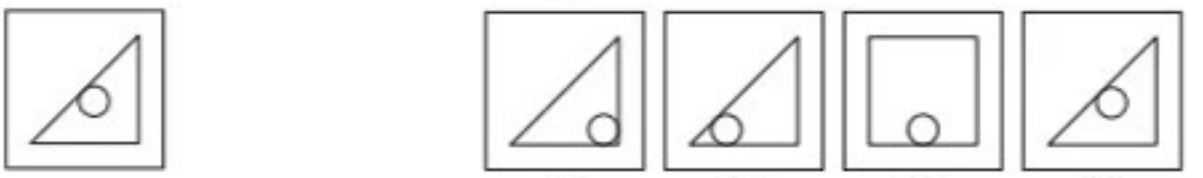
(1) (2) (3) (4)

8.



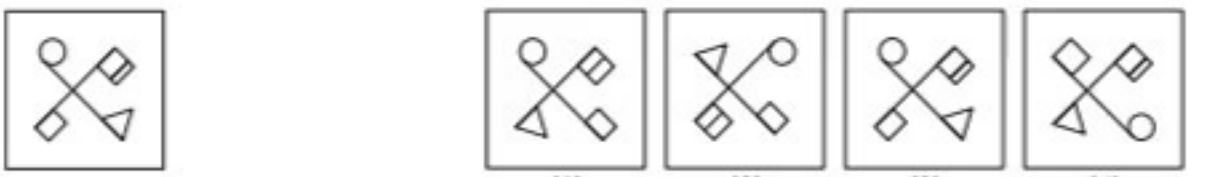
(1) (2) (3) (4)

9.



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

10.



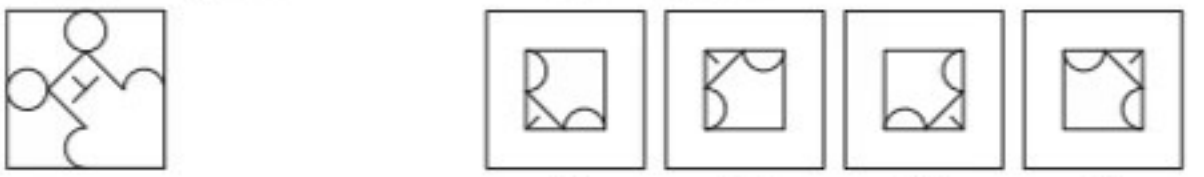
(1) (2) (3) (4)

Part III

Directions (Q. Nos. 11-15) *There is a problem 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 in the problem figure in order to complete the pattern in the problem figure.*

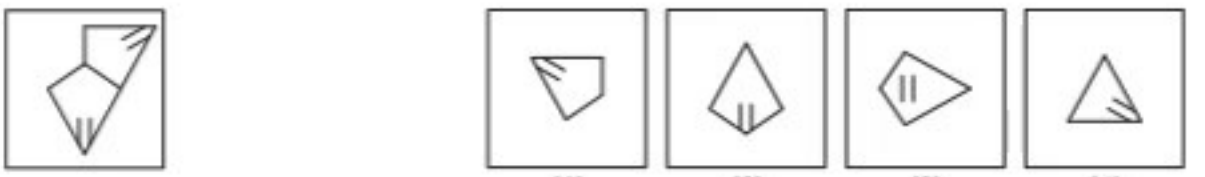
Problem Figure **Answer Figures**

11.



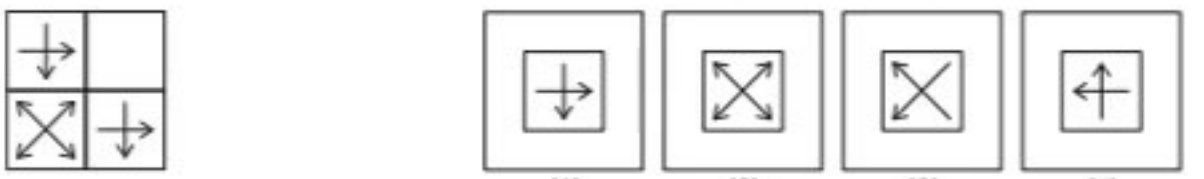
(1) (2) (3) (4)

12.



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

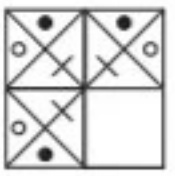
13.

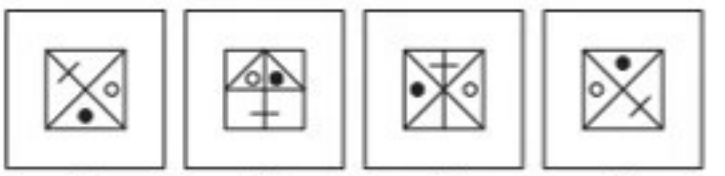


(1) (2) (3) (4)

Problem Figure **Answer Figures**

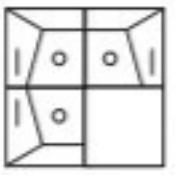
14.





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

15.



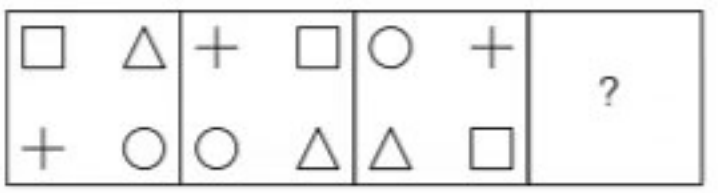
(1) (2) (3) (4)

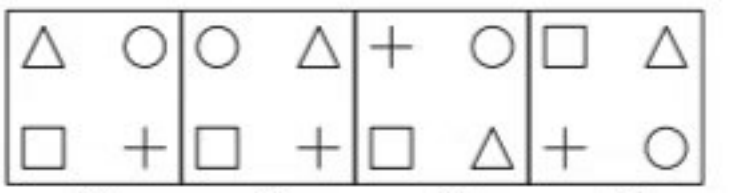
Part IV

Directions (Q. Nos. 16-20) *There are problem figures and the question mark (?) for fourth figure. The problem figures are in a series. Find out one figure among the answer figures which occupies the question mark (?) for the fourth figure and which completes the series.*

Problem Figures **Answer Figures**

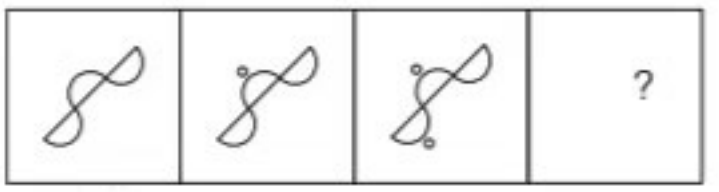
16.

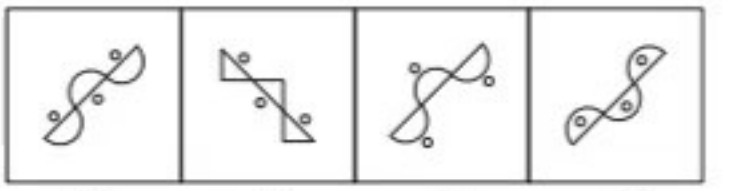




(1) (2) (3) (4)

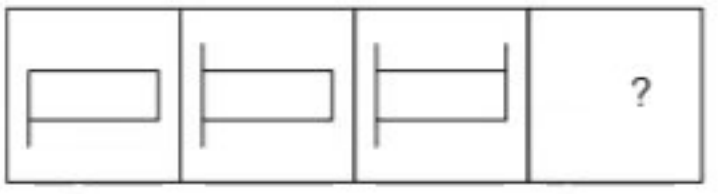
17.

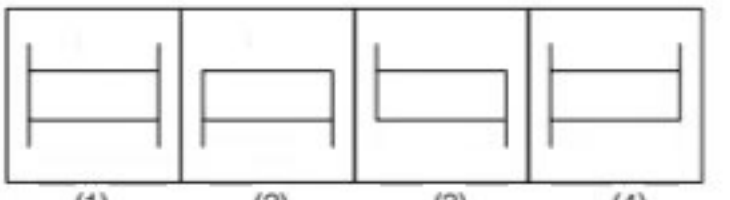




(1) (2) (3) (4)

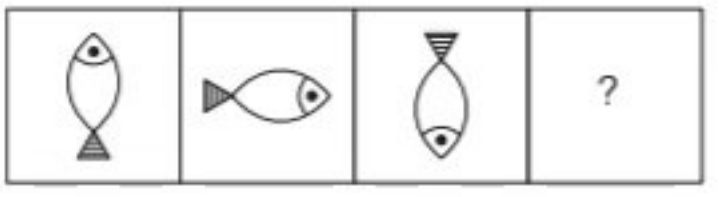
18.

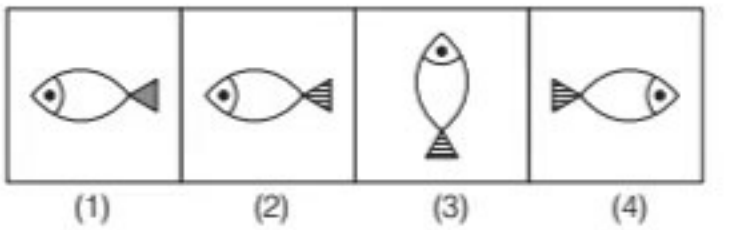




(1) (2) (3) (4)

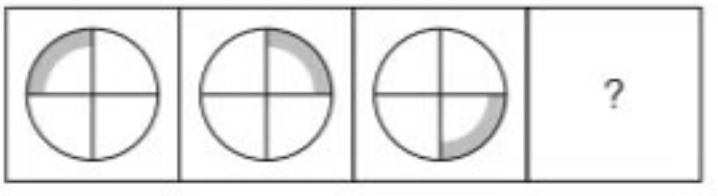
19.

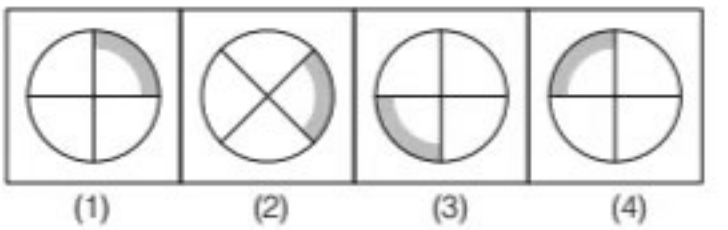




(1) (2) (3) (4)

20.





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

Part V

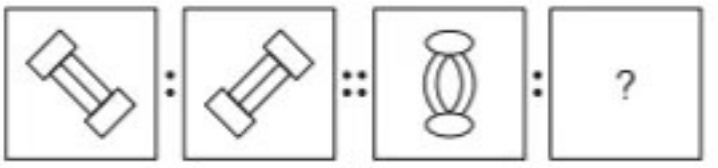
Directions (Q. Nos. 21-25) *There are three problem figures followed by a question mark (?) for the fourth one. There exists a relationship between first two problem figures. A similar relationship should exist between the third and the fourth problem figure. Select one figure from answer figures which replaces the question mark (?).*

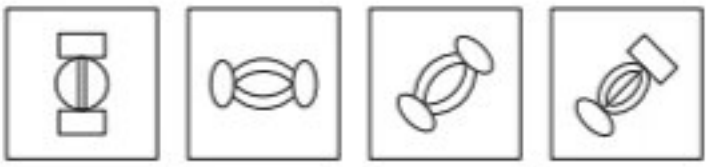
Problem Figures **Answer Figures**

21.

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

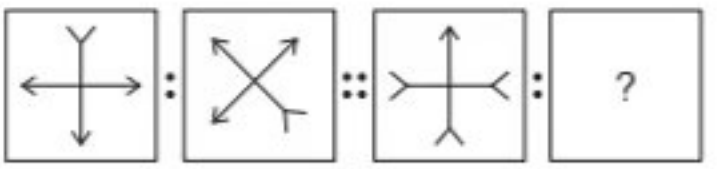
22.

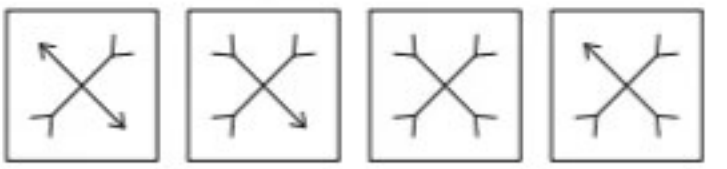




(1) (2) (3) (4)

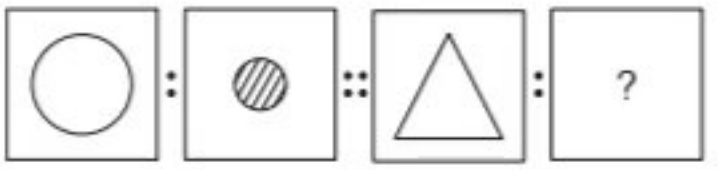
23.





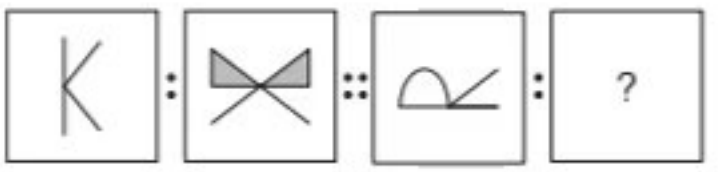
(1) (2) (3) (4)

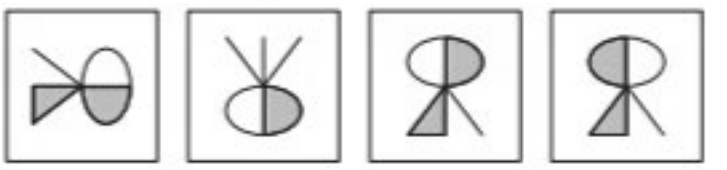
24.



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

25.





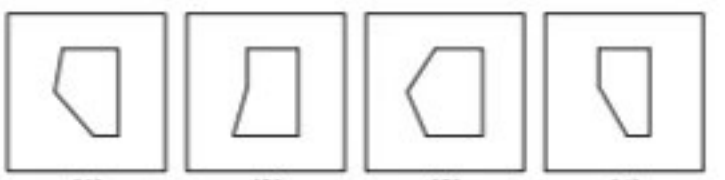
(1) (2) (3) (4)

Part VI

Directions (Q. Nos. 26-30) *There are four alternatives* (1), (2), (3) *and* (4) *given. You have to select the alternative which completes geometrical figure given in the problem figure.*

Problem Figure **Answer Figures**

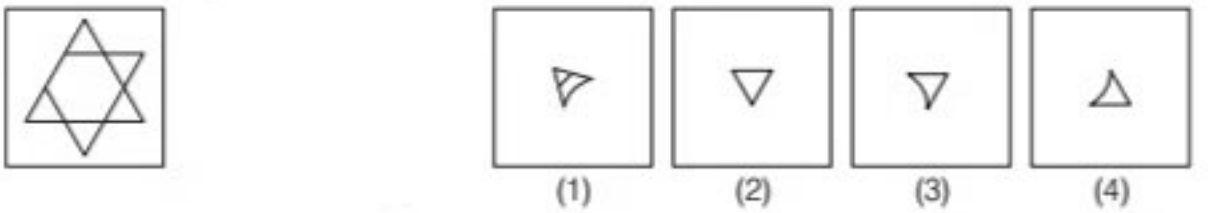
26.



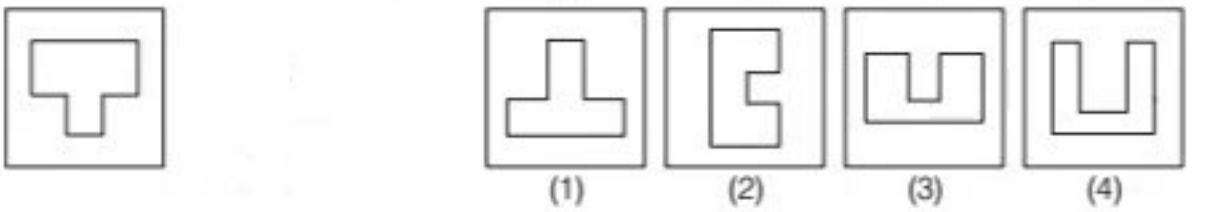
(1) (2) (3) (4)

Problem Figure **Answer Figures**

27.



28.



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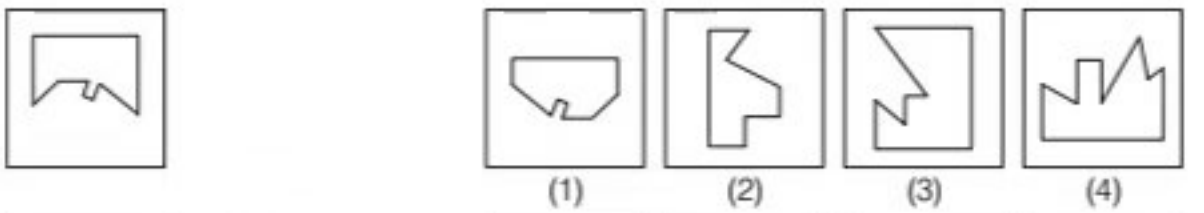
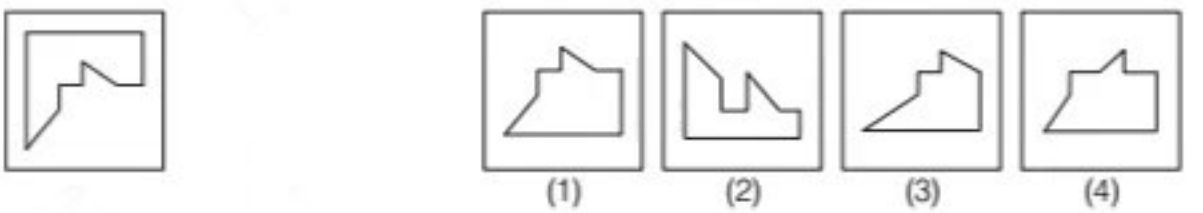


30.

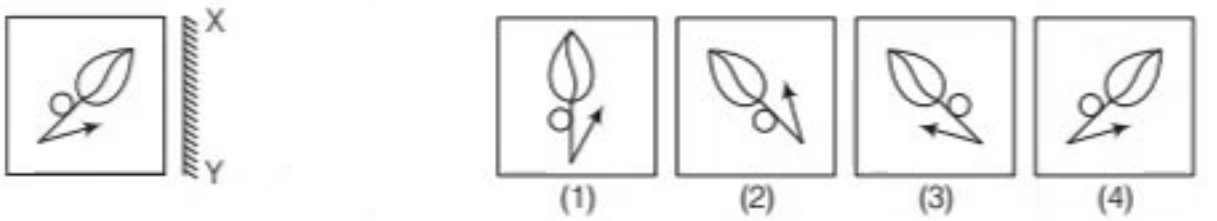


Part VII

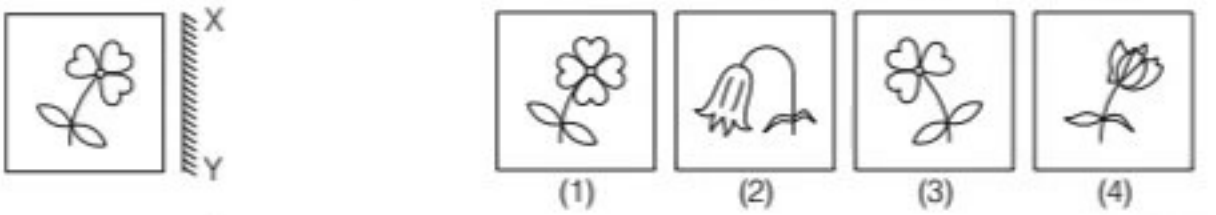
Directions (Q. Nos. 31-35) *There are four alternatives* (1), (2), (3) *and* (4) *given. You have to choose the correct mirror image of the problem figure, when the mirror held on the line* XY.

Problem Figure **Answer Figures**

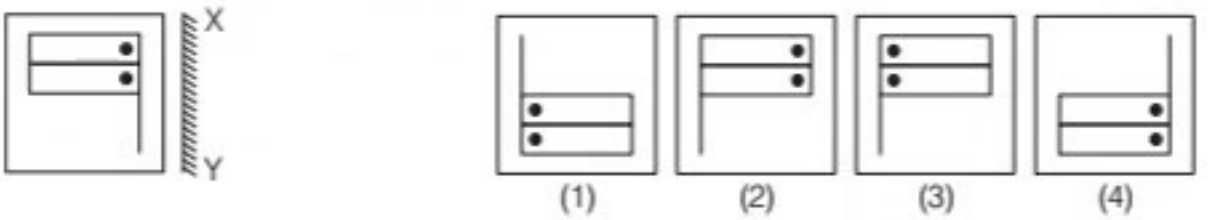
31.



32.



33.



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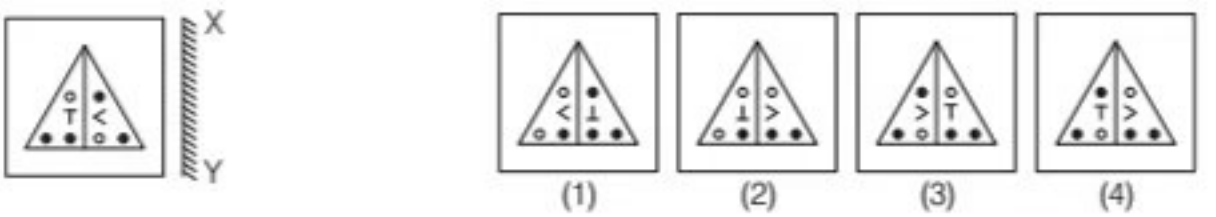


Problem Figure **Answer Figures**

35.

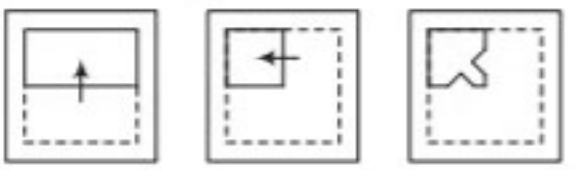
(1) (2) (3) (4)

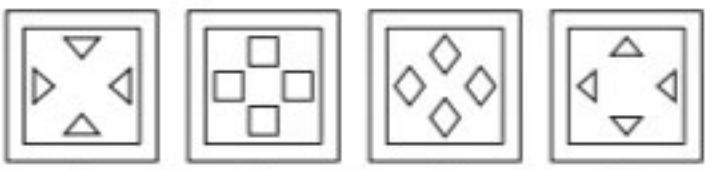
Part VIII

Directions (Q. Nos. 36-40) *Consist a set of three figures showing a sequence of folding a piece of paper, third problem figure show to manner in which the folded paper has been punched/cut. These three figures are followed by four answer figures from which you have to choose a figure which would appear on unfolding the third question figure.*

Problem Figures **Answer Figures**

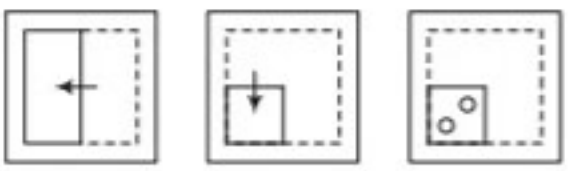
36.

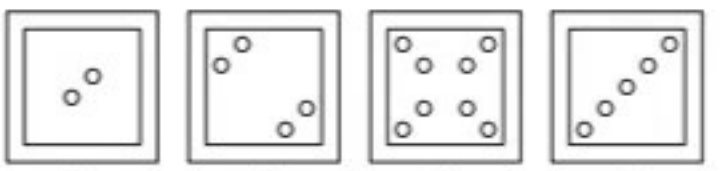




(1) (2) (3) (4)

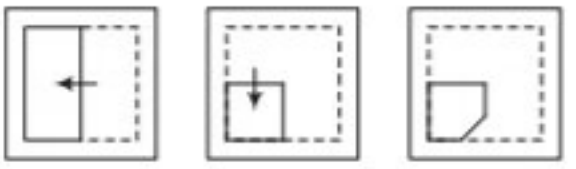
37.

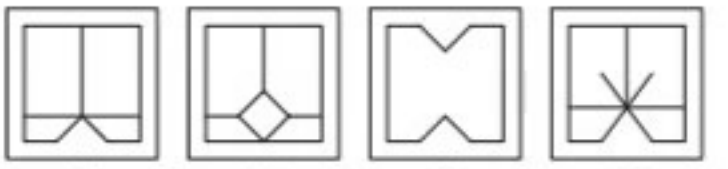




(1) (2) (3) (4)

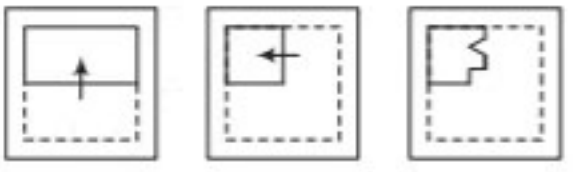
38.

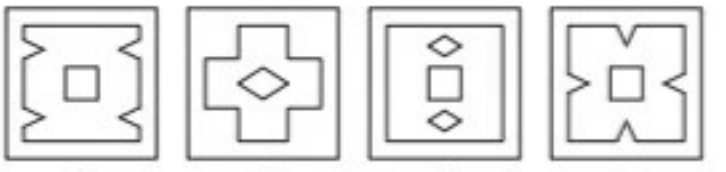




(1) (2) (3) (4)

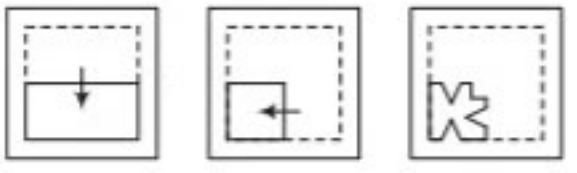
39.

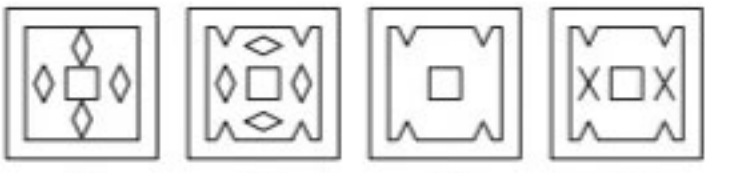




(1) (2) (3) (4)

40.





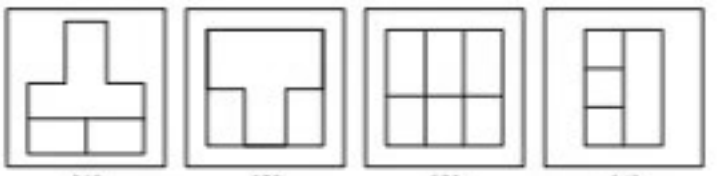
(1) (2) (3) (4)

Part IX

Directions (Q. Nos. 41-45) *Problem figure is followed by four alternatives, find out which of the figure from* (1), (2), (3) *and* (4) *can be formed from the pieces given in problem figure.*

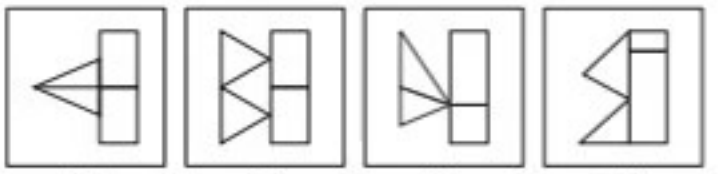
Problem Figure **Answer Figures**

41.



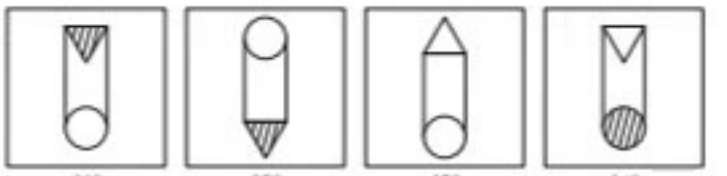
(1) (2) (3) (4)

42.



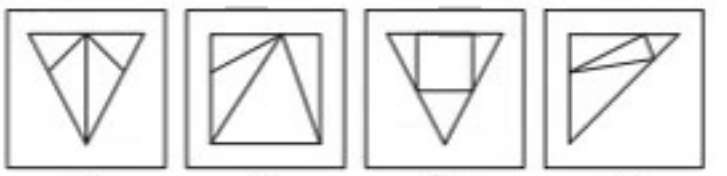
(1) (2) (3) (4)

43.



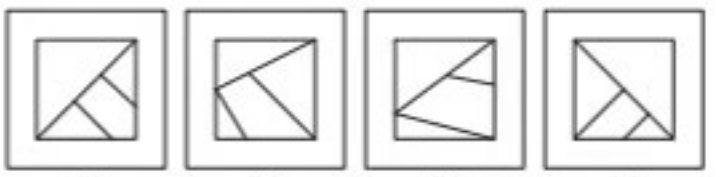
(1) (2) (3) (4)

44.



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

45.



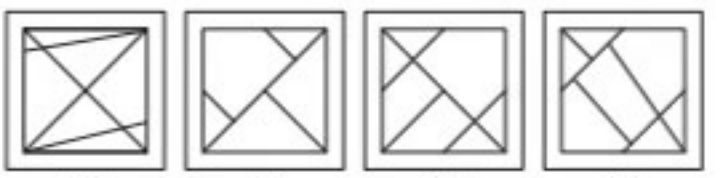
(1) (2) (3) (4)

Part X

Directions (Q. Nos. 46-50) *In problem figure is embedded in anyone of the four alternatives* (1), (2), (3) *and* (4). *Find out the alternatives which contains problem figure as its part.*

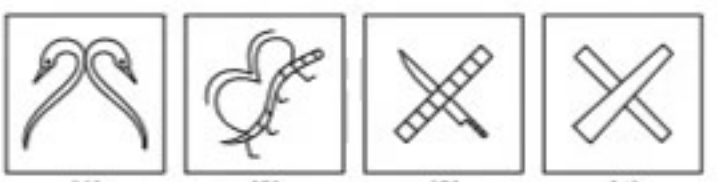
Problem Figure **Answer Figures**

46.



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

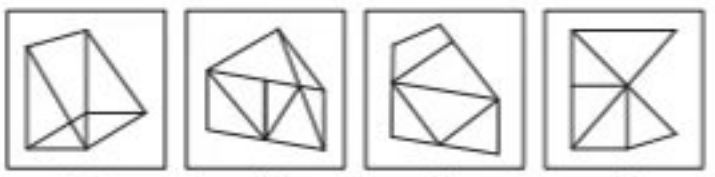
47.



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

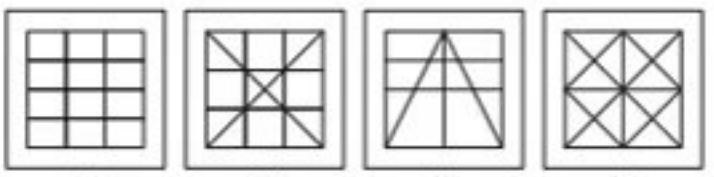
Problem Figure **Answer Figures**

48.



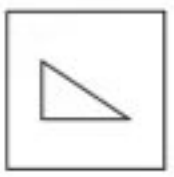
(1) (2) (3) (4)

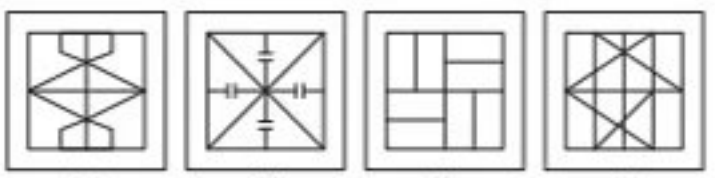
49.



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

50.





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

Section II Arithmetic Test

Directions (Q. Nos. 51-75) *For every question, four probable answers bearing* (1), (2), (3) *and* (4) *given. Only one out of these is correct. You have to choose the correct answer.*

51. Five digits greatest number to be formed with the help of 7, 2, 4, 8 and 0 is (each digit using once time)
(1) 80742 (2) 87042
(3) 87420 (4) 87402

52. $\frac{3}{4}$th of 144 is how much greater than $\frac{2}{3}$rd of 96?
(1) 20 (2) 44 (3) 54 (4) 64

53. The simplification of 641664 ÷ 16 will be
(1) 4104 (2) 40104
(3) 41404 (4) 41004

54. The sum of first five multiple of 6 is
(1) 90 (2) 54 (3) 30 (4) 84

55. The decimal equivalent to $\left[\frac{3}{4}+\frac{4}{5}+\frac{8}{25}\right]$ is
(1) 1.870 (2) 18.70
(3) 187 (4) 1870

56. If $3.65 \times 0.5 = 1.825$, then the value of 365×0.5 is
(1) 182.5 (2) 18.25 (3) 1.825 (4) 365

57. $\frac{17}{25}$ can be expressed in percentage is
(1) 34% (2) 68%
(3) 17% (4) 25%

58. The difference between ten's digit and unit's digit of the sum of the first five multiple of 6 is
(1) 6 (2) 7 (3) 8 (4) 9

59. The greatest number which will divide 1277 and 1368 leaving 3 as the remainder in each case is
(1) 68 (2) 77 (3) 91 (4) 97

60. LCM of 114 and 95 is
(1) 570 (2) 950 (3) 1140 (4) 5700

61. The simplification of $24 + [6 - \{5 - 2(4 - 3)\}]$ gives the result
(1) 22 (2) 23
(3) 24 (4) 27

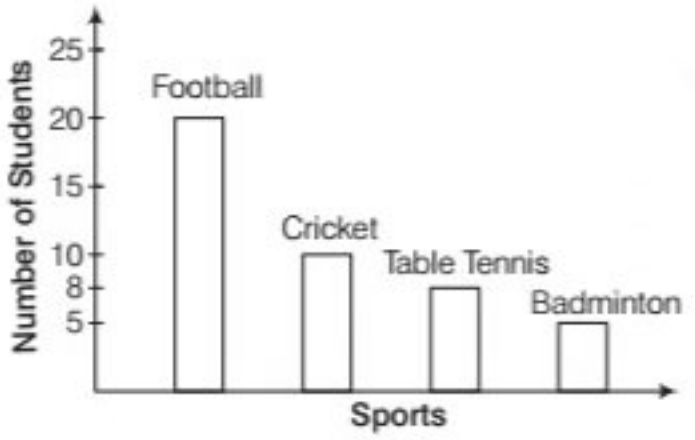
62. The sum of first 7 multiple of 13 is approximately
(1) 360 (2) 365 (3) 370 (4) 375

63. The next term of the series 1, 2, 4, 8, ... is
(1) 12 (2) 16
(3) 10 (4) 11

64. Rajesh's weight is 5 kg less than Ram's weight and Neha's weight is 3 kg more than Ram's weight. If the weight of three is 103 kg, then the weight of Ram is
(1) 34 kg (2) 38 kg
(3) 33 kg (4) 35 kg

65. A bus covers 400 km in 8 h, the average speed of bus is
(1) 30 km/h (2) 50 km/h
(3) $50\frac{1}{2}$ km/h (4) 60 km/h

66. Following bar chart represents the various sports play by students. Study the chart and give the answer.



How many students play table tennis?
(1) 10 (2) 8 (3) 18 (4) 20

67. Following graph represents the various transport medium used by the students.

Transport	Number of students
Bicycle	☺ ☺
Scooter	☺ ☺ ☺
Car	☺ ☺ ☺ ☺
School van	☺ ☺ ☺ ☺ ☺ ☺

Here, ☺ = 50 students
How many percentage of students use school van?
(1) 6 (2) 16 (3) 40 (4) 36

68. At 25% per annum interest in how many years the simple interest on a sum of money treble itself?
(1) 4 (2) 6 (3) 8 (4) 10

69. The price of 12 kg potato is ₹ 360. Then, the price of 8 kg potato is
(1) ₹ 180 (2) ₹ 240 (3) ₹ 300 (4) ₹ 288

70. If a book purchase in ₹ 150 and sell it ₹ 180. Then, the profit percentage is
(1) 20 (2) 25
(3) 30 (4) 33

71. The dimensions of a hall is 4.8 m × 3.6 m, what is the number of tiles required to cover with size of 1.2 m^2 tiles?
(1) 26 (2) 12 (3) 40 (4) 20

72. The dimensions of a rectangular park is 100 m × 60 m. A 2 m width path made around the rectangular park. The area (in m^2) of the path is
(1) 324 (2) 656 (3) 675 (4) 780

73. The side of a square park is 100 m. The perimeter of the park is
(1) 1000 m (2) 400 m (3) 200 m (4) 800 m

74. Two persons walk each other 7:30 am. If their speed are 4 km/h and 6 km/h and initially their distance is 25 km, then in what time they will meet to each other?
(1) 8:30 am (2) 9:30 am
(3) 10:00 am (4) 10:30 am

75. Which statement is true for 11 and 21?
(1) Both are divisible numbers
(2) Both are even numbers
(3) Both are co-prime numbers
(4) Both are multiple of 3

Section III Language (English)

Directions (Passages 1-5) *There are five passages in this section. Each passage is followed by five questions. Read each passage carefully and answer the question that follow. For each question four probable answers bearing lettes* (1), (2), (3) *and* (4) *are given. Only one out of these is correct. You have to choose the correct answer.*

Passage 1

Abraham Lincoln was born on February 12, 1809 in a log cabin in Kentucky. A cabin is a small house made of wood. When he was seven years old, his family moved to Indiana. In 1830, the family moved to Illinois. As a boy, Abraham Lincoln loved books. He always borrowed books from his neighbours.

He read them for a short time and then took them back to their owners.
Abraham Lincoln studied law in his free time. He was also interested in Politics. He became President of the United States in 1861. He was the 16th President of the US.

76. Where was Lincoln born?
(1) Illinois
(2) Indiana
(3) Kentucky
(4) Tennessee

77. Lincoln moved to Indiana at age....
(1) 4
(2) 6
(3) 7
(4) 12

78. Abraham Lincoln became
(1) an author (2) a woodcutter
(3) Prime Ministe (4) 16th President of US

79. What did Abraham use to borrow from his neighbours?
(1) Wood (2) Books (3) Money (4) Food

80. Lincoln was fond of
(1) books (2) politics
(3) reading (4) All of these

Passage 2

Alexander, on his way back, met a saint. The saint was sitting on a course grass-mat and basking in the sunshine. Alexander stood in front of him and hoped that the saint would pay respect to him, but he did not. Instead, he said, "Please stand aside. Let the sunshine come to me."
Alexander asked angrily, "Do you know who am I?"
The saint did not reply.
"I am an Emperor-Alexander the Great," he said.
"Emperor! you! No, you are not," said the saint.
"Yes I am," said Alexander, "I have conquered half of the world."
To this the saint said, calmly, "The emperors do not roam restlessly like you. Go, man, try to conquer the hearts of the people by love."
Alexander bowed and quietly walked away.

81. Why did the saint asked Alexander to stand aside?
(1) He was not a devotee
(2) He was blocking the sunshine
(3) He wandered restlessly
(4) He did not seek permission

82. Which of the following words mean 'conquer'?
(1) Win (2) Defeat
(3) Tell (4) Bow

83. What the emperors usually do not do?
(1) Visit a saint (2) Rule an empire
(3) Roam restlessly (4) Bow to saints

84. Which of the following does not describe an emperor?
(1) A ruler (2) A king
(3) An employee (4) A conqueror

85. Hearts of the people can be won by
(1) Love (2) Power (3) Money (4) Sword

Passage 3

Simi was a puppy. She was very cute, Asha found her crying in a park. When she picked her up, the puppy stopped crying and looked at her. Asha liked that glance of her and she decided to take her home. Her mother approved the idea. They together gave her the name 'Simi', and happily brought her home.
So far nobody had trained the puppy, so Asha thought she should train her. Next morning she took simi out and gave her some lessons. A trainer has to be a bit strict. So, she punished her when she disobeyed and rewarded her when she did what Asha wanted her to do. On the whole, the training was not so difficult. In a week's time Simi became a good cultured puppy.

86. Asha took the puppy home, because she
(1) pitied her (2) liked her glance
(3) liked dogs (4) needed a puppy.

87. 'She disobeyed .....'. Here 'she' refers to
(1) Asha (2) Asha's mother
(3) the puppy (4) the storyteller

88. What is opposite word for reward?
(1) Encouragement (2) Punishment
(3) Gift (4) Scolding

89. The puppy was named Simi by
(1) Asha (2) her mother
(3) Asha and her mother (4) a friend of Asha

90. Which of the following words mean : "... did what she wanted her to do"?
(1) Obeyed
(2) Performed
(3) Followed
(4) Picked

Passage 4

It was a full-moon's night. Bright moonlight flooded the road. I was walking slowly. Suddenly, I heard a whistling sound. At first, I thought it was another late evening stroller like me. The sound was lour and cheerful. Suddenly, a boy on a bicycle sped past me. I could not see his face. After a few minutes he was back again. This time he stopped a few feet away from me and gave me a smile. He looked like a slim boy of fourteen. He wore a school blazer, a cap and a scarf. His eyes were bright and cool like moonlight. "You don't have a bell on your bicycle," I said. He said nothing. I put out my hand but he did not take it. Then, quite suddenly he sped past again. The next day I learnt that, that whistling boy was a ghost!

91. Who appeared quite rapidly?
(1) The whistling boy (2) The author
(3) The moon (4) The bicycle

92. Why could the narrator not see the face of the boy?
(1) He was afraid of the boy
(2) The boy sped past quickly
(3) The boy did not like him
(4) He was an ugly looking boy

93. What did the boy not wear?
(1) Scarf (2) A cap
(3) An overcoat (4) A blazer

94. Why did the boy not take the hands of the stroller?
(1) He was busy
(2) He did not like him
(3) He was a ghost
(4) He was in hurry

95. What was most unusual about the boy?
(1) He was cycling fast
(2) His eyes were bright but cool like moonlight
(3) He wore a school uniform
(4) He was whistling

Passage 5

I was about six years old. Once I saw a beautiful picture in a book. It was a picture of a dense forest. I thought about the forest and drew a picture of an animal. I showed it to some grown-ups and asked them. "Are you afraid of it?" But they asked me, "Afraid? Why should one be afraid of a hat?"
My drawing was not of a hat. To me, it was an elephant. But the grown-ups were not able to understand it. One of these gorwn-ups ven advised me, 'Stop drawing. Devote yourself instead to Geography, Arithmetic or Grammar." That is why I gave up drawing. That is why I could not become a great artist.

96. The boy drew a picture of
(1) a forest (2) an animal
(3) a girl (4) a hat

97. 'Afraid?' is
(1) a question (2) a statement
(3) a request (4) an order

98. But for the advice of grown-ups, the child would have become
(1) a geographer (2) a mathematician
(3) an artist (4) a grammarian

99. Why did the child give up drawing?
(1) He was so advised
(2) He wanted to become a mathematician
(3) He had no time for it
(4) It was very difficult to draw

100. The opposite word for 'beautiful' is
(1) Tidy
(2) Lovely
(3) Pretty
(4) Ugly

Answers

1. (4)	**2.** (4)	**3.** (4)	**4.** (4)	**5.** (4)	**6.** (4)	**7.** (2)	**8.** (4)	**9.** (4)	**10.** (3)
11. (2)	**12.** (1)	**13.** (2)	**14.** (1)	**15.** (3)	**16.** (1)	**17.** (3)	**18.** (1)	**19.** (1)	**20.** (3)
21. (3)	**22.** (2)	**23.** (2)	**24.** (2)	**25.** (4)	**26.** (4)	**27.** (2)	**28.** (3)	**29.** (1)	**30.** (1)
31. (3)	**32.** (3)	**33.** (3)	**34.** (3)	**35.** (3)	**36.** (4)	**37.** (3)	**38.** (3)	**39.** (1)	**40.** (2)
41. (2)	**42.** (2)	**43.** (4)	**44.** (3)	**45.** (2)	**46.** (1)	**47.** (2)	**48.** (2)	**49.** (1)	**50.** (4)
51. (3)	**52.** (2)	**53.** (2)	**54.** (1)	**55.** (1)	**56.** (1)	**57.** (2)	**58.** (4)	**59.** (3)	**60.** (1)
61. (4)	**62.** (2)	**63.** (2)	**64.** (4)	**65.** (2)	**66.** (2)	**67.** (3)	**68.** (3)	**69.** (2)	**70.** (1)
71. (2)	**72.** (2)	**73.** (2)	**74.** (3)	**75.** (3)	**76.** (3)	**77.** (3)	**78.** (4)	**79.** (2)	**80.** (4)
81. (2)	**82.** (1)	**83.** (3)	**84.** (3)	**85.** (1)	**86.** (2)	**87.** (3)	**88.** (2)	**89.** (3)	**90.** (1)
91. (1)	**92.** (2)	**93.** (3)	**94.** (3)	**95.** (2)	**96.** (2)	**97.** (1)	**98.** (3)	**99.** (1)	**100.** (4)

Hints and Solutions

1. Except figure (4), all other figures curve line outside the circle in same manner.

2. Except figure (4), all other figures curve line cuts the circle in same manner.

3. Except figure (4), all other figures designs in both sides of line are same.

4. Except figure (4), all other figures plus (+) and (•) designs are inside the circle while in figure (4), multiplication (×) and (•) designs are inside the circle.

5. Except figure (4), all other figures design inside the triangle is same.

6. Answer figure (4) is similar to the given problem figure.

7. Answer figure (2) is similar to the given problem figure.

8. Answer figure (4) is similar to the given problem figure.

9. Answer figure (4) is similar to the given problem figure.

10. Answer figure (3) is similar to the given problem figure.

11. Answer figure (2) will complete the pattern of problem figure.

12. Answer figure (1) will complete the pattern of problem figure.

13. Answer figure (2) will complete the pattern of problem figure.

14. Answer figure (1) will complete the pattern of problem figure.

15. Answer figure (3) will complete the pattern of problem figure.

16. In each problem figure designs slips one step clockwise direction.

17. In each problem figure one small circle comes outside the curve line.

18. In each problem figure one small vertical line increase outside the rectangle.

19. Each problem figure rotates 90° clockwise direction.

20. In each problem figure shaded portion slips one place clockwise direction.

21. From problem figure I to II, whole figure goes to opposite side and lower design line becomes horizontal. Similar rule follow from problem figure III to answer figure.

22. From problem figure I to II, whole figure rotates 90° clockwise direction. Similar rule follow from problem figure III to answer figure.

23. From problem figure I to II, horizontal design rotates 45° anti-clockwise direction and vertical design rotates 135° clockwise direction. Similar rule follow from problem figure III to answer figure.

24. From problem figure I to II, whole figure becomes small and shaded. Similar rule follow from problem figure III to answer figure.

25. From problem figure I to II, whole figure rotates 90° clockwise direction and two shaded design comes to opposite it. Similar rule follow from problem figure III to answer figure.

26. Answer figure (4) will complete the problem figure.

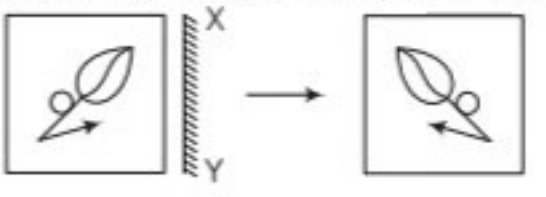
27. Answer figure (2) will complete the problem figure.

28. Answer figure (3) will complete the problem figure.

29. Answer figure (1) will complete the problem figure.

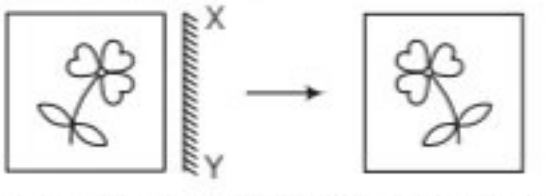
30. Answer figure (1) will complete the problem figure.

31.



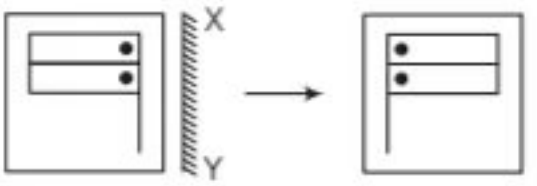
Answer figure (3) is the correct mirror image of the problem figure.

32.



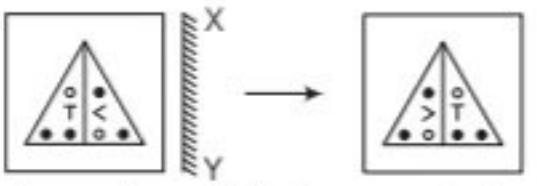
Answer figure (3) is the correct mirror image of the problem figure.

33.



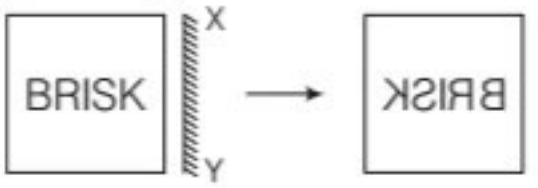
Answer figure (3) is the correct mirror image of the problem figur.

34.



Answer figure (3) is the correct mirror image of the problem figure.

35.



Answer figure (3) is the correct mirror image of the problem figure.

36. Answer figure (4) will appear when the piece of paper is folded, punched and open.

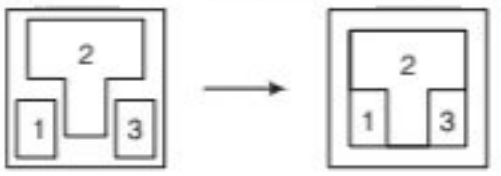
37. Answer figure (3) will appear when the piece of paper is folded, punched and open.

38. Answer figure (3) will appear when the piece of paper is folded, punched and open.

39. Answer figure (1) will appear when the piece of paper is folded, punched and open.

40. Answer figure (2) will appear when the piece of paper is folded, punched and open.

41.

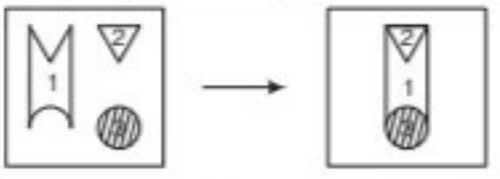


Answer figure (2) can be formed from the pieces given in problem figure.

42.

Answer figure (2) can be formed from the pieces given in problem figure.

43.



Answer figure (4) can be formed from the pieces given in problem figure.

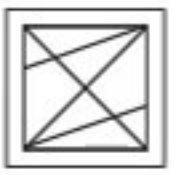
44.

Answer figure (3) can be formed from the pieces given in problem figure.

45.

Answer figure (2) can be formed from the pieces given in problem figure.

46.



Problem figure is embedded in answer figure (1).

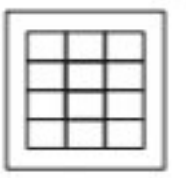
47.

Problem figure is embedded in answer figure (2).

48.

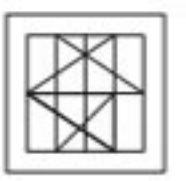
Problem figure is embedded in answer figure (2).

49.



Problem figure is embedded in answer figure (1).

50.



Problem figure is embedded in answer figure (4).

51. Five digits greatest number to be formed with the help of 7, 2, 4, 8 and 0 digit = 87420

52. According to the question, $\frac{3}{4}$th of

$144 = 144 \times \frac{3}{4} = 108$ and $\frac{2}{3}$rd of $96 = 96 \times \frac{2}{3} = 64$

$\therefore$ Required difference $= 108 - 64 = 44$

53. Required value $= 641664 \div 16 = 40104$

54. First five multiple of 6 is as follows $6 \times 1, 6 \times 2, 6 \times 3, 6 \times 4, 6 \times 5$ or 6, 12, 18, 24, 30

$\therefore$ Required sum $= 6 + 12 + 18 + 24 + 30 = 90$

55. Required decimal value $= \frac{3}{4} + \frac{4}{5} + \frac{8}{25}$

$= 0.75 + 0.80 + 0.32 = 1.87$

56. Given, $3.65 \times 0.5 = 1.825$

$\therefore 365 \times 0.5 = 1.825 \times 100 = 182.5$

57. Percentage value of $\frac{17}{25} = \frac{17}{25} \times 100 = 68\%$

58. First five multiple of 6 is as follows

$6 \times 1, 6 \times 2, 6 \times 3, 6 \times 4, 6 \times 5$ or 6, 12, 18, 24, 30

$\because$ Sum of first five multiple of 6

$= 6 + 12 + 18 + 24 + 30 = 90$

$\therefore$ Required difference of ten's and unit's digits

$= 9 - 0 = 9$

59. Required greatest number

= HCF of $(1277 - 3)$ and $(1368 - 3)$

= HCF of 1274 and 1365

1274)1365(1 and 91)1365(15

1274 1365

91)1274(14 ×

1274

×

$\therefore$ Greatest number = 91

60.

2	114, 95
3	57, 95
19	19, 95
5	1, 5
	1, 1

$\therefore$ Required LCM $= 2 \times 3 \times 19 \times 5 = 570$

61. $24 + [6 - \{5 - 2(4 - 3)\}]$

$= 24 + [6 - \{5 - 2 \times 1\}] = 24 + [6 - 3] = 24 + 3 = 27$

62. First 7 multiple of 13 is as follows

$13 \times 1, 13 \times 2, 13 \times 3, 13 \times 4, 13 \times 5, 13 \times 6, 13 \times 7$ or

13, 26, 39, 52, 65, 78, 91

$\therefore$ Required sum

$= 13 + 26 + 39 + 52 + 65 + 78 + 91$

$= 364 = 365$ (approx.)

63.

64. Suppose Ram's weight $= x$ kg

Then, Rajesh's weight $= (x - 5)$ kg

and Neha's weight $= (x + 3)$ kg

Then, $x + (x - 5) + (x + 3) = 103 \Rightarrow 3x - 2 = 103$

$\Rightarrow \quad 3x = 105$

$\therefore \quad x = \frac{105}{3} = 35$ kg

65. Average speed of the bus $= \frac{400}{8} = 50$ km/h

66. From the given bar chart we clearly say that 8 students play table tennis.

67. Total number of students

$= 2 \times 50 + 3 \times 50 + 4 \times 50 + 6 \times 50$

$= 100 + 150 + 200 + 300 = 750$

Number of students use school van $= 6 \times 50 = 300$

$\therefore$ Required percentage $= \frac{300}{750} \times 100 = 40\%$

68. Suppose principal amount = ₹ P, then amount

= ₹ $3P$

$\therefore$ Simple interest $= 3P - P =$ ₹ $2P$

$\because$ Simple interest $= \frac{P \times r \times t}{100}$

$\Rightarrow 2P = \frac{P \times 25 \times t}{100} \Rightarrow t = \frac{100 \times 2}{25} = 8$ yr

69. $\because$ Price of 12 kg potato = ₹ 360

$\therefore$ Price of 1 kg potato = ₹ $\frac{360}{12}$ = ₹ 30

$\therefore$ Price of 8 kg potato $= 30 \times 8 =$ ₹ 240

70. Cost price of the book = ₹ 150

Selling price of the book = ₹ 180

Profit = $180 - 150 =$ ₹ 30

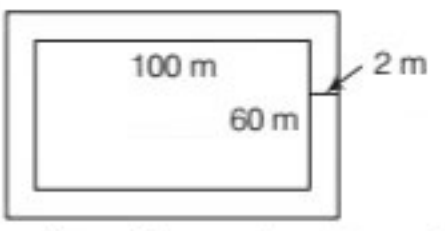
$\therefore$ Profit percentage $= \frac{30}{150} \times 100 = 20\%$

71. Area of the hall $= (4.8 \times 3.6)\ m^2$

Area of the square tiles $= (1.2 \times 1.2)\ m^2$

$\therefore$ Required number of tiles $= \frac{4.8 \times 3.6}{1.2 \times 1.2} = 12$

72.



$\because$ Area of the rectangular park

$= 100 \times 60 = 6000\ m^2$

Area of the rectangular park with path width

$= (100 + 2 \times 2) + (60 + 2 \times 2)$

$= 104 \times 64 = 6656\ m^2$

$\therefore$ Area of the path $= 6656 - 6000 = 656\ m^2$

73. Given, side of the square park = 100 m

$\therefore$ Perimeter of the square park = 4 × Side

$= 4 \times 100 = 400$ m

74. Relative speed $= 4 + 6 = 10$ km/h

$\therefore$ Time taken to cover 25 km distance $= \frac{25}{10}$

= 2 h 30 min

$\therefore$ Required time = 7:30 + 2:30 = 10:00 am

75. Both 11 and 21 are co-prime numbers.

Solved Papers

Jawahar *Navodaya Vidyalaya* Entrance Exam (Class VI)

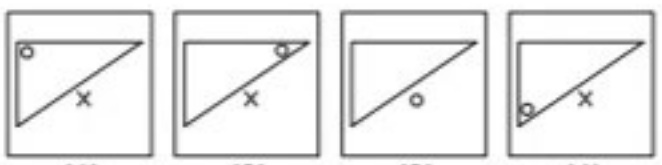
Solved Paper 2014

Section I Mental Ability Test

Part I

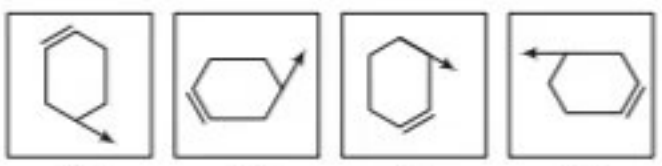
Directions (Q.Nos. 1-5) *In the following four figures* (1), (2), (3) *and* (4) *are given, three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.*

1.



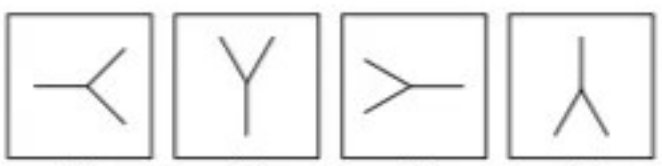
(1) (2) (3) (4)

2.



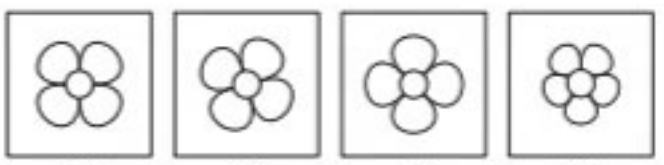
(1) (2) (3) (4)

3.



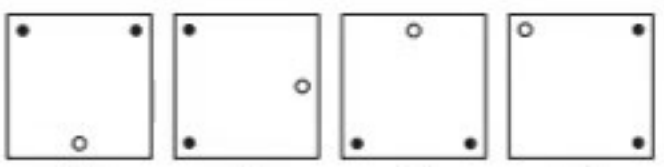
(1) (2) (3) (4)

4.



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

5.



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

Part II

Directions (Q.Nos. 6-10) *In the given question figure followed by four alternatives* (1), (2), (3) *and* (4). *Select the figure from answer list which is exactly similar to question figure.*

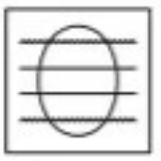
6. Problem Figure

Answer Figures

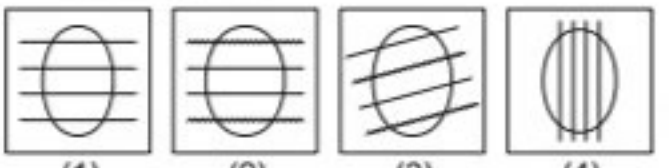
(1) (2) (3) (4)

7. Problem Figure

Based on Memory



Answer Figures



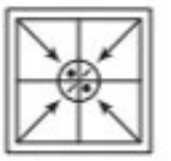
(1) (2) (3) (4)

8. Problem Figure

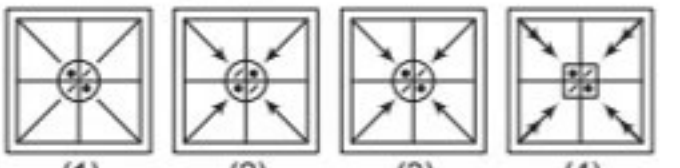
Answer Figures

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

9. Problem Figure



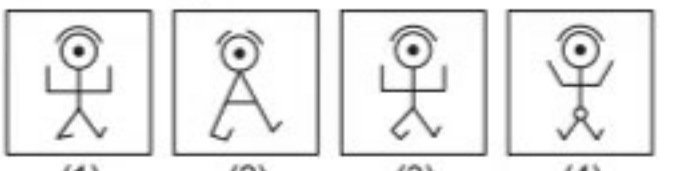
Answer Figures



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

10. Problem Figure

Answer Figures

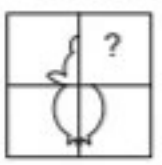


(1) (2) (3) (4)

Part III

Directions (Q.Nos. 11-15) *In problem figure is given followed by four alternatives. Select a figure from the four alternatives, which when placed in the blank space of problem figure would complete the pattern of problem figure without altering the direction of answer figure.*

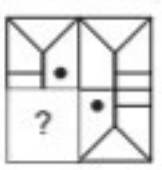
11. Problem Figure



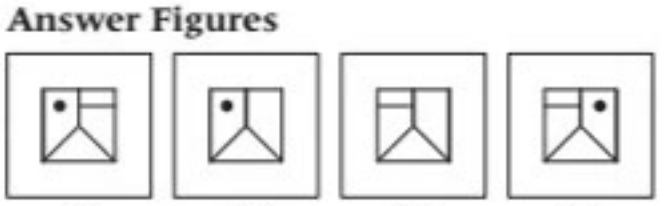
Answer Figures

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

12. Problem Figure

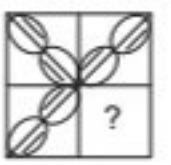


Answer Figures

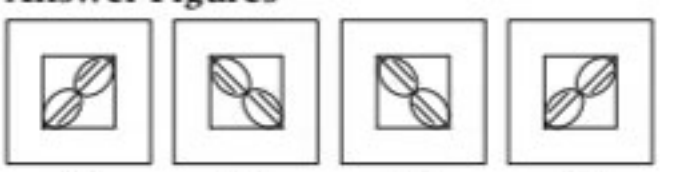


(1) (2) (3) (4)

13. Problem Figure

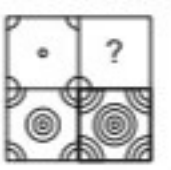


Answer Figures

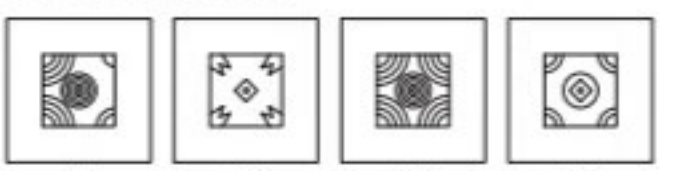


(1) (2) (3) (4)

14. Problem Figure

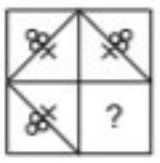


Answer Figures

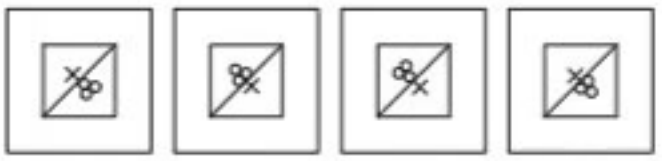


(1) (2) (3) (4)

15. **Problem Figure**



Answer Figures

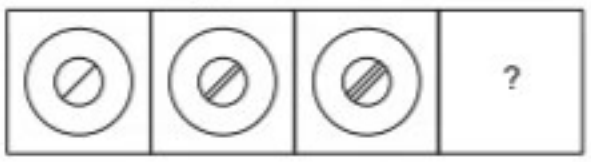


(1) (2) (3) (4)

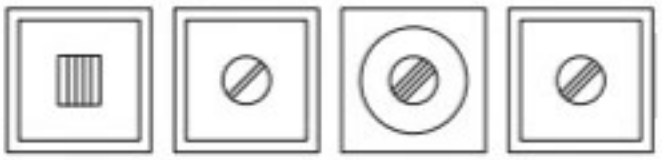
Part IV

Directions (Q.Nos. 16-20) *Three complete and fourth blank space is given choose the set of figures which follows the rule and would replace the blank space given in problem figure from the four alternatives given.*

16. **Problem Figures**

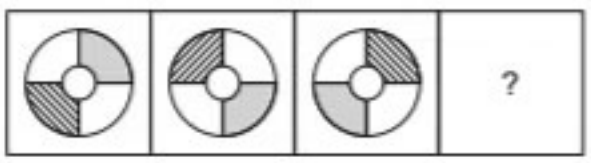


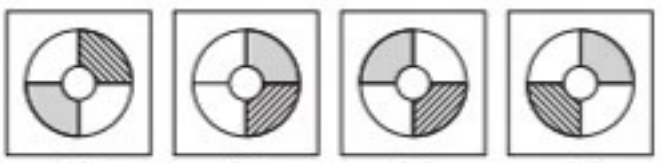
Answer Figures



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

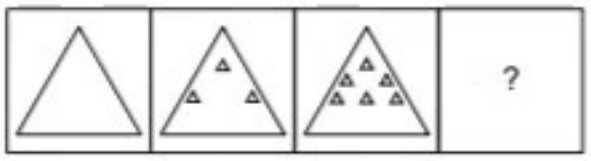
17.

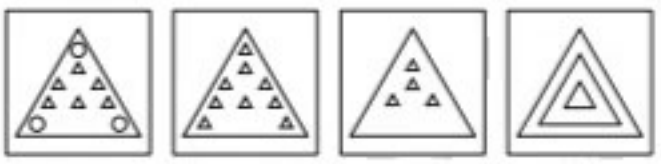




(1) (2) (3) (4)

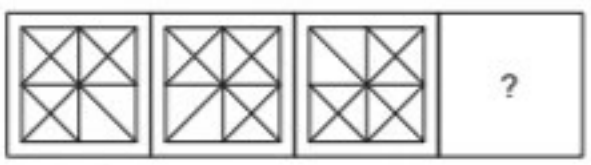
18.

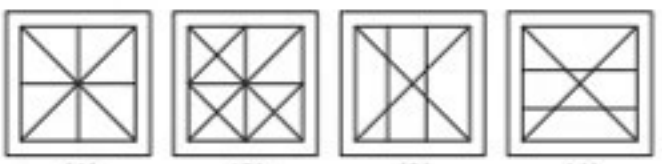




(1) (2) (3) (4)

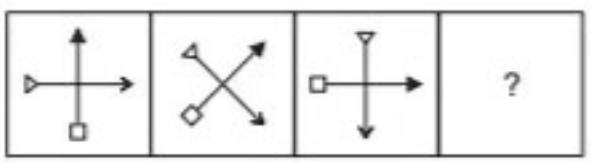
19.

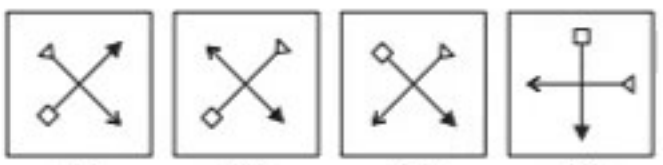




(1) (2) (3) (4)

20.



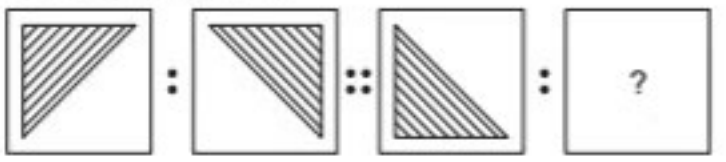


(1) (2) (3) (4)

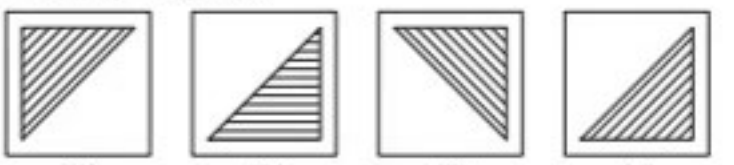
Part V

Directions (Q. Nos. 21-25) *There are two sets of figure given. There is a definite relationship between first two. Establish a similar relationship between third and fourth by selecting a suitable figure from answer that would replace the question mark.*

21. **Problem Figures**

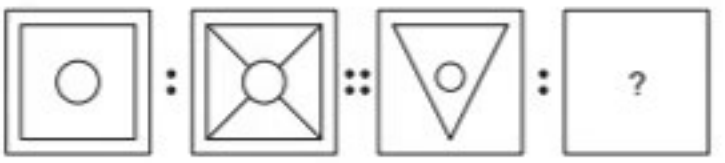


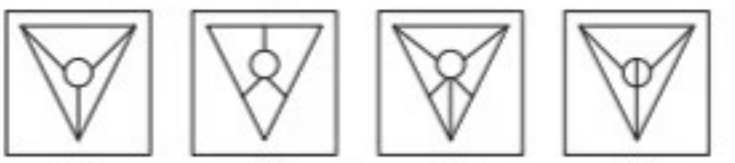
Answer Figures



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

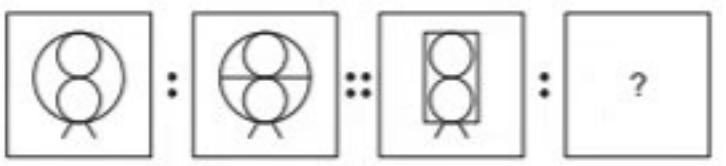
22.

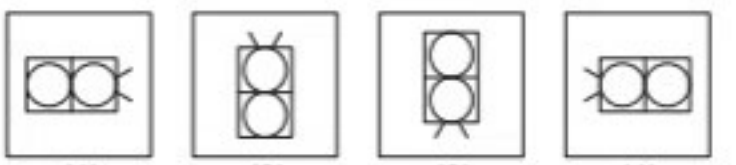




(1) (2) (3) (4)

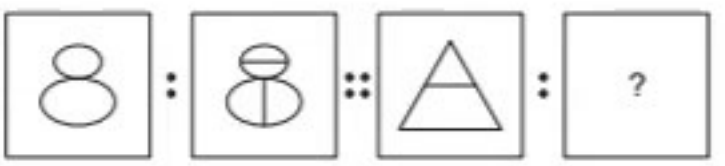
23.

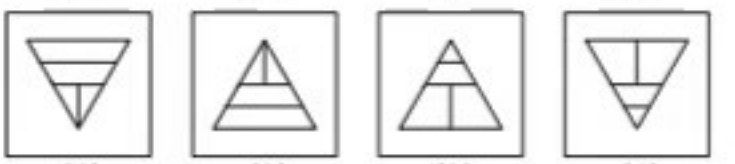




(1) (2) (3) (4)

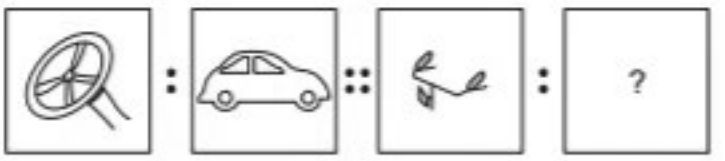
24.

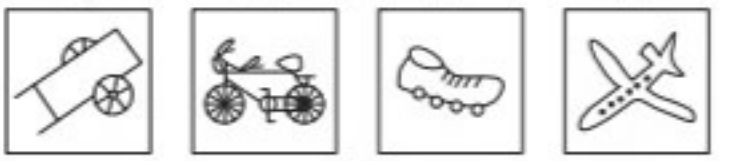




(1) (2) (3) (4)

25.





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

Part VI

Directions (Q. Nos. 26-30) *There are four alternatives* (1), (2), (3) *and* (4) *given. You have to select the alternatives which completes squares given the problem figure.*

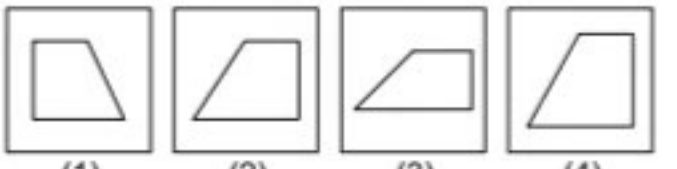
26. **Problem Figure**

Answer Figures

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

27. **Problem Figure**

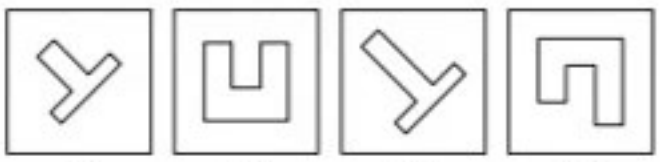
Answer Figures



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

28. Problem Figure

Answer Figures



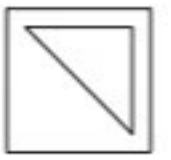
(1) (2) (3) (4)

29. Problem Figure

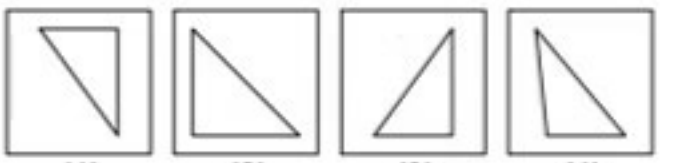
Answer Figures

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

30. Problem Figure



Answer Figures



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

Part VII

Directions (Q.Nos. 31-35) *There are four alternatives* (1), (2), (3) *and* (4) *given. You have to choose the correct mirror image of the problem figure, when the mirror held on the line* XY.

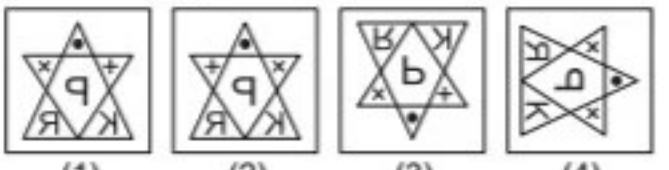
31. Problem Figure

Answer Figures

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

32. Problem Figure

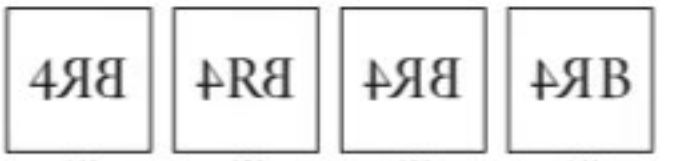
Answer Figures



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

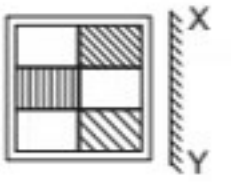
33. Problem Figure

Answer Figures

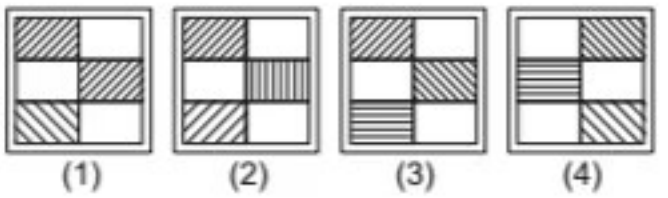


(1) (2) (3) (4)

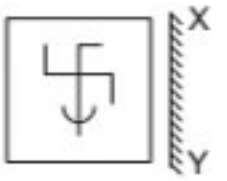
34. Problem Figure



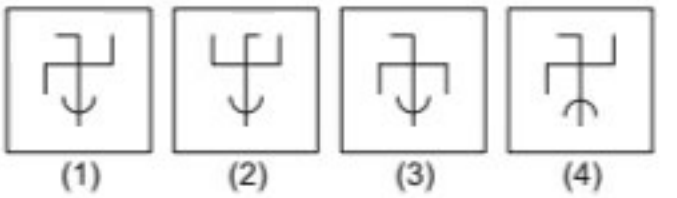
Answer Figures



35. **Problem Figure**



Answer Figures

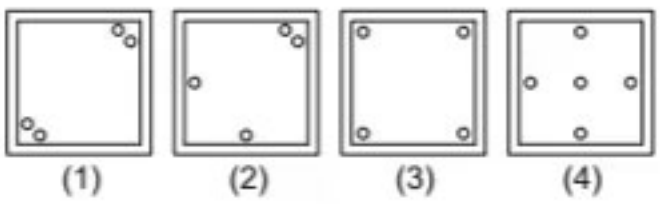


Part VIII

Directions (Q.Nos. 36-40) *Consist a set of three figures showing a sequence of folding a piece of paper third problem figures shows to manner in which the folded paper has been cut. These three figures are followed by four answer figures from which you have to choose a figure which would most closely resemble the unfolded form of third figure of question.*

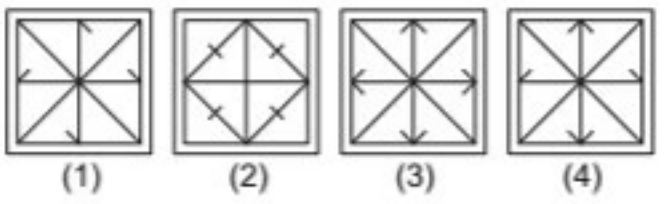
36. **Problem Figures**

Answer Figures



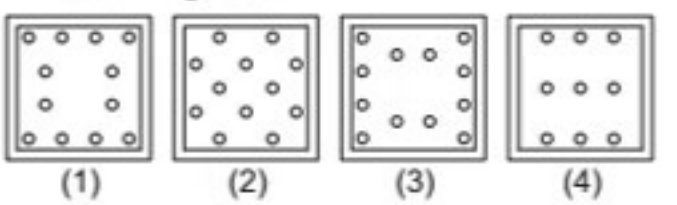
37. **Problem Figures**

Answer Figures

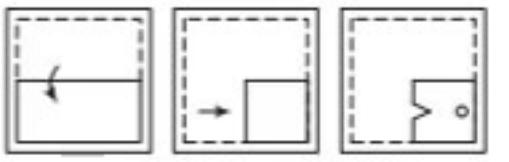


38. **Problem Figures**

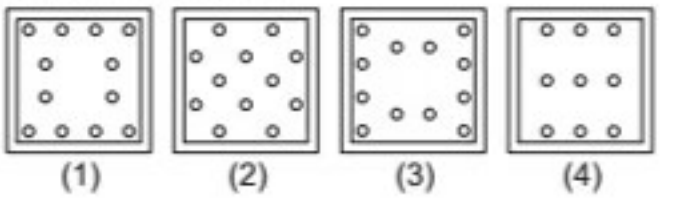
Answer Figures



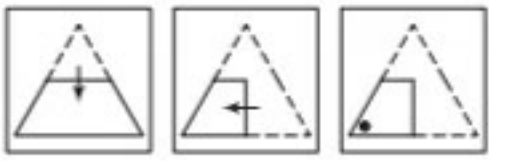
39. **Problem Figures**



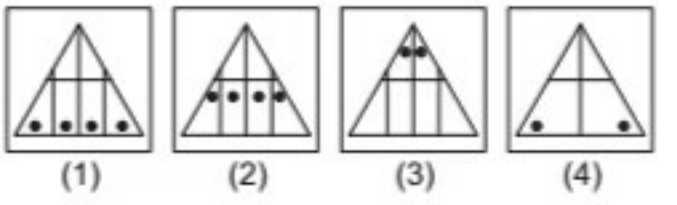
Answer Figures



40. **Problem Figures**



Answer Figures



Part IX

Directions (Q.Nos. 41-45) *problem figure is followed by four alternatives, find out which of the figure from* (1), (2), (3) *and* (4) *can be formed from the pieces given in problem figure.*

41. Problem Figure

Answer Figures

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

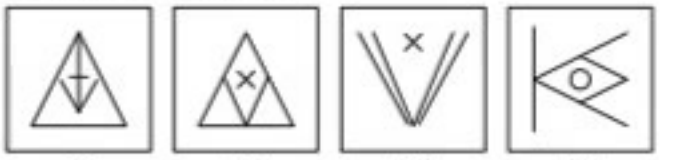
42. Problem Figure

Answer Figures

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

43. Problem Figure

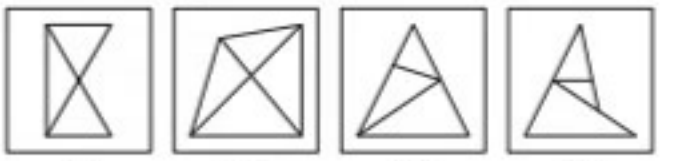
Answer Figures



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

44. Problem Figure

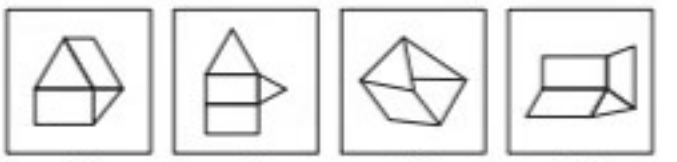
Answer Figures



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

45. Problem Figure

Answer Figures



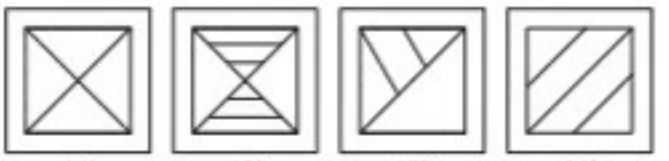
(1) (2) (3) (4)

Part X

Directions (Q.Nos. 46-50) *In problem figure is embedded in any one of the four alternatives* (1), (2), (3) *and* (4). *Find out the alternatives which contains problem figure as its part.*

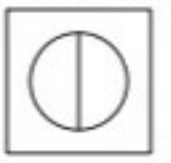
46. Problem Figure

Answer Figures

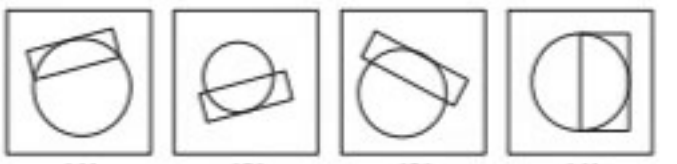


(1) (2) (3) (4)

47. Problem Figure

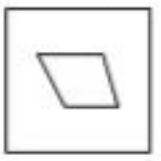


Answer Figures

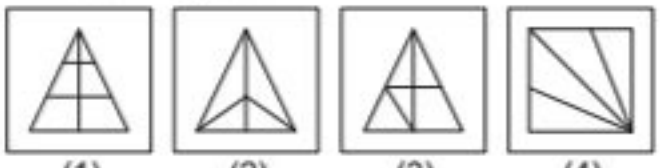


(1) (2) (3) (4)

48. **Problem Figure**



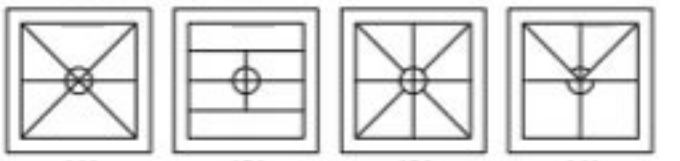
Answer Figures



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

49. **Problem Figure**

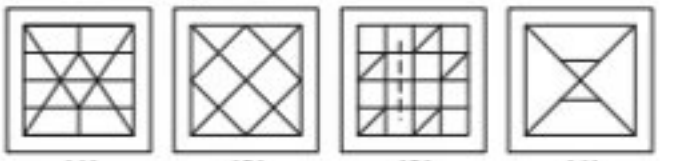
Answer Figures



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

50. **Problem Figure**

Answer Figures



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

Section II **Arithmetic Test**

51. Five digits greatest odd number to be formed with the help of 3, 5, 7, 9 and 0 is

(1) 90573 (2) 97530
(3) 97503 (4) 97053

52. Five digits smallest number, which is completely divisible by 75 is

(1) 10025 (2) 10050
(3) 10075 (4) 9975

53. Following graph represents the number of carton filled with oranges in 4 days of a week sold by a vendor.

Day	Number of Oranges Sold
Monday	● ●
Wednesday	● ● ●
Friday	● ● ● ● ● ●
Sunday	● ● ● ●

● = 15 Oranges

If vendor still remain with 25 oranges in a carton, then what was the number of oranges at the beginning?

(1) 200
(2) 225
(3) 250
(4) 300

54. Greatest number, which is to be divided by 280 and 1245 leaves the remainder 4 and 3 respectively, is

(1) 138 (2) 148
(3) 145 (4) 178

55. Three bells ring at intervals of 12 min, 15 min and 18 min respectively. They started ringing simultaneously at 9 : 00 am. What will be the next time when they all ring simultaneously?

(1) 10 : 00 am (2) 11 : 00 am
(3) 12 : 00 pm (4) 01 : 00 pm

56. 1000000 is obtained, when a number is subtracted from the sum of 893645 and 635489, find that number.

(1) 106355 (2) 364511
(3) 51329 (4) 529134

57. For a shirt, cloth required must be 2 m 75 cm. Then, how much cloth would be taken to have such 6 shirts?

(1) 15 m 50 cm (2) 16 m 50 cm
(3) 18 m (4) 21 m

58. What is the maximum difference between the number formed by 7 various numerals and 6 various numerals?

(1) 1 (2) 35802
(3) 38502 (4) 999998

59. Which of the following is equivalent to 1.01?

(1) 101 % (2) 10.1 %
(3) 1.01 % (4) 1010 %

60. Weight of tomato comprises 90% of water. Weight of water in 25 kg of tomato is

(1) 24 kg (2) 22.5 kg
(3) 21 kg (4) 19.5 kg

61. In what time ₹ 4250 amounts to ₹ 5610 at the rate 8 % per annum?
(1) 8 yr (2) 5 yr
(3) 6 yr (4) 4 yr

62. If $4015 \div 11 = 365$, $40.15 \div 1.1$ is equal to
(1) 36.5 (2) 3.65
(3) 0.365 (4) 0.0365

63. 00.0675 is divided by 15, quotient is
(1) 6.0045 (2) 6.0450
(3) 60.0450 (4) 0.6045

64. Next term of 80, 10, 70, 15, 60, ... is
(1) 20 (2) 25
(3) 30 (4) 50

65. Unit digit of product of first ten prime number is
(1) 6 (2) 4
(3) 2 (4) 0

66. If sum of each row, column and diagonals are equal, then the value of x, y, z and w respectively, is

8	x	z
y	5	w
4	9	2

(1) 4, 6, 8, 7 (2) 1, 3, 6, 7
(3) 1, 6, 3, 7 (4) 3, 6, 7, 1

67. If each side of square will be doubled, then its perimeter will be
(1) 2 times (2) 3 times
(3) 4 times (4) 8 times

68. A man crosses a 600 m long bridge in 5 min speed of man is km/h will be
(1) 3.6 (2) 7.2
(3) 8.4 (4) 9.6

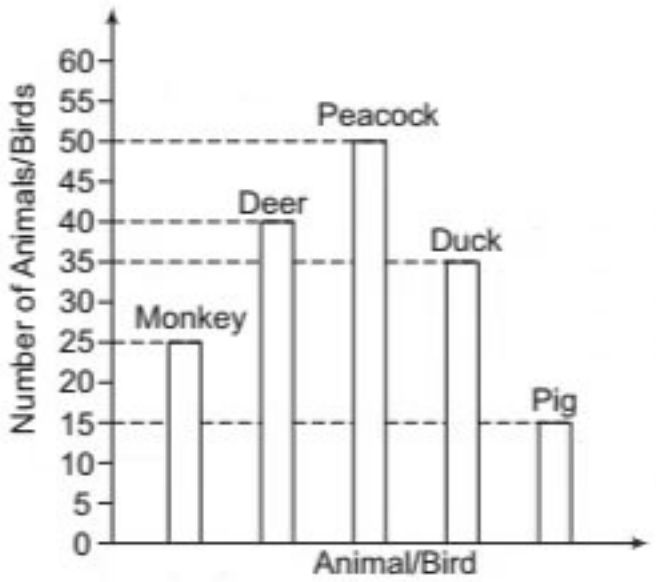
69. A man do a work in 12 days working 8 h per day. If he does 6 h per day, what would be the number of days taken by him?
(1) 12 days (2) 14 days
(3) 16 days (4) 18 days

70. 1/5 part of a drum is filled with milk. What is the capacity of drum if it require 28 L more to fall the drum completely?
(1) 30 L (2) 32 L
(3) 35 L (4) 140 L

71. $\frac{0.1}{0.01} + \frac{0.01}{0.1}$ is equal to
(1) $\frac{101}{10}$ (2) $\frac{1101}{100}$
(3) $\frac{11}{10}$ (4) $\frac{1001}{100}$

72. In an examination Karan got 10 marks more than Bhavna. Isha got 5 marks less than Bhavna. If Trio get a total of 170, then what is the marks obtained by Isha?
(1) 65 (2) 55
(3) 50 (4) 45

73. A class visit a park and there they saw some animals and birds. They plot a graph by placing the number of animals and birds.



Sum of number of Deer and Monkey is more than the number of Peacock is
(1) 25 (2) 15
(3) 10 (4) 5

74. In a musical concert, 15% of the total is reserve for first class. If all the tickets were sold except 171 ticket of first class, then how many tickets were sold?
(1) 1710 (2) 1600
(3) 1140 (4) 180

75. A shopkeeper ₹ 10 for every bottle of coke or ₹ 240 for every carat of 30 bottles. If Vandana wants to buy 185 bottle of coke, what amount she will have to pay?
(1) ₹ 1480 (2) ₹ 1490
(3) ₹ 1600 (4) ₹ 1850

Section III **Language Test** (English)

Directions (Q.Nos. 76-100) *There are five passages. Each passage has five questions. Read the following passage carefully and answer the questions that follow.*

Passage I

Issac Newton was a great scientist. He was born in 1642 and died in 1727. He discovered the law of gravitation. It was the falling of an apple in the garden that set him thinking. He was trying to find why the Earth went round the Sun and the Moon round the Earth. He asked himself, "Why does an apple fall to the Earth?" This led hiim to his discovery. Newton also found out that white light is made up of seven colours. We see these colours in the rainbow. He also made many other discoveries. Newton was a very learned man. But he was very humble. Shortly before his death, he said, "I seem to have been only like a boy playing on the sea-shore while the great ocean of truth lay undiscovered before me."

76. Issac Newton was a great
(1) doctor
(2) teacher
(3) leader
(4) scientist

77. When was he born?
(1) In 1727
(2) In 1627
(3) In 1642
(4) In 1742

78. What did set him thinking?
(1) The falling of a fig
(2) The falling of an apple
(3) The falling of a coconut
(4) The falling of a man

79. How many colours do make the white light?
(1) Five (2) Ten (3) Three (4) Seven

80. The Earth moves round the
(1) Moon (2) Sun (3) Mars (4) Stars

Passage II

Arjuna went to Dwarka to ask support from Krishna. The same day Duryodhana also reached there to seek Krishna's help. Duryodhana reached first, but seeing Krishna asleep; he sat down on a cushion at the side of his head and waited. Then, reached Arjuna and waited standing near Krishna's feet. When Krishna awoke, Duryodhana requested him to be on his side in the war. "But I will bear no weapon," said Krishna. "Both of you have to choose between myself and my vast army. Arjuna has the first choice, for I saw him first." Arjuna choose Krishna without arms and Duryodhana had the army of eleven hundred million soldiers, well tried and tested in several wars.

81. Who went to Dwarka to ask support from Krishna?
(1) Arjuna
(2) Duryodhana
(3) Arjuna and Duryodhana both
(4) Karna

82. Who kept standing towards Krishna's feet?
(1) Bhima
(2) Duryodhana
(3) Arjuna
(4) None of the above

83. Who preferred Krishna's army in place of Krishna?
(1) Duryodhana (2) Bhima
(3) Arjuna (4) Karna

84. How many soldiers were there in Krishna's army?
(1) One hundred million soldiers
(2) Five hundred million soldiers
(3) Eleven hundred million soldiers
(4) Twenty hundred million soldiers

85. Where did Arjuna go to ask support from Krishna?
(1) Mathura (3) Agra
(3) Dwarka (4) Ayodhaya

Passage III

Once upon a time, there lived a Rajput king at Malwa. His kingdom was small, quiet and peaceful. There were no major battles on political problems. So his one aim in life was to make his people happy.

One year there was a severe drought. The fields were dry and cracked, and the trees were bare. There were no flowers and fruits in the land or crops of any kind. The king was worried. How was he to save the people from famine?

He walked to the river Narmada, knelt down and prayed. "O Sacred Narmada, bless us with rain. Save my people from famine, and I shall offer you my first-born child."

Before long, the sky was overcast with clouds and it rained heavily. The wet Earth was ploughed, seeds were sown and a few months later a bumper crop was harvested. The people rejoiced.

86. What was the king's problem?
(1) Wars (2) Politics
(3) Famine (4) Flood

87. Which statement does show that the Rajput king loved his people?
(1) The king offered his first-born child to river Narmada
(2) He opened the gates of the state granary for his people
(3) He forced his neighbouring states to contribute food
(4) He set up relief camps to feed the hungry

88. When there is drought
(1) there is lot of rain
(2) the Earth is dry and cracked
(3) people are very happy
(4) people sow the seeds

89. The king prayed Narmada for
(1) grains (2) famine
(3) a child (4) rain

90. 'Before long' means
(1) a long time ago (2) for a longtime
(3) very soon (4) in the past

Passage IV

The train was moving very fast. But the engine driver noticed the boy, waving his red shirt, running towards the engine. The driver was surprised and angry. He blew the whistle. The boy did not stop. So the driver slowed the train down. The boy ran faster towards it. "Stop stop" he shouted. The driver stopped the train, he got down from the engine. Ramu came running to the driver. He was panting for breath. He was pointing towards the bridge. "What is the matter," asked the driver angrily. 'Oh; the bridge is broken", said Ramu, "You can not take the train over." All the passengers came down the train. They saw that the bridge was really broken. They were very happy and thankful. The driver thanked Ramu and said, "You are really a brave boy, you have done a brave deed."

91. Spot the correct statement.
(1) The engine driver was panting for breath
(2) The passengers gave a good beating to Ramu
(3) Ramu was waving his red shirt running towards the engine
(4) Ramu was running away from the engine

92. Ramu was pointing
(1) towards the river
(2) towards the borken bridge
(3) towards the broken rails
(4) towards his village

93. Why did the driver blow the whistle?
(1) The driver blew the whistle angrily to stop the boy
(2) The driver blew the whistle to stop the train
(3) The driver blew the whistle to warn the passengers
(4) The driver blew the whistle to step up the speed of the train

94. Ramu was
(1) not a brave boy (2) a naughty boy
(3) a coward boy (4) a brave boy

95. The colour of Ramu's shirt was
(1) green (2) red
(3) yellow (4) white

Passage V

Simi was a puppy. She was very cute. Asha found her crying in a park. When she picked her up, the puppy stopped crying and looked at her. Asha liked that glance of her and she decided to take her home. Her mother approved the idea. They together gave her the name 'Simi', and happily brought her home.

So far nobody had trained the puppy, so Asha thought she should train her. Next morning she took Simi out and gave her some lessons. A trainer has to be a bit strict. So she punished her when she disobeyed and rewarded her when she did what Asha wanted her to do. On the whole, the training was not so difficult. In a week's time Simi became a good cultured puppy.

96. Asha took the puppy home because she
(1) pitied her (2) liked her glance
(3) liked dogs (4) needed a puppy

97. 'She disobeyed...' 'She' here refers to
(1) Asha (2) Asha's mother
(3) the puppy (4) the storyteller

98. What is the opposite of 'reward'?
(1) Encouragement (2) Punishment
(3) Gift (4) Scolding

99. The puppy was named Simi by
(1) Asha
(2) Her mother
(3) Asha and her mother
(4) A friend of Asha

100. Which of the following words does mean "...did what she wanted her to do"?
(1) Obeyed (2) Performed
(3) Followed (4) Picked

Answers

1. (3)	**2.** (3)	**3.** (1)	**4.** (4)	**5.** (4)	**6.** (3)	**7.** (2)	**8.** (4)	**9.** (3)	**10.** (3)
11. (4)	**12.** (3)	**13.** (2)	**14.** (3)	**15.** (4)	**16.** (3)	**17.** (3)	**18.** (2)	**19.** (2)	**20.** (3)
21. (3)	**22.** (1)	**23.** (3)	**24.** (3)	**25.** (2)	**26.** (4)	**27.** (3)	**28.** (1)	**29.** (4)	**30.** (2)
31. (2)	**32.** (1)	**33.** (3)	**34.** (2)	**35.** (1)	**36.** (1)	**37.** (3)	**38.** (2)	**39.** (3)	**40.** (4)
41. (2)	**42.** (3)	**43.** (2)	**44.** (3)	**45.** (1)	**46.** (2)	**47.** (4)	**48.** (3)	**49.** (3)	**50.** (1)
51. (3)	**52.** (2)	**53.** (3)	**54.** (1)	**55.** (3)	**56.** (4)	**57.** (2)	**58.** (1)	**59.** (1)	**60.** (2)
61. (4)	**62.** (1)	**63.** (1)	**64.** (1)	**65.** (4)	**66.** (2)	**67.** (1)	**68.** (2)	**69.** (3)	**70.** (3)
71. (1)	**72.** (3)	**73.** (2)	**74.** (3)	**75.** (2)	**76.** (4)	**77.** (3)	**78.** (2)	**79.** (4)	**80.** (2)
81. (3)	**82.** (3)	**83.** (1)	**84.** (3)	**85.** (3)	**86.** (3)	**87.** (1)	**88.** (2)	**89.** (4)	**90.** (3)
91. (3)	**92.** (2)	**93.** (1)	**94.** (4)	**95.** (2)	**96.** (2)	**97.** (3)	**98.** (2)	**99.** (3)	**100.** (1)

Hints and Solutions

1. Remaining all figures contains two small figure namely circle (o) and cross (X) and the circle is inside the triangle while cross is outside the triangle.

2. Remaining all figures are obtained by rotation either in clockwise or in anti-clockwise direction.

3. Remaining all figures contains smaller angle than first one.

4. Remaining all flower like figure carries 4 leaves.

5. Remaining all figure constitute smaller circle at its middle of the side but in figure which is odd is at its corner.

6. Figure number (3), is exactly similar to Problem Figure.

7. Figure number (2), is exactly similar to Problem Figure.

8. Figure number (4), is exactly similar to Problem Figure.

9. Figure number (3), is exactly similar to Problem Figure.

10. Figure number (3), is exactly similar to Problem Figure.

11. If answer figure (4), would replace the blank space in Problem Figure then Problem Figure would be justified.

12. If answer figure (3), would replace the blank space in Problem Figure would be justified.

13. If answer figure (2), would replace the blank space in Problem Figure would be justified.

14. In the given Problem Figure number of small arc are in increasing mode successively (*i.e.*, 1, 2, 3), then the figure with 4 small arc would replace the blank space of Problem Figure to make justified.

15. If answer figure (4), would replace the blank space given in Problem Figure then it would be justified.

16. In the given Problem Figure, number of lines are in increasing mode in the smaller circle with single line of increase at a time. Hence, answer figure with four lines inside the smaller circle would replace the Problem Figure.

17. Every successive figure, rotate clockwise with angle of 90°. Hence, answer figure (3), would be the best suited choice.

18. Every successive figure goes on increasing with three smaller triangles at a time. Hence, the blank space of the Problem Figure would by replace by the figure having a smaller triangle.

19. In every successive figure, inner square with one side open rotate through 90° in clockwise direction. Hence, answer figure (2) would replace the blank space of Problem Figure.

20. In every successive figure, both the arrows and the smaller designs adjoining by them rotate through 45° in clockwise direction hence, blank space of Problem Figure would be replace by answer figure (3).

21. Figure (2) is obtained through the rotation along a side of square likewise answer figure (3) is obtained from Problem Figure (3).

22. Likewise circle is connected to all corner of square similarly circle is connected to all vertex of triangle internally.

23. Likewise a common tangent drawn in first to obtained second in the same way answer figure (3) is obtained from Problem Figure (3).

24. Likewise upper circle has horizontal line and the lower circle has vertical line in the same way answer figure (3) is related to Problem Figure (3).

25. As, the car has steering to drive a car in the same way a bicycle has a handle to control or ride.

31. Mirror image of K ⇒ ꓘ
N ⇒ И
O ⇒ O

Hence, answer figure (2) is right.

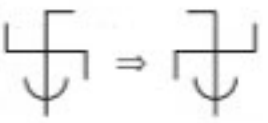
32. Mirror image of
+ ⇒ +
• ⇒ •
X ⇒ X
K ⇒ ꓘ
R ⇒ Я

Hence, answer figure (1) is right.

33. Mirror image of
B ⇒ ꓭ, R ⇒ Я and 4 ⇒ ↄ
Hence, answer figure (3) is right.

34. Mirror image of R H S ↔ L H S
Hence, answer figure (2) is right.

35. Mirror image of



Hence, answer figure (1) is right.

51. The number which are not divisible by 2 is called an odd number. Hence, the greatest number that can be formed by 3, 5, 7, 9 and 0 is 97503.

52. Smallest number of five digit = 10000
Five digit number which is multiplier of 75 is
= 10050, 10125, 10200, ... etc.
Hence, the smallest five digit number completely divisible by 75 will be 10050.

53. Oranges sold in Monday = 15 + 15 = 30
Oranges sold in Wednesday
= 15 + 15 + 15 = 45
Oranges sold in Friday
= 15 + 15 + 15 + 15 + 15 + 15 = 90
Oranges sold in Sunday
= 15 + 15 + 15 + 15 = 60
Number of oranges sold in four days of week altogether is given by
= 30 + 45 + 90 + 60 = 225
Now, according to question, oranges to be remain in carton = 25
Hence, total number of oranges = 25 + 225
= 250

54. Required number = 280 − 4 = 276
and 1245 − 3 = 1242
HCF of 276 and 1242 = 138
Hence, required number = 138

55. Time to rings the all three bell simultaneously
= LCM of 12, 15, 18 + 9 : 00 am
= 180 min + 9 : 00 am
= 3 h + 9 : 00 am = 12 : 00 pm

56. Sum = 893645 + 635489 = 1529134

Let the number which is to be subtracted is x,

then $1529134 - x = 1000000$

$\Rightarrow \quad x = 1529134 - 1000000 = 529134$

57. Required length of cloth for a shirt = 2 m 75 cm

= (200 + 75) cm = 275 cm

Hence, required length of cloth for such six shirt

= 275 × 6 = 1650 cm = (1600 + 50) cm

= 16 m + 50 cm

= 16 m 50 cm [∵ 1 m = 100 cm]

58. Smallest number of seven digit = 1000000

Greatest number of six digit = 999999

Required difference = 1000000 − 999999 = 1

59. $1.01 = \frac{101}{100} = 101\%$

60. Weight of water in 25 kg of tomato = 90% of 25 kg

= 22.5 kg

61. Time = t yr, Principal = ₹ 4250,

$r = 8\%$

Amounts = ₹ 5610

Amount = Principal + Interest

5610 = 4250 + Interest

Interest = 5610 − 4250 = 1360

Simple Interest

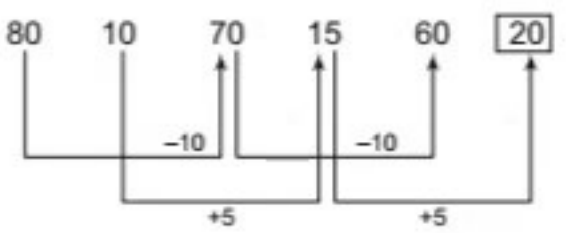
$= \frac{\text{Time} \times \text{Principal} \times \text{Rate of interest}}{100}$

$\Rightarrow \quad 1360 = \frac{t \times 4250 \times 8}{100}$

$\Rightarrow \quad t = \frac{1360 \times 100}{4250 \times 8} = 4$

$\therefore$ Time = 4 yr

64.



65. First ten prime numbers are

2, 3, 5, 7, 11, 13, 17, 19, 23, 29

Unit digit in the product of above number will be

$= (2 \times 5) \times \underbrace{(3 \times 7 \times 11) \times (13 \times 17) \times (19 \times 23 \times 29)}_{n \text{ (say)}}$

$= 10 \times n = 0$

Hence, required unit digit is 0.

66.

8	x	z
y	5	w
4	9	2

Sum of diagonal elements = 8 + 5 + 2 = 15

∴ Second diagonal = $4 + 5 + z = 15$

$9 + z = 15$

$z = 15 - 9 = 6$

First row ⇒ $8 + x + z = 15$

$8 + x + 6 = 15$

$x = 15 - 14$

$x = 1$

Third column ⇒ $6 + w + 2 = 15$

$w = 15 - 8$

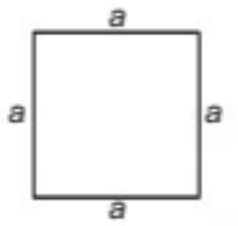
$w = 7$

and second row ⇒ $y + 5 + 7 = 15$

$y = 15 - 12 = 3$

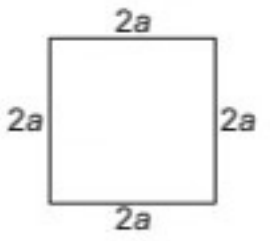
Thus, $x, y, z, w \Rightarrow 1, 3, 6, 7$

67.



Perimeter = $4a$

After doubled the side



Perimeter = $4 \times 2a = 8a$

Hence, resultant perimeter $8a = 2 \times (4a)$

= 2 times × Original perimeter

Thus, the perimeter will be doubled.

68. Total distance = 600 m = 0.6 km

Time = 5 min = $\frac{5}{60}$ h

∴ Required speed = $\frac{\text{Distance}}{\text{Time}} = \frac{0.6/5}{60}$

= 7.2 km/h

69. Here $H_1 = 8, D_1 = 12, M_1 = 1,$

$W_1 = 1,$

$H_2 = 6, D_2 = ?, M_2 = 1, W_2 = 1$

Now, $\frac{M_1D_1H_1}{W_1} = \frac{M_2D_2H_2}{W_2}$

$D_2 = \frac{96}{6}$ Days = 16 Days

70. Fraction of drum filled with $= \frac{1}{5}$

Remaining part $= 1 - \frac{1}{5} = \frac{4}{5}$

According to the question,

$\frac{4}{5}$ part = 28 L

4 part = 28 × 5 = 140 L

1 part $= \frac{140}{4} = 35$ L

71. $\frac{0.1}{0.01} + \frac{0.01}{0.1} = \frac{100 \times 0.1}{100 \times 0.01} + \frac{0.01 \times 100}{0.1 \times 100}$

$= \frac{10}{1} + \frac{1}{10} = \frac{101}{10}$

72. Let the score of Bhavana be x, then

Score of Karan $= x + 10$

Score of Isha $= x - 5$

According to question,

$x + 10 + x - 5 + x = 170$

$3x + 5 = 170$

$3x = 165$

$x = 55$

Obtained mark of Isha = 55 – 5 = 50

73. Number of Monkeys = 25

Number of Deer = 40

Number of Peacock = 50

Required difference = (25 + 40) – 50 = 65 – 50

= 15

74. According to question 15% = 171

$1\% = \frac{171}{15}$

Hence, $100\% = \frac{171 \times 100}{15} = 1140$

Hence, total number of ticket = 1140

75. Vandana wants to buy a total 185 bottle of coke so, she will have to pay ₹ 240 for 6 carat (6 × 30 = 180 bottle) and ₹ 10 for each bottle of coke so, the amount paid by Vandana is

= 6 × 240 + 5 × 10

= 1440 + 50

= ₹ 1490

Jawahar *Navodaya Vidyalaya* Entrance Exam (Class VI)

Solved Paper 2013

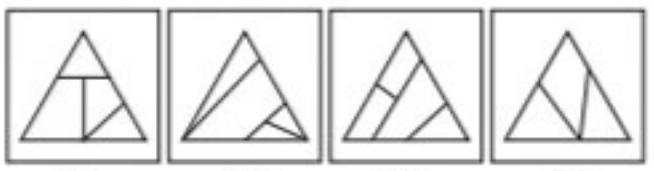
Section I Mental Ability Test

Part I

Directions (Q.Nos. 1-5) *In the given questions, there is a problem figure, observe the answer figures* (1), (2), (3) *and* (4) *and find out the answer figure which can be formed from the cut pieces of problem figure?*

1. Problem Figure

Answer Figures



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

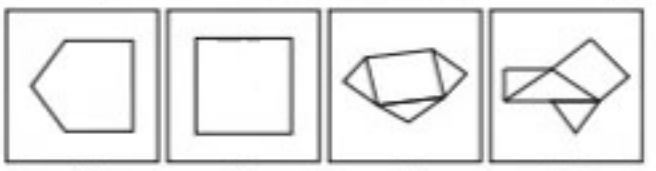
2. Problem Figure

Answer Figures

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

3. Problem Figure

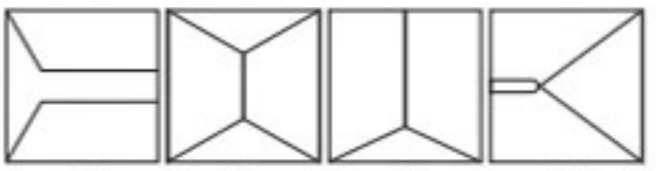
Answer Figures



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

4. Problem Figure

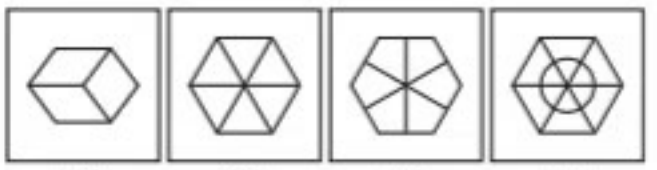
Answer Figures



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

5. Problem Figure

Answer Figures



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

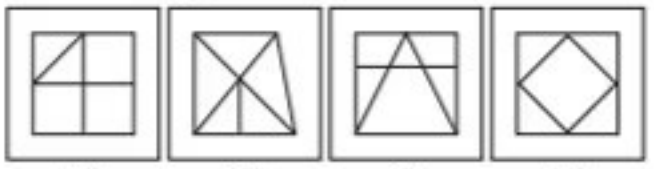
Based on Memory

Part II

Directions (Q.Nos. 6-10) *In the given questions, there is a problem figure. Observe the answer figures* (1), (2), (3) *and* (4) *and find out the answer figure which is hidden /embedded in the problem figure?*

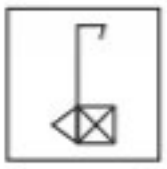
6. Problem Figure

Answer Figures

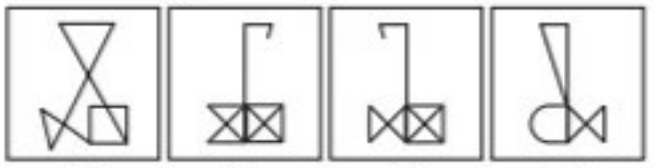


(1) (2) (3) (4)

7. Problem Figure



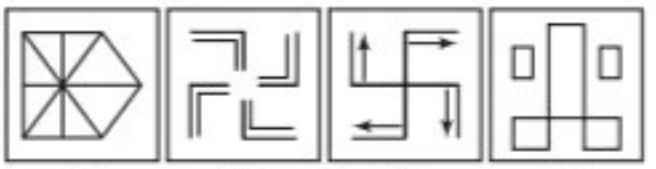
Answer Figures



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

8. Problem Figure

Answer Figures



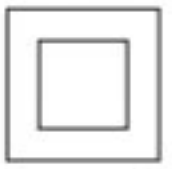
(1) (2) (3) (4)

9. Problem Figure

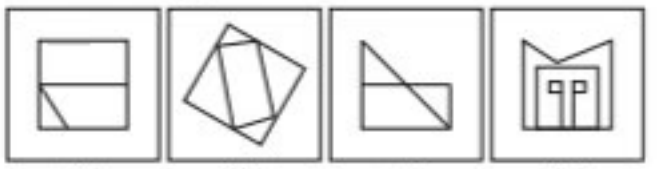
Answer Figures

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

10. Problem Figure



Answer Figures

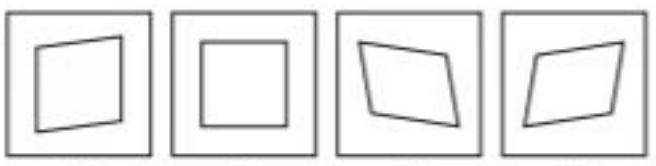


(1) (2) (3) (4)

Part III

Directions (Q.Nos. 11-15) *In the given questions, there are four figures* (1), (2), (3) *and* (4). *Out of these four figures, three figures are similar but one is different. Find out the different figure.*

11.

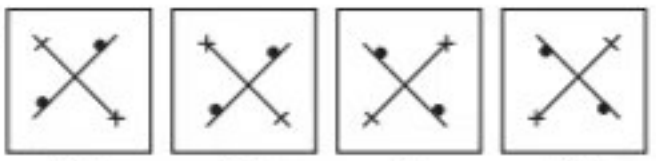


(1) (2) (3) (4)

12.

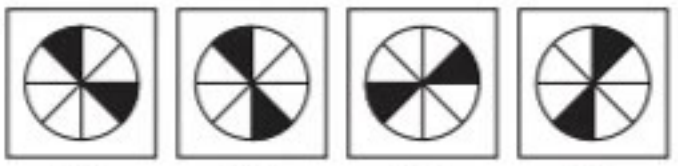
(1) (2) (3) (4)

13.



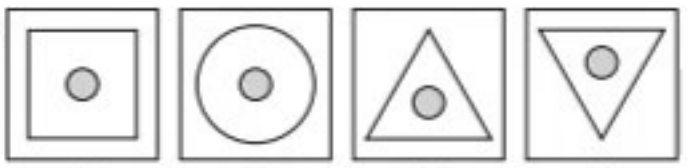
(1) (2) (3) (4)

14.



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

15.



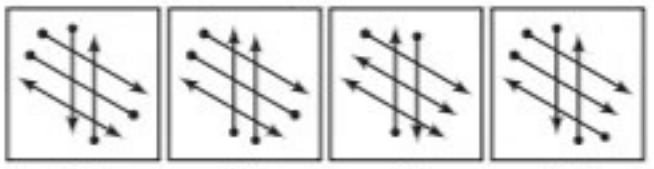
(1) (2) (3) (4)

Part IV

Directions (Q.Nos. 16-20) *In the given questions, there is a problem figure and four answer figures* (1), (2), (3) *and* (4). *You have to find out the answer figure which is similar to the given problem figure?*

16. Problem Figure

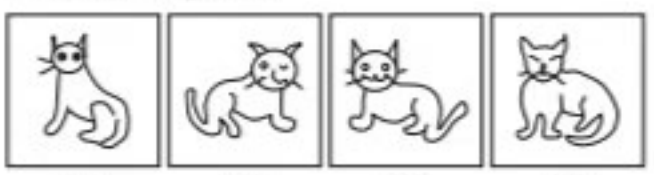
Answer Figures



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

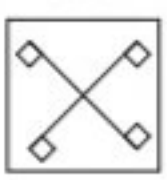
17. Problem Figure

Answer Figures

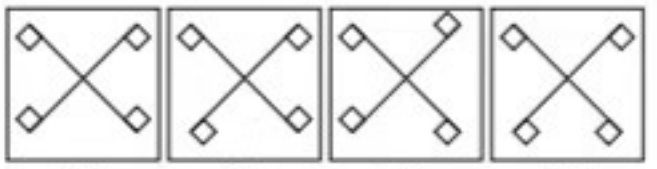


(1) (2) (3) (4)

18. Problem Figure

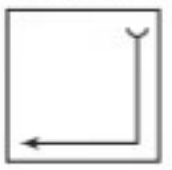


Answer Figures

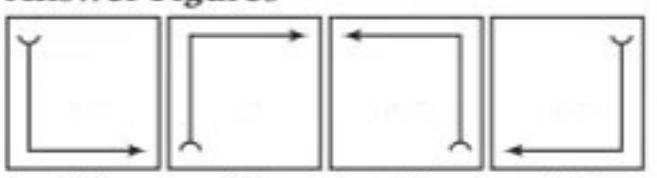


(1) (2) (3) (4)

19. Problem Figure

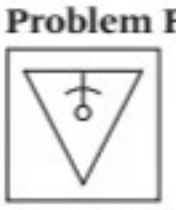


Answer Figures

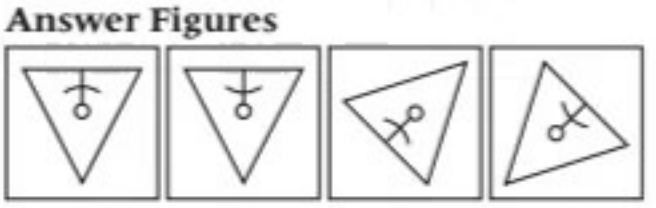


(1) (2) (3) (4)

20. Problem Figure



Answer Figures

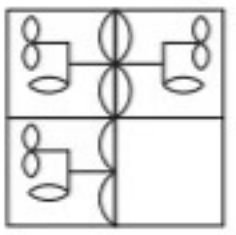


(1) (2) (3) (4)

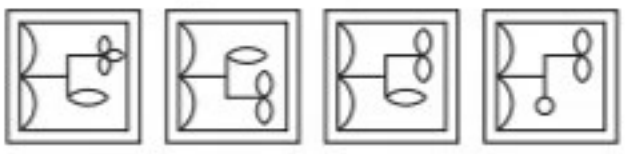
Part V

Directions (Q.Nos. 21-25) *In the given questions, there is a problem 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 in problem figure in order to complete the pattern in the problem figure.*

21. Problem Figure

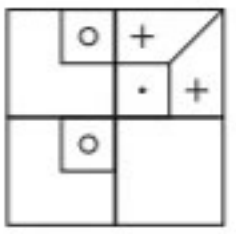


Answer Figures

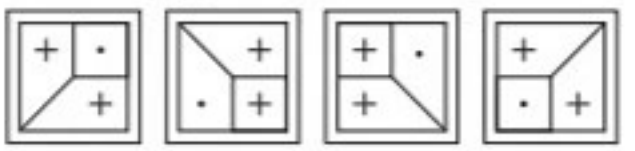


(1) (2) (3) (4)

22. Problem Figure

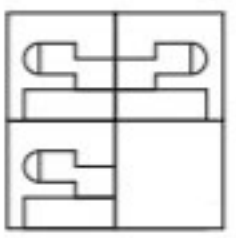


Answer Figures



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

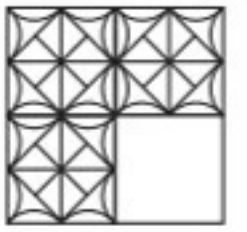
23. Problem Figure



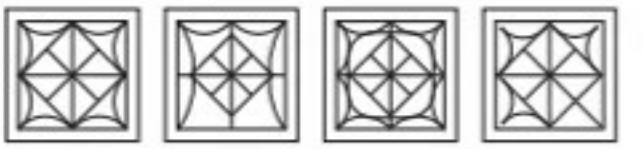
Answer Figures

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

24. Problem Figure

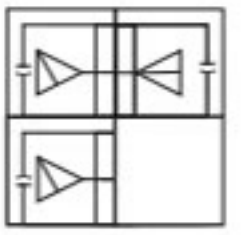


Answer Figures

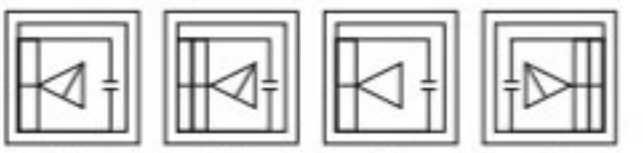


(1) (2) (3) (4)

25. Problem Figure



Answer Figures

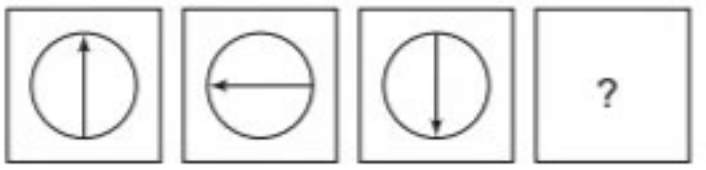


(1) (2) (3) (4)

Part VI

Directions (Q.Nos. 26-30) *In the given question, there are problem figures and the blank space for fourth figure. The problem figures are in a series. Find out one figure among the answer figures which occupies the blank space for the fourth figure and which completes the series?*

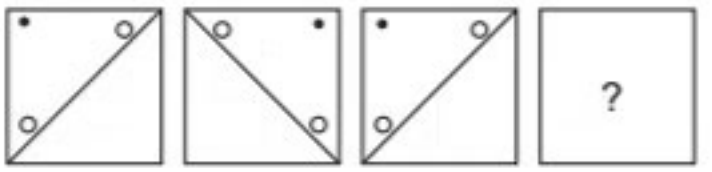
26. Problem Figures

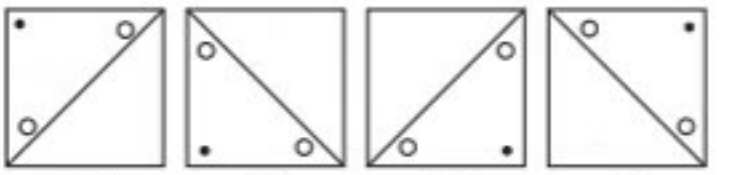


Answer Figures

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

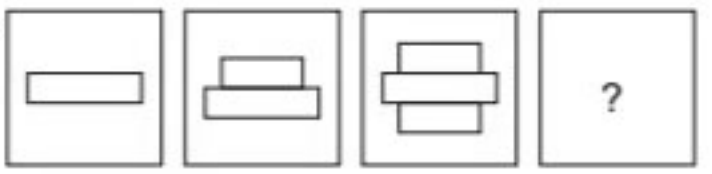
27.

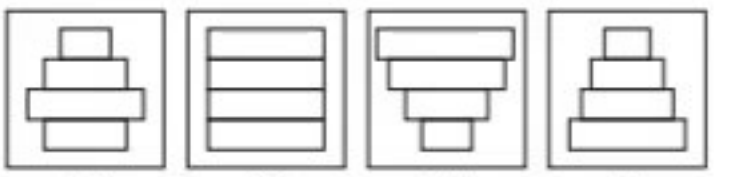




(1) (2) (3) (4)

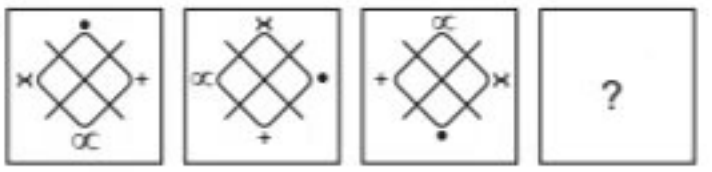
28.

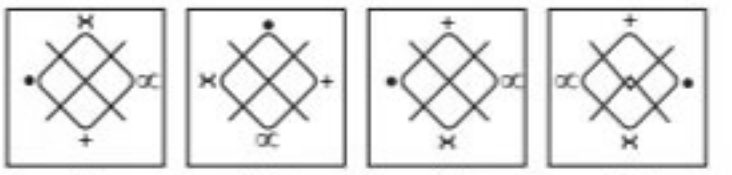




(1) (2) (3) (4)

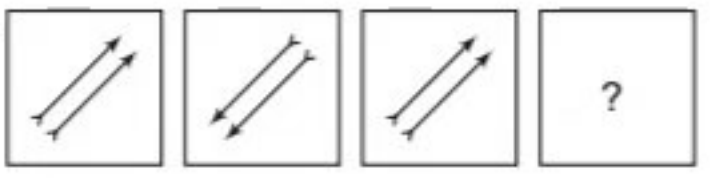
29.

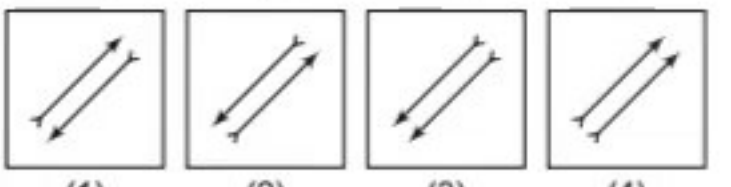




(1) (2) (3) (4)

30.





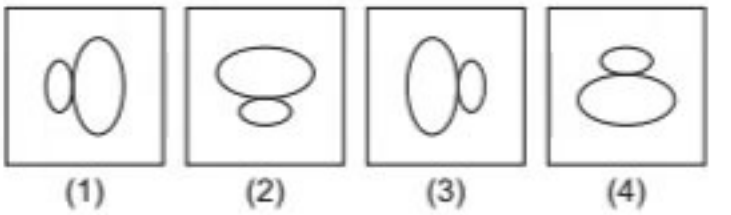
(1) (2) (3) (4)

Part VII

Directions (Q.Nos. 31-35) *In the given questions, there are three problem figures followed by a question mark (?) for the fourth one. There exists a relationship between first two problem figures. A similar relationship should exist between the third and the fourth problem figures. Select one figure from answer figures which replaces the question mark (?).*

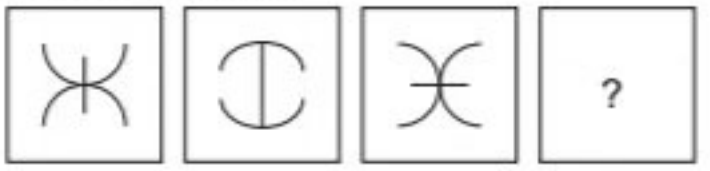
31. Problem Figures

Answer Figures



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

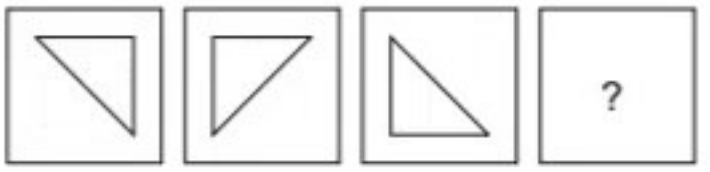
32. **Problem Figures**

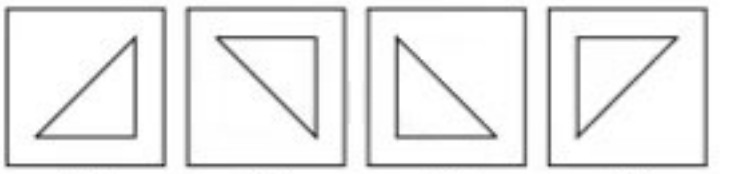


Answer Figures

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

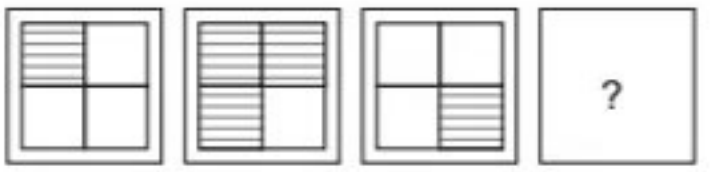
33.

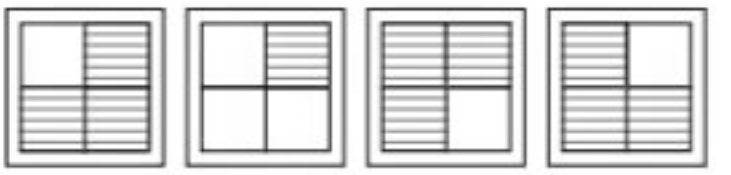




(1) (2) (3) (4)

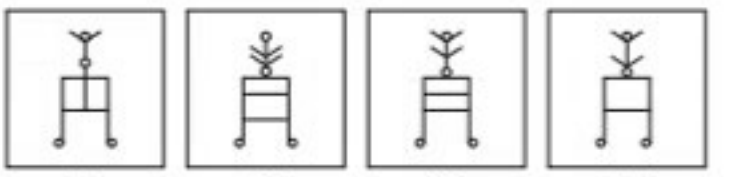
34.





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

35.



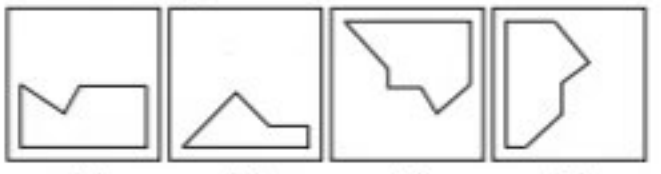
(1) (2) (3) (4)

Part VIII

Directions (Q.Nos. 36-40) *In the given questions one part of the geometrical figure (triangle, square, circle) and other one is among the figures* (1), (2), (3) *and* (4). *Find out the figures which completes the geometrical figure (triangle, square, circle)?*

36. **Problem Figure**

Answer Figures



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

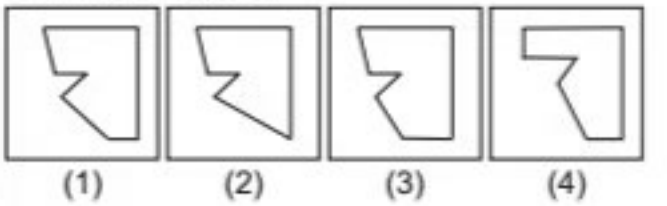
37. **Problem Figure**

Answer Figures

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

38. **Problem Figure**

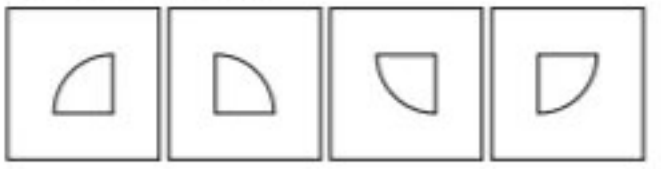
Answer Figures



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

39. **Problem Figures**

Answer Figures



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

40. **Problem Figure**

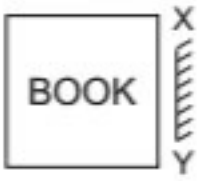
Answer Figures

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

Part IX

Directions (Q.Nos. 41-45) *In the given question there is a problem figure and four answer figures* (1), (2), (3) *and* (4). *Find out the correct answer figure when a mirror is held on* XY *line.*

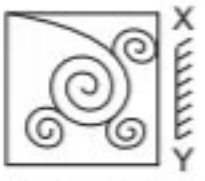
41. **Problem Figure**



Answer Figures

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

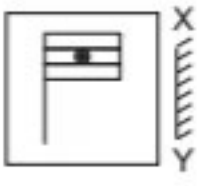
42. **Problem Figure**



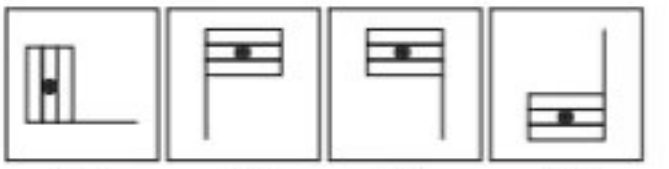
Answer Figures

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

43. **Problem Figure**

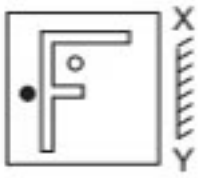


Answer Figures

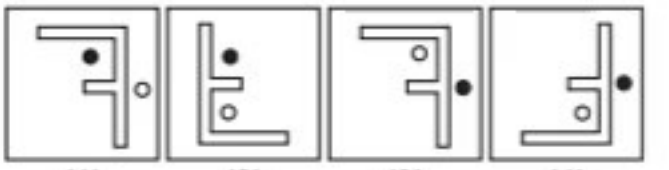


(1) (2) (3) (4)

44. **Problem Figure**

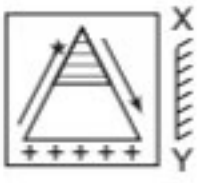


Answer Figures

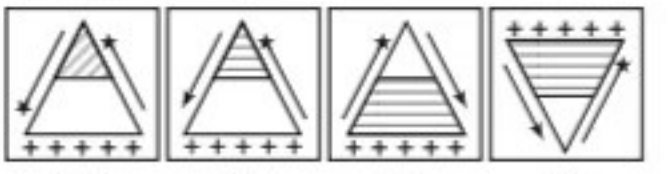


(1) (2) (3) (4)

45. **Problem Figure**



Answer Figures

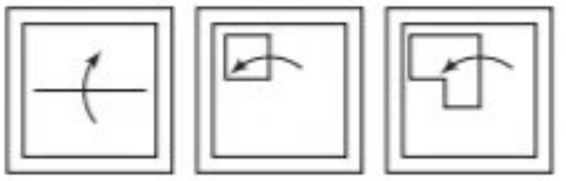


(1) (2) (3) (4)

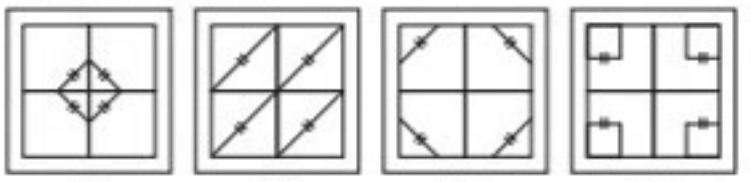
Part X

Directions (Q.Nos. 46-50) *In the given questions,there is a problem figure and four answer figures* (1), (2), (3) *and* (4). *Find out which answer figure can appear when a piece of paper is folded, punches and open?*

46. Problem Figures

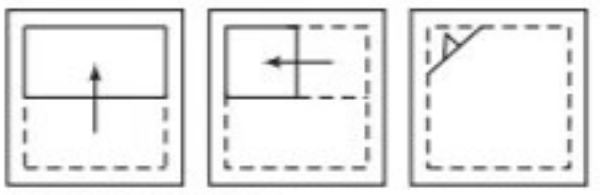


Answer Figures

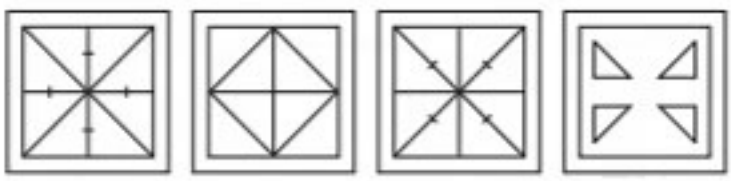


(1) (2) (3) (4)

47. Problem Figures



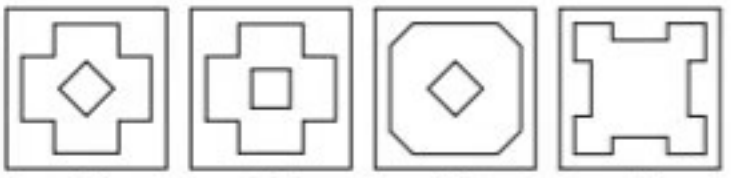
Answer Figures



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

48. Problem Figures

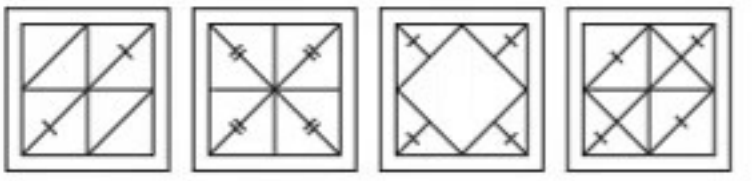
Answer Figures



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

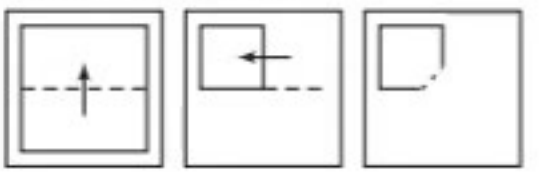
49. Problem Figures

Answer Figures

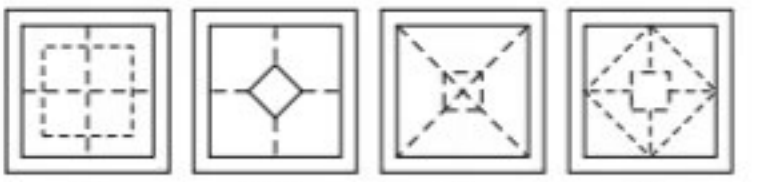


(1) (2) (3) (4)

50. Problem Figures



Answer Figures



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

Section II Arithmetic Test

Directions (Q.Nos. 51-75) *In the given question, for every question, four probable answer bearing* (1), (2), (3) *and* (4) *given. Only one out of these is correct. You have to choose the correct answer.*

51. Find out the unit's digit in the product of $(3207 \times 12 \times 17 \times 13)$.

(1) 0 (2) 3
(3) 4 (4) 7

52. The difference between the highest and lowest five digits number using 0, 3, 6, 8 and 9 digits (each digit using once time).

(1) 94941 (2) 61821
(3) 61740 (4) 67941

53. Find the HCF of 45, 75 and 165.
(1) 15 (2) 45 (3) 75 (4) 2475

54. Find the smallest number divided by 42, 98 and 70.
(1) 1470 (2) 1740 (3) 1070 (4) 980

55. The sum of two numbers is 234560. If one number is more than other number by ten thousand ten. Find the greatest number.
(1) 112275 (2) 122285
(3) 132285 (4) 117280

56. $17\frac{1}{16}$ decimal equivalent as
(1) 17.625 (2) 17.6025
(3) 17.0625 (4) 17.0525

57. Which number divided by 5.029 to obtain 50.29?
(1) 0.01 (2) 0.1 (3) 1.0 (4) 10.0

58. What is the percentage of 500 g is 4 kg?
(1) 12.5 % (2) 25 %
(3) 50 % (4) 125 %

59. A man bought a bicycle for ₹ 1200. He sold it for ₹ 1500. Find the profit per cent.
(1) 30 (2) 20 (3) 25 (4) 28

60. Which is the rate of interest for ₹ 2500 at simple interest to become ₹ 3300 in 4 yr?
(1) 5% (2) 6%
(3) 8% (4) 10%

61. Numbers in the next line is

40	45	50
55	60	65
70	75	80
?	?	?

(1) 75, 80, 85 (2) 85, 90, 95
(3) 90, 95, 100 (4) 70, 75, 85

62. Highest two digits prime number is
(1) 93 (2) 97 (3) 91 (4) 99

63. If the sum of each row, column and hypotenuse are same then the value of x, y, t and z is

x	1	y
3	5	z
t	9	2

(1) 8, 6, 4, 7 (2) 6, 8, 4, 7
(3) 7, 8, 6, 4 (4) 4, 6, 7, 8

64. One-third of a drum is filled with water. If need another 60 L water to filled whole drum, then what is the capacity of 5 drum?
(1) 120 L (2) 90 L
(3) 60 L (4) 30 L

65. The sum of 7.7, 7.07, 7.007 and 77.0077 is
(1) 98.7777 (2) 98.7877
(3) 98.7807 (4) 98.7847

66. The perimeter of a square park is 72 m, then the area of the square is
(1) 144 sq m (2) 2376 sq m
(3) 1296 sq m (4) 324 sq m

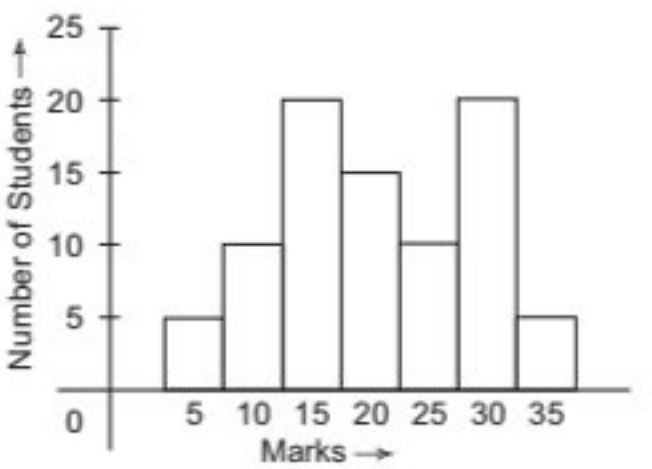
67. A train running with 54 km/h. What is the time taken by train to cross the 90 m platform?
(1) 10 s (2) 8 s
(3) 6 s (4) 5 s

68. A work done by 12 men or 15 women in 20 days. What is the time taken by 4 men and 5 women to complete this work?
(1) 15 days (2) 25 days
(3) 30 days (4) 40 days

69. A shopkeeper bought a ball pen in ₹ 12 or a packet of 10 ball pens in ₹ 100. Smt Swati bought 24 ball pens. What is the cost price of these ball pens?
(1) ₹ 212 (2) ₹ 238
(3) ₹ 248 (4) ₹ 258

70. Karan obtains 10 more marks than Bhavana. Isha obtain 10 less marks than Bhavana. What is the marks of Karan if all three obtain total 140 marks?
(1) 40 (2) 45
(3) 50 (4) 55

71. Study the diagram and find the number of students obtain less than 20 marks.



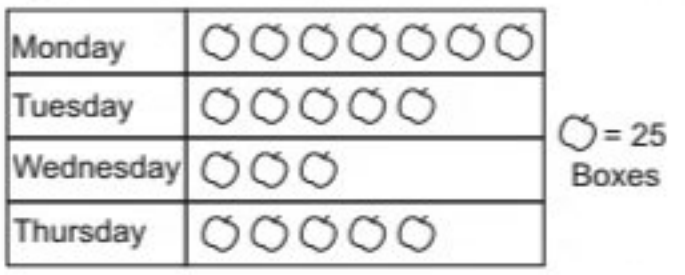
(1) 35 (2) 45
(3) 65 (4) 85

72. What is the decimal equivalent of (₹ 2200 of 4%) of 7.5 %?
(1) ₹ 13.2 (2) ₹ 6.6
(3) ₹ 3.3 (4) ₹ 26.4

73. Find the greatest five digit even number using the 3, 0, 5, 7 and 8 digits.
(1) 83570 (2) 85703
(3) 87530 (4) 87350

74. Find the greatest five digit number using the 9, 6, 3 and 0 digits (any one digit repeated twice).
(1) 96630
(2) 96300
(3) 99630
(4) 90963

75. Study the graph which represents the sell of Apple Boxes in 4 days of a week.



If after 4 days 75 Apple Boxes are left, then the number of Apple Boxes are initially.
(1) 500
(2) 550
(3) 575
(4) 625

Section III Language Test (English)

Directions (Q.Nos. 76-100) *There are five passage. Each passage has five questions. Read the following passages carefully and answer the questions that follow.*

Passage I

A rich man went for fishing in a lake. When he was standing on a low bridge, his tin of bait fell into the lake. Leaning over the side of the bridge, he tired to catch the tin and pull it out of the lake. As he did so, his car keys fell out of his pocket and disappeared in the water. The man felt annoyed. He leaned over the bridge to try to see where his keys had gone. As he did so, he lost his balance and fell into the lake. He came out of the lake. He was very sad. He walked back home.

76. The man tried to pull out
(1) his car keys
(2) the tin of bait
(3) a fish
(4) himself

77. The man felt annoyed when
(1) the tin fell in
(2) he fell in
(3) the car keys fell in
(4) he could not catch a fish

78. How did the man go to the lake?
(1) On a horse (2) In a boat
(3) On foot (4) In a car

79. How did the man come back home?
(1) On a horse (2) In a boat
(3) On foot (4) In a car

80. Why did the rich man go on a lake?
(1) For hunting (2) For walking
(3) For fishing (4) For riding

Passage II

An old man came to Mumbai for the first time. He hired a taxi. The driver was driving very fast. He nearly hit a bus. The old man was terrified. He said, " I don't want to be in a hospital instead of at my son's house. This is the first time I have travelled in a taxi." The driver said, " I understand your fear. This is the first time I am driving a taxi."

81. The old man was terrified because
(1) he was kidnapped
(2) he forgot the address
(3) the taxi hit the bus
(4) the driver was driving dangerously

82. The old man was going
(1) to a hotel
(2) to Mumbai
(3) to his son's house
(4) to a hospital

83. Who is not mentioned in the passage?
(1) The taxi driver
(2) The bus driver
(3) The old man
(4) The old man's son

84. We come to know that
(1) the old man lived in Mumbai
(2) the old man was angry
(3) the driver was a bad man
(4) the driver was not experienced

85. Who came to Mumbai for the first time?
(1) The Taxi driver (2) The bus driver
(3) An old woman (4) An old man

Passage III

Edison was an American. He used to observe things very closely. He did a lot of experiments. Some of his experiments were silly. But he learnt a lot from them. He invented Gramophone in 1878. He was invited to the White House in Washington. He went there to show his talking machine to the President. Edison made forty war time inventions. He was awarded a medal for his service. His most famous invention was the invention of electric bulb in 1880. He succeeded in making an electric bulb after nearly one thousand and two hundred experiments.

86. Edison was a
(1) teacher
(2) leader
(3) scientist
(4) soldier

87. Edison learnt a lot from
(1) his teacher
(2) the president
(3) people
(4) his silly experiments

88. For his service, Edison was
(1) awarded a medal
(2) given a lot of money
(3) made the president
(4) made the chief scientist

89. Edison succeeded in making an electric bulb after
(1) 1000 experiments
(2) 1200 experiments
(3) 200 experiments
(4) 1880 experiments

90. How many inventions made by Edison at the time of world war?
(1) 52 Inventions (2) 42 Inventions
(3) 40 Inventions (4) None of these

Passage IV

Lencho was a farmer. His house was situated on a low hill. He could see his crops from there. Once his corn was ripe. He needed some rain. It started raining. He became happy. But soon it turned into a storm. His entire crop was destroyed. There was no one to help him. He had firm faith in God. His only hope was the help from God. So, he wrote a letter to God.

91. Lencho could see his crops from
(1) his house (2) a high tree
(3) a tower (4) a high mountain

92. Lencho needed
(1) some money (2) a good house
(3) some rain (4) a storm

93. Who was there to help him?
(1) His friends (2) His neighbours
(3) His family (4) No one

94. What did Lencho do?
(1) He went to the king
(2) He waited for help
(3) He went to God
(4) He wrote a letter to God

95. What happened when the raining heavily?
(1) Destroyed the crop
(2) Flood
(3) Crops become more green
(4) None of the above

Passage V

In a city, there lived a mother with her little daughter. One day they went to a toy shop. The girl saw a beautiful blue ball. The mother bought the ball for the girl. The girl was very happy. One day the girl was playing with the ball in the courtyard. The ball bounced very high and fell into the window of the neighbours. The ball hit the flower vase which was very costly. It was broken into pieces. The woman in that house shouted and the little girl was frightened.

96. How many persons are there in the story?
(1) One (2) Two
(3) Three (4) Many

97. What did the girl want?
(1) A beautiful doll
(2) A big toy
(3) A gift
(4) A blue ball

98. What was broken into pieces?
(1) The ball (2) the window
(3) The flower vase (4) the glass

99. The girl was frightened because
(1) she lost the ball
(2) the woman shouted
(3) her mother was angry
(4) she was beaten

100. Where was the little girl live?
(1) At a town
(2) In a city
(3) At a village
(4) In other country

Answers

1.	(2)	**2.**	(3)	**3.**	(3)	**4.**	(3)	**5.**	(2)	**6.**	(2)	**7.**	(2)	**8.**	(3)	**9.**	(2)	**10.**	(1)
11.	(2)	**12.**	(4)	**13.**	(1)	**14.**	(1)	**15.**	(2)	**16.**	(1)	**17.**	(3)	**18.**	(2)	**19.**	(4)	**20.**	(1)
21.	(3)	**22.**	(4)	**23.**	(4)	**24.**	(1)	**25.**	(1)	**26.**	(1)	**27.**	(4)	**28.**	(1)	**29.**	(3)	**30.**	(3)
31.	(2)	**32.**	(4)	**33.**	(1)	**34.**	(1)	**35.**	(3)	**36.**	(4)	**37.**	(1)	**38.**	(2)	**39.**	(4)	**40.**	(2)
41.	(4)	**42.**	(3)	**43.**	(3)	**44.**	(3)	**45.**	(2)	**46.**	(4)	**47.**	(2)	**48.**	(4)	**49.**	(2)	**50.**	(2)
51.	(3)	**52.**	(4)	**53.**	(1)	**54.**	(1)	**55.**	(2)	**56.**	(3)	**57.**	(2)	**58.**	(1)	**59.**	(3)	**60.**	(3)
61.	(2)	**62.**	(2)	**63.**	(1)	**64.**	(2)	**65.**	(4)	**66.**	(4)	**67.**	(3)	**68.**	(3)	**69.**	(3)	**70.**	(4)
71.	(1)	**72.**	(2)	**73.**	(3)	**74.**	(3)	**75.**	(3)	**76.**	(2)	**77.**	(3)	**78.**	(4)	**79.**	(3)	**80.**	(3)
81.	(4)	**82.**	(3)	**83.**	(2)	**84.**	(4)	**85.**	(4)	**86.**	(3)	**87.**	(4)	**88.**	(1)	**89.**	(2)	**90.**	(3)
91.	(1)	**92.**	(3)	**93.**	(4)	**94.**	(4)	**95.**	(1)	**96.**	(3)	**97.**	(4)	**98.**	(3)	**99.**	(2)	**100.**	(2)

Hints and Solutions

1. Hence, answer figure (2) can be formed from the cut pieces of the problem figure.

2. Hence, answer figure (3) can be formed from the cut pieces of the problem figure.

3. Hence, answer figure (3) can be formed from the cut pieces of the problem figure.

4. Hence, answer figure (3) can be formed from the cut pieces of the problem figure.

5. Hence, answer figure (2) can be formed from the cut pieces of the problem figure.

6. Hence, problem figure is hidden/ embedded in answer figure (2).

7. Hence, problem figure is hidden/embedded in answer figure (2).

8. Hence, problem figure is hidden /embedded in answer figure (3).

9. Hence, problem figure is hidden/ embedded in answer figure (2).

10. Hence, problem figure is hidden/embedded in answer figure (4).

11. Only figure (2) is a square, all others are quadrilateral.

12. Except figure (4), all others are wear on upper part of the body.

13. Except figure (1), all others are obtain to rotates to each other.

14. Except figure (1), all others shaded parts are opposite to each other.

15. Except figure (2), all others geometrical figures are made with lines.

16. Answer figure (1) is similar to the given problem figure.

17. Answer figure (3) is similar to the given problem figure.

18. Answer figure (2) is similar to the given problem figure.

19. Answer figure (4) is similar to the given problem figure.

20. Answer figure (1) is similar to the given problem figure.

21. Answer figure (3) will complete the pattern of the problem figure.

22. Answer figure (4) will complete the pattern of the problem figure.

23. Answer figure (4) will complete the pattern of the problem figure.

24. Answer figure (1) will complete the pattern of the problem figure.

25. Answer figure (1) will complete the pattern of the problem figure.

26. In each problem figure pin design rotates 90° anti-clockwise direction.

27. In each problem figure whole design rotates 90° clockwise direction.

28. In each problem figure one upper and one lower design added.

29. In each problem figure outer side four small designs slipes one place clockwise direction.

30. In each problem figure whole design goes to opposite direction.

31. Problem figure (1) to (2) whole design goes to opposite direction. Similar rule follows from the problem figure (3) to answer figure.

32. Problem figure (1) to (2) arc lines goes to opposite direction and middle small line becomes large. Similar rule follows from the problem figure (3) to answer figure.

33. Problem figure (1) to (2) whole figure becomes mirror image. Similar rule follows from the problem figure (3) to answer figure.

34. Problem figure (1) to (2) two more parts are shaded, one clockwise direction and another anticlockwise direction. Similar rule follows from the problem figure (3) to answer figure.

35. Problem figure (1) to (2) one horizontal line is added. Similar rule follows from the problem figure (3) to answer figure.

36. Answer figure (4) will complete the square.

37. Answer figure (1) will complete the circle.

38. Answer figure (2) will complete the square.

39. Answer figure (4) will complete the circle.

40. Answer figure (2) will complete the triangle.

41. Answer figure (4) is the correct mirror image of the problem figure.

42. Answer figure (3) is the correct mirror image of the problem figure.

43. Answer figure (3) is the correct mirror image of the problem figure.

44. Answer figure (3) is the correct mirror image of the problem figure.

45. Answer figure (2) is the correct mirror image of the problem figure.

46. Answer figure (4) will appear when a piece of paper is folded, punched and open.

47. Answer figure (2) will appear when a piece of paper is folded, punched and open.

48. Answer figure (4) will appear when a piece of paper is folded, punched and open.

49. Answer figure (2) will appear when a piece of paper is folded, punched and open.

50. Answer figure (2) will appear when a piece of paper is folded, punched and open.

51. $3207 \times 12 \times 17 \times 13$

$\uparrow \quad \uparrow \quad \uparrow \quad \uparrow$

$7 \quad 2 \quad 7 \quad 3$

$\therefore$ Unit's digits are 7, 2, 7 and 3.

Hence, required product $= 7 \times 2 \times 7 \times 3 = 294$

$\therefore$ Unit's digit = 4

52. Largest number of 5 digits = 98630

Smallest number of 5 digits = 30689

Hence, required difference

$= 98630 - 30689 = 67941$

53. HCF of 45, 75 and 165

```
45)75(1          15)165(11
   45               15
   30)45(1          15
      30            15
      15)30(2       ×
         30
         ×
```

$\therefore$ HCF = 15

54. Required smallest number

= LCM of 42, 98 and 70

2	42, 98, 70
7	21, 49, 35
3	3, 7, 5
5	1, 7, 5
7	1, 7, 1
	1, 1, 1

$\therefore$ Required number $= 2 \times 7 \times 3 \times 5 \times 7$

$= 1470$

55. Suppose, first number $= x$

and second number $= x + 10010$

Then, $x + x + 10010 = 234560$

$\Rightarrow \quad 2x = 234560 - 10010$

$\Rightarrow \quad 2x = 224550$

$\because \quad x = 112275$

Hence, greatest number $= x + 10010$

$= 112275 + 10010$

$= 122285$

56. Required decimal equivalent of $17\frac{1}{16}$

$= \frac{16 \times 17 + 1}{16}$

$= \frac{272 + 1}{16}$

$= \frac{273}{16}$

$= 17.0625$

57. Suppose number $= x$

Then, $\frac{5.029}{x} = 50.29$

$\Rightarrow \quad x = \frac{5.029}{50.29}$

$\therefore \quad x = 0.1$

58. $\because$ 1 kg = 1000 g

$\therefore$ 4 kg $= 4 \times 1000 = 4000$ g

Hence, required percentage $= \frac{500}{4000} \times 100$

$= 12.5\%$

59. Given, cost price of the bicycle = ₹ 1200

and selling price of the bicycle = ₹ 1500

Hence, required profit percentage

$= \frac{1500 - 1200}{1200} \times 100$

$= \frac{300}{1200} \times 100$

$= 25\%$

60. Given, Principal amount (P)

= ₹ 2500

Time (t) = 4 yr

Amount (A) = ₹ 3300

We know that, simple interest $= \frac{P \times r \times t}{100}$

$\Rightarrow \quad 3300 - 2500 = \frac{2500 \times r \times 4}{100}$

$\Rightarrow \quad 800 = \frac{2500 \times r \times 4}{100}$

$\Rightarrow \quad r = \frac{800 \times 100}{2500 \times 4}$

$\therefore \quad r = 8\%$

61.

$40 \xrightarrow{+15} 55 \xrightarrow{+15} 70 \xrightarrow{+15} \boxed{85}$ (in first column)

$45 \xrightarrow{+15} 60 \xrightarrow{+15} 75 \xrightarrow{+15} \boxed{90}$ (in second column)

$50 \xrightarrow{+15} 65 \xrightarrow{+15} 80 \xrightarrow{+15} \boxed{95}$ (in third column)

62. In the given number 97 is the two digits largest prime number.

63.

x	1	y
3	5	z
t	9	2

If we put $x = 8, y = 6, t = 4, z = 7$

Then,

8	1	6	= 15
3	5	7	= 15
4	9	2	= 15
15	15	15	

64. Suppose, capacity of the drum $= x$ L

Water in drum $= \frac{x}{3}$ L

Then, $x - \frac{x}{3} = 60 \Rightarrow \frac{3x - x}{3} = 60$

$\Rightarrow \quad \frac{2x}{3} = 60 \Rightarrow 2x = 180$

$\therefore \quad x = 90$ L

65.
$$\begin{array}{r} 7.7 \\ 7.07 \\ 7.007 \\ \underline{77.0077} \end{array}$$
Required sum = $= \underline{98.7847}$

66. Given, perimeter of the square park = 72 m

Suppose, side of the square park = x m

Then, $4x = 72$ m

$\Rightarrow$ $x = 18$ m

Hence, area of the square park = $(18)^2 = 324\,m^2$

67. Speed of the train = 54 km/h $= 54 \times \frac{5}{18}$ m/s

$= 15$ m/s

Length of the platform = 90 m

Hence, required time $= \frac{90}{15} = 6$ s

68. $\because$ 12 Men = 15 Women

$\therefore$ 1 Man $= \frac{15}{12}$ Women

$\therefore$ 4 Men $= \frac{15}{12} \times 4 = 5$ Women

Women	Days
15 ↑	20 ↓
10	x

$\Rightarrow$ $\frac{x}{20} = \frac{15}{10} \Rightarrow x = \frac{20 \times 15}{10}$

$\therefore$ $x = 30$ days

69. According to the question, Swati purchase 24 ball pens it means she purchase 2 packet pens and 4 pens.

$\because$ Cost price of 1 ball pen = ₹ 12

$\therefore$ Cost price of 4 ball pens = 12×4 = ₹ 48

and cost price of 1 packet (10 ball pens)

= ₹ 100

$\therefore$ Cost price of 2 packets (20 ball pens)

$= 2 \times 100$

= ₹ 200

Hence, cost price of 24 ball pens

$= 200 + 48$

= ₹ 248

70. Suppose, Bhavana's marks = x

$\therefore$ Isha's marks = $x - 5$

and Karan's marks = $x + 10$

Then, $x + x - 5 + x + 10 = 140$

$\Rightarrow$ $3x + 5 = 140 \Rightarrow 3x = 135$

$\therefore$ $x = 45$

Hence, Karan's marks = $45 + 10 = 55$

71. Number of students obtain less than 20 marks

$= 5 + 10 + 20 = 35$

72. Required decimal equivalent

$= 2200 \times \frac{4}{100} \times \frac{7.5}{100}$ = ₹ 6.6

73. Required, largest five digits even number = 87530

74. Required, largest five digits (any digit repeated twice) number = 99630

75. Number of Boxes sold in Monday

$= 25 \times 7 = 175$ Boxes

Number of Boxes sold in Tuesday

$= 25 \times 5 = 125$ Boxes

Number of Boxes sold in Wednesday

$= 25 \times 3 = 75$ Boxes

Number of Boxes sold in Thursday

$= 25 \times 5 = 125$ Boxes

$\therefore$ Total number of Boxes sold

$= 175 + 125 + 75 + 125 = 500$ Boxes

Remaining Boxes = 75

Hence, total number of Boxes = 500 + 75

= 575 Boxes

Jawahar *Navodaya Vidyalaya* Entrance Exam (Class VI)

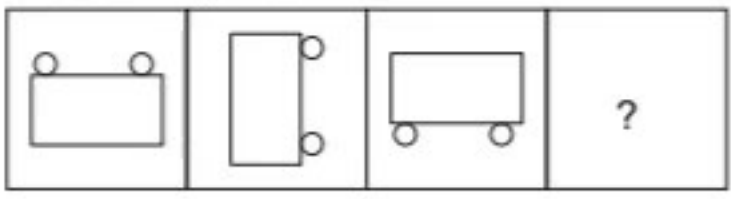
Solved Paper 2012

Section I Mental Ability Test

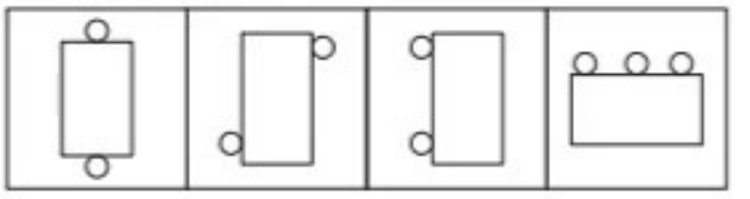
Part I

Directions (Q.Nos. 1-5) *There are problem figures and the question mark (?) for fourth figure. The problem figures are in a series. Find out one figure among the answer figures which occupies the question mark (?) for the fourth figure and which completes the series.*

1. Problem Figures



Answer Figures

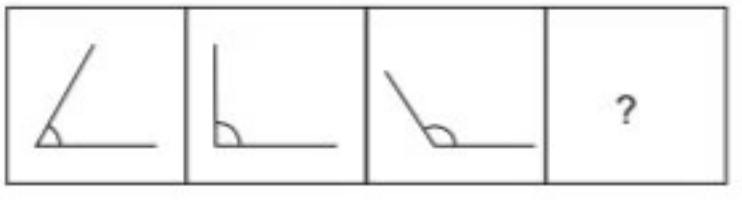


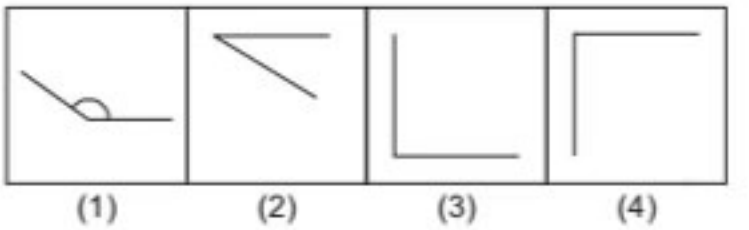
(1) (2) (3) (4)

2.

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

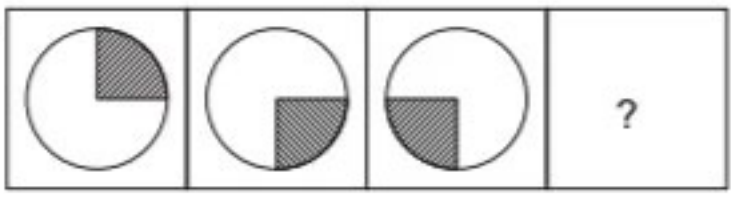
3.

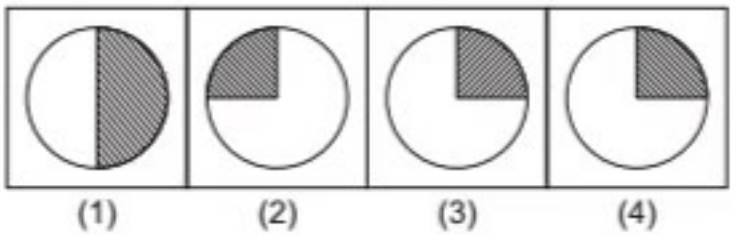




(1) (2) (3) (4)

4.



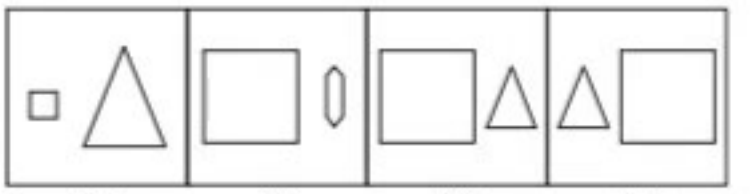


(1) (2) (3) (4)

Based on Memory

5. Problem Figures

Answer Figures



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

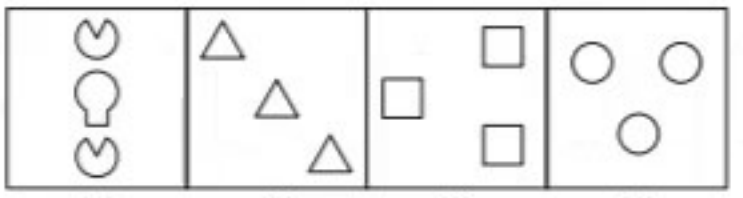
Part II

Directions (Q.Nos. 6-10) *There are four figures* (1), (2), (3) *and* (4). *Out of these four figures, three figures are similar but one figure is different. Spot out the different figure.*

6.

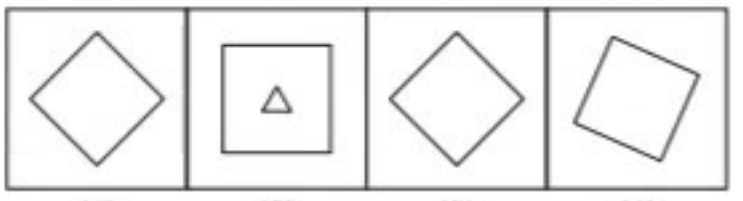
(1) (2) (3) (4)

7.



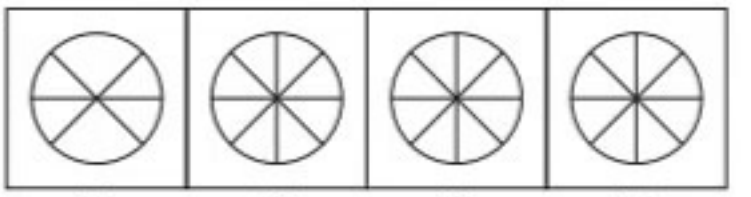
(1) (2) (3) (4)

8.



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

9.



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

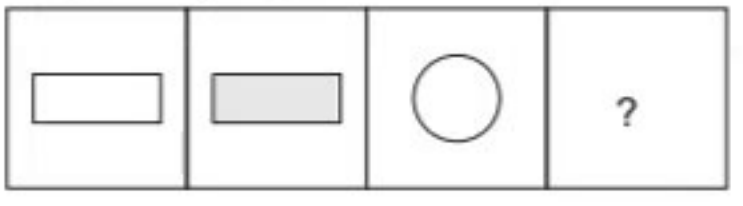
10.

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

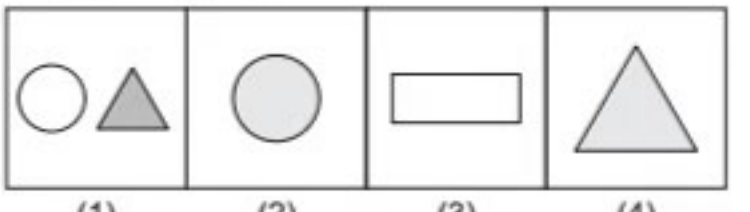
Part III

Directions (Q.Nos. 11-15) *There are three problem figures followed by a question mark* (?) *for the fourth one. There exists a relationship between first two problem figures. A similar relationship should exist between the third and the fourth problem figures. Select one figure from answer figures which replaces the question mark* (?).

11. Problem Figures

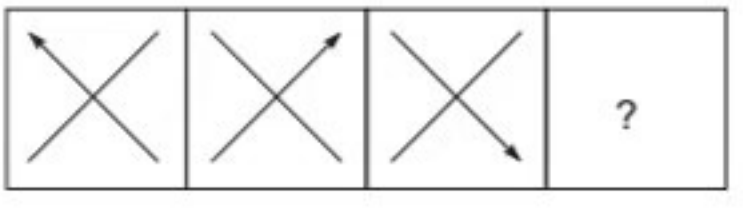


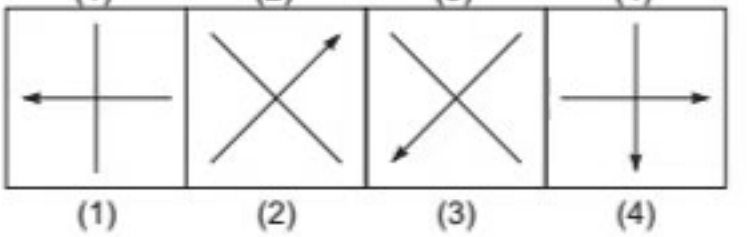
Answer Figures



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

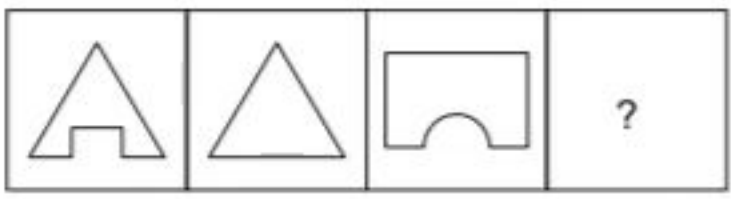
12.



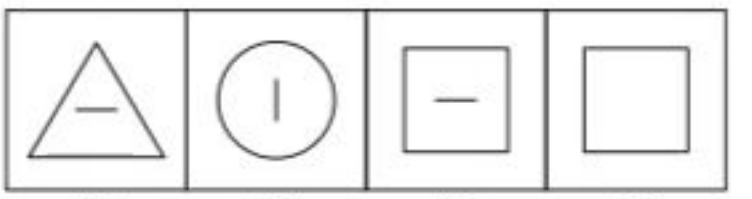


(1) (2) (3) (4)

13. Problem Figures

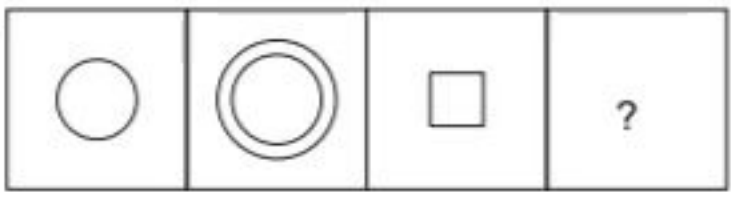


Answer Figures



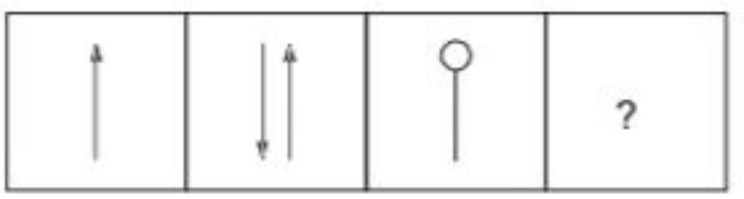
(1) (2) (3) (4)

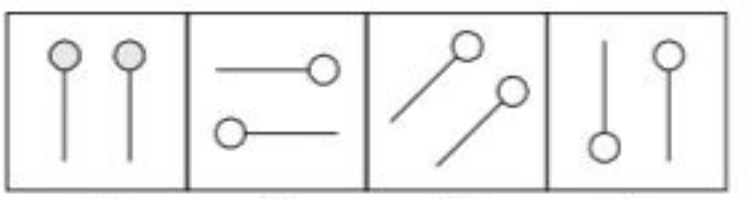
14.



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

15.



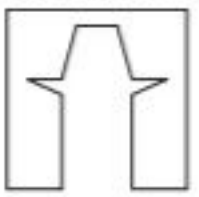


(1) (2) (3) (4)

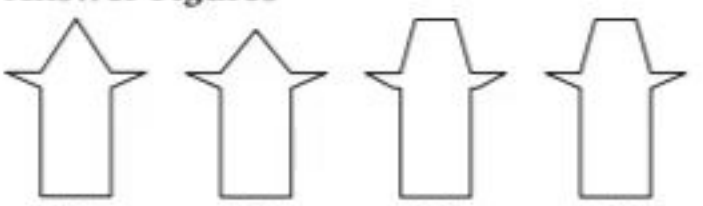
Part IV

Directions (Q.Nos. 16-20) *One part of the square and other one is among the figures* (1), (2), (3) *and* (4). *Find out the figures which completes the square.*

16. Problem Figure



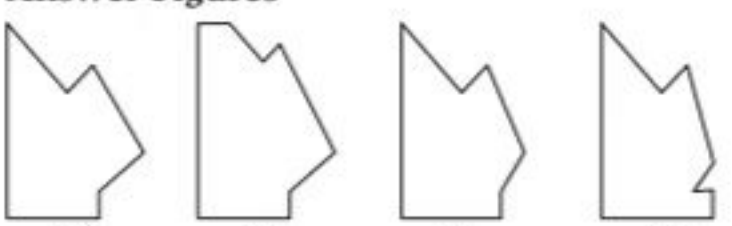
Answer Figures



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

17. Problem Figure

Answer Figures



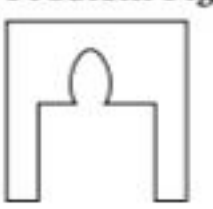
(1) (2) (3) (4)

18. Problem Figure

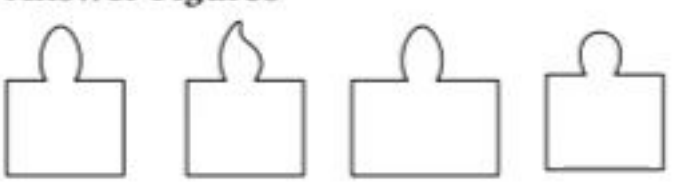
Answer Figures

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

19. Problem Figure



Answer Figures



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

20. Problem Figure

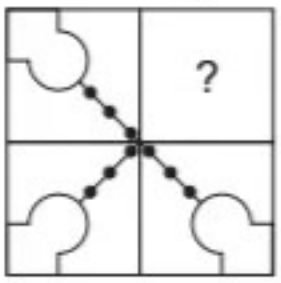
Answer Figures

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

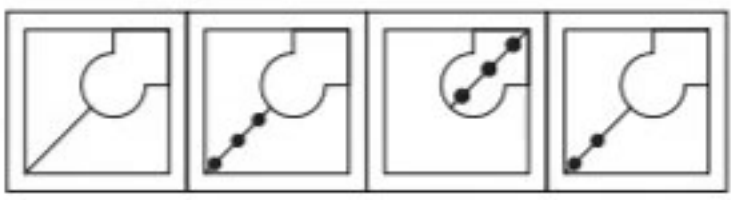
Part V

Directions (Q.Nos. 21-25) *There is a problem 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 in the problem figure in order to complete the pattern in the problem figure.*

21. Problem Figure

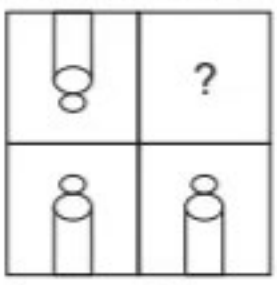


Answer Figures

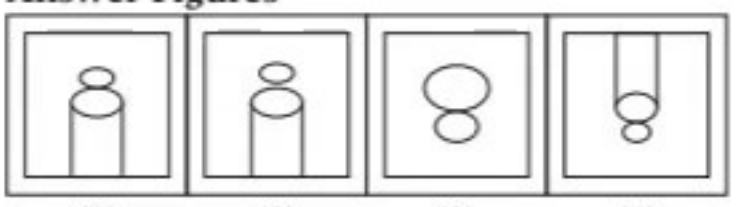


(1) (2) (3) (4)

22. Problem Figure

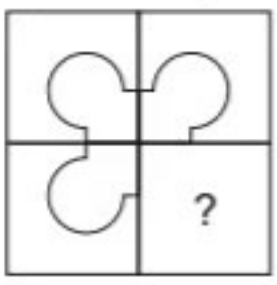


Answer Figures

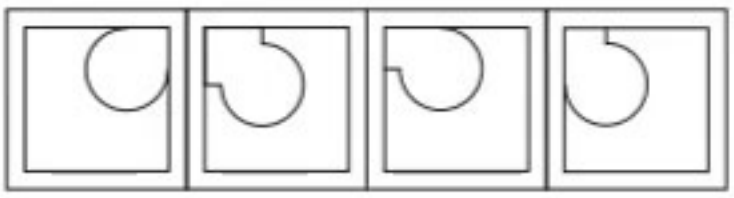


(1) (2) (3) (4)

23. Problem Figure

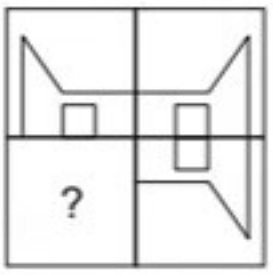


Answer Figures

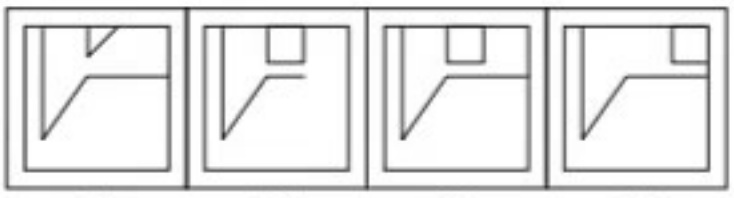


(1) (2) (3) (4)

24. Problem Figure

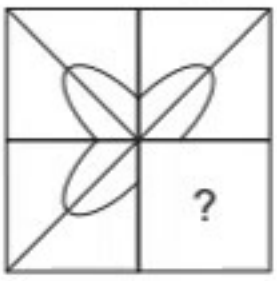


Answer Figures

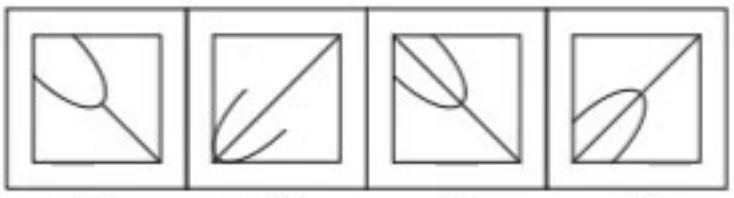


(1) (2) (3) (4)

25. Problem Figure



Answer Figures



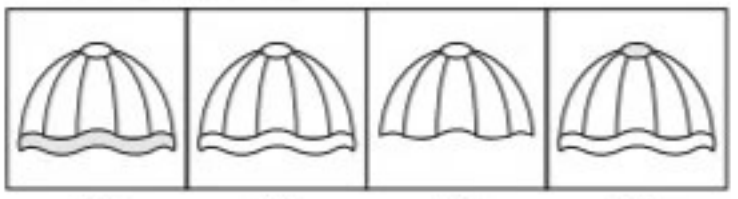
(1) (2) (3) (4)

Part VI

Directions (Q. Nos. 26-30) *There is a given problem figure. There are four answer figures* (1), (2), (3) *and* (4). *You have to find out the answer figure which is similar to the given problem figure.*

26. Problem Figure

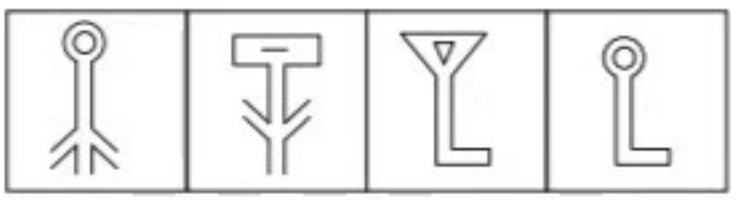
Answer Figures



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

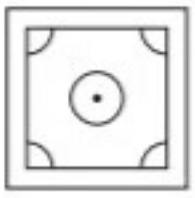
27. Problem Figure

Answer Figures

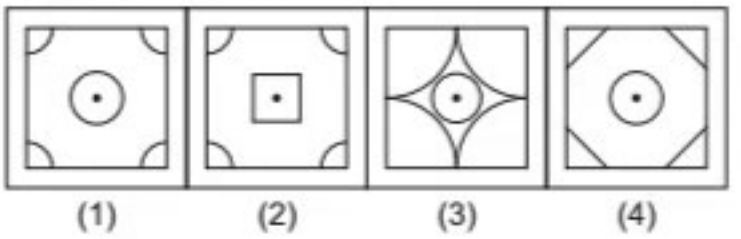


(1) (2) (3) (4)

28. Problem Figure



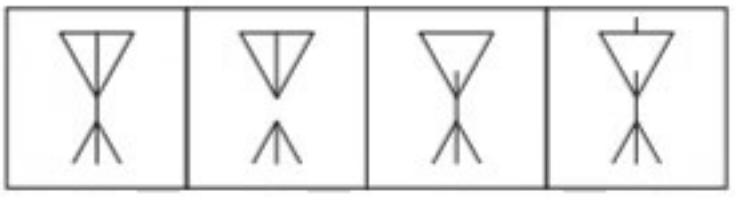
Answer Figures



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

29. Problem Figure

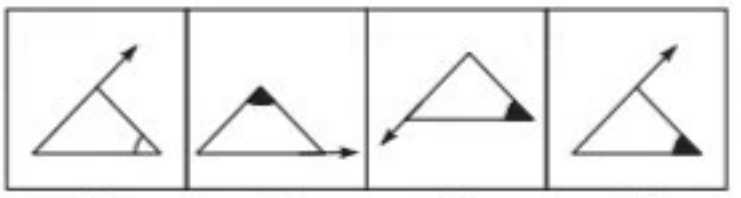
Answer Figures



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

30. Problem Figure

Answer Figures



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

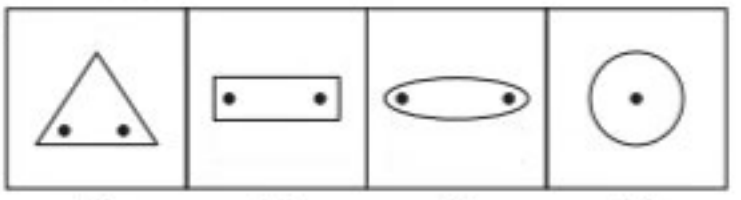
Part VII

Directions (Q.Nos. 31-35) *There are four figures* (1), (2), (3) *and* (4). *Out of these four figures, three figures are similar but one figure is different. Spot out the different figure.*

31.

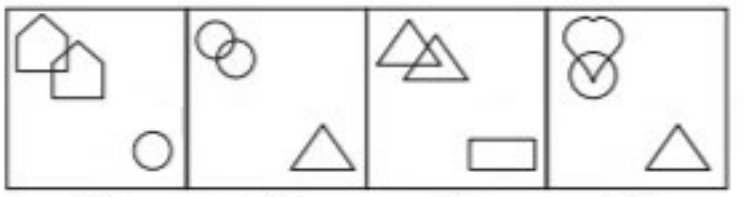
(1) (2) (3) (4)

32.



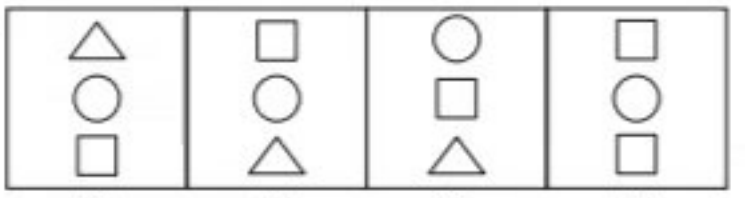
(1) (2) (3) (4)

33.



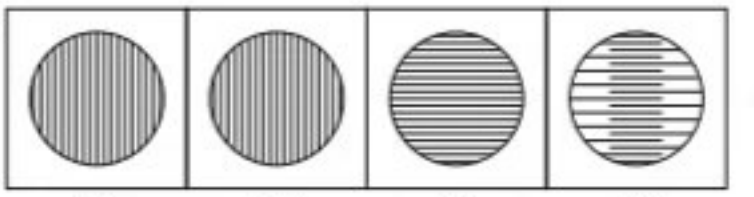
(1) (2) (3) (4)

34.



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

35.



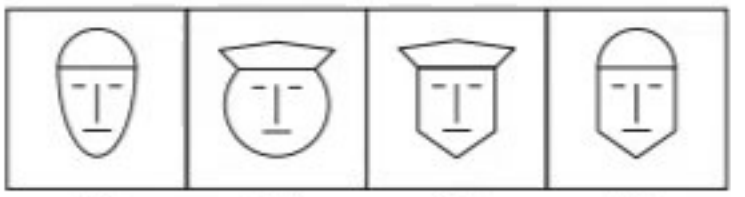
(1) (2) (3) (4)

Part VIII

Directions (Q.Nos. 36-40) *There is given problem figure. There are four answer figures* (1), (2), (3) *and* (4). *You have to find out the answer figure which is similar to the given problem figure.*

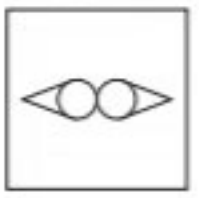
36. Problem Figure

Answer Figures

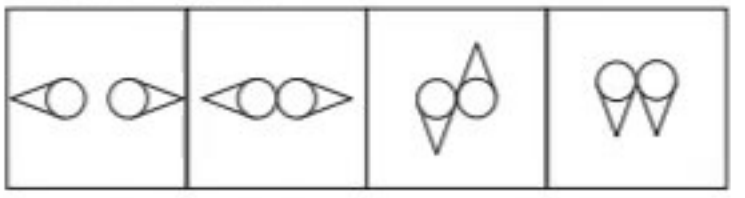


(1) (2) (3) (4)

37. Problem Figure



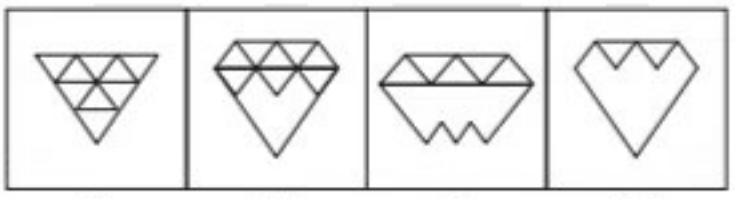
Answer Figures



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

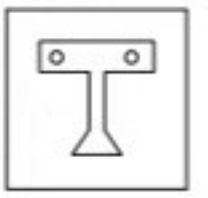
38. Problem Figure

Answer Figures

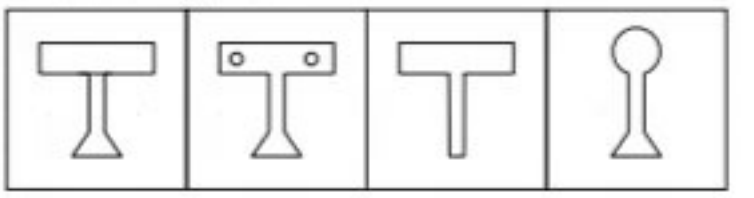


(1) (2) (3) (4)

39. Problem Figure



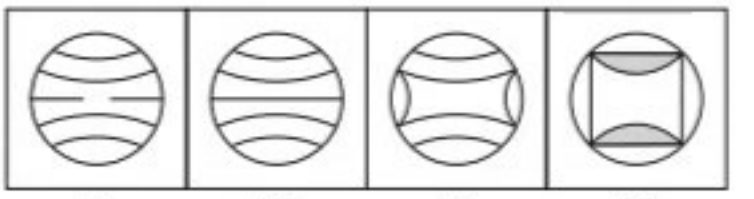
Answer Figures



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

40. Problem Figure

Answer Figures

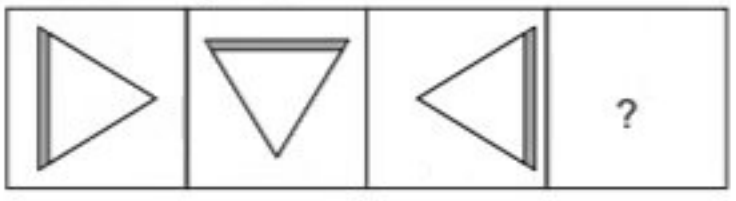


(1) (2) (3) (4)

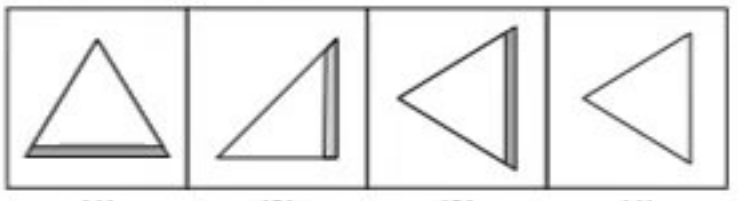
Part IX

Directions (Q. Nos. 41-45) *There are problem figures and the question mark (?) for fourth figure. The problem figures are in Series. Find out one figure among the answer figures which occupies the question mark (?) for the fourth figure and which completes the series.*

41. Problem Figures

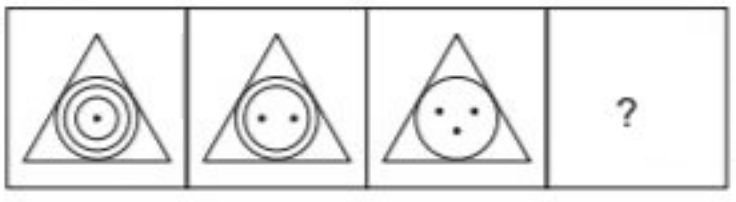


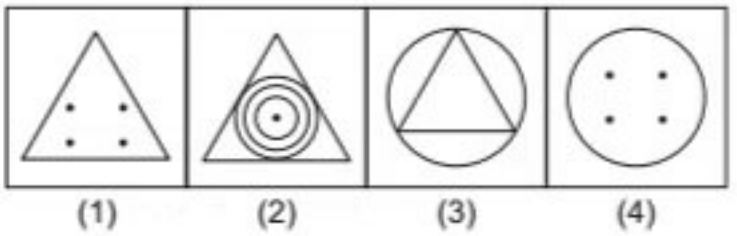
Answer Figures



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

42.



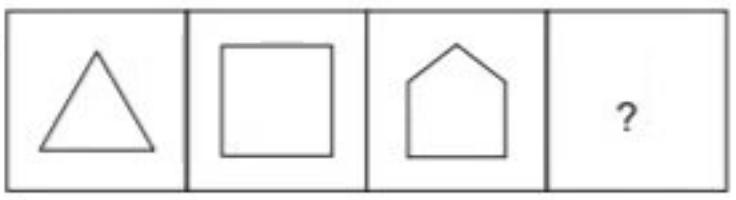


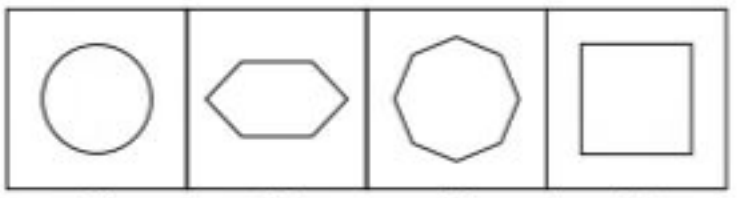
(1) (2) (3) (4)

43.

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

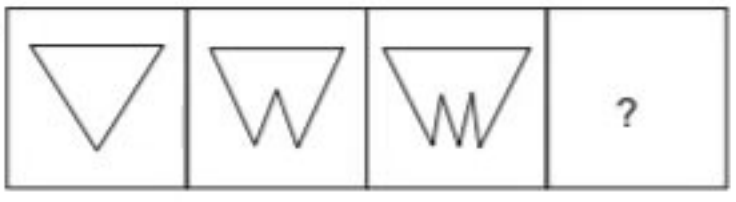
44.

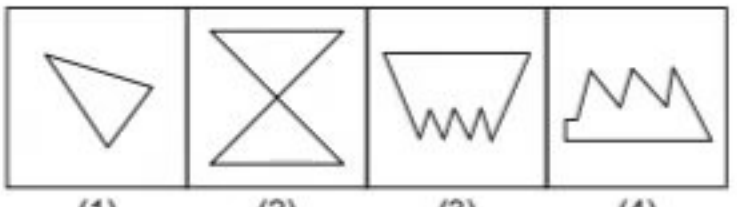




(1) (2) (3) (4)

45.





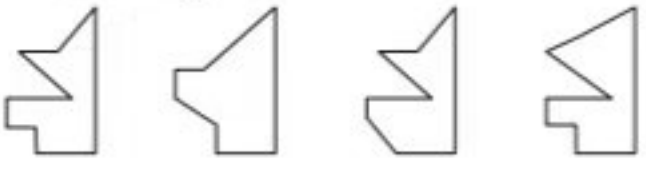
(1) (2) (3) (4)

Part X

Directions (Q. Nos. 46-50) *There is a given problem figure. There are four answer figures* (1), (2), (3) *and* (4). *You have to find out the answer figure which is similar to the given problem figure.*

46. Problem Figure

Answer Figures



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

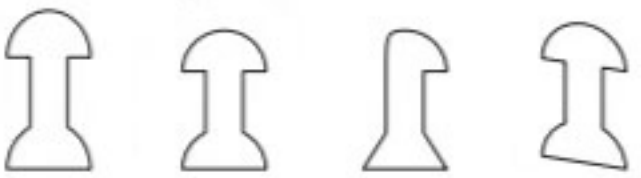
47. Problem Figure

Answer Figures

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

48. Problem Figure

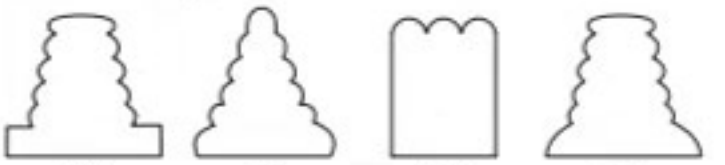
Answer Figures



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

49. Problem Figure

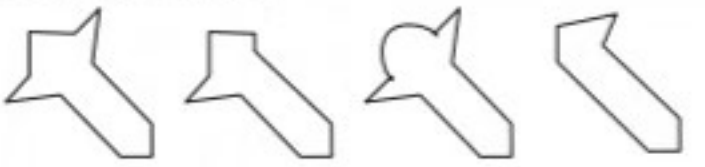
Answer Figures



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

50. Problem Figure

Answer Figures



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

Section II Arithmetic Test

Directions (Q.Nos. 51-75) *For every question, for probable answer bearing* (1), (2), (3) *and* (4) *given. Only one out of these is correct. You have to choose the correct answer.*

51. The average of 4 numbers is 7. If the sum of first three numbers is 20, find the fourth number.

(1) 7 (2) 10
(3) 9 (4) 8

52. What should be taken out of $\frac{3}{7}$ to get $\frac{2}{7}$?

(1) $\frac{5}{7}$ (2) 1
(3) $\frac{1}{7}$ (4) $\frac{3}{7}$

53. Find the breadth of a room whose floor area is 363 sq m and length is 33 m.

(1) 33 m (2) 24 m
(3) 11 m (4) 15 m

54. A boy gets ₹ 20 per month and spends 50% of it. How much does he save in 1 yr?

(1) ₹ 100 (2) ₹ 50
(3) ₹ 120 (4) ₹ 40

55. What is the simple interest on ₹ 500 at 2% per annum for 4 yr?

(1) ₹ 60 (2) ₹ 40
(3) ₹ 75 (4) ₹ 80

56. What least number should be subtracted from 413, so that the resulting number is exactly divisible by 13?

(1) 12 (2) 10
(3) 11 (3) 7

57. What fraction of ₹ 4 is ₹ 1.50?

(1) $\frac{1}{8}$ (2) $\frac{3}{8}$
(3) $\frac{1}{4}$ (4) $\frac{2}{5}$

58. Rajesh purchased a watch for ₹ 300. He sold it for ₹ 330. Find the profit per cent.

(1) 5 (2) 13
(3) 14 (4) 10

59. What is the square root of $\frac{1}{4}$?

(1) $\frac{1}{16}$ (2) $\frac{1}{2}$
(3) 1 (4) 0

60. Find the LCM of 12,18 and 24.

(1) 72 (2) 48
(3) 60 (4) 84

61. $\frac{1}{3}$rd of a property is worth ₹ 1500. Find $\frac{1}{5}$th of the property.

(1) ₹ 600 (2) ₹ 900
(3) ₹ 1200 (4) ₹ 1000

62. Find the average of the following numbers. 06, 0, 12, 14, 13.

(1) 9 (2) 7
(3) 12 (4) 11

63. A man takes 3 days to walk 45 km, in how many days will be walk 75 km?

(1) 1 (2) 25
(3) 5 (4) 15

64. What is the greatest number that divides both 16 and 20 exactly?

(1) 40 (2) 32
(3) 80 (4) 4

65. How many times should we add 19 to get 133?

(1) 8 (2) 5
(3) 9 (4) None of these

66. The next number in the series 2, 5, 8, 11, ... is

(1) 12 (2) 10
(3) 14 (4) 15

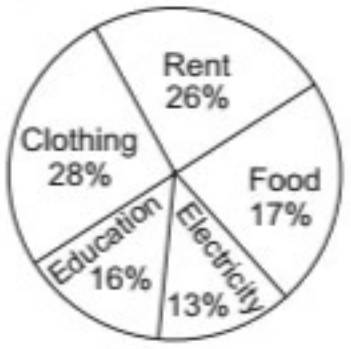
67. The breadth of a rectangle is 3/5 of the length. If length of the rectangle is 25 m, then find the perimeter of the rectangle.

(1) 100 m (2) 80 m
(3) 75 m (4) 150 m

68. The original price of a car is ₹ 500000. What is the new price if the original price is reduced by 10%?

(1) ₹ 540000 (2) ₹ 460000
(3) ₹ 450000 (4) ₹ 480000

69. In the following pie chart if the expenditure on food is ₹ 6800 per month. Find out the expenditure on education.



(1) ₹ 5000 (2) ₹ 6400 (3) ₹ 6000 (4) ₹ 6260

70. Solve $12 \times 10 \div \frac{120}{240} = ? \times 120$.

(1) 12 (2) 10 (3) 2 (4) 240

71. The surface area of a sphere is 3844 m^2. Find the radius of the sphere.

(1) 41 cm (2) 25 cm (3) 31 cm (4) 33 cm

72. *A* can do a piece of work in 10 days and *B* can do the same work in 12 days. How long will they take to finish the work, if 60th work together?

(1) $5\frac{5}{11}$ days (2) $3\frac{1}{2}$ days
(3) 6 days (4) $4\frac{2}{3}$ days

73. Convert 360 km/h into m/s.

(1) 120 m/s (2) 100 m/s
(3) 96 m/s (4) 110 m/s

74. If $a : b = 5 : 14$ and $b : c = 7 : 3$, then find $a : b : c$.

(1) 7 : 3 : 6 (2) 5 : 14 : 6
(3) 8 : 3 : 5 (4) 5 : 6 : 9

75. Simplify $(256)^{3/4}$.

(1) 52 (2) 62 (3) 84 (4) 64

Section III Language Test (English)

Directions (Q.Nos. 76-90) *Read the following passages carefully and answer the questions given below it.*

Passage I

Harshvardhan rose to be one of the greatest emperors of his time. He brought his sister to Thaneshwar and began to rule both the kingdoms. When she died, he shifted his capital to Kannauj. For six years, Harsha went on making conquests. His general Singhnad was an able warrior who won new territories for Harsha. Harsha became master of whole North India. Harsha tried to push into South India also, but he could not do so. Pulkesin was a very brave king who defeated Harsha and forced him to return.

Harsha was at first a devotee of Lord Shiva, but later on he became a Buddhist. A Chinese pilgrim Hieun Tsang visited India during Harsha's reign. He visited almost every corner of India. He has written much about Harsha's government. During Harsha's reign, Nalanda was a Buddhist University. It was situated at Rajgiri near Patna. About 10000 students studied here. These students came from several countries. They were given free education, boarding and lodging. Hieun Tsang too studied in this university. Harsha gave large sums for this university.

76. Who was Hieun Tsang?
(1) Hieun Tsang was a professor at Nalanda University
(2) Hieun Tsang was a Chinese pilgrim
(3) Hieun Tsang was a British writer
(4) Hieun Tsang was the King of China

77. Nalanda University was
(1) situated in Varanasi
(2) situated in Kannauj
(3) situated at Rajgiri near Patna
(4) a famous Chinese University

78. Pulkesin was
(1) a friend of Harsha
(2) a general of Harsha
(3) a priest
(4) a brave King of South India

79. Harsha gave large sums
(1) to Hieun Tsang to go round India
(2) to Pulkesin
(3) to Singhnad to expand his army
(4) to Nalanda University

80. Harsha became
(1) a Buddhist later on
(2) a Christian
(3) the King of the whole India
(4) a follower of Lord Krishna

Passage II

The four divisions of the army went in four directions. Those that had gone to the North, East and West returned after a month. They said that, though they have searched every inch of the land they had passed. Sita was no where to be found. The army that was sent to the South was headed by Hanuman—the monkey, Jambuvant—the bear and Angad—the son of Bali. Hanuman carried Rama's gift—his ring for Sita. For many weary days, they travelled through various countries and forests, but without success. They were afraid of returning empty-handed. Angad said, 'In this search for Sita, we will lose our lives just as Jatayu has done before us.

81. The four divisions of the army
(1) went to attack on Lanka
(2) went to forest
(3) went in search of Sita in four different directions
(4) were headed by Hanuman—the monkey

82. Angad was the son of
(1) Jambuvant—the bear
(2) Jatayu
(3) Rama
(4) Bali

83. The army that was sent to South was led by
(1) Hanuman—the monkey

(2) Angad—the son of Bali
(3) Jambuvant—the bear
(4) All of the above

84. Who carried Rama's ring to Sita?
(1) Angad (2) Jatayu
(3) Hanuman (4) Jambuvant

85. The army which went to South searched in every country and forest
(1) but without success
(2) and met Sita
(3) and came back without meeting Sita
(4) and met Sita and return back with her

Passage III

After God had made a man, he made a beautiful garden in Eden and put the man he had created, who was named Adam. Adam was to lookafter the garden. A river ran through it and in it, there were two special trees. One was called 'The Tree of Life' and other was called 'The Tree of the Knowledge of good and evil'. You may eat the fruit of any tree in the garden, God said, except 'The Tree of the Knowledge of good and evil.' That tree Adam was not to touch. All the animals came to Adam as he worked in the garden. Adam gave them all names. The birds flew around him, too and perched on the branches Adam named them also. The birds and the animals all had creatures like themselves for company, but Adam was alone. 'It is not good for him to live alone, 'God thought', I will make someone in the garden with him'. So, when Adam was asleep, God made a woman to share his life. She was his wife and Adam gave her a name. He called her Eve.

86. Who made Adam?
(1) Eve made Adam (2) God made Adam
(3) Indira made Adam (4) Nobody made Adam

87. God ordered Adam not to touch
(1) Any tree of the garden
(2) 'The Tree of Life'
(3) 'The Tree of Knowledge of good and evil'
(4) Birds of the garden

88. Eve was the wife
(1) of Adam (2) of Achillies
(3) of a Demon (4) of a wild Demon

89. God made a beautiful
(1) garden in Scotland
(2) woman and Adam named her Eve
(3) city of Adam
(4) palace for Eve

90. Adam named
(1) the birds only
(2) the animals only
(3) all the birds and the animals
(4) rivers and mountains

Directions (Q. Nos. 91-95)

91. Ravi was ... from the school.
(1) expelled (2) expeled
(3) expilled (4) espelled

92. The price of gold as well as silver ... risen.
(1) are (2) have
(3) has (4) is

93. Life is to dearie as pleasure is to ... .
(1) poverty (2) pain
(3) anguish (4) suffering

94. We live .... Delhi.
(1) on (2) of (3) in (4) at

95. Birds build ... .
(1) carts (2) caves (3) furrow (4) nests

Directions (Q.Nos. 96-100) *Find out the part which has an error in the following sentences. If there is no error, the answer is* (4).

96. He tried (1)/ to open the can (2)/ by a can opener. (3)/ No error (4)

97. You have (1)/ acted nobler (2)/ than all of us. (3)/ No error (4)

98. It is harmful to take (1)/ cupsfull of tea (2)/ five times a day.(3)/ No error (4)

99. She (1)/ did not write (2)/ the letter till now.(3)/ No error (4)

100. I have met (1)/ my friend only (2)/ a few hours ago.(3)/ No error (4)

Answers

1.	(3)	**2.**	(2)	**3.**	(1)	**4.**	(2)	**5.**	(3)	**6.**	(4)	**7.**	(1)	**8.**	(2)	**9.**	(1)	**10.**	(4)
11.	(2)	**12.**	(3)	**13.**	(4)	**14.**	(2)	**15.**	(4)	**16.**	(4)	**17.**	(1)	**18.**	(2)	**19.**	(1)	**20.**	(2)
21.	(2)	**22.**	(4)	**23.**	(2)	**24.**	(3)	**25.**	(3)	**26.**	(2)	**27.**	(4)	**28.**	(1)	**29.**	(3)	**30.**	(4)
31.	(3)	**32.**	(4)	**33.**	(4)	**34.**	(4)	**35.**	(4)	**36.**	(3)	**37.**	(2)	**38.**	(2)	**39.**	(2)	**40.**	(2)
41.	(1)	**42.**	(1)	**43.**	(3)	**44.**	(2)	**45.**	(3)	**46.**	(1)	**47.**	(1)	**48.**	(1)	**49.**	(4)	**50.**	(3)
51.	(4)	**52.**	(3)	**53.**	(3)	**54.**	(3)	**55.**	(2)	**56.**	(2)	**57.**	(2)	**58.**	(4)	**59.**	(2)	**60.**	(1)
61.	(2)	**62.**	(4)	**63.**	(3)	**64.**	(4)	**65.**	(4)	**66.**	(3)	**67.**	(2)	**68.**	(3)	**69.**	(2)	**70.**	(3)
71.	(3)	**72.**	(1)	**73.**	(2)	**74.**	(2)	**75.**	(4)	**76.**	(2)	**77.**	(3)	**78.**	(4)	**79.**	(4)	**80.**	(1)
81.	(3)	**82.**	(4)	**83.**	(4)	**84.**	(3)	**85.**	(1)	**86.**	(2)	**87.**	(3)	**88.**	(1)	**89.**	(2)	**90.**	(3)
91.	(1)	**92.**	(3)	**93.**	(2)	**94.**	(3)	**95.**	(4)	**96.**	(3)	**97.**	(2)	**98.**	(2)	**99.**	(2)	**100.**	(1)

Hints and Solutions

1. In each step, whole design rotates 90° clockwise direction.

2. In each step, boy is one step ahead of his previous step.

3. In each step, line rotates 30° anti-clockwise direction.

4. In each step, shaded portion slips 1/4 place clockwise direction.

5. In each step, both designs interchange to each other and small design becomes large and large designs becomes small.

6. Except (4), all other designs have single line.

7. Except (1), all others have three same design.

8. Except (2), all others are single design.

9. Except (1), all others have four diameters.

10. Only tree is a living.

11. In first pair, first is shaded in second figure. Similarly, this rule follows in third figure.

12. In first pair, whole design rotates 90° clockwise direction. Similarly, this rule follows in third figure.

13. In first pair, lower side completes. Similarly, this rule follows in third figure.

14. In first pair, first figure is doubled. Similarly, this rule follows in third figure.

15. In first pair, similar opposite design should be added. Similarly, this rule follows in third figure.

31. Except (3), all other figures have single line.

32. Except (4), all other figures have two dots.

33. Only in figure (4), all three designs are different.

34. Only in figure (4), two designs are same.

35. Only in figure (4), lines are not meet both sides.

41. In each step, whole design rotates 90° clockwise direction.

42. In each step, one circle is deleted and one dot is added.

43. In each step, one line is added in clockwise direction.

44. In each step, one line is added to make a geometrical figure.

45. In each step, one same design is added.

51. Average of 4 numbers = 7.

$\therefore$ Sum of 4 numbers = $4 \times 7 = 28$

Sum of first 3 numbers = 20

Hence, fourth number = $28 - 20 = 8$

52. Let x be taken out.

Then, $\frac{3}{7} - x = \frac{2}{7}$

$\Rightarrow$ $x = \frac{3}{7} - \frac{2}{7}$

$\therefore$ $x = \frac{1}{7}$

53. Area of room = Length × Breadth

$363 = 33 \times$ Breadth

$\Rightarrow$ Breadth $= \frac{363}{33} = 11\text{m}$

54. Monthly saving amount by the boy

$= 20 \times \frac{50}{100} =$ ₹ 10

$\therefore$ Annually saving amount $= 10 \times 12 =$ ₹ 120

55. Simple interest $= \frac{P \times r \times t}{100}$

$= \frac{500 \times 2 \times 4}{100} =$ ₹ 40

56. By option method, when least number 10 subtracted from 413, the resulting number is exactly divisible by 13.

57. $\frac{₹\,150}{₹\,4} = \frac{150}{400} = \frac{3}{8}$

58. Required profit per cent $= \frac{330 - 300}{300} \times 100$

$= \frac{30}{300} \times 100 = 10\%$

59. Square root of $\frac{1}{4} = \sqrt{\frac{1}{4}} = \frac{1}{2}$

60.

2	12, 18, 24
2	6, 9, 12
2	3, 9, 6
3	3, 9, 3
3	1, 3, 1
	1, 1, 1

LCM of 12, 18 and 24 $= 2 \times 2 \times 2 \times 3 \times 3$

$= 72$

61. Suppose total property = ₹ x

Then, $x \times \frac{1}{3} = 1500 \Rightarrow x = 1500 \times 3$

$\Rightarrow$ $x =$ ₹ 4500

$\therefore$ $\frac{1}{5}$th of the property $= 4500 \times \frac{1}{5} =$ ₹ 900

62. Required average $= \frac{6 + 0 + 12 + 14 + 13}{5}$

$= \frac{45}{5} = 9$

63. Man's per day walk $= \frac{45}{3} = 15$ km

$\therefore$ Required number of days to walk 75 km

$= \frac{75}{15} = 5$ days

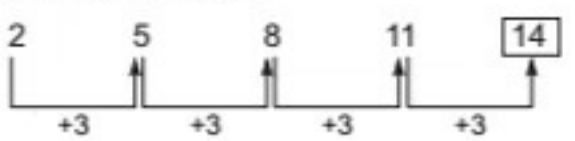
64. From the option, we clearly says that number 4 divides both 16 and 20 exactly.

65. Suppose x times should be added.

Then, $19 \times x = 133$

$\Rightarrow$ $x = \frac{133}{19} \therefore x = 7$

66. The pattern of series is



67. Given, length of the rectangle = 25 m

$\therefore$ Breadth of the rectangle $= 25 \times \frac{3}{5} = 15$ m

$\therefore$ Perimeter of the rectangle $= 2\,(l + b)$

$= 2\,(25 + 15)$

$= 80$ m

68. New price of the car $= 500000 \times \frac{(100 - 10)}{100}$

$= 500000 \times \frac{90}{100} =$ ₹ 450000

69. $\because$ 17% = ₹ 6800

$\therefore$ $1\% = \frac{6800}{17} =$ ₹ 400

$\therefore$ Expenditure on Education (16%)

$= 400 \times 16 =$ ₹ 6400

70. $? \times 120 = 12 \times 10 \div \frac{120}{240}$

$\Rightarrow$ $? \times 120 = 120 \div \frac{1}{2}$

$\Rightarrow$ $? \times 120 = 120 \times 2$

$\therefore$ $? = \frac{120 \times 2}{120} = 2$

71. Surface area of the sphere $= 4\,\pi r^2$

$\Rightarrow$ $4\,\pi r^2 = 3844$

$\Rightarrow$ $4 \times \frac{22}{7} \times r^2 = 3844 \Rightarrow r^2 = \frac{7 \times 3844}{4 \times 22}$

$\Rightarrow$ $r^2 = 961$

$\therefore$ $r = \sqrt{961} = 31$ cm

72. A's 1day's work $= \frac{1}{10}$

B's 1 day's work $= \frac{1}{12}$

$(A + B)$' 1 day's work $= \frac{1}{10} + \frac{1}{12} = \frac{6 + 5}{60} = \frac{11}{60}$

$\therefore (A + B)$ complete the whole work in $\frac{60}{11}$ days or

$5\frac{5}{11}$ days.

73. 360 km/h $= 360 \times \frac{5}{18}$ m/s

$= 100$ m/s

74. $a : b = 5 : 14$

$b : c = 7 : 3$

$\therefore$ $a : b : c = 5 \times 7 : 14 \times 7 : 14 \times 3$

$= 35 : 98 : 42 = 5 : 14 : 6$

75. $(256)^{3/4} = (4^4)^{3/4} = 4^{4 \times \frac{3}{4}} = 4^3 = 64$

Jawahar
Navodaya Vidyalaya
Entrance Exam (Class VI)

Solved Paper 2011

Section I Mental Ability Test

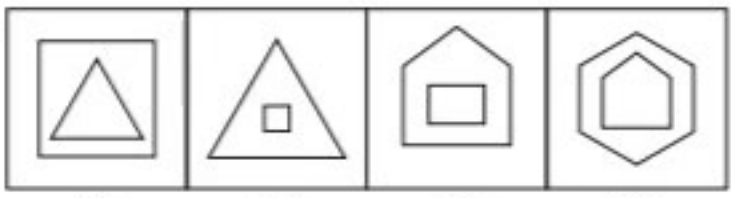
Part I

Directions (Q. Nos. 1-5) *There are four figures* (1), (2), (3) *and* (4). *Out of these four figures, three figures are similar but one figure is different. Spot out the different figure.*

1.

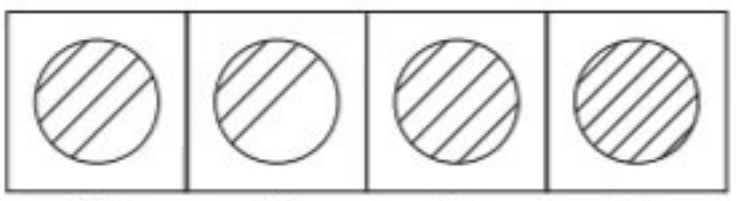
(1) (2) (3) (4)

2.



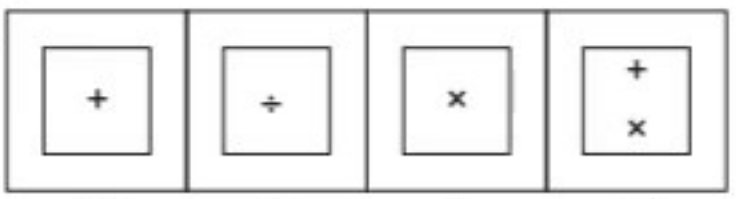
(1) (2) (3) (4)

3.



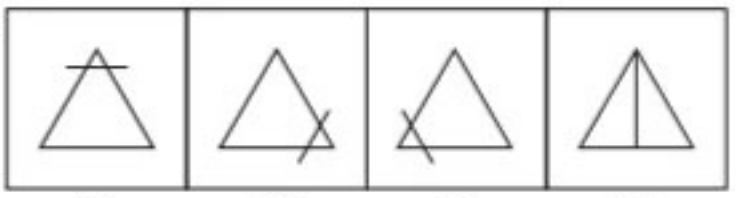
(1) (2) (3) (4)

4.



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

5.

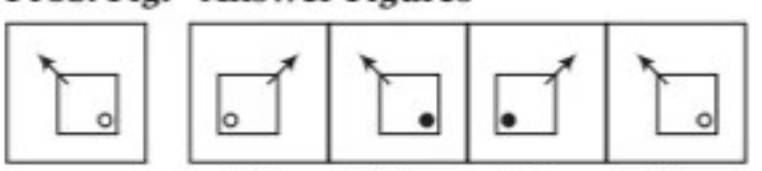


(1) (2) (3) (4)

Part II

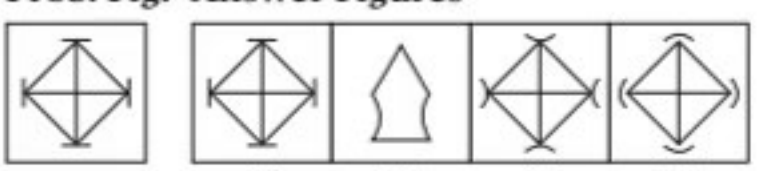
Directions (Q. Nos. 6-10) *There is a given problem figure. There are four answer figures* (1), (2), (3) *and* (4). *You have to find out the answer figure which is similar to the given problem figures.*

6. Prob. Fig. Answer Figures



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

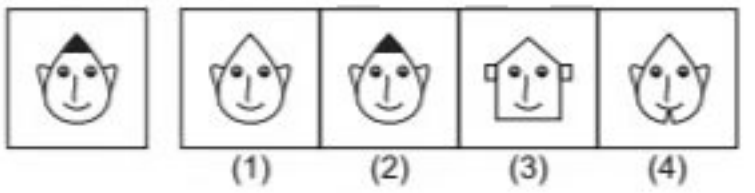
7. Prob. Fig. Answer Figures



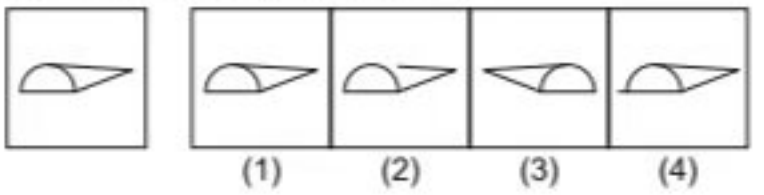
(1) (2) (3) (4)

Based on Memory

8. Prob. Fig. Answer Figures

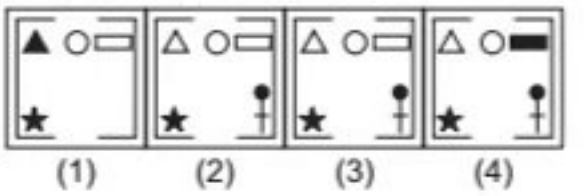


9. Prob. Fig. Answer Figures



10. Prob. Fig.

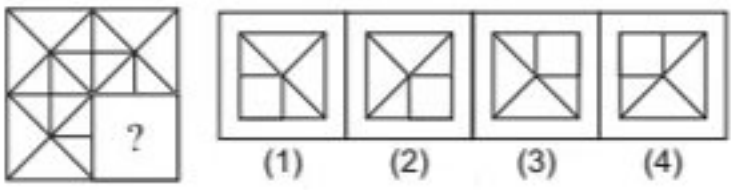
Answer Figures



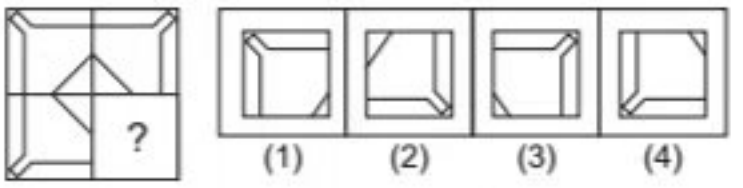
Part III

Directions (Q. Nos. 11-15) *There is a problem 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 in the problem figure in order to complete the pattern in the problem figure.*

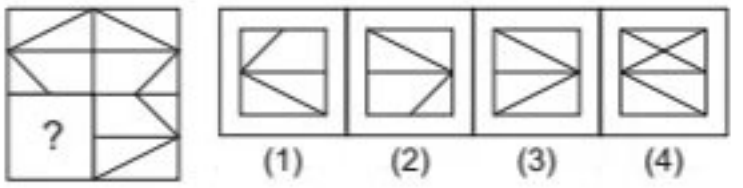
11. Prob. Fig. Answer Figures



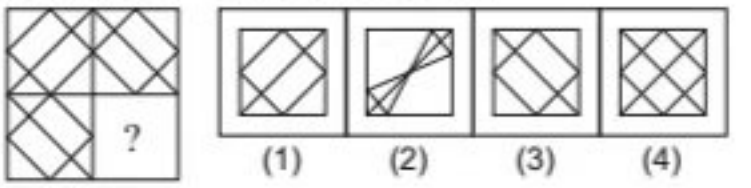
12.



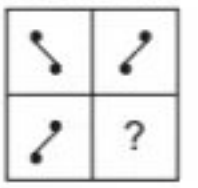
13.



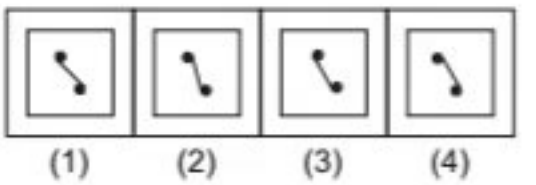
14. Prob. Fig. Answer Figures



15. Prob. Fig.



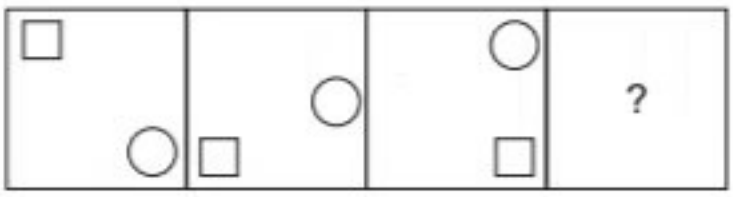
Answer Figures



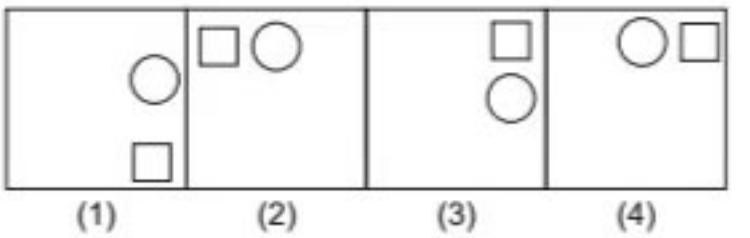
Part IV

Directions (Q. Nos. 16-20) *There are problem figures and the question mark* (?) *for fourth figure. The problem figures are in a series. Find out one figure among the answer figures which occupies the question mark* (?) *for the fourth figure and which completes the series.*

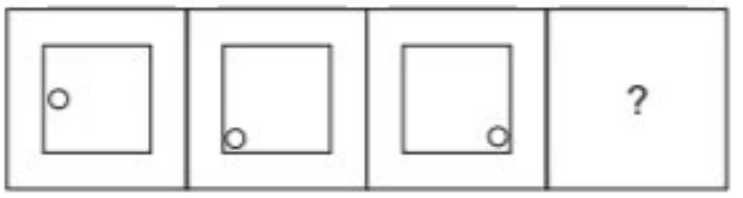
16. Problem Figures



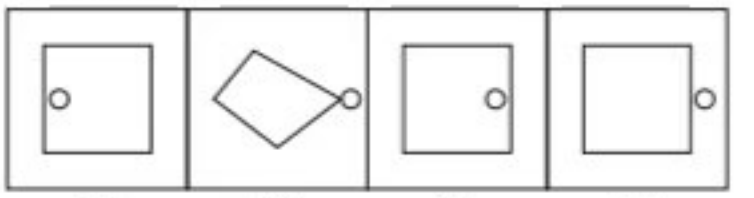
Answer Figures



17. Problem Figures

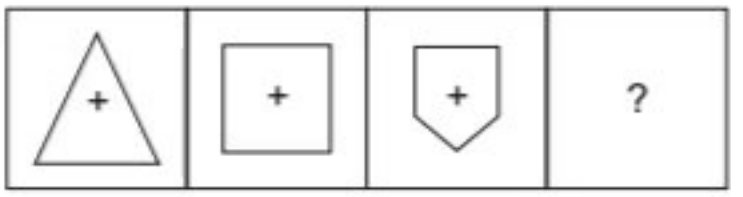


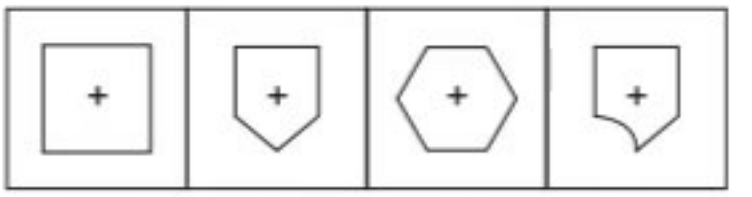
Answer Figures



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

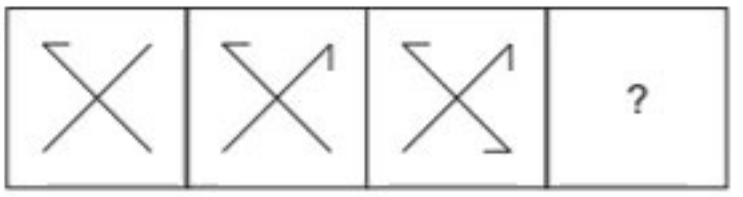
18.

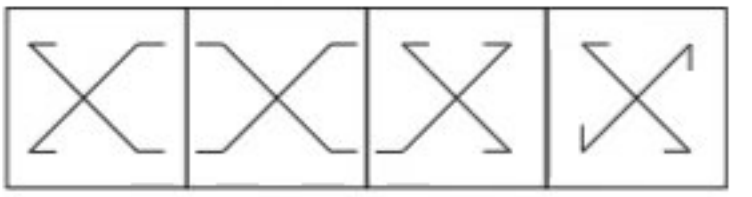




(1) (2) (3) (4)

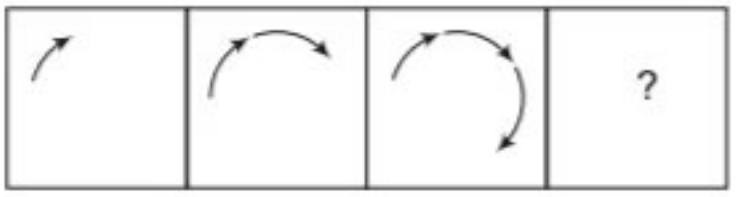
19.

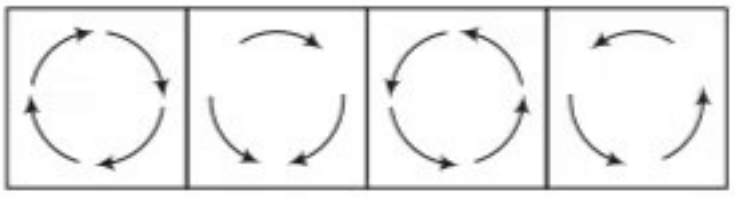




(1) (2) (3) (4)

20.



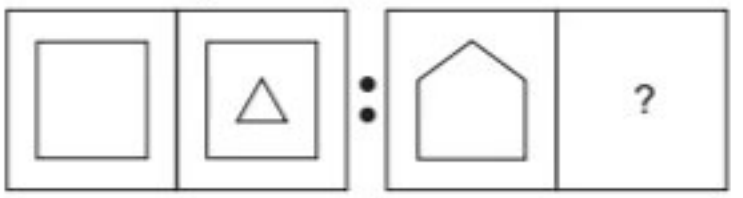


(1) (2) (3) (4)

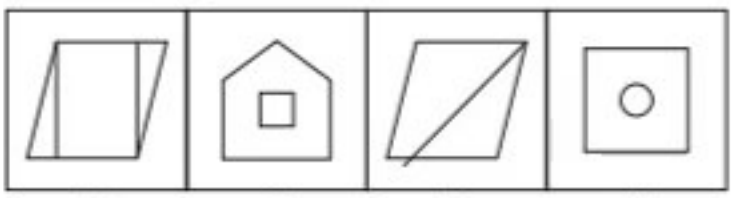
Part V

Directions (Q. Nos. 21-25) *There are three problem figures followed by a question mark (?) for the fourth one. There exists a relationship between first two problem figures. A similar relationship should exist between the third and the fourth problem figure. Select one figure from answer figures which replaces the question mark (?).*

21. Problem Figures

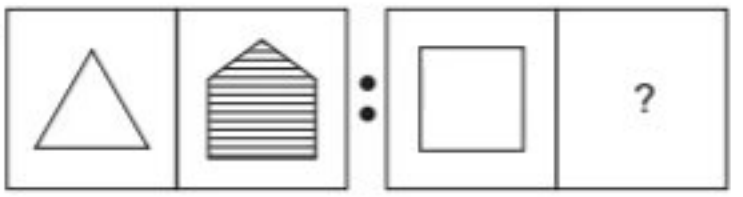


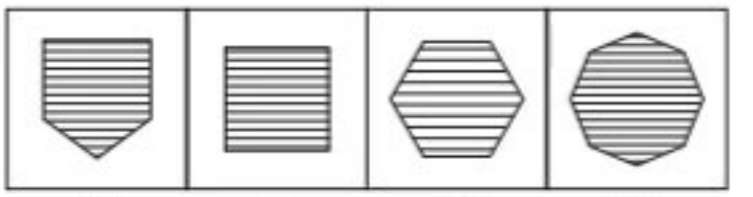
Answer Figures



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

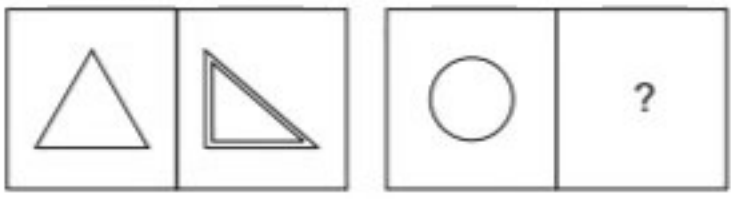
22.



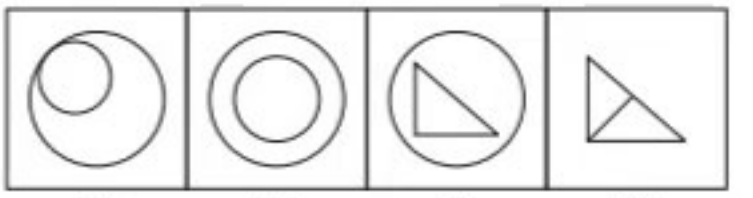


(1) (2) (3) (4)

23. **Problem Figures**

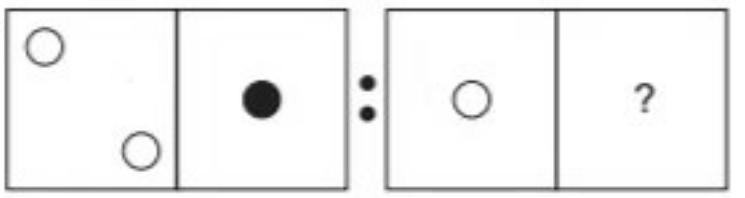


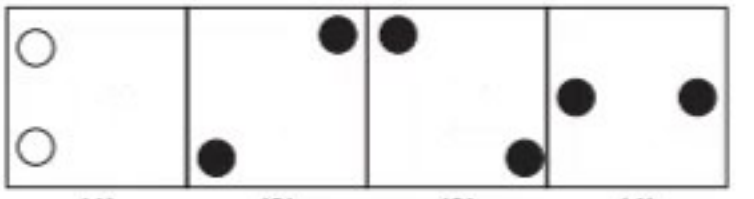
Answer Figures



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

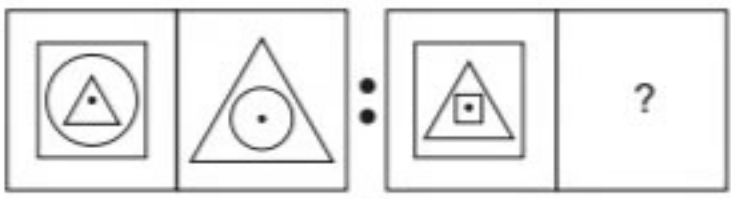
24.

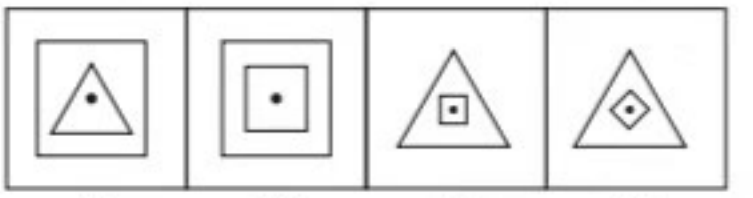




(1) (2) (3) (4)

25.





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

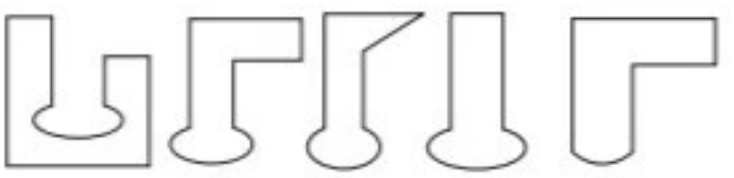
Part VI

Directions (Q. Nos. 26-30) *One part of the square and other one is among the figures* (1), (2), (3) *and* (4). *Find out the figure which completes the square.*

26. **Prob. Fig.** **Answer Figures**

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

27.



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

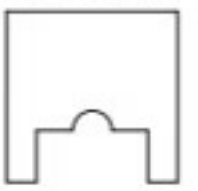
28.

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

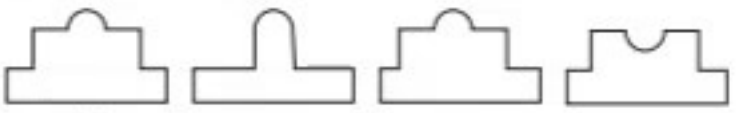
29. **Prob. Fig.** **Answer Figures**

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

30. **Prob. Fig.**



Answer Figures

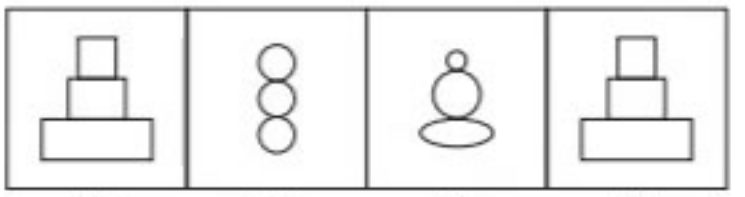


(1) (2) (3) (4)

Part VII

Directions (Q. Nos. 31-35) *There are four figures* (1), (2), (3) *and* (4) *Out of these four figures, three figures are similar but one figure is different. Spot out the different figure.*

31.

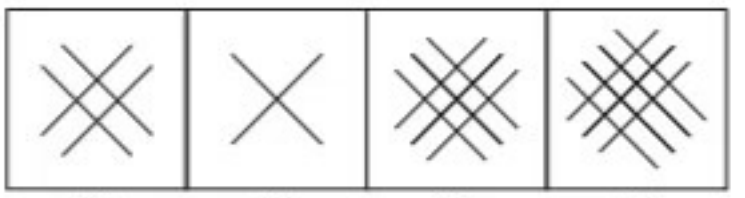


(1) (2) (3) (4)

32.

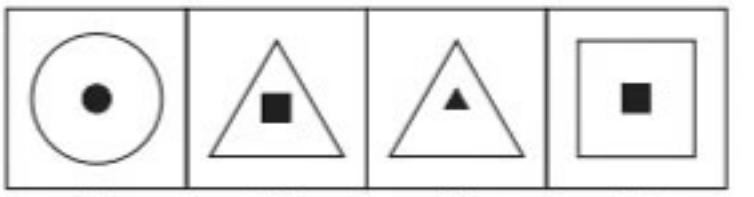
(1) (2) (3) (4)

33.



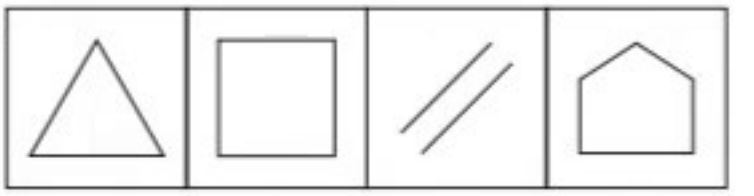
(1) (2) (3) (4)

34.



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

35.



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

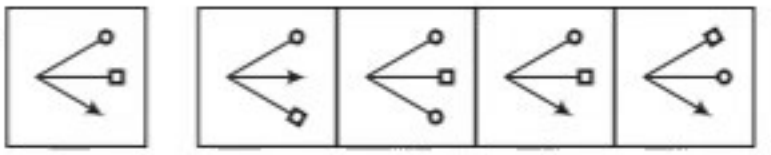
Part VIII

Directions (Q. Nos. 36-40) *There is a given problem figure. There are four answer figures* (1), (2), (3) *and* (4). *You have to find out the answer figure which is similar to the given problem figure.*

36. **Prob. Fig.** **Answer Figures**

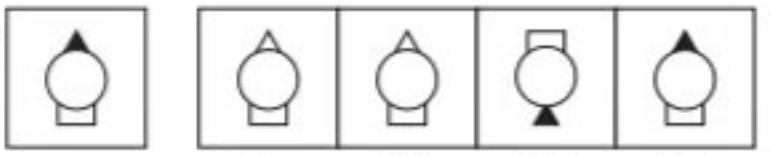
(1) (2) (3) (4)

37.



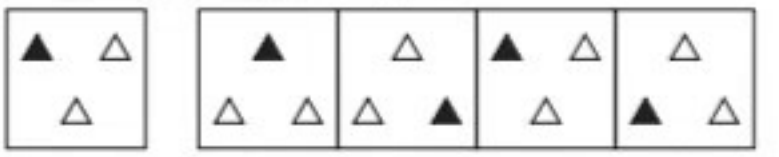
(1) (2) (3) (4)

38.



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

39. **Prob. Fig.** **Answer Figures**



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

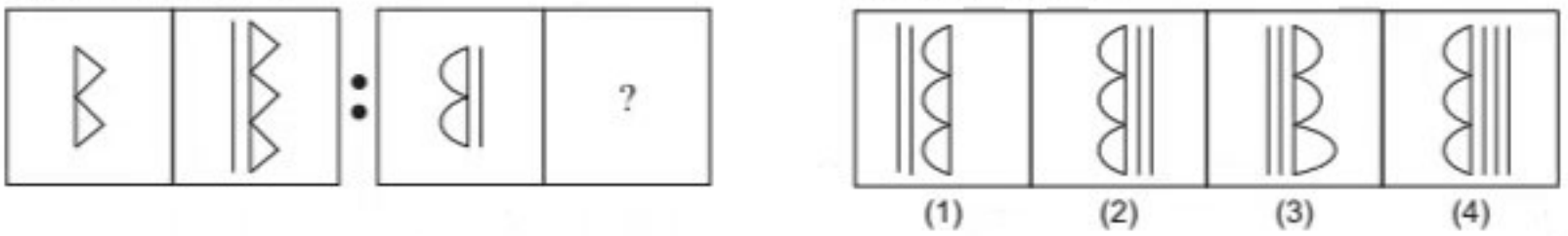
40.

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

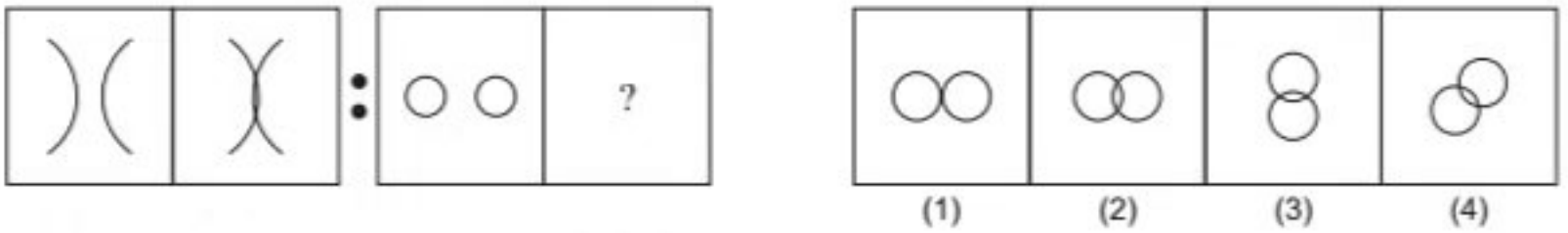
Part IX

Directions (Q. Nos. 41-45) *There are three problem figures followed by a question mark (?) for the fourth one. There exists a relationship between first two problem figures. A similar relationship should exist between the third and the fourth problem figure. Select one figure from answer figures which replaces the question mark (?).*

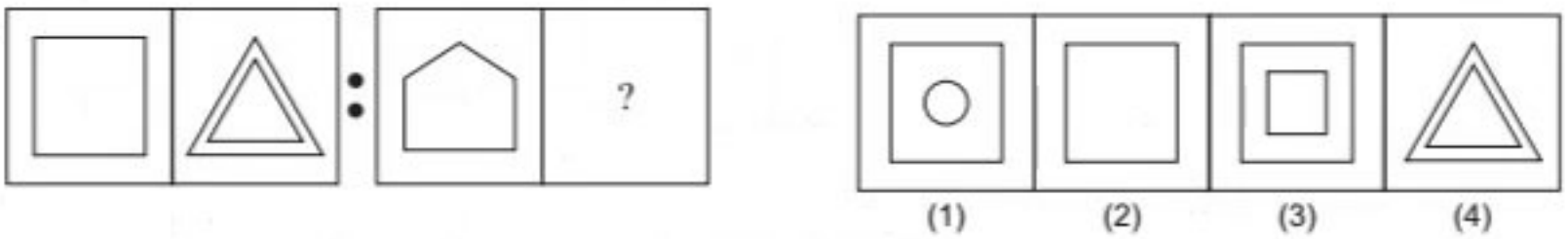
41. Problem Figures **Answer Figures**



42.



43.



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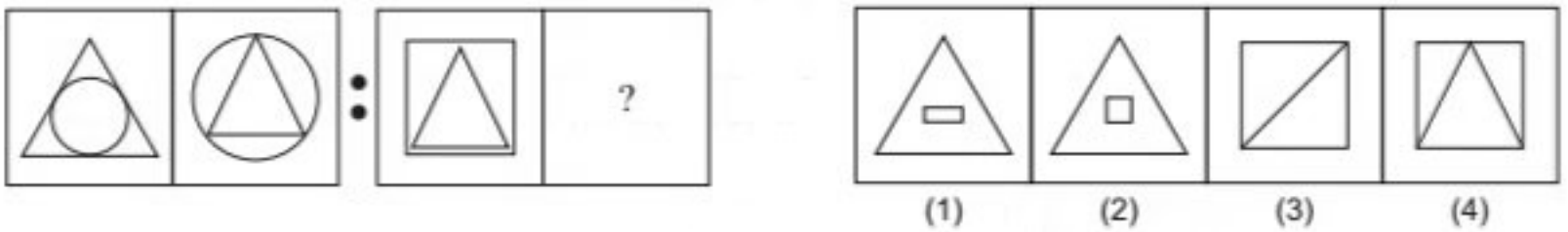

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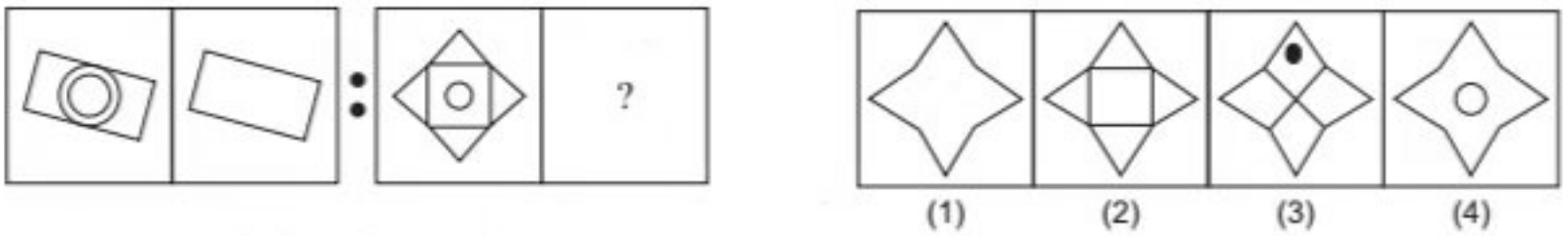
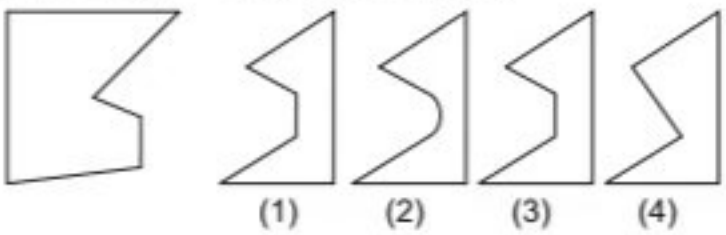


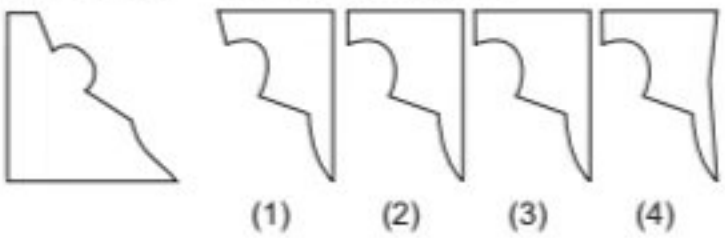
Part X

Directions (Q. Nos. 46-50) *One part or the square and other one is among the figures* (1), (2), (3) *and* (4). *Find out the figure which completes the square.*

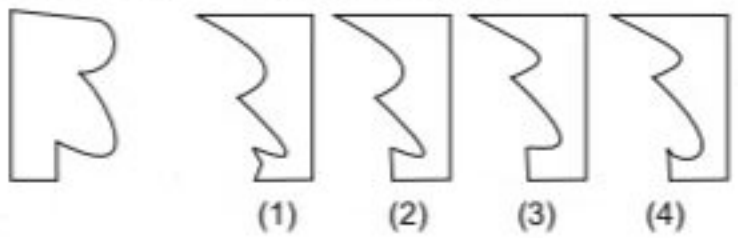
46. Prob. Fig. **Answer Figures**



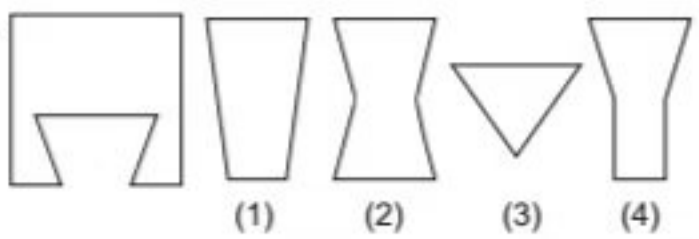
47. Prob. Fig. **Answer Figures**



48. Prob. Fig. Answer Figures

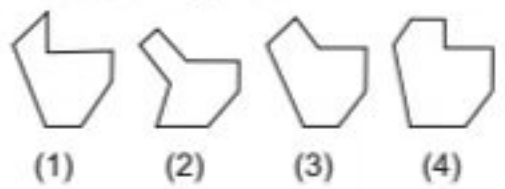


49.



50. Prob. Fig.

Answer Figures



Section II Arithmetic Test

Directions (Q. Nos. 51-75) *For every question, four probable answers bearing* (1), (2), (3) *and* (4) *given. Only one out of these is correct. You have to choose the correct answer.*

51. LCM of 42, 70, 98 and 126 is
(1) 126 (2) 2205 (3) 4410 (4) 8820

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

53. How many days are there in 2 months, 5 weeks and 18 days?
(1) 113 days (2) 115 days
(3) 116 days (4) 114 days

54. Which of the following is the smallest four digit number?
(1) 1000 (2) 1100 (3) 1300 (4) 1900

55. The difference between the place values of two 7s in 27307 is
(1) 6993 (2) 7300
(3) 307 (4) 40

56. Which one of the following is a prime number?
(1) 81 (2) 83
(3) 85 (4) 87

57. The multiple of 7 between 14 and 77 is
(1) 10 (2) 9 (3) 8 (4) 7

58. What value must be given to i, so that the 691 i is divisible by 25?
(1) 3 (2) 5 (3) 4 (4) 7

59. The sum total of 975, 983, 923, 913 and 985 to its nearest hundred will be
(1) 4500 (2) 4600
(3) 4700 (4) 4800

60. Eighty thousand nine hundred and five is represented in number form as
(1) 8095 (2) 80905
(3) 809005 (4) 8009005

61. The HCF and LCM of two numbers are 4 and 48 respectively. If one of these numbers is 12, the other number is
(1) 16 (2) 12
(3) 8 (4) 4

62. Which one of the following is equivalent of 6/20?
(1) 6% (2) 20%
(3) 26% (4) 30%

63. The average of the height of 5 students having height 30, 40, 50, 60, 70 is
(1) 40 (2) 50
(3) 55 (4) 45

64. The cost of 6 kg rice is equal to the cost of 8 kg wheat. If the cost of wheat is ₹ 6 per kg, then the cost of 1 kg rice is
(1) ₹ 6 (2) ₹ 8
(3) ₹ 12 (4) ₹ 14

65. A person buys 10 dozen pens at the rate of ₹ 24 per dozen and sells them at the rate of ₹ 36 a dozen. What is his profit or loss?
(1) ₹ 100, profit (2) ₹ 100, loss
(3) ₹ 120, loss (4) ₹ 120, profit

66. Which of the following is not a factor of 316?
(1) 1 (2) 8
(3) 79 (4) 158

67. The average score of a cricketer in two matches is 27 and in three other matches is 32. Then, his average score in all the five matches is
(1) 28 (2) 29 (3) 30 (4) 31

68. Out of 600 students 240 are girls. What is the percentage of girls?
(1) 250 (2) 60
(3) 40 (4) 24

69. What is simple interest on ₹ 1800 for 10 yr at the rate of 10% per annum?
(1) ₹ 3600 (2) ₹ 1000
(3) ₹ 360 (4) ₹ 1800

70. A man buys a radio for ₹ 900 and sells it for ₹ 1200. Find his gain per cent.
(1) 20 (2) 25 (3) 30 (4) $33\frac{1}{3}$

71. In the following series, find the next term.
11, 13, 17, 19, 23, 29, 31, 37, 41, ...
(1) 42 (2) 43 (3) 44 (4) 45

72. Simplify $10\frac{2}{5} \times 8\frac{4}{5} \div 4\frac{2}{5}$.
(1) $20\frac{4}{5}$ (2) $\frac{5}{104}$
(3) 64 (4) 21

73. $[\{(6 \div 2) \times 3\} \times 2]$ is equal to
(1) 11 (2) 18
(3) 13 (4) 27

74. The sum of the fraction $\frac{2}{9}, \frac{4}{3}$ and $\frac{6}{18}$ is
(1) $\frac{17}{9}$ (2) $\frac{16}{9}$
(3) $\frac{2}{5}$ (4) $\frac{11}{18}$

75. The value of $20.19 \div 0.17$ is
(1) 0.0123
(2) 1.230
(3) 12.30
(4) 123.0

Section III Language Test (English)

Directions (Q. Nos. 76-90) *Read the following passages carefully and answer the questions given below it.*

Passage I

The family sat down at the table and began to talk about the summer holidays. They had to decide a place to visit during the vacation. Should they go to their village or to a hill station? The parents preferred the village while the children wished to go to the hill station. After few moments of discussion, the elders decided to visit both the places. First they shall go to the village for a week and then stay at the hill station for the remaining days. For the first time, the family shall be together during the holidays. The children were happy with the holiday plan.

76. The purpose for which the family set down at the table was to
(1) decide a place to visit during the vacation
(2) educate the children how to carry articles during a visit to a hill station
(3) decide the date when they should start their journey
(4) tell the children that they will visit a hill station during this vacation

77. The final plan was to visit
(1) their village
(2) a hill station
(3) their village as well as a hill station
(4) their home town

78. The final decision was made by the
(1) boys (2) girls (3) women (4) elders

79. They decided first to go to their village and stay there for
(1) a day (2) a week
(3) ten days (4) a fortnight

80. Why were children happy?
(1) Because a hill station was included in their holiday plan
(2) Because a visit to their village was excluded from their holiday plan
(3) Because their choice prevailed
(4) Because they were going all alone to the hill station

Passage II

Fishing is my favourite sport. I often fish for hours without catching anything. But this does not worry me. Some fishermen are unlucky. Instead of catching fish, they catch old boots and rubbish. I am even less lucky. I never catch anything—not even old boots. After having spent whole mornings on the river, I always go home with an empty bag. 'You must give up fishing!' my friends say. Its a waste of time. But they don't realise one important thing. I'm not really interested in fishing. I am only interested in sitting in a boat and doing nothing at all.

81. Some fishermen are unlucky because
(1) they never catch a fish
(2) fishing is not their favourite sport
(3) they fish for hours together
(4) sometimes they catch old boots and rubbish instead to fish

82. Fishing is the writer's favourite sport as he
(1) always catches fish
(2) finds it a funny sport
(3) enjoys doing nothing while sitting in a boat
(4) collects old boots

83. If a piece of matter violates nature's law, it is not punished because
(1) it is not binding to obey it
(2) there is no superior being to enforce the law of nature
(3) it cannot be punished
(4) it simply means that the facts have not been correctly stated by the law

84. The laws of nature based on observation are
(1) conclusive about the nature of the universe
(2) true and unfalsifiable
(3) figments of the observer's imagination
(4) subject to change in the light of new facts

85. The antonyms of 'obey' is
(1) disobey (2) refused
(3) accept (4) obedient

Passage III

Laws of nature are not commands but statements of acts. The use of the word 'Law' in this context is rather unfortunate. It would be better to speak of uniformities of nature. This would do away with the elementary fallacy that a law implies a law-giver. If a piect of matter does not obey a law of nature, it is not punished. On the contrary, we say that the law has been incorrectly stated.

86. Laws of nature differ from man-made laws because
(1) the former state facts of nature
(2) they must be obeyed
(3) they are nature
(4) unlike human laws, they are systematic

87. The author is not happy with the word 'law' because
(1) it expresses rigidity and harshness
(2) it implies an agency which has made them
(3) it does not convey the sense of nature's uniformity
(4) it gives rise to false beliefs

88. The crow flew from place to place in search of
(1) pitcher
(2) pebbles
(3) water
(4) a vessel

89. The pitcher, the crow found
(1) was full of water
(2) was dry
(3) had little water in the bottom
(4) had water upto its mouth

90. As the crow dropped pebbles into the pitcher, what happened?
(1) The pitcher broke down
(2) The water leaked one of the pitcher
(3) The level of water into the pitcher rose up slowly
(4) Water level immediately rose to the mouth of the pitcher

Directions (Q. Nos. 91-93) *Find out the part which has an error in the following sentences. If there is no error, the answer is* (4).

91. The students (1)/ returned back (2)/home well in time for play. (3)/ No error (4)

92. English should (1) / be make (2)/ the national language. (3)/ No error (4)

93. Ravi is a (1)/ intelligent student (2)/ in my school. (3)/ No error (4)

Directions (Q. Nos. 94 and 95) *Choose the word, which is most opposite in meaning of the given word.*

94. Honest
(1) Cruel (2) Kind (3) Dishonest (4) Good

95. Queen
(1) Man (2) Person (3) King (4) Woman

Directions (Q. Nos. 96 and 97) *Choose the word, which is most. similar in meaning of the given word.*

96. Part
(1) Handle (2) Section (3) Save (4) Sense

97. Keen
(1) Careful (2) Perfect (3) Efficient (4) Eager

Directions (Q. Nos. 98-100) *In each of the following questions, choose the proper order of the words to make a meaningful sentence.*

98. (A) of the (B) have rotted (C) pillar (D) Nine tenths (E) away.
(1) DCABE (2) DBCAE (3) DACBE (4) DACES

99. (A) cannot (B) second fiddle (C) to others (D) John (E) play.
(1) DAEBC (2) DEABC
(3) DBCAE (4) CBAED

100. (A) reach the railway (B) time they (C) By the (D) the train will have left (E) the railway station.
(1) CABED (2) CABDE
(3) CBAED (4) ABEDC

Answers

1.	(2)	**2.**	(2)	**3.**	(1)	**4.**	(4)	**5.**	(4)	**6.**	(4)	**7.**	(1)	**8.**	(2)	**9.**	(1)	**10.**	(3)
11.	(4)	**12.**	(2)	**13.**	(1)	**14.**	(1)	**15.**	(2)	**16.**	(4)	**17.**	(3)	**18.**	(3)	**19.**	(4)	**20.**	(1)
21.	(2)	**22.**	(3)	**23.**	(2)	**24.**	(3)	**25.**	(1)	**26.**	(3)	**27.**	(1)	**28.**	(1)	**29.**	(2)	**30.**	(1)
31.	(2)	**32.**	(4)	**33.**	(4)	**34.**	(2)	**35.**	(3)	**36.**	(1)	**37.**	(3)	**38.**	(4)	**39.**	(3)	**40.**	(2)
41.	(2)	**42.**	(2)	**43.**	(3)	**44.**	(2)	**45.**	(1)	**46.**	(1)	**47.**	(1)	**48.**	(2)	**49.**	(1)	**50.**	(3)
51.	(3)	**52.**	(3)	**53.**	(1)	**54.**	(1)	**55.**	(1)	**56.**	(2)	**57.**	(3)	**58.**	(2)	**59.**	(4)	**60.**	(2)
61.	(1)	**62.**	(4)	**63.**	(2)	**64.**	(2)	**65.**	(4)	**66.**	(2)	**67.**	(3)	**68.**	(3)	**69.**	(4)	**70.**	(4)
71.	(2)	**72.**	(1)	**73.**	(2)	**74.**	(1)	**75.**	(4)	**76.**	(1)	**77.**	(3)	**78.**	(4)	**79.**	(2)	**80.**	(1)
81.	(1)	**82.**	(4)	**83.**	(4)	**84.**	(4)	**85.**	(1)	**86.**	(2)	**87.**	(3)	**88.**	(3)	**89.**	(3)	**90.**	(3)
91.	(2)	**92.**	(2)	**93.**	(4)	**94.**	(3)	**95.**	(3)	**96.**	(2)	**97.**	(4)	**98.**	(3)	**99.**	(1)	**100.**	(3)

Hints and Solutions

1. In all others, both designs are same.

2. The number of sides in increasing by one from the inner design to outer designs.

3. In all others, the number of lines in the circles is odd.

4. In all others, there is a single sign inside of design.

5. In all others, the line does not divided it in two parts.

16. The square is moving one step and the circle by half step anti-clockwise.

17. The sign 'O' is moving 1/2 part and 1 part in anti-clockwise direction.

18. One line is adding in geometrical figure.

19. One line is adding in clockwise direction in the design.

20. One curved line is adding in clockwise direction.

21. The problem figure (3) is same as the problem figure (1). Thus, the answer figure (2) will be same as the problem figure (2).

22. The new design is forming with the addition of two sides to the previous design and become shaded.

23. The triangle changes into circle and double triangle changes into double circle.

24. The problem figure (3) is same as the problem figure (2). Thus, the answer figure will be same as the problem figure (1).

25. Inner two designs are changing their place and outer design be omitted.

31. In all others, the successive designs are becoming short.

32. In all others, two lines are parallel.

33. In all others, both crossed lines are equal.

34. In all others, the both designs are same and outer design converted into dark one.

35. In all others, lines are making designs.

41. In the successive figure, one design is added with a line.

42. In the figure, designs come near and adjoining to each other.

43. The first problem figure has four sides and the second problem figure three sides with same figure inside. Such the question figure should have four sides in place of five sides with same figure inside.

44. From first figure to second figure, the enclosed unit becomes outer unit and the outer unit get enclosed.

45. In the figures, the inner designs are omitting.

51.

2	42, 70, 98, 126
3	21, 35, 49, 63
7	7, 35, 49, 21
	1, 5, 7, 3

$\therefore$ LCM $= 2 \times 3 \times 7 \times 5 \times 7 \times 3 = 4410$

52. $\because$ 1 m = 100 cm

$\therefore$ 4 m = 400 cm

Now, 400 cm + 2604 cm = 3004 cm

53. 2 months, 5 weeks and 18 days

$= 2 \times 30 + 5 \times 7 + 18$

$= 60 + 35 + 18 = 113$ days

54. Smallest four digit number = 1000

55. $\because$ Place values of two 7s in 27307 are

$= 7000$ and 7

$\therefore$ Difference $= 7000 - 7 = 6993$

56. 83 is a prime number.

57. $\because$ Multiples of 7 between 14 and 77

$= 21, 28, 35, 42, 49, 56, 63, 70$

So, total numbers of multiples are 8.

58. The numbers divisible by 25 are only the numbers with last digit 25, 50, 75 and 100. So, 5 is required number.

59. $\because$ The sum $= 975 + 983 + 923 + 913 + 985$

$= 4779$

$\therefore$ In nearest hundred, it will be written as 4800.

60. Eighty thousand nine hundred and five = 80905

61. $\because$ Other number $= \dfrac{\text{HCF} \times \text{LCM}}{\text{First number}} = \dfrac{4 \times 48}{12} = 16$

62. $\dfrac{6}{20}$ in percentage $= \dfrac{6}{20} \times \dfrac{100}{1} = 30\%$

63. Average height of the students

$= \dfrac{30 + 40 + 50 + 60 + 70}{5} = \dfrac{250}{5} = 50$

64. $\because$ 1 kg wheat costs = ₹ 6

$\therefore$ 8 kg wheat cost $= 8 \times 6 =$ ₹ 48

6 kg rice cost = ₹ 48

1 Kg rice costs $= \dfrac{48}{6} =$ ₹ 8

65. Cost price $= 24 \times 10 =$ ₹ 240

Sale price $= 36 \times 10 =$ ₹ 360

Profit $= 360 - 240 =$ ₹ 120

66. $\because$ Factors of 316 are 1×316, 2×158 and 4×79.
(1, 2, 4, 79, 158, 316)

$\therefore$ 8 is not a factor of 316.

67. Total score in first two matches $= 2 \times 27 = 54$

Total score in other three matches

$= 3 \times 32 = 96$

$\therefore$ Average of 5 matches $= \dfrac{54 + 96}{5} = 30$

68. Percentage of girls $= \dfrac{240}{600} \times 100 = 40\%$

69. SI $= \dfrac{P \times R \times T}{100} = \dfrac{1800 \times 10 \times 10}{100} =$ ₹ 1800

70. CP of the radio = ₹ 900

SP of the radio = ₹ 1200

Profit $= 1200 - 900 =$ ₹ 300

$\therefore$ Profit per cent $= \dfrac{300}{900} = 100$

$= 33\dfrac{1}{3}\%$

71. The series consists of prime numbers.

$\therefore$ The missing number is the next prime number which is 43.

72. $10\dfrac{2}{5} \times 8\dfrac{4}{5} \div 4\dfrac{2}{5} = \dfrac{52}{5} \times \dfrac{44}{5} \div \dfrac{22}{5}$

$= \dfrac{52}{5} \times \dfrac{44}{5} \times \dfrac{5}{22} = \dfrac{52}{5} \times 2 = \dfrac{104}{5} = 20\dfrac{4}{5}$

73. $[\{(6 \div 2) \times 3\} \times 2] = [\{3 \times 3\} \times 2] = [9 \times 2] = 18$

74. Sum of the fraction $= \dfrac{2}{9} + \dfrac{4}{3} + \dfrac{6}{18}$

$= \dfrac{4 + 24 + 6}{18} = \dfrac{34}{18} = \dfrac{17}{9}$

75. $\because 20.91 \div 0.17 = \dfrac{2091}{100} \times \dfrac{100}{17} = 123.0$

Jawahar
Navodaya Vidyalaya
Entrance Exam (Class VI)

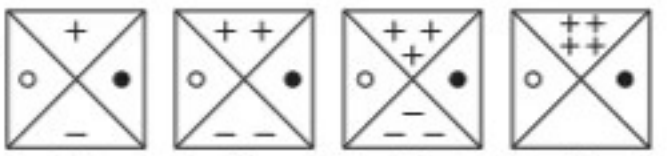
Solved Paper 2010

Section I Mental Ability Test

Part I

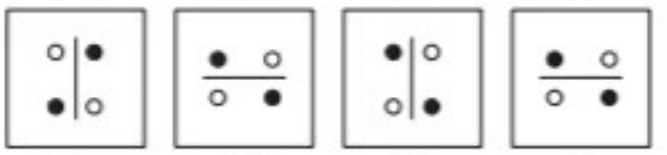
Directions (Q.Nos. 1-5) *There are four figures* (1), (2), (3) *and* (4). *Out of these four figures, three figures are similar but one figure is different. Spot out the different figure.*

1.



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

2.

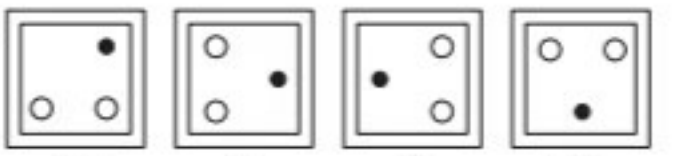


(1) (2) (3) (4)

3.

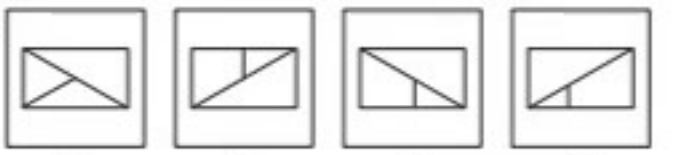
(1) (2) (3) (4)

4.



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

5.

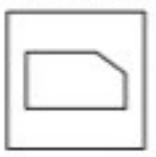


(1) (2) (3) (4)

Part II

Directions (Q.Nos. 6-10) *There is a given problem figure. There are four answer figures* (1), (2), (3) *and* (4). *You have to find out the answer figure which is similar to the given problem figure.*

6. Problem Figure

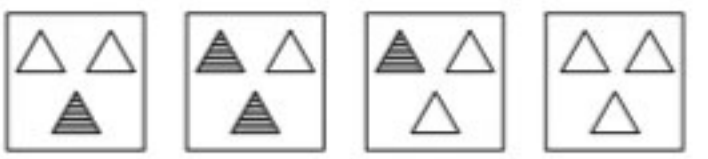


Answer Figures

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

7. Problem Figure

Answer Figures

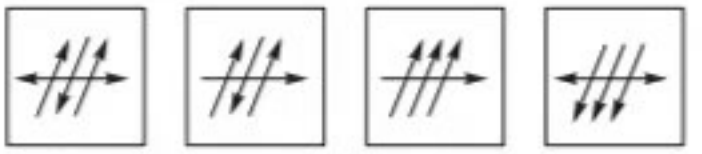


(1) (2) (3) (4)

Based on Memory

8. Problem Figure

Answer Figures



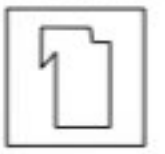
(1) (2) (3) (4)

9. Problem Figure

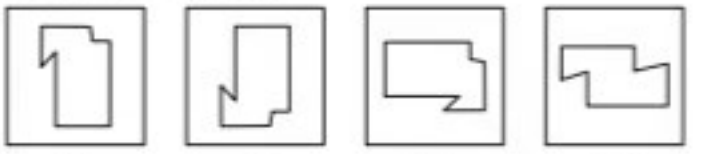
Answer Figures

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

10. Problem Figure



Answer Figures



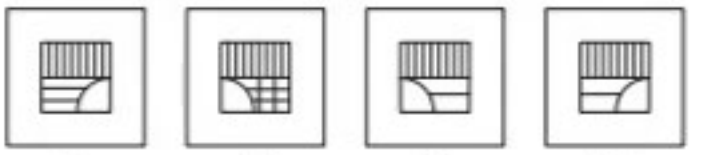
(1) (2) (3) (4)

Part III

Directions (Q.Nos. 11-15) *There is a problem 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 in the problem figure in order to complete the pattern in the problem figure.*

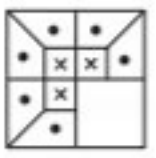
11. Problem Figure

Answer Figures

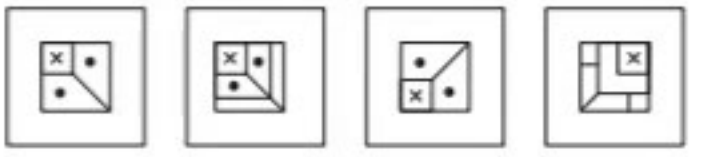


(1) (2) (3) (4)

12. Problem Figure

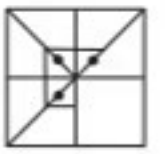


Answer Figures

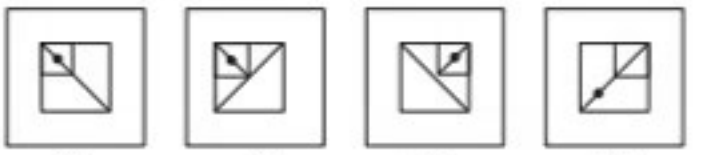


(1) (2) (3) (4)

13. Problem Figure

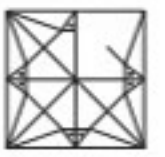


Answer Figures



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

14. Problem Figure

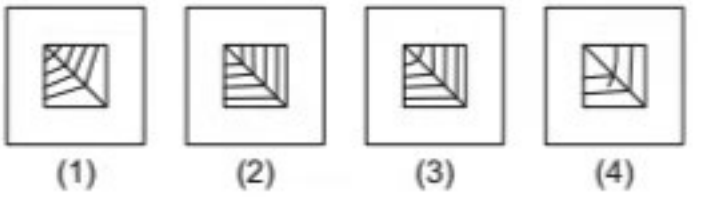


Answer Figures

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

15. Problem Figure

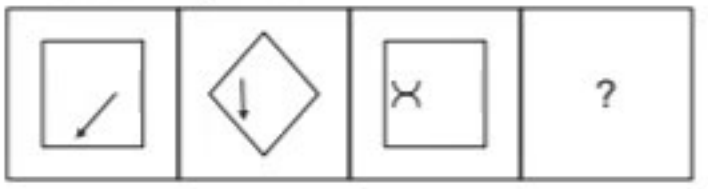
Answer Figures



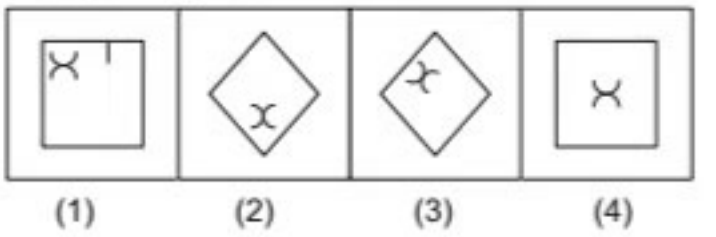
Part IV

Directions (Q.Nos. 16-20) *There are problem figures and the question mark (?) for fourth figure. The problem figures are in a series. Find out one figure among the answer figures which occupies the question mark (?) for the fourth figure and which completes the series.*

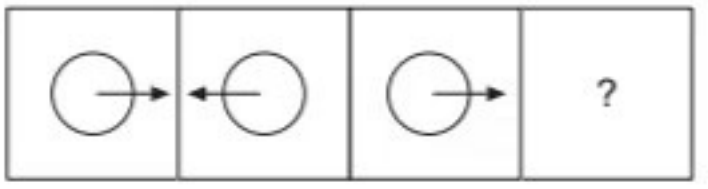
16. Problem Figures

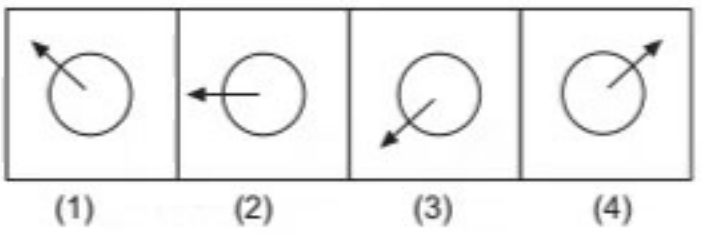


Answer Figures



17.





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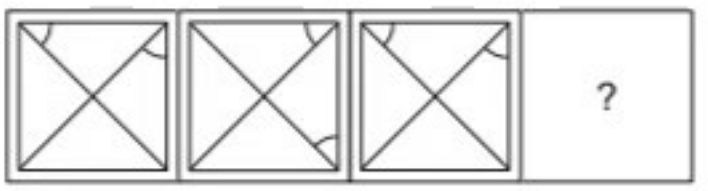

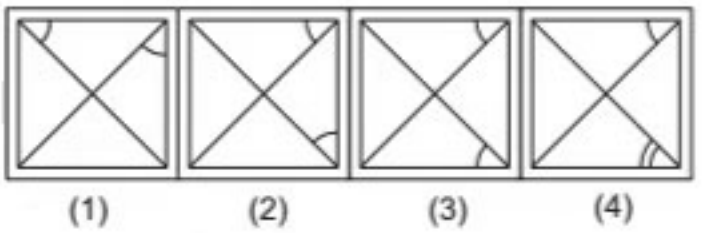

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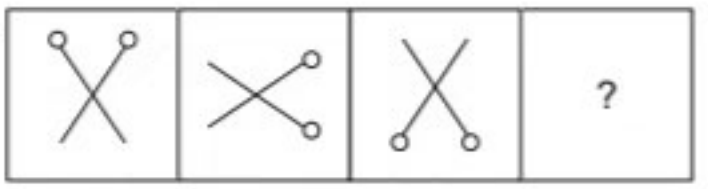

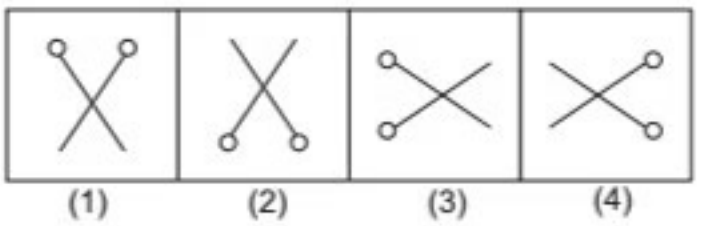

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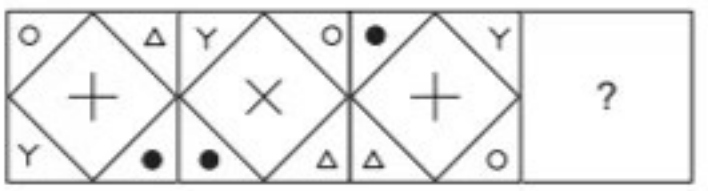
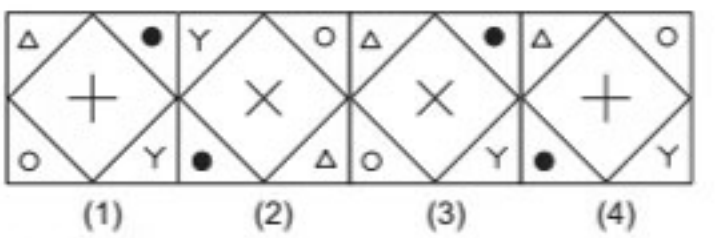
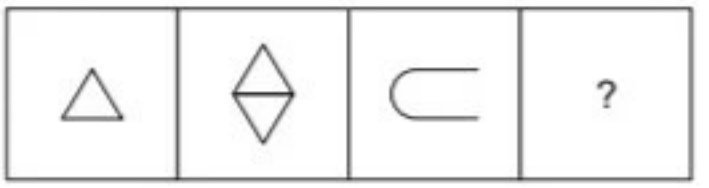




Part V

Directions (Q.Nos. 21-25) *There are three problem figures fallowed by a question mark (?) for the fourth one. There exists a relationship between first two problem figures. A similar relationship should exist between the third and the fourth problem figure. Select one figure from answer figures which replaces the question mark (?).*

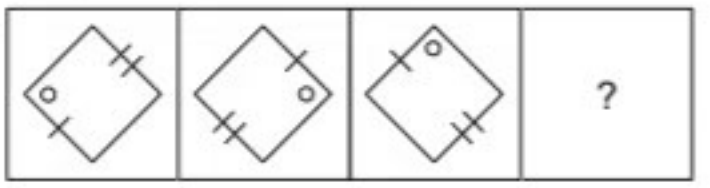
21. Problem Figures

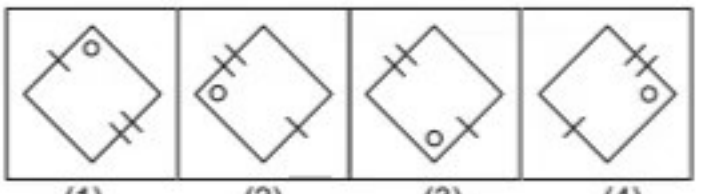


Answer Figures

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

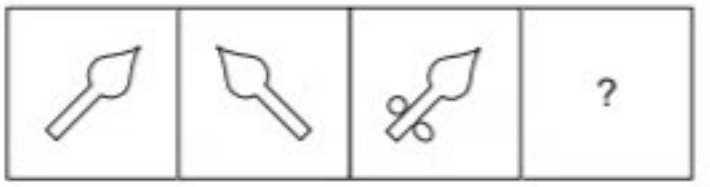
22.

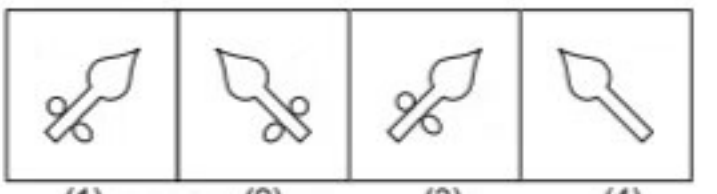




(1) (2) (3) (4)

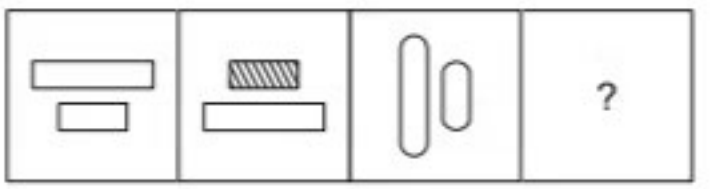
23.





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

24.



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

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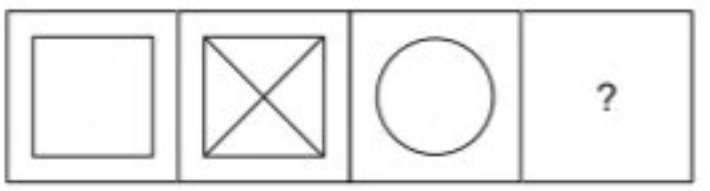


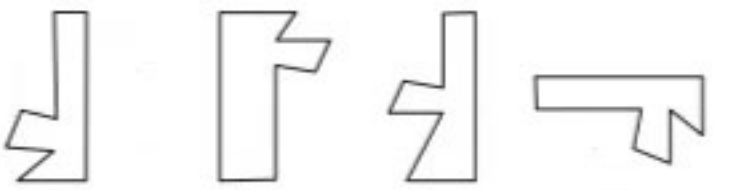
(1) (2) (3) (4)

Part VI

Directions (Q.Nos. 26-30) *One part of the square and other one is among the figures* (1), (2), (3) *and* (4). *Find out the figure which completes the square.*

26. Problem Figure

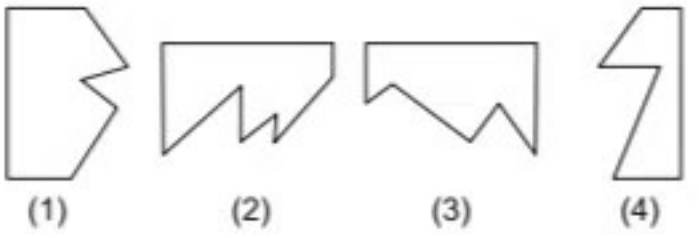
Answer Figures



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

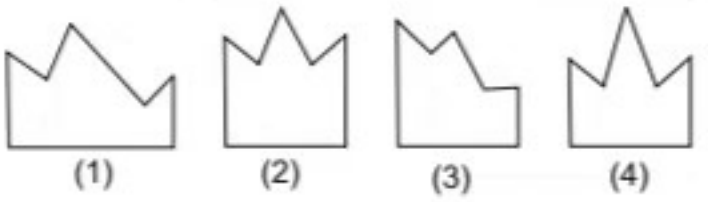
27. Problem Figure

Answer Figures



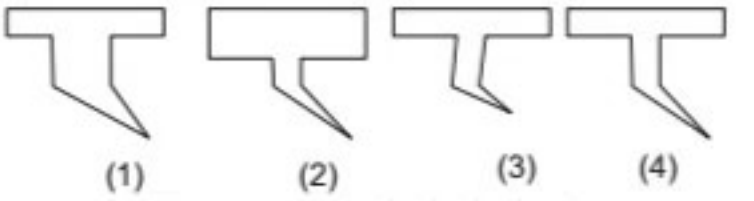
28. Problem Figure

Answer Figures



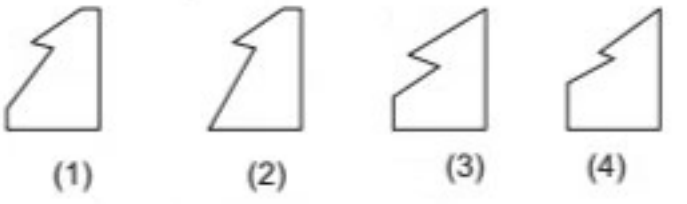
29. Problem Figure

Answer Figures



30. Problem Figure

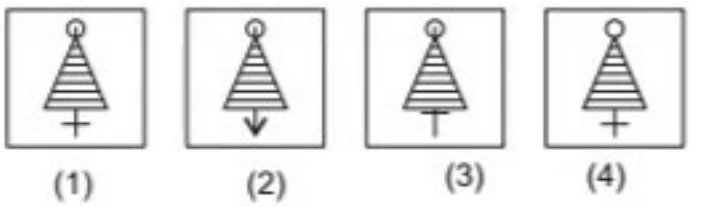
Answer Figures



Part VII

Directions (Q.Nos. 31-35) *There are four figures* (1), (2), (3) *and* (4). *Out of these four figures, three figures are similar but one figure is different. Spot out the different figure.*

31.



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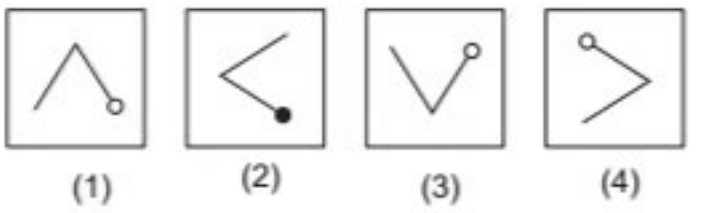

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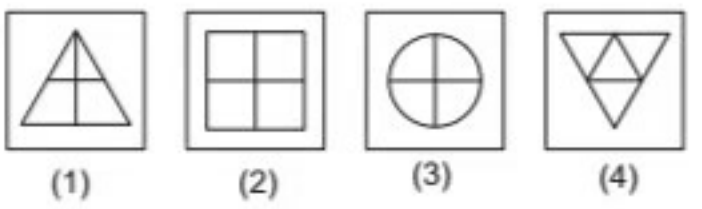
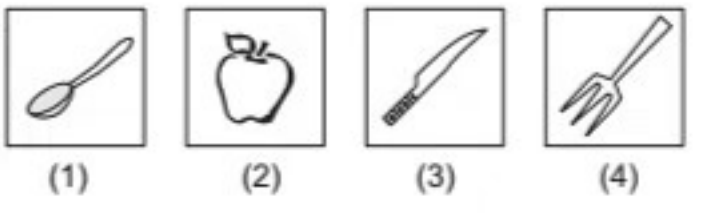


34.

35.

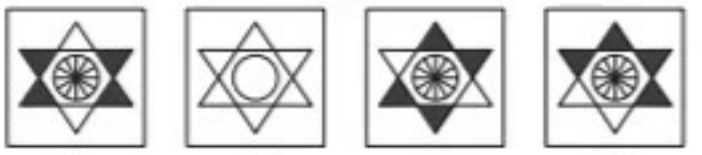


Part VIII

Directions (Q.Nos. 36-40) *There is a given problem figure. There are four answer figures* (1), (2), (3) *and* (4). *You have to find out the answer figure which is similar to the given problem figure.*

36. Problem Figure

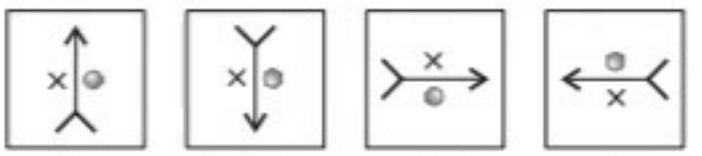
Answer Figures



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

37. Problem Figure

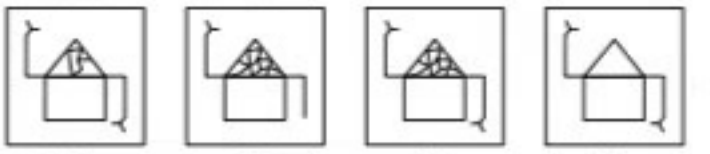
Answer Figures



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

38. Problem Figure

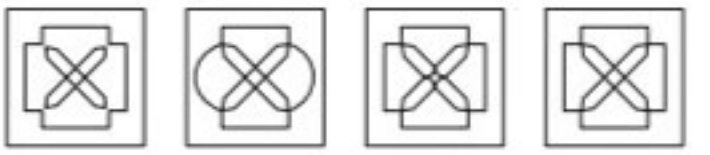
Answer Figures



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

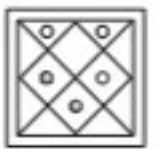
39. Problem Figure

Answer Figures

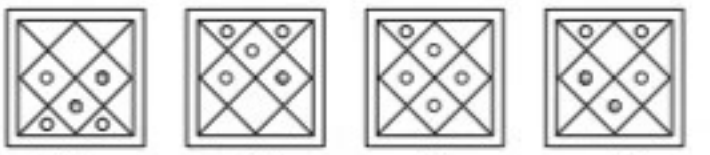


(1) (2) (3) (4)

40. Problem Figure



Answer Figures

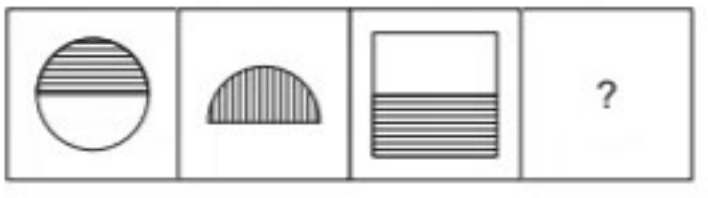


(1) (2) (3) (4)

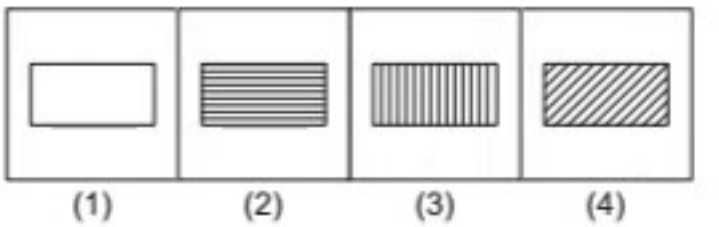
Part IX

Directions (Q. Nos. 41-45) *There are three problem figures followed by a question mark* (?) *for the fourth one. There exists a relationship between first two problem figures. A similar relationship should exist between the third and the fourth problem figure. Select one figure from answer figures which replaces the question mark* (?).

41. Problem Figures

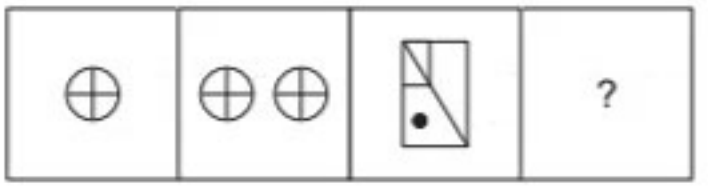


Answer Figures

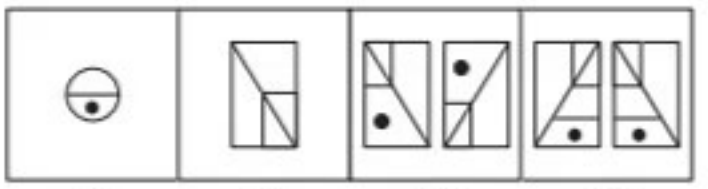


(1) (2) (3) (4)

42. Problem Figures

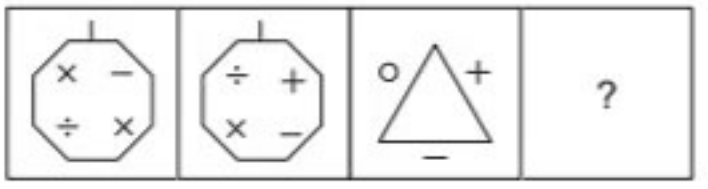


Answer Figures

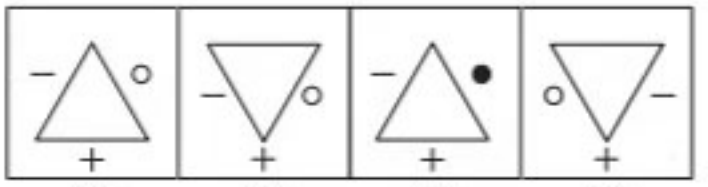


(1) (2) (3) (4)

43. Problem Figures

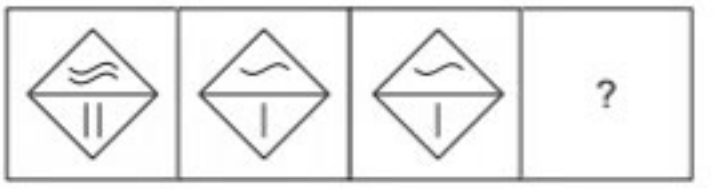


Answer Figures

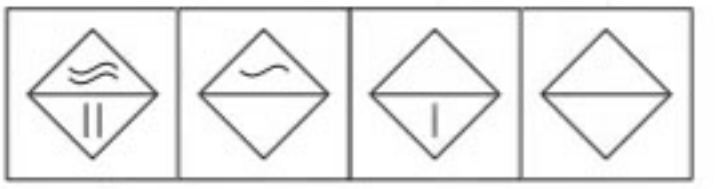


(1) (2) (3) (4)

44. Problem Figures

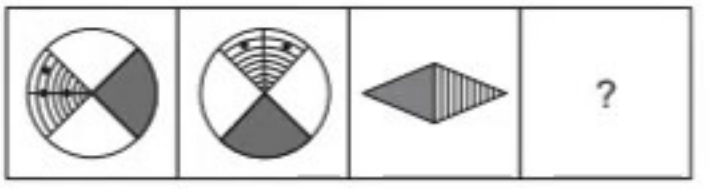


Answer Figures

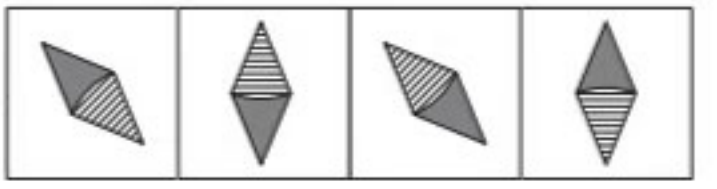


(1) (2) (3) (4)

45. Problem Figures



Answer Figures



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

Part X

Directions (Q.Nos. 46-50) *One port of the square and other one is among the figures* (1), (2), (3) *and* (4). *Find out the figure which completes the square.*

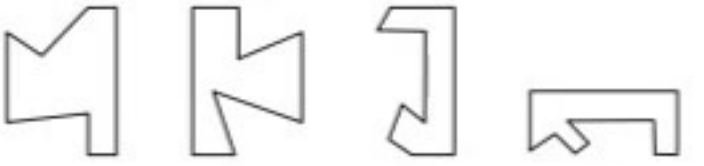
46. Problem Figure

Answer Figures

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

47. Problem Figure

Answer Figures



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

48. Problem Figure

Answer Figures

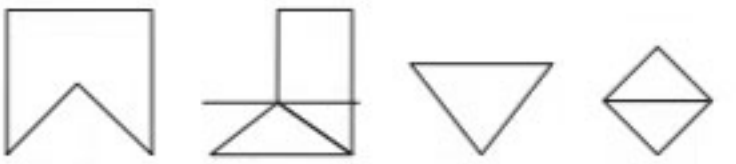
49. Problem Figure

Answer Figures

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

50. Problem Figure

Answer Figures



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

Section II Arithmetic Test

Directions (Q. Nos. 51-75) *For every question, four probable answers bearing* (1), (2), (3) *and* (4) *given. Only one out of these is correct. You have to choose the correct answer.*

51. Sixteen lakh eight hundred and thirteen may be written in digit as

(1) 16813 (2) 160830
(3) 1600813 (4) 160813

52. 14 rows in a park 420 cars stand in every row. Then, how many cars will stand in the park?

(1) 5880 (2) 434 (3) 406 (4) 30

53. A number
– is less than 50
– multiple of 7
– have 3 factors
Then, the number is

(1) 14 (2) 42
(3) 49 (4) 70

54. $\frac{61}{10000}$ can be changed into decimal as

(1) 610000 (2) 0.61000
(3) 0.000061 (4) 0.0061

55. Anita started a horse painting at 11:55 am and finished it at 12:05 pm. What time taken by him to complete the painting?

(1) 50 min (2) 1 h 50 min
(3) 10 min (4) 1 h 10 min

56. The place value of 5 in 214.56 is

(1) 5×1 (2) 5×10
(3) 5×0.1 (4) 5×0.01

57. Two brand of chocolate is available in 10 and 12 packing. If we want to purchase same number of chocolate for each brand, then atleast what number of pack should brought for each brand?

(1) 2 pack of 10, 2 pack of 12
(2) 6 pack of 10, 5 pack of 12
(3) 12 pack of 10,10 pack of 12
(4) 22 pack of each packing

58. $1\frac{1}{24} - 1 + \frac{7}{36}$ is equal to

(1) $\frac{17}{72}$ (2) $1\frac{17}{72}$
(3) $\frac{7}{60}$ (4) $2\frac{7}{60}$

59. The product of two decimals is 14.837. If one decimal is 4.01, what is the other decimal?

(1) 37 (2) 3.7
(3) 3.07 (4) 3.007

60. Study the following pattern find out the next term.

$\frac{5 \times 5}{25}, \frac{15 \times 15}{225}, \frac{25 \times 25}{625}, \frac{35 \times 35}{1225}, \frac{45 \times 45}{2025}, ?$

(1) $\frac{55 \times 55}{2825}$ (2) $\frac{55 \times 55}{3225}$
(3) $\frac{55 \times 55}{3025}$ (4) $\frac{55 \times 55}{10025}$

61. The population of a district is 20 lakh. It increases by 1.1% every year. What is the population after 1 yr?

(1) 21.1 lakh (2) 22 lakh

(3) 22.2 lakh (4) 20.22 lakh

62. A radio was sold for ₹ 680 at a loss of ₹ 120. At what price should it be sold to earn a profit of ₹ 120.

(1) ₹ 720 (2) ₹ 800
(3) ₹ 820 (4) ₹ 920

63. Find the area of a rectangle whose length is 12 cm and breadth is 6.5 cm.

(1) 78 sq cm (2) 78 cu cm
(3) 37 sq cm (4) 37 cu cm

64. Weight of one coin of ₹ 5 is 9 g. In Anu's bag total 9 kg weight of ₹ 5 coin. What is the total coin in Anu's bag?

(1) 10 (2) 100
(3) 1000 (4) 10000

65. In a school total rooms are 26. Four plants are planted in each room. Two cups of water pour in each plant. What is the total cups required to pour all plants?

(1) 32 cups (2) 106 cups
(3) 112 cups (4) 208 cups

66. A rectangle is formed by 100 cm wire. Find out the maximum area of this rectangle.

(1) 100 sq cm (2) 400 sq cm
(3) 625 sq cm (4) 10000 sq cm

67. 60 cubes of 1 cm side Arun formed a cuboid. What is the volume of cuboid?

(1) 30 cu cm (2) 60 cu cm
(3) 75 cu cm (4) 90 cu cm

68. If F rotated three times 45° clockwise direction, then which figure will obtain?

(1) (2)

(3) (4)

69. A man borrows ₹ 20000 for the house maintenance which is given by him in 2 yr at 10% per annum. What is the total amount paid by him after 2 yr?

(1) ₹ 21000 (2) ₹ 22000
(3) ₹ 24000 (4) ₹ 4000

70. In a college library different subject wise book pictures detail are given below.

Subject	□ ⟶ 10 Books
Mathematics	□□□□□□□
Science	□□□□□□□□
Hindi	□□□□
English	□□□□□□□□□
History	□□

How many subjects have more than 50 books?

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

71. 20.08 + 20.008 + 20.0008 + 20 is equal to

(1) 80.0642 (2) 80.8000
(3) 81.0888 (4) 80.0888

72. Find the common factor of 12 and 15.

(1) 1, 2, 4 (2) 1, 3, 15
(3) 1, 12 (4) 1, 3

73. How many bottles filled 300 mL capacity from a pot which contains 2.85 m^3 oil?

(1) 950 (2) 9050
(3) 9500 (4) 9550

74. What is the approximate value of 275.0003 × 3.005?

(1) 825 (2) 830
(3) 810 (4) 835

75. A man bought a bicycle for ₹ 450 and spent ₹ 50 for it's maintenance. If he sells bicycle for ₹ 600, then his gain percentage is

(1) 15 (2) 18 (3) 20 (4) 25

Section III Language Test (English)

Directions (Q.Nos. 76-90) *Read the following passages carefully and answer the questions given below it.*

Passage I

A book is written, not to multiply the voice merely, not to carry it merely but to perpetuate it. The author has something to say which he perceives to be true and useful or helpfully beautiful. So, far he knows no one has said it, so far as he knows no one else can say it. He is bound to say it clearly and melodiously if he may; clearly at all events. In the sum of his life, he finds this to be the thing or group of things, manifest him;

this, the piece of true knowledge, or sight which his share of sunshine and Earth has permitted him to seize. That is a book.

76. The opening sentence of the passage implies that the aim of writing a book is to
(1) repeat the message it contains
(2) enable the author to express his ideas in writing
(3) preserve from extinction the message it contains
(4) propagate the ideology of the author

77. Which of the following would be the most suitable title for the passage?
(1) Contribution of an Author
(2) Aim of Writing a Book
(3) Book the Source of True Knowledge
(4) Writers and Their Books

78. According to the writer, a person is impelled to write a book because
(1) he wishes to satisfy his ego
(2) he has something nice and pleasing to say
(3) he is capable of expressing whatever he wants to say
(4) he has discovered something unique true and good which he must convey distinctly and musically

79. Which of the following is not implied in the passage?
(1) A writer is motivated to write, a book if he discerns a great truth
(2) An author of a book generally gathers some common truths and gives them a popular and pleasing expression
(3) A great writer is convinced that whatever he says is not an echo or imitation of what others have said
(4) An eminent writer's message is conveyed through plain unambiguous language

80. Which of the following is opposite in meaning to the word 'manifest' given in the passage?
(1) Unclear (2) Dark
(3) Pure (4) Hard

Passage II

We are tempted to assume that technological progress is real progress and that material success is the criterion of civilization. If the Eastern people become fascinated by machines and techniques and use them, as Western nations do, to build huge industrial organizations and large military establishments, they will get involved in power polities and drift into the danger of death. Scientific and technological civilization brings great opportunities and great rewards but also great risks and temptations. Science and technology are neither good nor bad. They are not to be tabooed but tamed and assigned their proper place. They become dangerous only if they become idols.

81. Science and technology will bring benefits to
(1) nobody
(2) only Western nations
(3) only Eastern countries
(4) all if turned properly

82. From the passage, one gathers that the Eastern people must
(1) build huge industrial organizations
(2) avoid being controlled by machines and techniques
(3) be fascinated by machines
(4) appreciate scientific achievements

83. According to the author, Science and technology should be
(1) tabooed and eliminated from life
(2) used in a controlled and careful manner
(3) encouraged and liberally used
(4) extensively exploited for industrial production

84. According to the author, people think that real progress lies in
(1) working on the same lines as the Western nations
(2) taking risks and facing temptations
(3) material success and technological growth
(4) having large industries and political power

85. According to author, what is real progress?
(1) Technological progress
(2) Educational progress
(3) Physical progress
(4) None of the above

Passage III

If non-Hindi speaking people fought for one of their own languages to be declared as the official language, it should not have been so great matter of surprise, as it is when one finds these brave patriotic people fighting tooth and nail to retain English as the lingua franca which is as good as foreign language. Mahatma Gandhi never gave the problem of the necessity of a national language any lesser degree of importance than the problem of a national independence. He was strongly opposed to those blind protagonists of English who failed to realise the worth of a national language. He held it a crime against the children to educate them through the medium of foreign language.

86. Which of the following is the first step towards the progress of a nation?
(1) Promotion of national language
(2) Achievement of independence
(3) Educating the children through the medium of national language
(4) Having a foreign language as the official language

87. 'To fight tooth and nail' means
(1) to oppose
(2) to do a work with all possible ideas
(3) to fight with every possible effort
(4) to retain English as the official language

88. Which of the following represents Gandhiji's views on the education of children through foreign language?
(1) Nothing could be done as there was no national language
(2) It was necessary for the moral development of the nation
(3) It was necessary step to develop relations with other countries
(4) It was not the right act

89. Which of the following is true in context of the given passage?
(1) English should be made the national language
(2) Non-Hindi speaking people should fight for one of their own languages to be declared as the official language
(3) Gandhiji laid more stress on having a national language than on achieving independence
(4) Gandhiji was of the opinion that children should be educated through the medium of national language

90. In this passage, Author light upon the
(1) National Language
(2) Foreign Language
(3) Proffesional Language
(4) None of the above

Directions (Q.Nos. 91-95) *Find out the part which has an error in the following sentences. If there is no error, the answer is* (4).

91. Hardly had the children (1)/left the school (2)/than it began to rain. (3)/No error (4)

92. Because he is physically strong (1)/therefore he was selected (2)/for the school boxing team. (3) /No error (4)

93. The reason for (1)/his failure is because (2)/he did not work hard. (3)/No error (4)

94. Bharat asked him (1)/that which was the way (2)/ to the post office. (3) / No error (4)

95. All the boys (1)/returned back home (2)/well in time for lunch. (3)/No error (4)

Directions (Q.Nos. 96-100) *In each of the following questions, choose the proper order for the words to make a meaningful sentence.*

96. (A) know (B) some (C) his (D) I (E) of (F) friends
(1) DBAFCE (2) CBEFAD
(3) DABECF (4) BECFAD

97. (A) by (B) gone (C) he (D) now (E) will (F) have
(1) CFBAED (2) CEFBAD
(3) BECFAD (4) DCEFAB

98. (A) this (B) do (C) at (D) you (E) once (F) should
(1) DFBAGE (2) DABFCE
(3) BACEDF (4) AFDBCE

99. (A) know (B) I (C) her (D) about
(1) ABCD (2) BADC (3) DABC (4) DCAB

100. (A) boy (B) my (C) stolen (D) was
(1) ABCD (2) BCAD (3) BADC (4) DACB

Answers

1.	(4)	**2.**	(3)	**3.**	(2)	**4.**	(1)	**5.**	(1)	**6.**	(1)	**7.**	(3)	**8.**	(2)	**9.**	(2)	**10.**	(1)
11.	(3)	**12.**	(1)	**13.**	(1)	**14.**	(1)	**15.**	(3)	**16.**	(3)	**17.**	(2)	**18.**	(2)	**19.**	(3)	**20.**	(3)
21.	(4)	**22.**	(3)	**23.**	(2)	**24.**	(1)	**25.**	(1)	**26.**	(1)	**27.**	(4)	**28.**	(1)	**29.**	(4)	**30.**	(1)
31.	(2)	**32.**	(2)	**33.**	(4)	**34.**	(4)	**35.**	(2)	**36.**	(1)	**37.**	(3)	**38.**	(3)	**39.**	(4)	**40.**	(4)
41.	(3)	**42.**	(3)	**43.**	(1)	**44.**	(4)	**45.**	(4)	**46.**	(2)	**47.**	(1)	**48.**	(1)	**49.**	(1)	**50.**	(1)
51.	(4)	**52.**	(1)	**53.**	(2)	**54.**	(4)	**55.**	(3)	**56.**	(3)	**57.**	(2)	**58.**	(1)	**59.**	(2)	**60.**	(3)
61.	(4)	**62.**	(4)	**63.**	(1)	**64.**	(3)	**65.**	(4)	**66.**	(3)	**67.**	(2)	**68.**	(4)	**69.**	(3)	**70.**	(2)
71.	(4)	**72.**	(4)	**73.**	(3)	**74.**	(1)	**75.**	(3)	**76.**	(4)	**77.**	(3)	**78.**	(4)	**79.**	(2)	**80.**	(1)
81.	(4)	**82.**	(2)	**83.**	(2)	**84.**	(3)	**85.**	(1)	**86.**	(2)	**87.**	(3)	**88.**	(4)	**89.**	(4)	**90.**	(1)
91.	(3)	**92.**	(2)	**93.**	(2)	**94.**	(2)	**95.**	(2)	**96.**	(3)	**97.**	(2)	**98.**	(1)	**99.**	(2)	**100.**	(3)

Hints and Solutions

1. Except figure (4), all others have four elements.

2. Except figure (3), all others have two small circle and two black point.

3. Except figure (2), all others made by lines.

4. Except figure (1), in all others figures black point is equal distance with other two small circle.

5. Except figure (1), in all others figures small line is equal distance with diagonal and make a right angle triangle.

16. From problem figure (1) to (2) square shape figure rotates 45° clockwise direction and also inner small shape figure rotates 45° anti-clock wise direction. Similarly, answer figure (3) obtain from problem figure (3).

17. From problem figure (1) to (2), arrow shape figure goes to opposite direction. Similarly, answer figure (2) obtain from problem figure (3).

18. From problem figure (1) to (2), are shape figure slipe one step clockwise direction. Similarly, answer figure (2) obtain from problem figure (3).

19. In each step problem figures rotates 90° clockwise direction. So, answer figure (3) obtain from problem figure (3).

20. In problem figures middle element rotates 45° clockwise direction in each step and four corner elements slipes one position clockwise direction in each step. Similarly, answer figure (3) obtain from problem figure (3).

21. From problem figure (1) to (2), some element add in bottom side. Similarly, answer figure (4) obtain from problem figure (3).

22. From problem figure (1) to (2), circle shape element goes to opposite direction and lines on side interchange with each other. Similarly, answer figure (3) obtain from problem figure (3).

23. From problem figure (1) to (2), element rotates 90° anti-clockwise direction. Similarly, answer figure (2) obtain from problem figure (2).

24. From problem figure (1) to (2), bottom side element comes in upper side part and shaded. Similarly, answer figure (1) obtain from problem figure (3) which will shaded from left to right.

25. From problem figure (1) to (2), element divided four equal parts. Similarly, answer figure (1) obtain from problem figure (3).

31. In figure (2), triangle shape element in bottom side.

32. In figure (2), black point element in one side.

33. Except figure (4), all others are divided in four parts but in figure (4) another triangle in inner part.

34. Except figure (4), all other are birds.

35. Except figure (2), all others are tools.

41. From problem figure (1) to (2), shaded figure comes and lines goes to vertical. Similarly, answer figure (3) obtain from problem figure (3).

42. From problem figure (1) to (2), same element comes with inner opposite nature. Similarly, answer figure (3) obtain from problem figure (3).

43. From problem figure (1) to (2), four elements in inner side slips one place clockwise direction. Similarly, answer figure (1) obtain from problem figure (3).

44. From problem figure (1) to (2), one line decrease in upper and lower part. Similarly, answer figure (4) obtain from problem figure (3).

45. From problem figure (1) to (2), figure rotates 90° clockwise direction. Similarly, answer figure (4) obtain from problem figure (3).

52. Required number of cars $= 14 \times 420 = 5880$

53. Required number = 42

$\therefore$ Factors of $42 = 2 \times 3 \times 7$

54. $\frac{61}{10000} = 0.0061$

55. Required time = 12 : 05 – 11 : 55 = 10 min

58. $1\frac{1}{24} - 1 + \frac{7}{36} = \frac{25}{24} - 1 + \frac{7}{36}$

$= \frac{1}{24} + \frac{7}{36} = \frac{3+14}{72} = \frac{17}{72}$

59. Suppose second decimal = x

Then, $x \times 4.01 = 14.837$

$\Rightarrow$ $x = \frac{14.837}{4.01} = 3.7$

60. The next term of series is $\frac{55 \times 55}{3025}$.

61. District population after 1 yr

$= 2000000 + 2000000 \times 11\%$

$= 2000000 + 2000000 \times \frac{11}{100}$

$= 2000000 + 22000 = 2022000$

62. Cost price of Radio = 680 + 120 = ₹ 800

$\therefore$ Selling price = 800 + 120 = ₹ 920

63. Area of Rectangle = Length × Breadth

$= 12 \times 6.5 = 78\,cm^2$

64. $\because$ 1 kg = 1000 g

$\therefore$ 9 kg = 1000 × 9 = 9000 g

$\because$ Weight of 9 g = 1 coin

$\because$ Weight of 1 g $= \frac{1}{9}$ coin

$\therefore$ Weight of 9000 g $= \frac{1}{9} \times 9000 = 1000$ coin

65. Total number of trees in room

$= 26 \times 4 = 104$

$\therefore$ Required number of cups $= 104 \times 2 = 208$

66. Maximum a square is formed in a rectangle.

$\therefore$ Perimeter of square = 100 cm

$4 \times a = 100$ (a = side)

$\Rightarrow$ $a = \frac{100}{4} = 25\,cm$

$\therefore$ Area of rectangle = Area of square

$= 25 \times 25 = 625\,cm^2$

67. When, 60 cubes in each row, then

Length of 60 cubes of 1 cm (l) = 20 cm

Breadth of 60 cubes of 1 cm (b) = 1 cm

Height of 60 cubes of 1 cm (h) = 3 cm

$\therefore$ Volume of cuboid $= l \times b \times h$

$= 20 \times 1 \times 3 = 60\,cm^3$

69. Simple interest $= \frac{P \times r \times t}{100}$

$= \frac{20000 \times 10 \times 2}{100} =$ ₹ 4000

$\therefore$ Amount after 2 yr = 20000 + 400

= ₹ 24000

70. Required books,

Mathematics = 7 × 10 [$\because$ One □ = 10 Books]

= 70 books

Science = 8 × 10 = 80 books

English = 9 × 10 = 90 books

Hence, subjects Mathematics, Science and English have more than 50 books.

71. 20.08 + 20.008 + 20.008 + 20 = 80.0888

72. $12 = 1 \times 2 \times 2 \times 3$

$15 = 1 \times 3 \times 5$

$\therefore$ Common factor = 1, 3

73. Required bottles $= \frac{2.85 \times 100 \times 100 \times 100}{300}$

$= \frac{285 \times 100}{3} = 9500$

74. $275.0003 \times 3.005 = 826.3759 \cong 825$

75. Cost price of bycycle = 450 + 50 = ₹ 500

and selling price of bycycle = ₹ 600

$\therefore$ Required profit percentage

$= \frac{\text{Selling price} - \text{Cost price}}{\text{Cost price}} \times 100$

$= \frac{600 - 500}{500} \times 100$

$= \frac{100}{500} \times 100 = 20\%$

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

Jawahar *Navodaya Vidyalaya* Entrance Exam (Class VI)

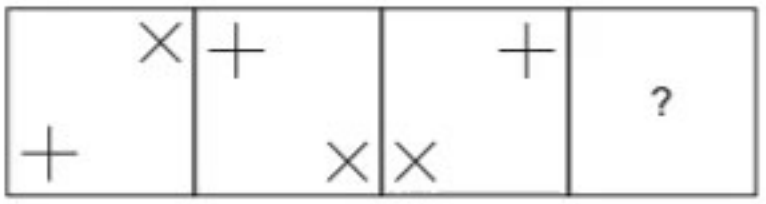
Solved Paper 2009

Section I Mental Ability Test

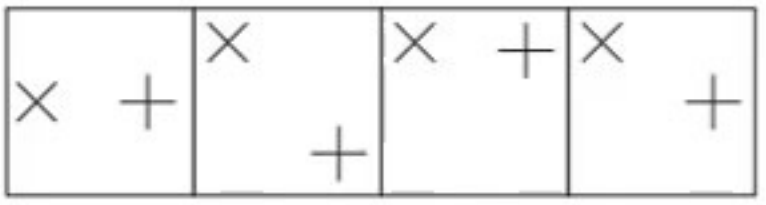
Part I

Directions (Q.Nos.1-10) *There are problem figures, the space for fourth figure is left blank. The problem figures are in a series. Find out one figure among the answer figures given below the problem figure which occupies the blank space for the fourth figure and which completes the series.*

1. Problem Figures

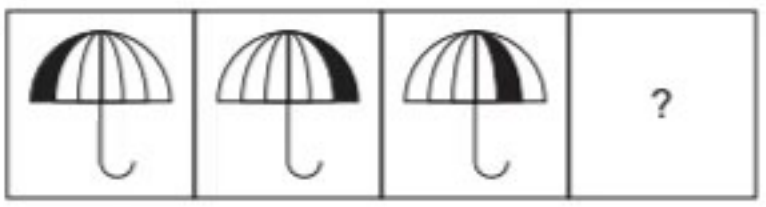


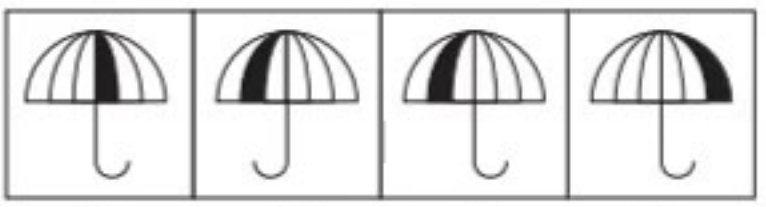
Answer Figures



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

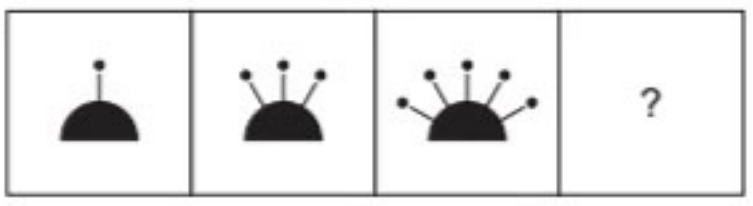
2.

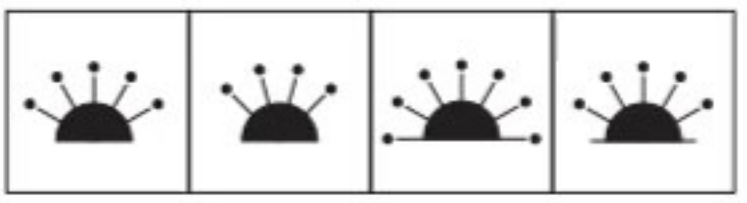




(1) (2) (3) (4)

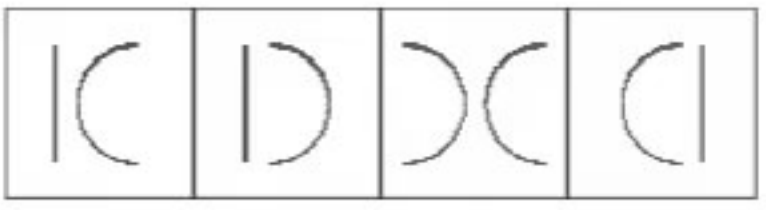
3.





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

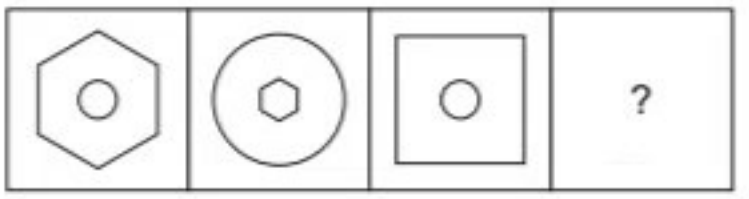
4.



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

Based on Memory

5. Problem Figures



Answer Figures

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

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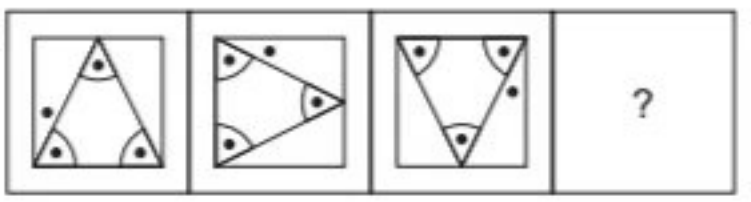

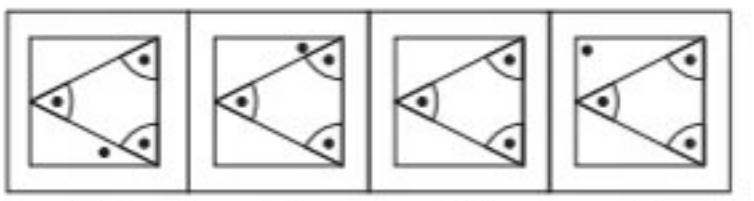

(1) (2) (3) (4)

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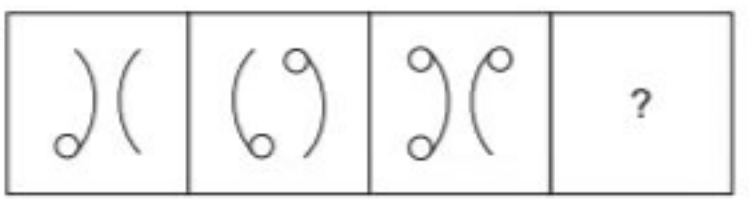

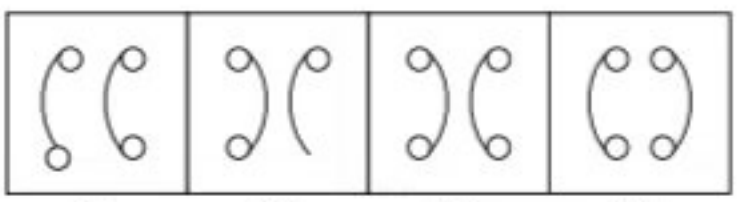

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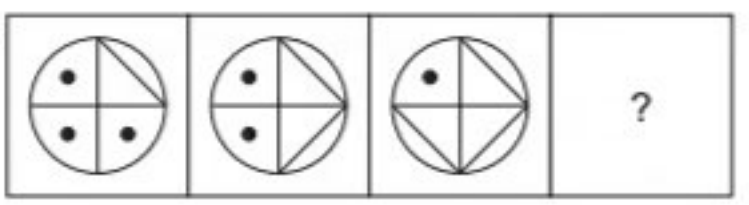

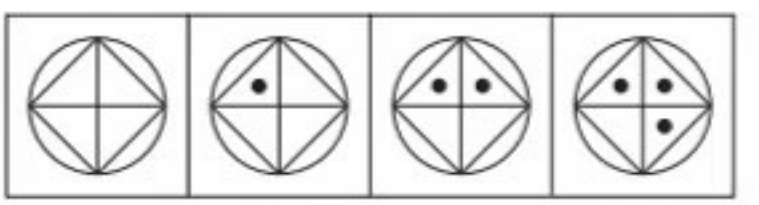

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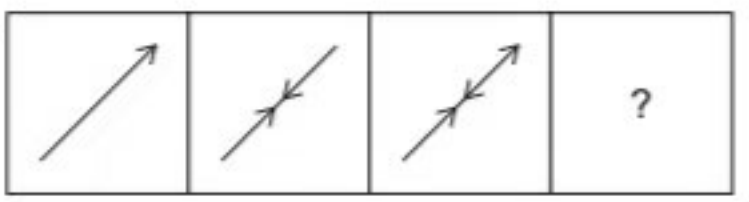

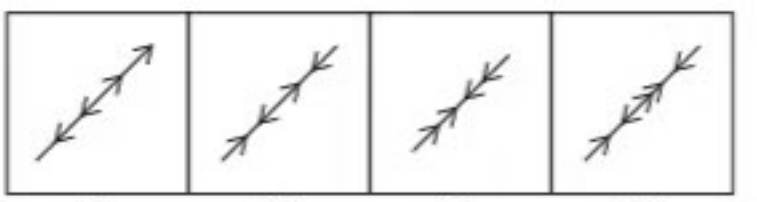

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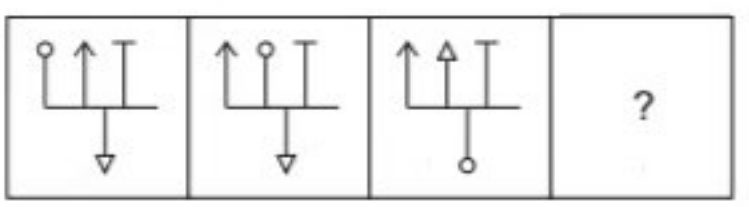
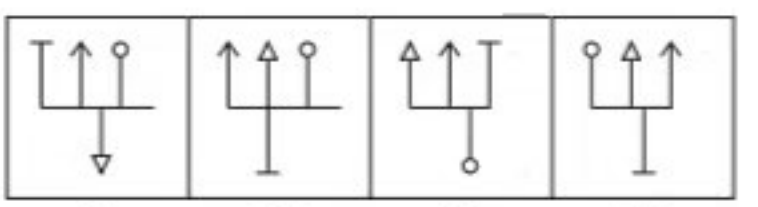


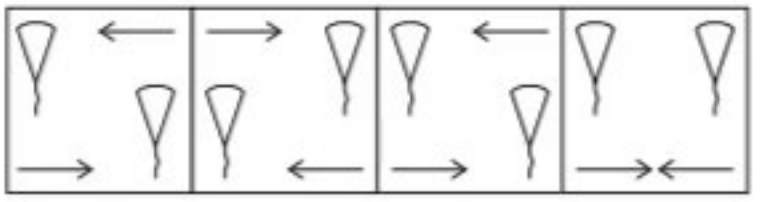


(1) (2) (3) (4)

Part II

Directions (Q.Nos. 11-20) *There are four figures* (1), (2), (3) *and* (4). *Out of there four figures, three figures are similar but one figure is different. Spot out the different figure.*

11.



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

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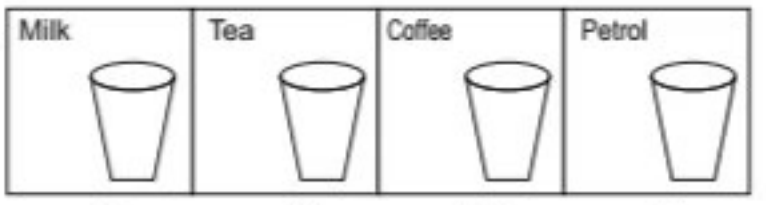

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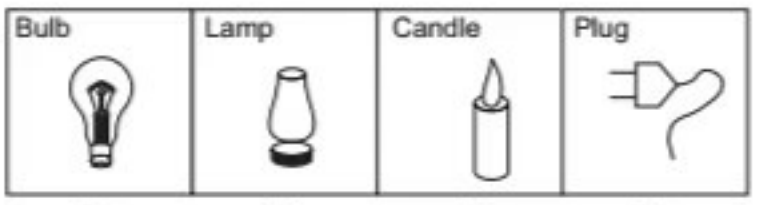

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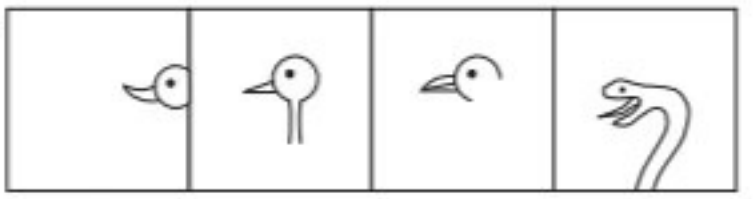

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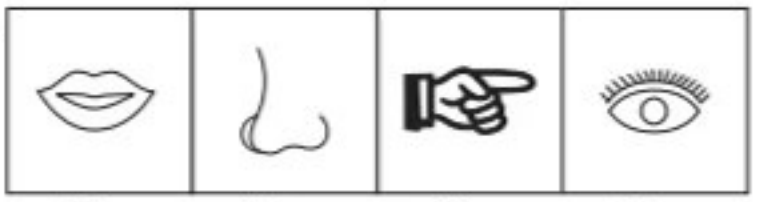
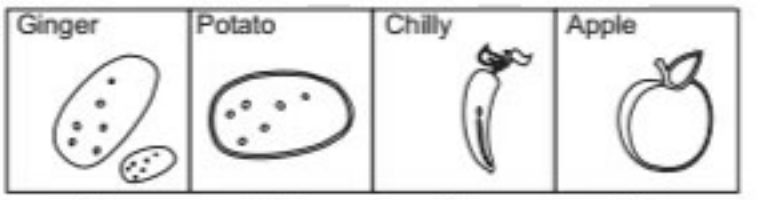


(1) (2) (3) (4)

16.

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

17.



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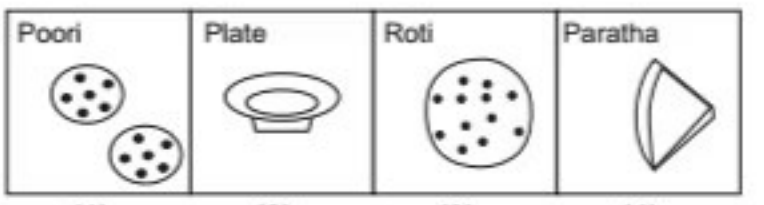

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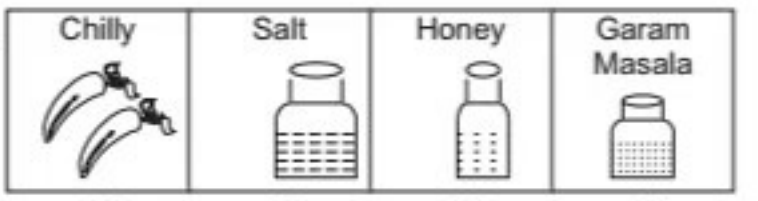

(1) (2) (3) (4)

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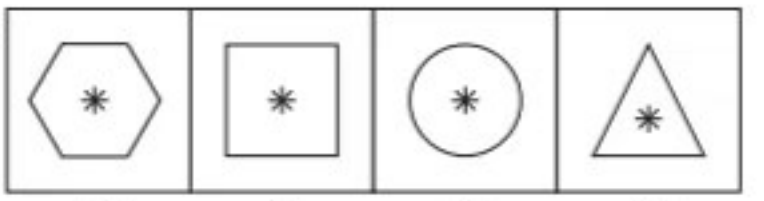
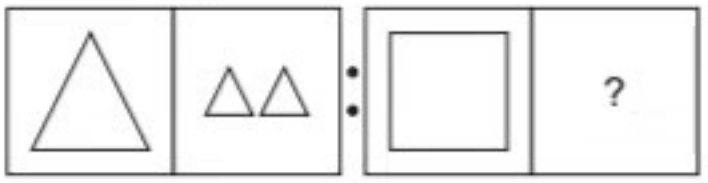


(1) (2) (3) (4)

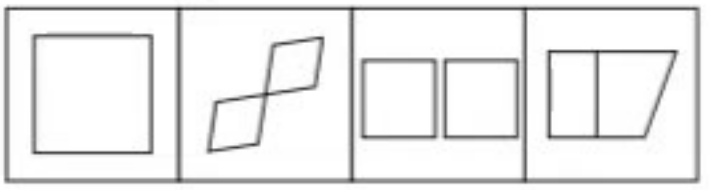
Part III

Directions (Q.Nos. 21-30) *There are three problem figures followed by a mark of interrogation (?) for the fourth one. There exists a relationship between first two problem figures. A similar relationship should exist between the third and the fourth problem figure. Select one figure from answer figures which replaces the mark of (?)*

21. Problem Figures



Answer Figures



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

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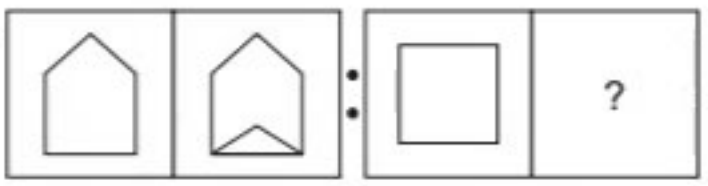

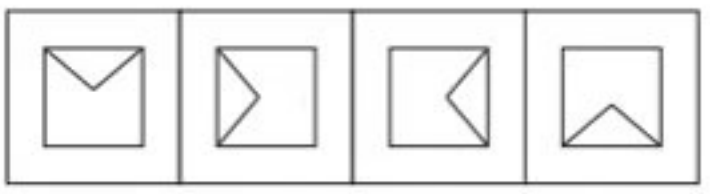

(1) (2) (3) (4)

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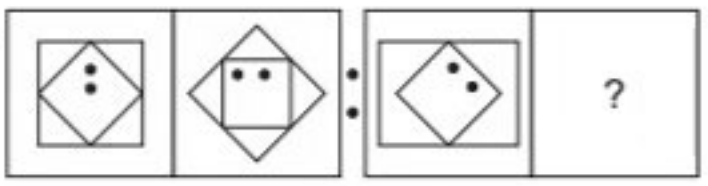

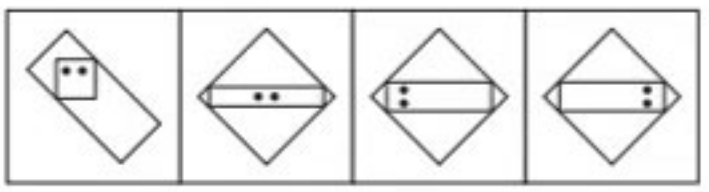

(1) (2) (3) (4)

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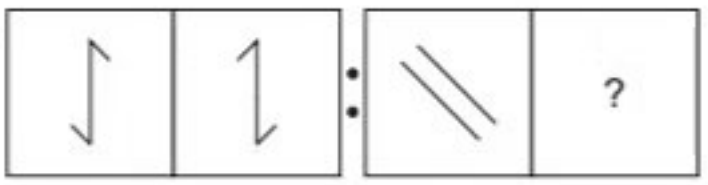

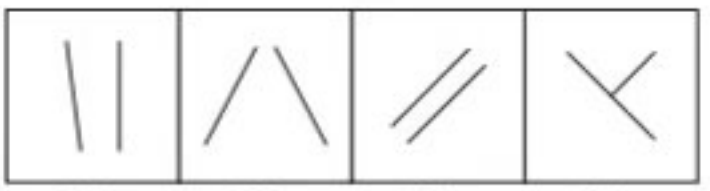

(1) (2) (3) (4)

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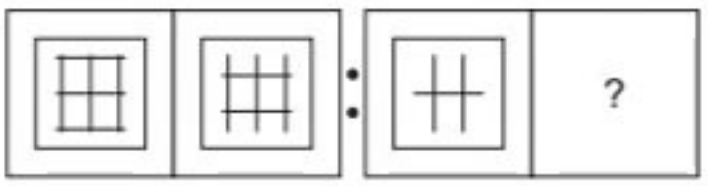

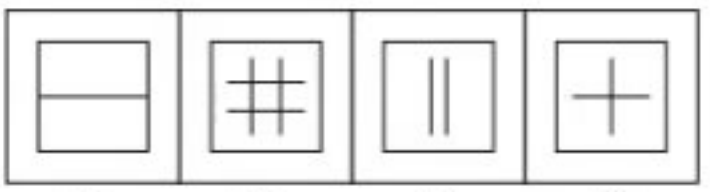

(1) (2) (3) (4)

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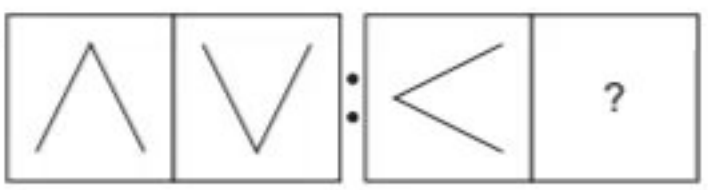

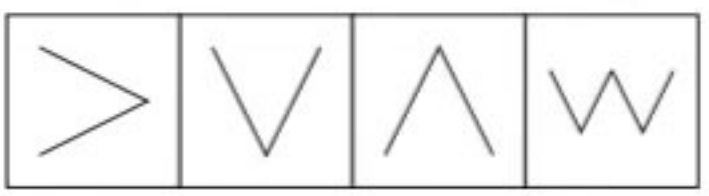

(1) (2) (3) (4)

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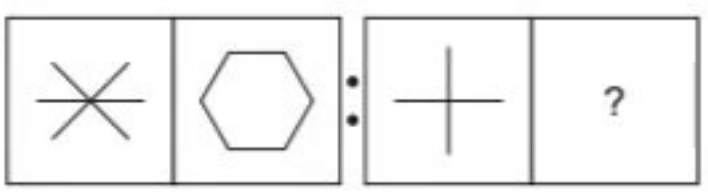
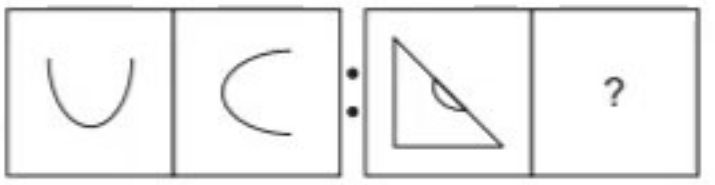
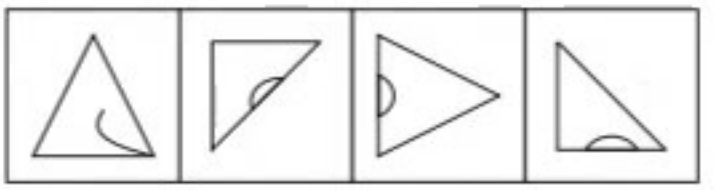


(1) (2) (3) (4)

28. **Problem Figures**



Answer Figures



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

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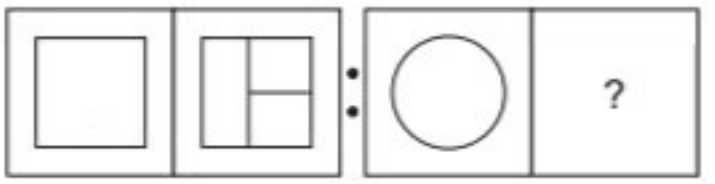

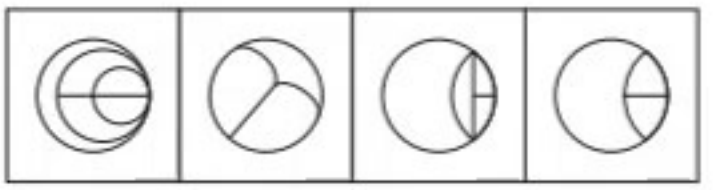

(1) (2) (3) (4)

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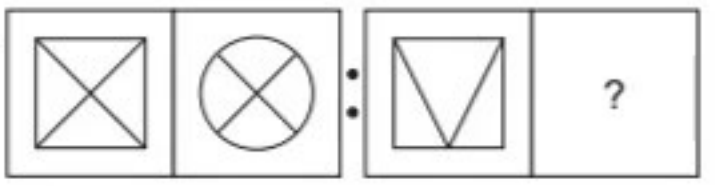
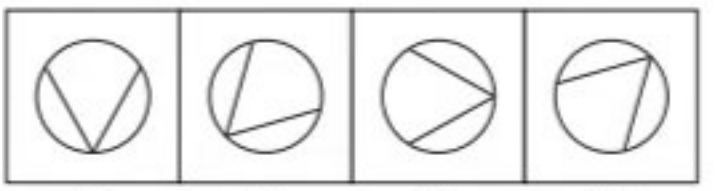


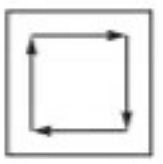


(1) (2) (3) (4)

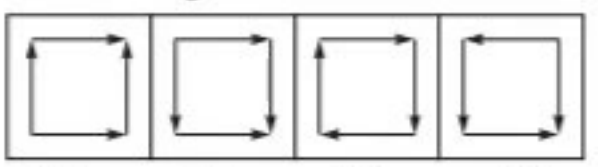
Part IV

Directions (Q.Nos. 31-40) *There is a problem figure given, there are four answer figures* (1), (2), (3) *and* (4). *You have to find out the answer figure which is similar to the given problem figure.*

31. **Problem Figure**



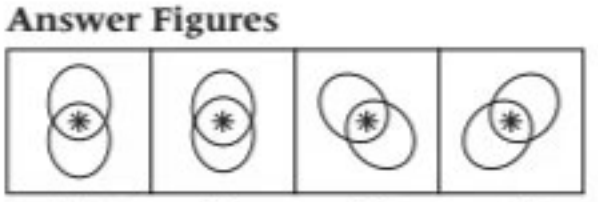
Answer Figures



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

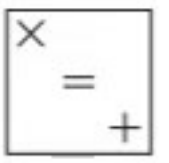
32. **Problem Figure**

Answer Figures

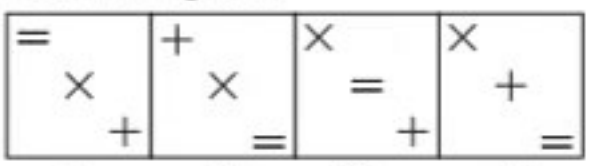


(1) (2) (3) (4)

33. **Problem Figure**



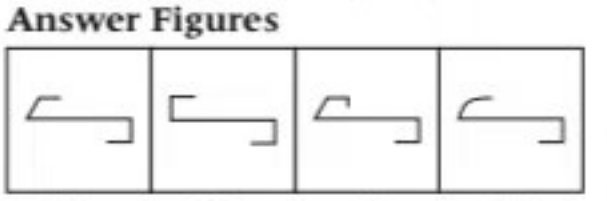
Answer Figures



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

34. **Problem Figure**

Answer Figures



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

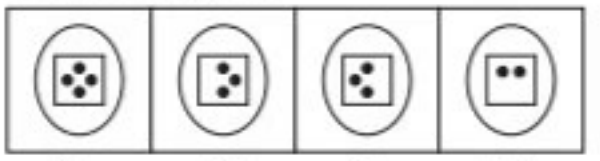
35. Problem Figure

Answer Figures

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

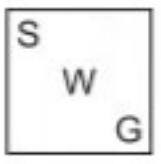
36. Problem Figure

Answer Figures

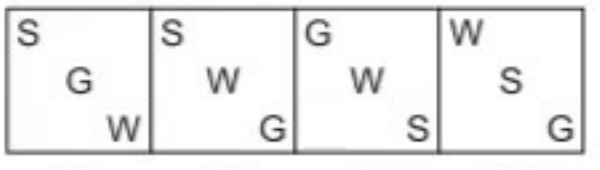


(1) (2) (3) (4)

37. Problem Figure

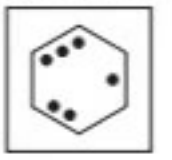


Answer Figures

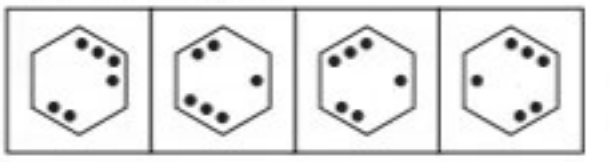


(1) (2) (3) (4)

38. Problem Figure

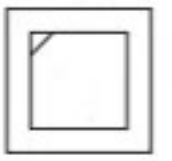


Answer Figures

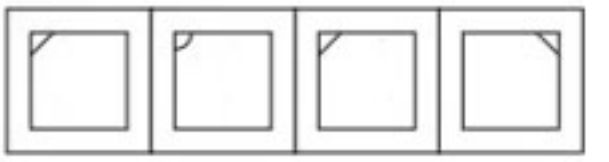


(1) (2) (3) (4)

39. Problem Figure

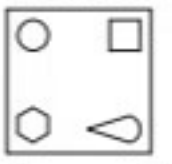


Answer Figures

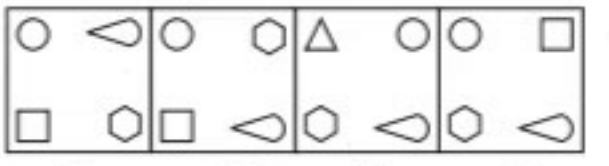


(1) (2) (3) (4)

40. Problem Figure



Answer Figures



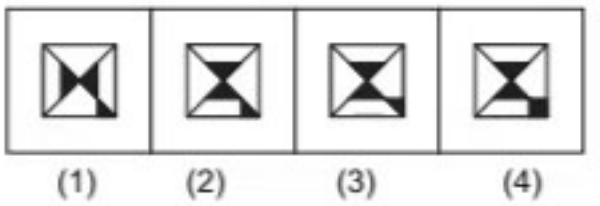
(1) (2) (3) (4)

Part V

Directions (Q.Nos. 41-50) *There is a problem figure a part of which is missing, observe the answer figure* (1), (2), (3) *and* (4) *and find out the answer figure which without. Changing the direction, fits in the missing part in the problem figure in order to complete the pattern in the problem figure.*

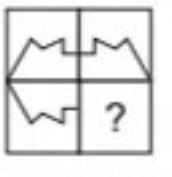
41. Problem Figure

Answer Figures

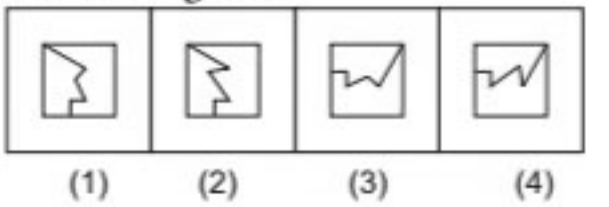


(1) (2) (3) (4)

42. Problem Figure



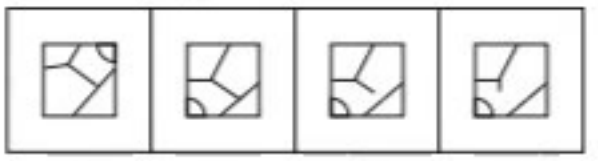
Answer Figures



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

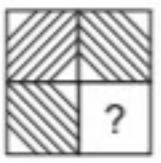
43. Problem Figure

Answer Figures

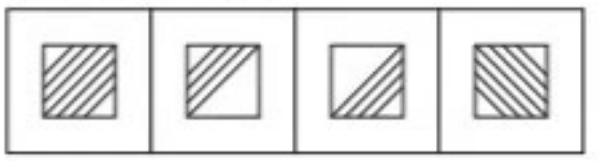


(1) (2) (3) (4)

44. Problem Figure

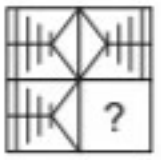


Answer Figures

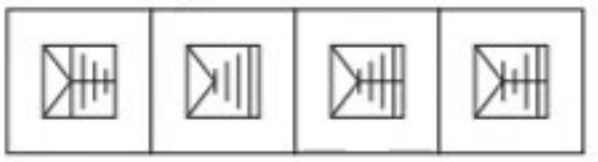


(1) (2) (3) (4)

45. Problem Figure



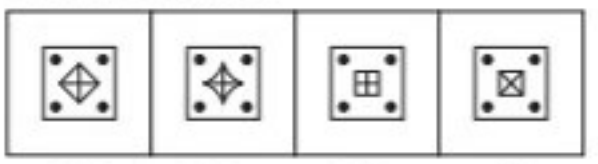
Answer Figures



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

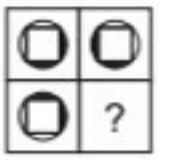
46. Problem Figure

Answer Figures

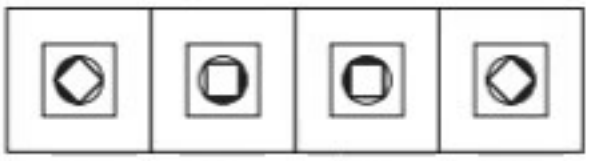


(1) (2) (3) (4)

47. Problem Figure

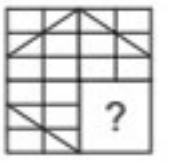


Answer Figures

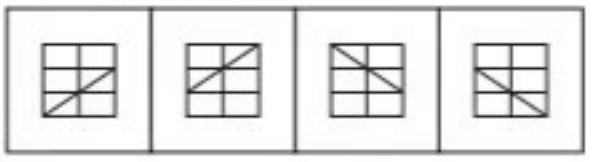


(1) (2) (3) (4)

48. Problem Figure

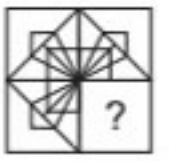


Answer Figures

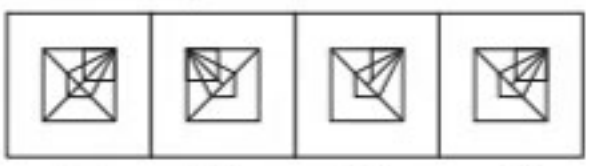


(1) (2) (3) (4)

49. Problem Figure

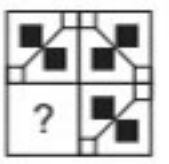


Answer Figures

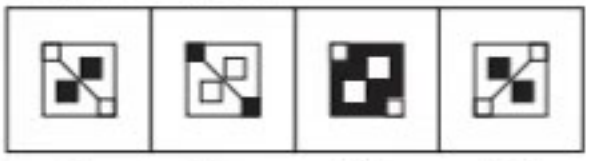


(1) (2) (3) (4)

50. Problem Figure



Answer Figures



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

Part VI

Directions (Q.Nos. 51-60) *One part of the square and other one is among the figures* (1), (2), (3) *and* (4). *Find out the figure which completes the square.*

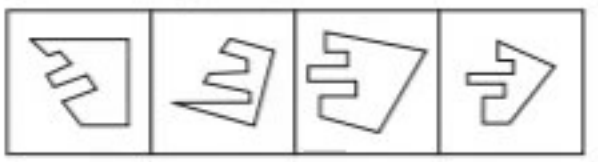
51. Problem Figure

Answer Figures

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

52. Problem Figure

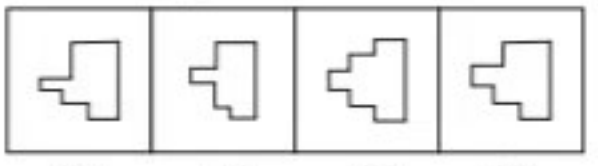
Answer Figures



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

53. Problem Figure

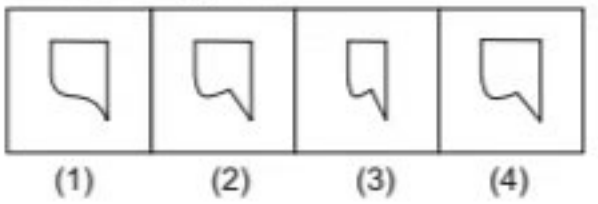
Answer Figures



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

54. Problem Figure

Answer Figures



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

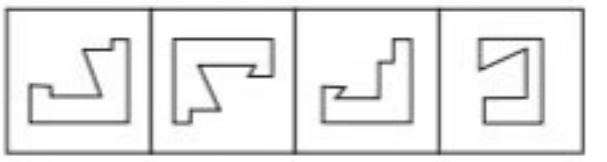
55. Problem Figure

Answer Figures

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

56. Problem Figure

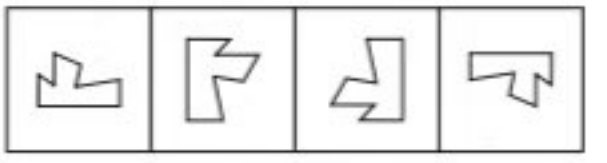
Answer Figures



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

57. Problem Figure

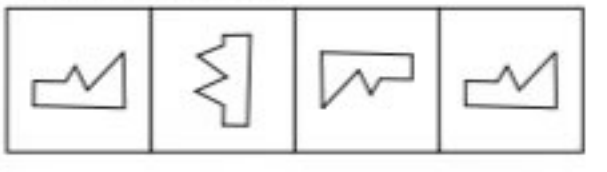
Answer Figures



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

58. Problem Figure

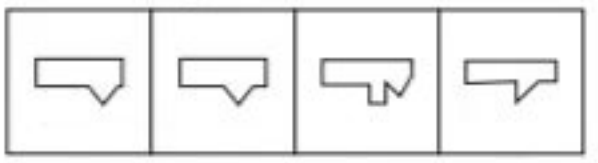
Answer Figures



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

59. **Problem Figure**

Answer Figures



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

60. **Problem Figure**

Answer Figures

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

Section II Arithmetic Test

Directions (Q.Nos. 61-75) *For every question, four probable answer bearing letters* (1), (2), (3) *and* (4) *are given. Only one out of these is correct. You have to choose the correct answer.*

61. Simplify

$$\frac{\frac{7}{3}\times\frac{2}{3}\div\frac{3}{5}}{2+1\frac{2}{3}}$$

(1) 99/70 (2) 70/99
(3) 33/30 (4) 70/27

62. The HCF of two numbers is 38 and their LCM is 98154. If one of the number is 1558. The other number is

(1) 1197 (2) 2394
(3) 4932 (4) 2384

63. A school collected ₹ 2304 as fees from its students. If each student paid as many paire as there were students in the school, how many students were there in the school?

(1) 240 (2) 460
(3) 480 (4) 440

64. A student scored 18 marks out of 25 marks in the first test of Math. In the second test he scored 22 marks in the second test exceeds his first test by

(1) 4% (2) 8%
(3) 16% (4) 80%

65. By selling a dozen pencil at the cost of ₹ 30, the shopkeeper gains ₹ 10. His percentage of profit was

(1) 20 (2) 35
(3) 50 (4) 66

66. After allowing a discount of 18%, a washing machine is available for ₹ 13489. What is the marked price of the washing machine?

(1) ₹ 16540 (2) ₹ 15450
(3) ₹ 16450 (4) ₹ 15540

67. A person borrowed a sum of ₹ 20000 for 2 yr on simple interest. He had to repay ₹ 24800 including interest after 2 yr. The rate of interest per annum was

(1) 48% (2) 24%
(3) 12% (4) 6%

68. $\frac{1}{3}$ of a certain journey is covered at the rate of 25 km/h, $\frac{1}{4}$ at the rate of 30 km/h and the rest of 50 km/h. What the average speed for the whole journey?

(1) 30 Km/h (2) 33 Km/h
(3) $33\frac{1}{3}$ Km/h (4) 32 Km/h

69. A drum is $\frac{2}{3}$ full, if 50 L more required to fill it up, how much is the capacity of the drum?

(1) 150 L (2) 120 L
(3) 100 L (4) 90 L

70. A train is running at a uniform speed of 75 km/h. How much time does it take to cover a distance of 350 km?

(1) 4 h (2) 5 h
(3) 4 h 30 min (4) 4 h 40 min

71. A bus starts at 9 : 10 am from Delhi and reaches Chandigarh at 4 : 20 pm. The total time in this journey is

(1) 7 h 10 min
(2) rightly 7 h
(3) 6 h 30 min
(4) 7 h 20 min

72. Two numbers are in the ratio 2 : 3. If 9 is added to each, they will be in the ratio 3 : 4, the numbers are
(1) 12, 28 (2) 18, 27
(3) 8, 12 (4) 10, 15

73. What is the volume of a box whose each edge measures 3 m in length?
(1) 54 cu m (2) 27 cu m
(3) 18 cu m (4) 9 cu m

74. The area of square, whose perimeter is 48 m is
(1) 48 m^2 (2) 144 m^2
(3) 1152 m^2 (4) 2304 m^2

75. The average of 20 values is 18. If 3 is subtracted from each of the values, then the new average will be
(1) 21 (2) 15
(3) 16 (4) 17

Section III Language Test (English)

Directions (Q.Nos. 76-78) *Choose the correct sentence.*

76. (1) Four sheeps are grazing in the field
(2) Four sheep are grazing in the field
(3) Four sheep is grazing in the field
(4) Four sheeps was grazing in the field

77. (1) He does not likes mangoes
(2) He do not likes mangoes
(3) He do not like mangoes
(4) He does not like mangoes

78. (1) Are you coming yesterday?
(2) Is you coming today?
(3) Are you coming today?
(4) Was you coming today?

Directions (Q.Nos. 79 and 80) *Choose the opposite word.*

79. Above
(1) Deep (2) Shallow (3) Up (4) Below

80. Separate
(1) Unite (2) Slow (3) Throw (4) Clear

Directions (Q.Nos. 81 and 82) *Choose the word which is similar in meaning.*

81. Permit
(1) Reject (2) Allow (3) Discourage (4) Exit

82. Expensive
(1) Large (2) Required
(3) Costly (4) Attractive

Directions (Q.Nos. 83-100) *Read each of the following passages carefully and answer the questions given below it.*

Passage I

Gandhiji became more and more interested in vegetarianism. He studied the subject closely. He subscribed to a journal published by a vegetarian society. Then he joined this society and was soon elected to its executive committee. He made further experiments for himself with regard to food. Full of enthusiasm, he decided to start a vegetarian club in the part of London where he was then living. The club flourished as long as its founder stayed in that locality, but it died after he left.

83. What goes to show Gandhiji's interest in vegetarianism?
(1) He studied more about vegetarianism
(2) He bought a journal published by a vegetarian society
(3) He joined the vegetarian society
(4) All of the above

84. What made Gandhiji found a vegetarian club?
(1) Because he was interested in vegetarianism
(2) Because he hated non-vegetarians
(3) Because ha had deep knowledge of the principles of vegetarianism
(4) Because his political guru had advised him to found a vegetarian club

85. What was the fate of the vegetarian club?
(1) The vegetarian club ended as Gandhiji left the place
(2) The vegetarian club flourished and is still flourishing
(3) It did much to popularize vegetarianism
(4) It never had a success

Passage II

Drummers beat the drums and trumpeters blew their long horns as if their lives depended on it. Great indeed was the din created by the musicians, horses, chariots, elephants, the thousands of the king's guards and the cheering crowds. The poor strangers could only watch and hear in total astonishment. To one of them the great size of the king's elephant appealed most and he began praising it. The other, however, was having trouble at that time—a vicious little mosquito had entered his ear which was enough to make any man dance up and down in frenzy.

86. What did the trumpeters do?
(1) They beat the drums
(2) They blew their long horns
(3) They quarrelled among themselves
(4) They danced up and down in frenzy

87. How was the din created?
(1) The musicians created the din
(2) The horses created the din
(3) The chariots, the elephants, the king's guards and the cheering crowds created the din
(4) All the above together created the din

88. What appealed to one of the strangers?
(1) The sounding of the trumpets
(2) The stately procession of the king
(3) The great size of the king's elephant
(4) The crowds praising the king

89. What trouble did the other stranger have?
(1) The din created by the king's procession disturbed his peace
(2) A vicious little mosquito entered his ear and gave a lot of trouble
(3) He was made to dance very much against his wish
(4) The drummers and trumpeters created, so much noise that he felt very ill at ease in that situation

90. Which word in the passage means 'condition of agitation'?
(1) Frenzy
(2) Appeal
(3) Astonishment
(4) Cheering

Passage III

Having taken leave of his father at last, the young man set-off on a long journey into foreign lands. "When luck does not favour, an artist goes to a place where his name is not known," he said to himself and turned in a direction which led he knew not where. He was footsore and hungry when atlast he arrived on the bank of a turbulent river, hindering his further passage until he could, cross it. Espying a boat at a nearly ferry, he went thither. There were other men too, each with his fare ready in his hand. But the young man had not even a broken cowry on him.

'Pay the fare and only then step into the boat,' the boatman told him. The young man was at his wit's end and the other people began to smile at his foolishness of going about without any money on him.

91. Where was the young man going?
(1) He was going home
(2) He was going to the market
(3) He was going on a long journey into foreign lands
(4) He was going abroad for further studies

92. What was his condition when he came to the river bank?
(1) He was footsore and hungry
(2) He was in a very depressed mood
(3) He was in a very jovial mood
(4) He was agitated in his mind, therefore, he was behaving in an abnormal manner

93. What did the other people have in their hands?
(1) They had cowries in their hands
(2) They had the fare in their hands
(3) They had their luggage in their hands
(4) They had placards in their hands

94. What did the boatman tell him?
(1) That he had boarded the wrong boat
(2) That the boat was to sail the next day
(3) He told him, "Pay the fare and only then step into the boat"
(4) That he should be in a smiling mood during the journey

95. Why did the other people smile?
(1) The other people smiled because the young man was without shoes and had torn clothes on
(2) The other people began to smile at the young man's foolishness of going about without any money on him
(3) The other people smiled because the boat man cut jokes with the young man
(4) The other people smiled at the simplicity of the young man

Passage IV

Father Come here Raju. Let me know why your Headmaster's report is so bad about you.

Raju I don't know. He is against me.

(2) That is nonsense. He is a kind and just man. He reports that you have failed in nearly all the subjects and have been punished for breaking hostel rules. You once offended your teacher in the class and had to apologize before the whole school.

Raju Well, he called me bad names.

Father I am highly disappointed with you, Raju. I had great hopes when I sent you to school; but if you go on like this you will be a blot to me.

Raju I am sorry, father. I know I have been lazy and behaved badly. I will get out of the bad set of friends and will work hard. You will have a better report next time. I promise to you. I will succeed and earn a reputation for you.

96. Raju had to apologize before the whole school because he
(1) broke hostel rules
(2) failed in nearly all the subjects
(3) behaved badly towards his teacher
(4) fell in bad company

97. Raju's father was disappointed with his son's behaviour because he
(1) was disobedient
(2) earned a bad report from his headmaster
(3) did not speak the truth
(4) could not pass in all the subjects

98. 'I have been lazy and behaved badly'. When Raju speaks out this sentence, he
(1) tells a lie
(2) prays for being overlooked
(3) refuses to improve himself
(4) admits his fault

99. Write the phrase from the passage which means 'I will leave bad company.'
(1) You will have a better report next time
(2) I will succeed and earn a reputation
(3) I am sorry
(4) Get out of the bad set of friends

100. Choose a sentence from the following sentences which shows that Raju's father had great expectations from his son.
(1) I had great hopes when I sent you to school
(2) I am highly disappointed with you
(3) But if you go on like this you will be a blot to me
(4) You once offended your teacher in the class

Answers

1.	(2)	**2.**	(3)	**3.**	(3)	**4.**	(2)	**5.**	(3)	**6.**	(1)	**7.**	(4)	**8.**	(1)	**9.**	(2)	**10.**	(3)
11.	(4)	**12.**	(4)	**13.**	(4)	**14.**	(4)	**15.**	(3)	**16.**	(4)	**17.**	(4)	**18.**	(2)	**19.**	(3)	**20.**	(3)
21.	(3)	**22.**	(4)	**23.**	(2)	**24.**	(3)	**25.**	(3)	**26.**	(1)	**27.**	(4)	**28.**	(2)	**29.**	(4)	**30.**	(1)
31.	(3)	**32.**	(1)	**33.**	(3)	**34.**	(1)	**35.**	(4)	**36.**	(1)	**37.**	(4)	**38.**	(3)	**39.**	(1)	**40.**	(4)
41.	(2)	**42.**	(3)	**43.**	(2)	**44.**	(1)	**45.**	(3)	**46.**	(2)	**47.**	(3)	**48.**	(1)	**49.**	(2)	**50.**	(1)
51.	(3)	**52.**	(3)	**53.**	(2)	**54.**	(1)	**55.**	(2)	**56.**	(4)	**57.**	(3)	**58.**	(2)	**59.**	(1)	**60.**	(1)
61.	(2)	**62.**	(2)	**63.**	(3)	**64.**	(3)	**65.**	(3)	**66.**	(3)	**67.**	(3)	**68.**	(3)	**69.**	(1)	**70.**	(4)
71.	(1)	**72.**	(2)	**73.**	(2)	**74.**	(2)	**75.**	(2)	**76.**	(2)	**77.**	(4)	**78.**	(3)	**79.**	(3)	**80.**	(1)
81.	(2)	**82.**	(3)	**83.**	(4)	**84.**	(1)	**85.**	(1)	**86.**	(2)	**87.**	(4)	**88.**	(3)	**89.**	(2)	**90.**	(1)
91.	(3)	**92.**	(1)	**93.**	(2)	**94.**	(3)	**95.**	(2)	**96.**	(3)	**97.**	(2)	**98.**	(4)	**99.**	(4)	**100.**	(1)

Hints and Solutions

1. Each next figure, design moving in clockwise direction.

2. Each next figure black part is reverse.

3. Each next figure right side and left side one line is add.

4. Each next figure curve lines are convert into straight lines.

5. Inner figure comes to out side and outsider figure come to in side in figure and in the third figure new figure comes in.

6. Figures are moving clockwise 90°.

7. Designs are reversed and new small circle are increased.

8. Each next figure one dot are disappeared and one line increased.

9. Each next figure opposite direction one arrow is increased.

10. The sign is exchanging its place in the group of two.

11. Except (4) all others are same.

12. Except (4) in all three glasses there are drinking thing.

13. Except (4) all others are lighting things.

14. Except (4) all others are related with bird.

15. Except (3) all others are related with man's face.

16. Only option (4) are live in water.

17. Except (4) all others are related with vegetables.

18. Except (2) all others are related with meal.

19. Except (3) all others are related with vegetables.

20. Except (3) in all other figures are made by straight lines.

21. First figure in problem figure is doubled to second figure. Hence, in the third figure doubled to the fourth figure.

22. First figure to the second figure triangle made on the base. Hence, third figure to fourth figure triangle made on the base.

23. In the second figure outer figure come in inside the figure an inner figure comes in out side the figure and spot is horizontal.

24. Second figure is the mirror image of the first figure. Hence, fourth figure is the mirror image of the third figure.

25. Horizontaly one line decrease to the first figure.

26. Moving 180° figure from third to fourth.

27. Fourth figure is made by third figure lines.

28. In problem figure, first figure is moving 90° clockwise to second figure, thus third figure is moving 90° clockwise to fourth figure.

29. In problem figure, first figure is distributed in three parts and two parts are equal to second figure. Hence, the same process is going on third to fourth.

30. First figure squares is convert into circle, hence third figure square is convert into circle.

61. $$\frac{\frac{7}{3}\times\frac{2}{3}\div\frac{3}{5}}{2+1\frac{2}{3}}=\frac{\frac{7}{3}\times\frac{2}{3}\times\frac{5}{3}}{2+\frac{5}{3}}=\frac{\frac{70}{27}}{\frac{11}{3}}=\frac{70\times 3}{27\times 11}=\frac{70}{99}$$

62. $$\text{Other number}=\frac{\text{HCF}\times\text{LCM}}{\text{First number}}$$
$$=\frac{38\times 98154}{1558}=2394$$

63. Total money collected

$= ₹\ 2304 = 230400$ paise

As number of students

= Money paid by students

$\therefore$ Number of students in school

$= \sqrt{230400} = 480$

64. More marks $= 22 - 18 = 4$

Required percentage $= \frac{4 \times 100}{25} = 16\%$

65. Cost price $= 30 - 10 = ₹\ 20$

Percentage profit $= \frac{\text{Profit} \times 100}{\text{Cost price}}$

$= \frac{10 \times 100}{20} = 50\%$

66. Selling price of washing machine

$= ₹\ 13489$

Discount allowed = 18%

Let marked price of washing machine be ₹ x.

$\therefore \quad x - \frac{18x}{100} = 13489$

$\Rightarrow \quad \frac{82x}{100} = 13489$

$\Rightarrow \quad x = \frac{13489 \times 100}{82}$

$\therefore \quad = 16450$

$\therefore$ Marked price of washing machine is ₹ 16450.

67. $\because$ Amount = ₹ 24800

Principal = ₹ 20000

$\therefore$ SI = Amount − Principal

$= 24800 - 20000$

$= ₹\ 4800$

Rate of interest $= \frac{\text{SI} \times 100}{P \times T}$

$= \frac{4800 \times 100}{20000 \times 2} = 12\%$

68. Let the total journey be x km.

Then, $\frac{x}{3}$ is covered at 25 km/h, $\frac{x}{4}$ is at 30 km/h.

Rest of the distance $= x - \frac{x}{3} - \frac{x}{4}$

$= \frac{12x - 4x - 3x}{12} = \frac{5x}{12}$ at the speed of 50 km/h.

$\therefore$ Total time of journey

$= \frac{x}{75} + \frac{x}{120} + \frac{5x}{12 \times 50}$

$= \frac{18x}{600} = \frac{3x}{100}$ h

Average speed $= \frac{x}{\frac{3x}{100}} = \frac{100}{3} = 33\frac{1}{3}$ km/h

69. $\because$ Empty part of the drum $= 1 - \frac{2}{3} = \frac{1}{3}$

If $\frac{1}{3}$ part requires = 50 L

Then, 1 part requires $= 50 \div \frac{1}{3} = 50 \times 3 = 150$ L

70. Time $= \frac{\text{Distance}}{\text{Speed}} = \frac{350}{75} = \frac{14}{3}$ h $= 4\frac{2}{3}$ h

= 4 h 40 min

71. Time of start from Delhi = 9 : 10 am

Reaching time at Chandigarh = 4 : 20 pm

Time from 9 : 10 to 12 : 00 = 2 h 50 min

From 12 : 00 to 4 : 20 = 4 h 20 min

Total time taken = 7 h 10 min

72. Let numbers be $2x$ and $3x$.

Then, $\frac{2x + 9}{3x + 9} = \frac{3}{4}$

$\Rightarrow \quad 4(2x + 9) = 3(3x + 9)$

$\Rightarrow \quad 8x + 36 = 9x + 27$

$\Rightarrow \quad 9x - 8x = 36 - 27$

$\Rightarrow \quad x = 9$

$\therefore$ Numbers are $2 \times 9 = 18$

and $\quad 3 \times 9 = 27$

73. Volume of the box $= 3 \times 3 \times 3 = 27$ cu m

74. Side of the square $= \frac{\text{Perimeter}}{4} = \frac{48}{4} = 12$ m

Area of the square = Side × Side

$= 12 \times 12 = 144\ m^2$

75. Previous total $= 20 \times 18 = 360$

New case $= 360 - 3 \times 20$

$= 360 - 60 = 300$

$\therefore$ New average $= \frac{300}{20} = 15$

Jawahar
Navodaya Vidyalaya
Entrance Exam (Class VI)

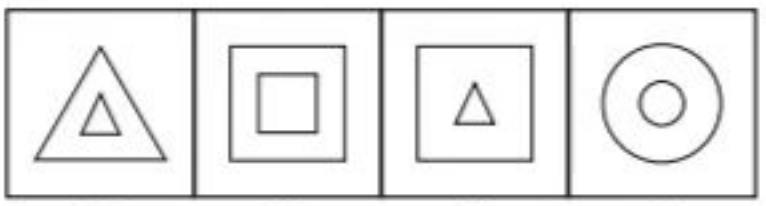
Solved Paper 2008

Section I Mental Ability Test

Part I

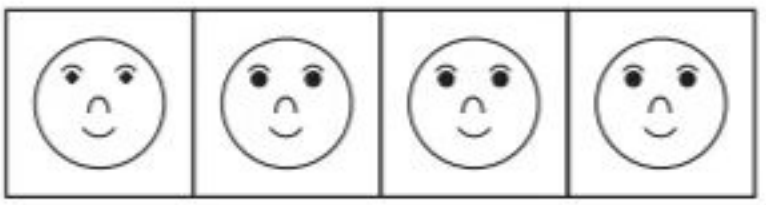
Directions (Q.Nos. 1-10) *In the following questions, four figures* (1), (2), (3) *and* (4) *are given. Out of these four figures, three are similar, one way or the other, but one figure is different. Spot out the different figure.*

1.



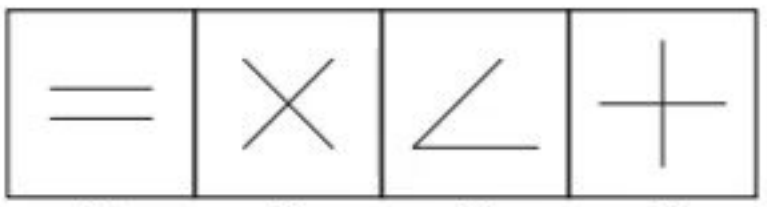
(1) (2) (3) (4)

2.



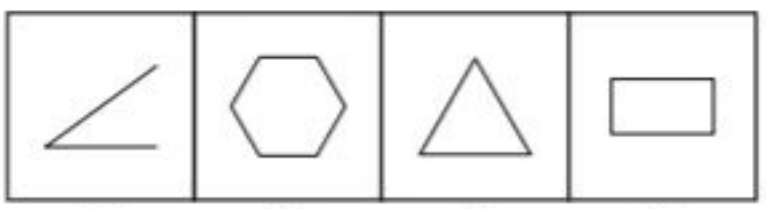
(1) (2) (3) (4)

3.



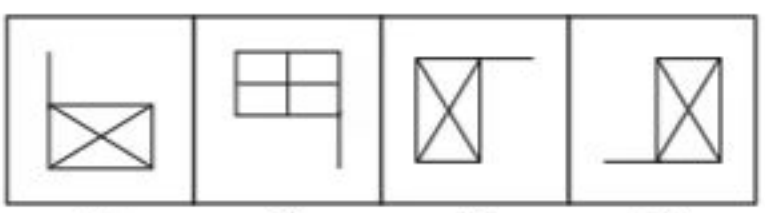
(1) (2) (3) (4)

4.



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

5.

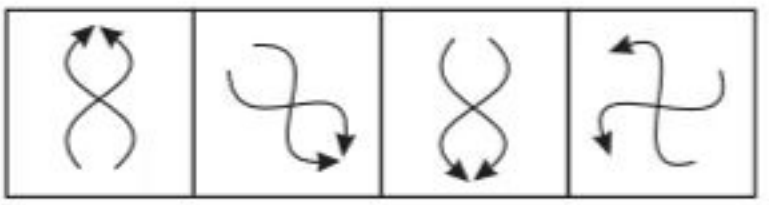


(1) (2) (3) (4)

6.

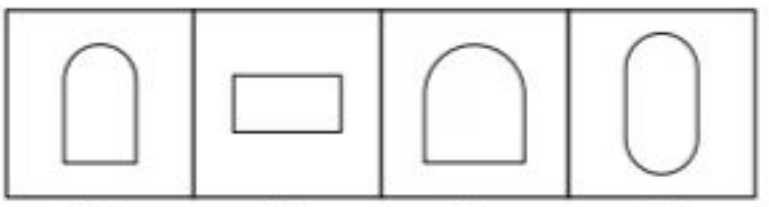
(1) (2) (3) (4)

7.



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

8.

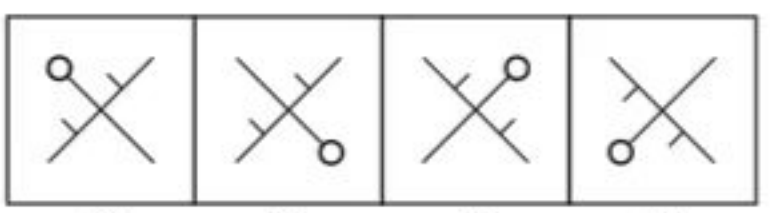


(1) (2) (3) (4)

9.

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

10.



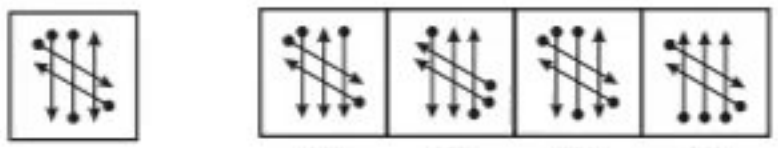
(1) (2) (3) (4)

Based on Memory

Part II

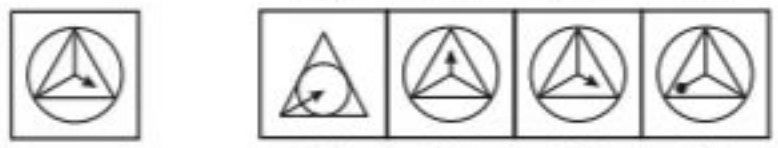
Directions (Q.Nos. 11-20) *In the following questions, a problem figure is given on the left hand side. Four answer figures* (1), (2), (3) *and* (4) *are given on the right side. Spot out the figure similar to the problem figure.*

11. Prob. Fig. **Answer Figures**



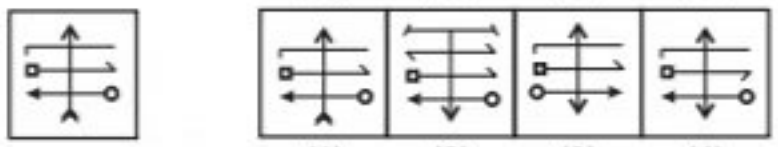
(1) (2) (3) (4)

12.



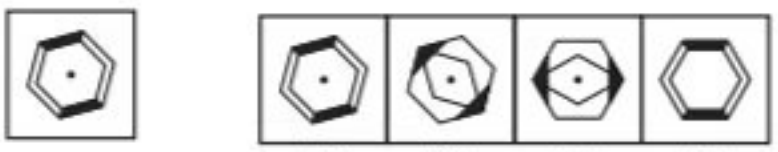
(1) (2) (3) (4)

13.



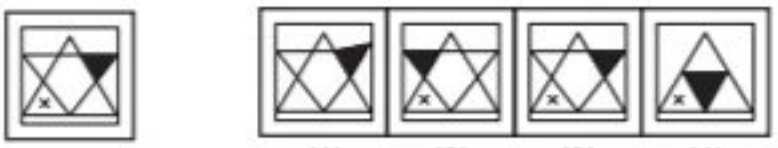
(1) (2) (3) (4)

14.



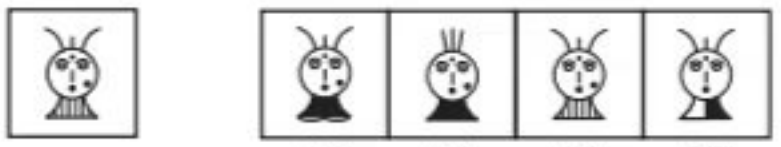
(1) (2) (3) (4)

15.



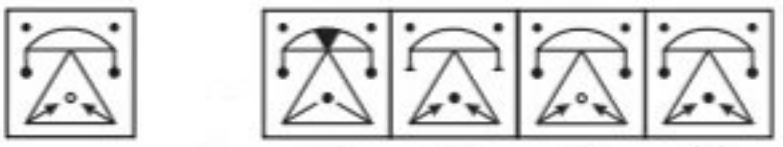
(1) (2) (3) (4)

16. Prob. Fig. **Answer Figures**



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

17.

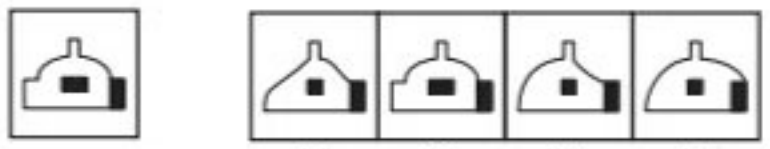


(1) (2) (3) (4)

18.

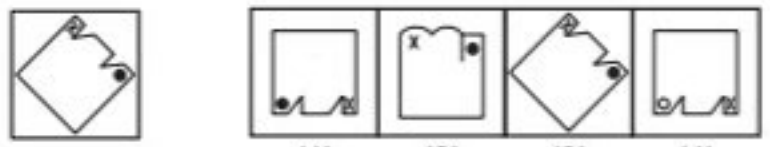
(1) (2) (3) (4)

19.



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

20.

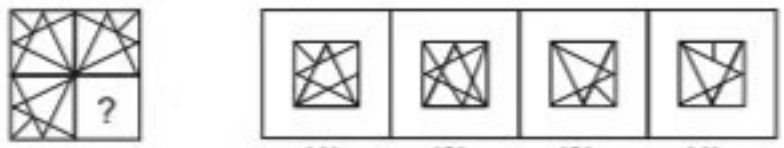


(1) (2) (3) (4)

Part III

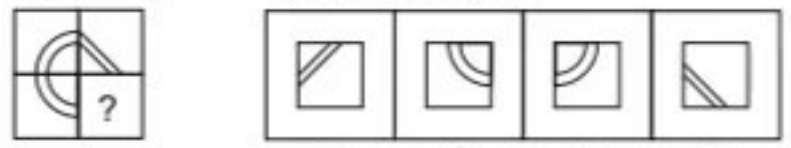
Directions (Q.Nos. 21-30) *In the following questions, a problem figure is given on the left side of the line; which is incomplete. One, out of the four answer figures* (1), (2), (3) *and* (4) *can complete the same. You have to locate the answer figure which if inserted in the problem figure, without changing the direction, completes the same.*

21. Prob. Fig. **Answer Figures**



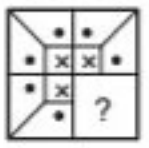
(1) (2) (3) (4)

22. Prob. Fig. **Answer Figures**

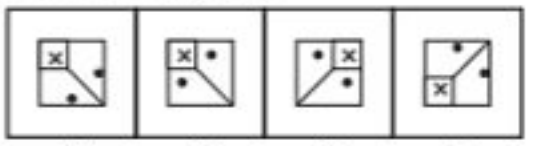


(1) (2) (3) (4)

23. Prob. Fig.

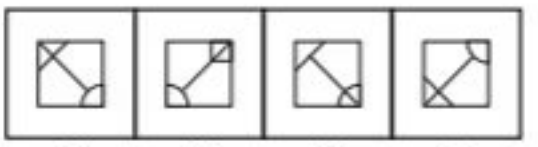


Answer Figures



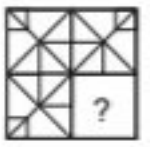
(1) (2) (3) (4)

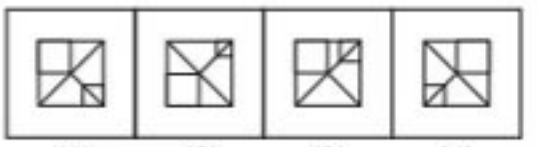
24.



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

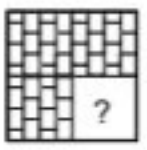
25.

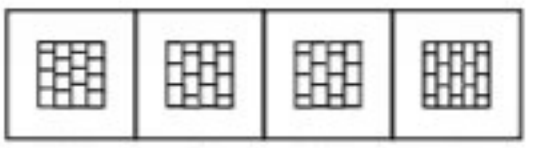




(1) (2) (3) (4)

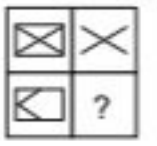
26.



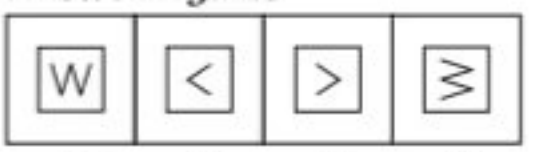


(1) (2) (3) (4)

27. Prob. Fig.

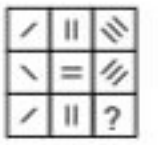


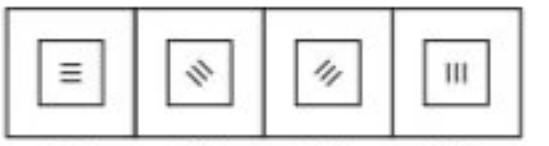
Answer Figures



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

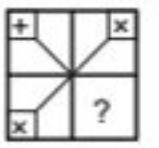
28.

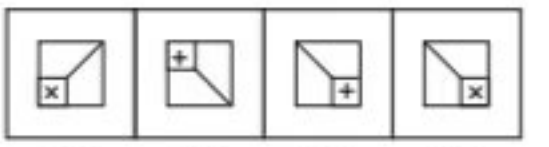




(1) (2) (3) (4)

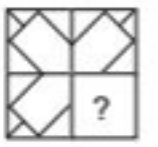
29.

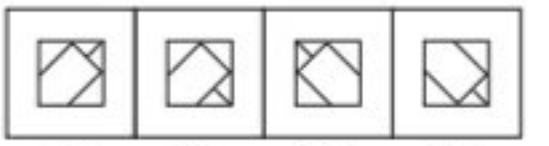




(1) (2) (3) (4)

30.



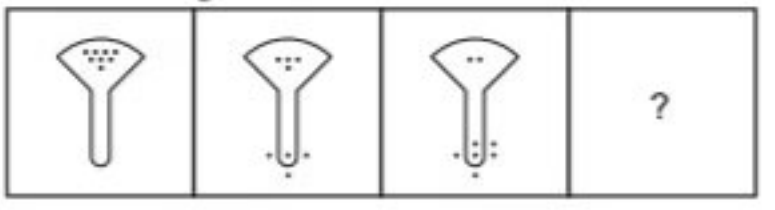


(1) (2) (3) (4)

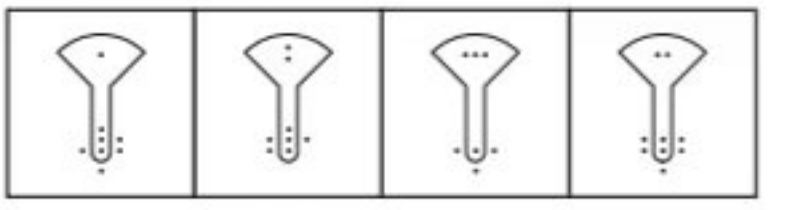
Part IV

Directions (Q.Nos. 31-40) *There are three problem figures on left hand side and the space for the fourth figure is left blank. The problem figures are in series. Pick one figure from among the answer figures given on the right hand side which occupies the blank space for the fourth figure on the right hand side and which completes the series. Indicate your answer.*

31. Problem Figures



Answer Figures



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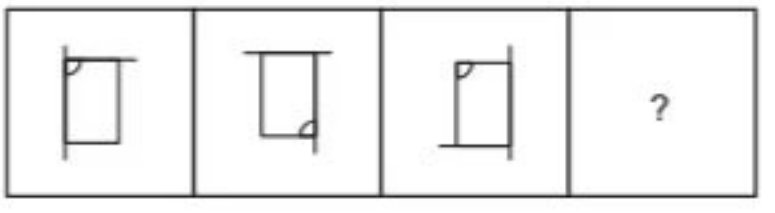
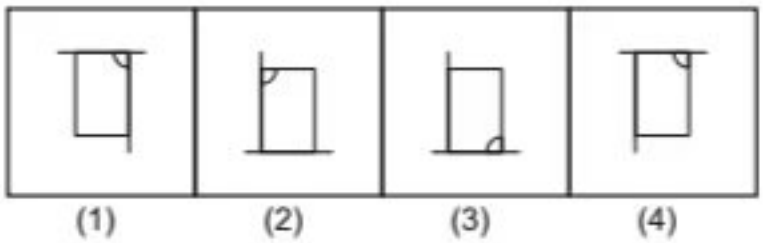
32.





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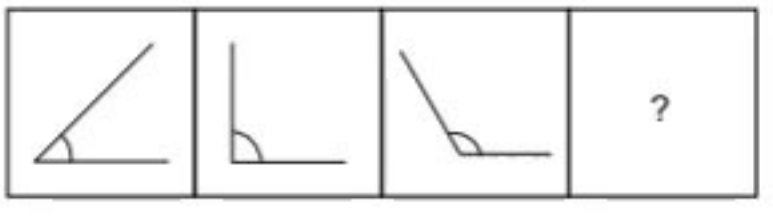

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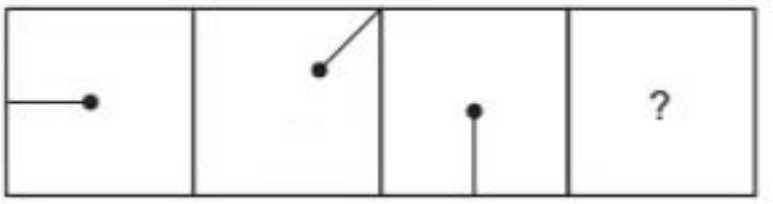
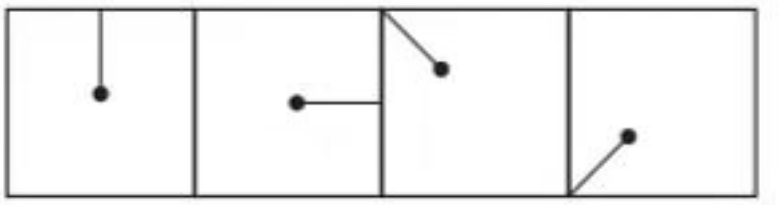
34. **Problem Figures**



Answer Figures



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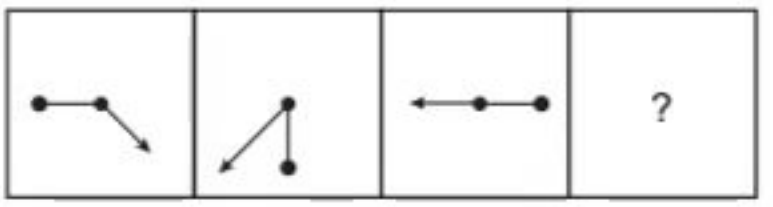

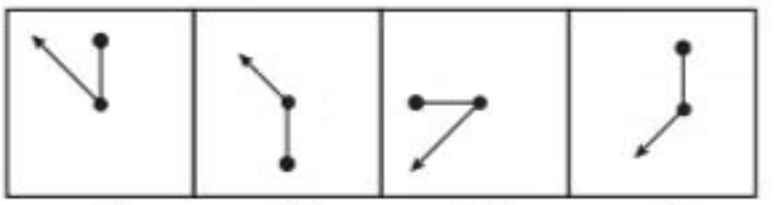

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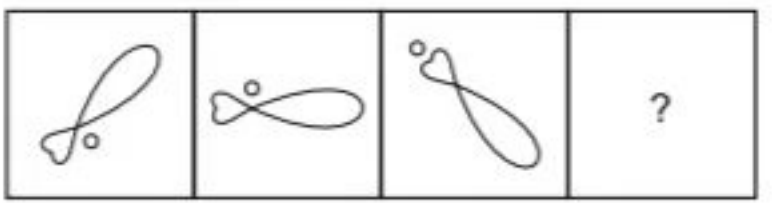
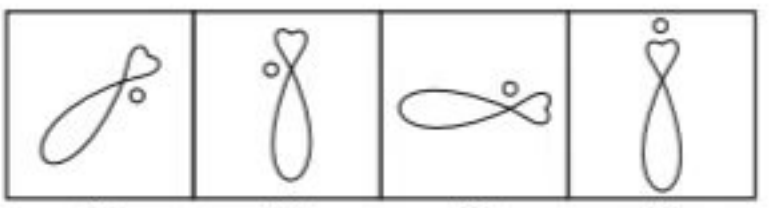
36.

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

37.





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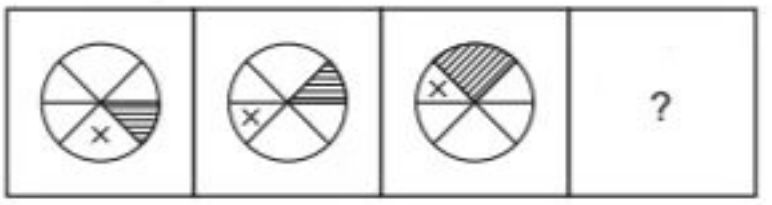

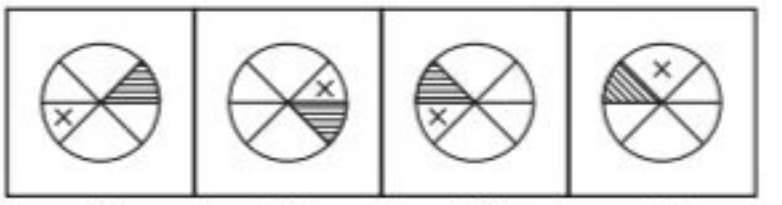

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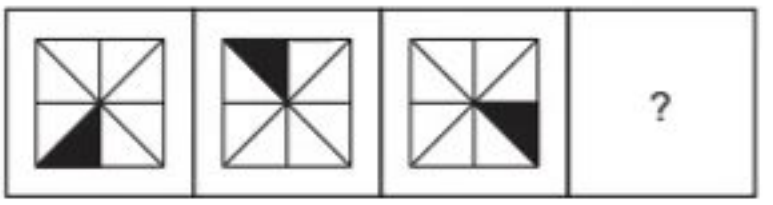

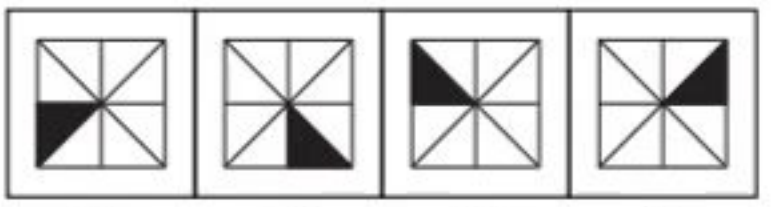

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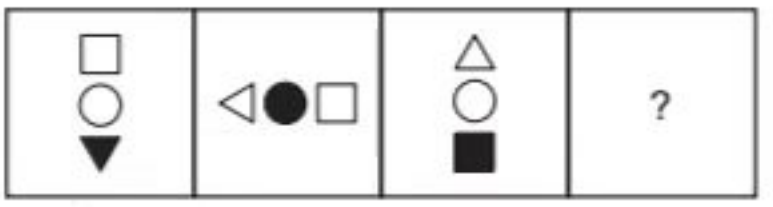
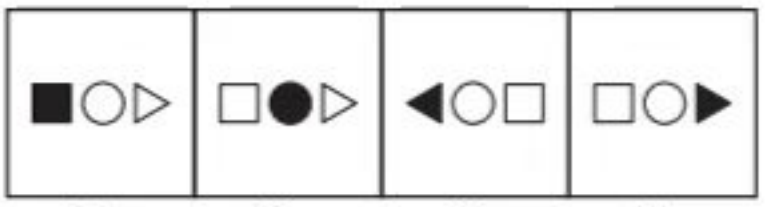


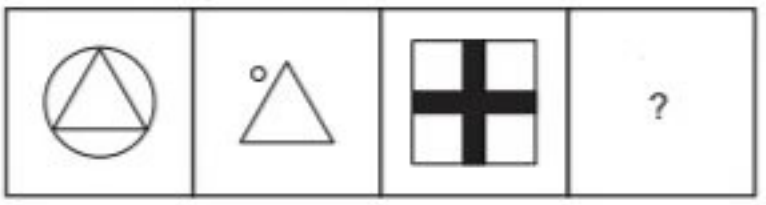


(1) (2) (3) (4)

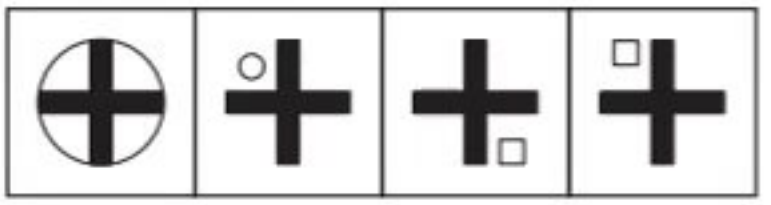
Part V

Directions (Q.Nos. 41-50) *There are three problem figures are given on the left side. There is some relationship between the first and second figure. Same relationship should exist between the third and fourth figure. Fourth space is left blank. Select the figure from the answer figures, which fits suitably in the fourth space.*

41. Problem Figures



Answer Figures



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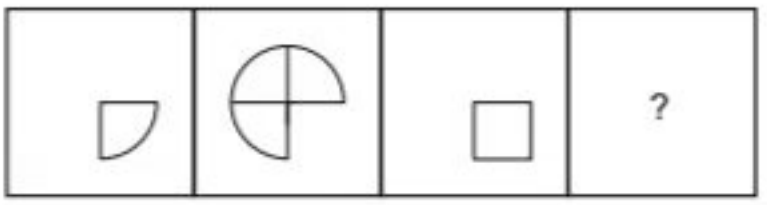

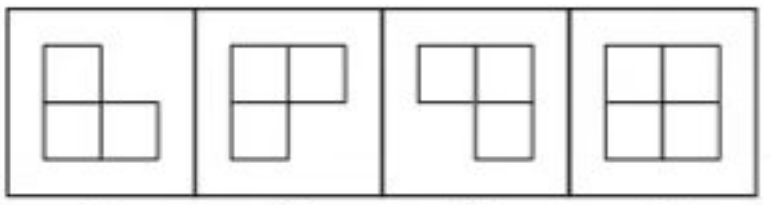

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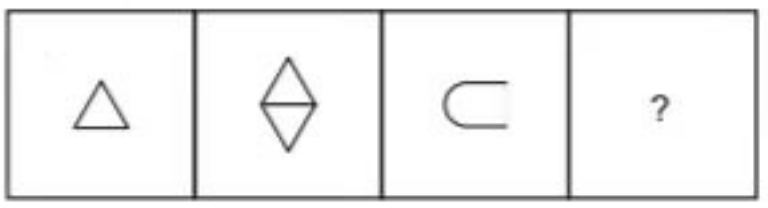

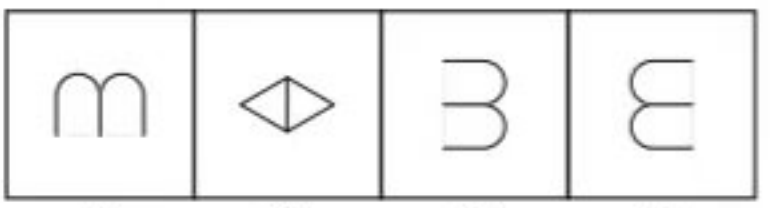

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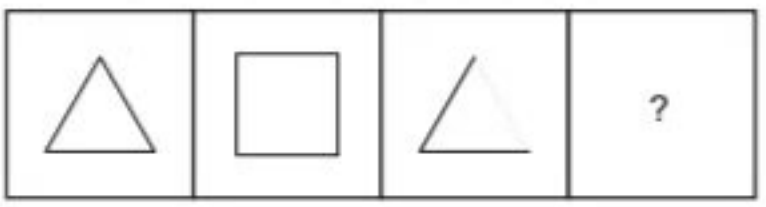

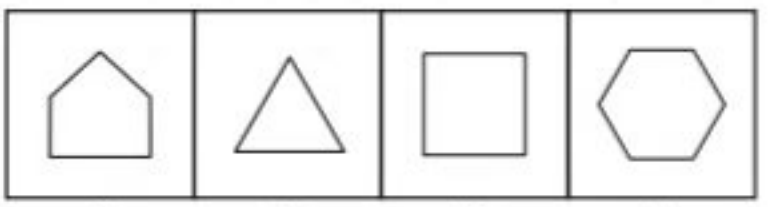

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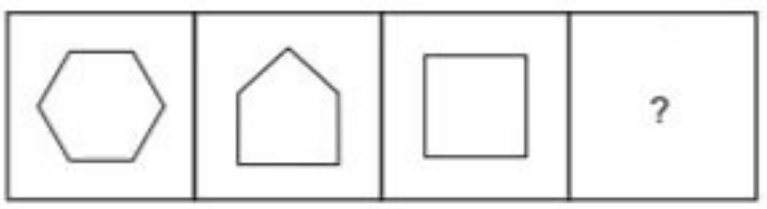

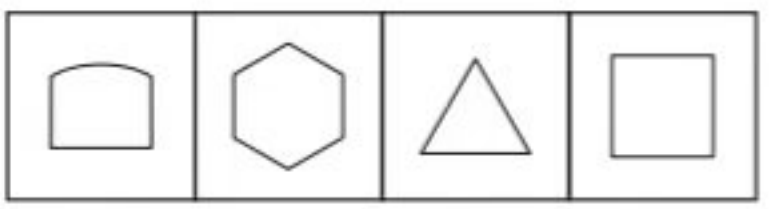

(1) (2) (3) (4)

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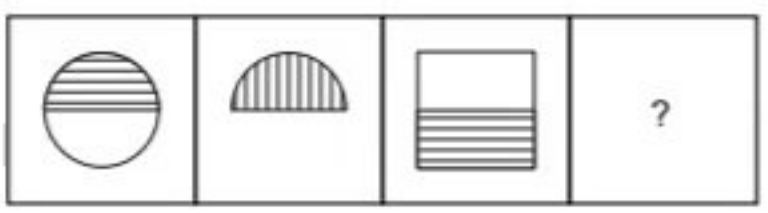

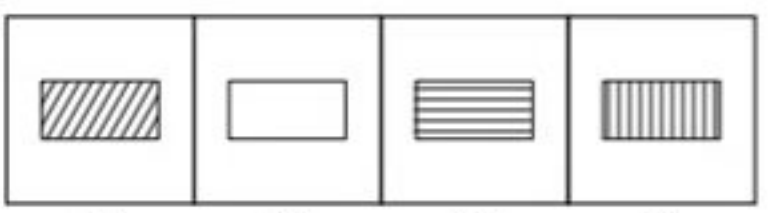

(1) (2) (3) (4)

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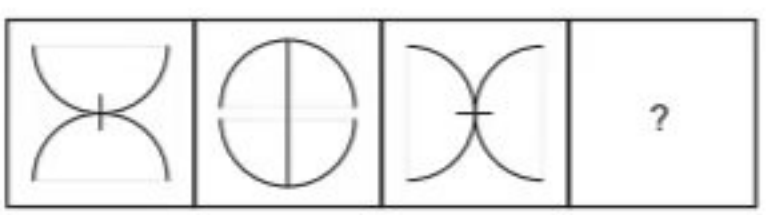
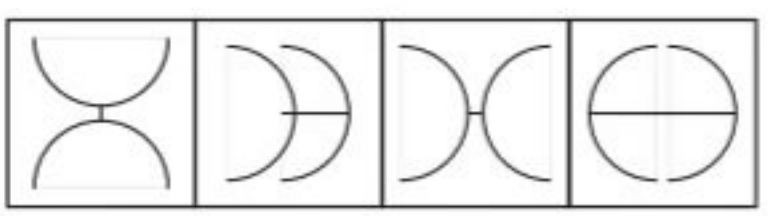
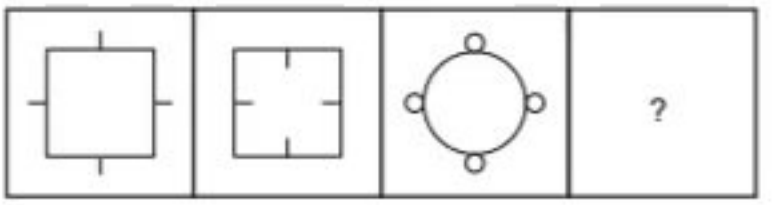


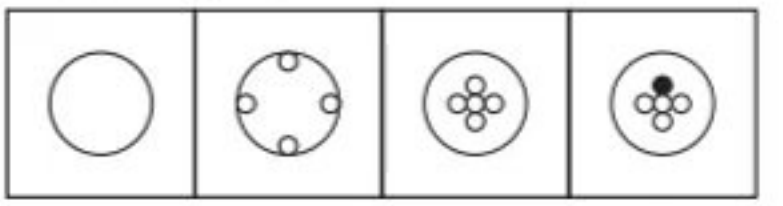


(1) (2) (3) (4)

48. **Problem Figures**



Answer Figures



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

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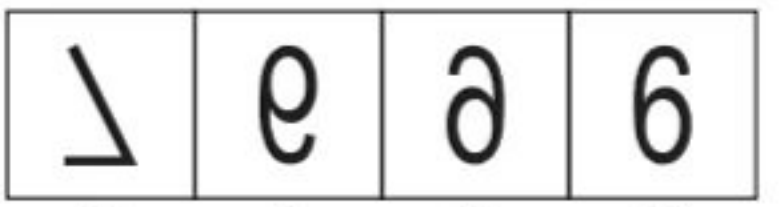

(1) (2) (3) (4)

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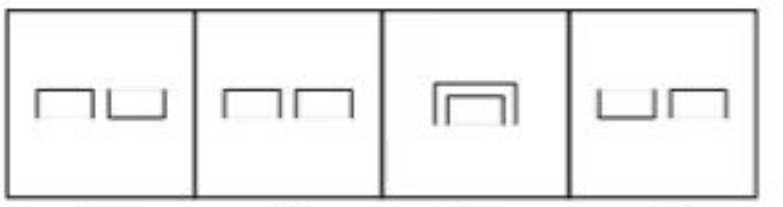


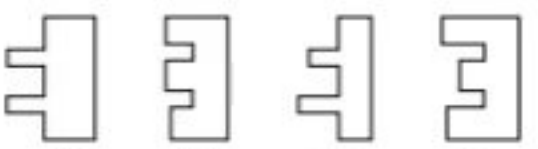
(1) (2) (3) (4)

Part VI

Directions (Q.Nos. 51-60) *In the following questions, one part of a square is on the left hand side and the other one is among the four figures* (1), (2), (3) *and* (4) *on the right hand side. Find the figure on the right hand side that completes the square.*

51. **Prob. Fig.**

Answer Figures



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

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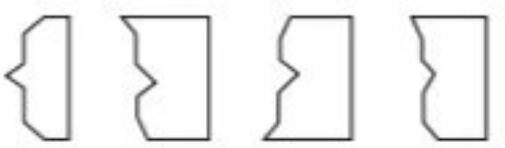

(1) (2) (3) (4)

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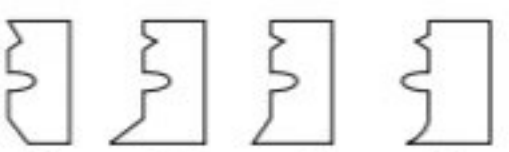
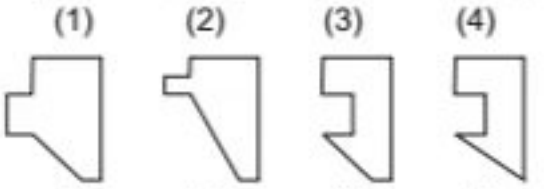


(1) (2) (3) (4)

54.

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

55.



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

56. **Prob. Fig.**

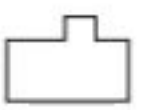
Answer Figures

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

57.

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

58.

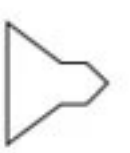


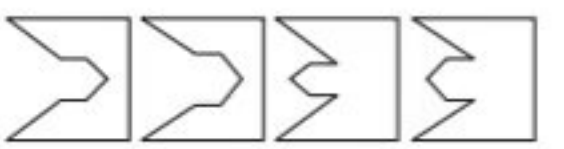
(1) (2) (3) (4)

59.

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

60.





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

Section II **Arithmetic Test**

Directions (Q.Nos. 61-80) *For every question, four probable answers bearing letters* (1), (2), (3) *and* (4) *are given. Only one out of these is correct. You have to choose the correct answer.*

61. How many 4 digit numbers, in all are there?
(1) 9999 (2) 9990 (3) 9000 (4) 8999

62. The number 37504 when rounded off to the nearest hundred is
(1) 37000 (2) 37500 (3) 40000 (4) 30000

63. When 10101 is multiplied by 17, the product is
(1) 17017017 (2) 1717017
(3) 171717 (4) 170017

64. What is the difference between 10170 and 8369?
(1) 1809 (2) 1801 (3) 18439 (4) 18539

65. Using digits 1, 0, 5 and 7 the greatest 4 digit number formed is
(1) 1075 (2) 1057 (3) 5017 (4) 7510

66. Of the following which number is the least?

33719, 71933, 91337, 37193

(1) 33719 (2) 71933
(3) 91337 (4) 37193

67. Which of the following is 'not' a factor of 316?
(1) 1 (2) 8 (3) 79 (4) 158

68. The product of two numbers is $\frac{5}{4}$. If one number is $\frac{5}{6}$, what is the other number?
(1) 2 (2) $\frac{1}{2}$ (3) $\frac{3}{2}$ (4) $\frac{2}{3}$

69. What will be the next term in the following number series ?

2, 3, 5, 7, 11, ...

(1) 12 (2) 13 (3) 15 (4) 21

70. The fraction equivalent to 1.25 is
(1) $1\frac{1}{4}$ (2) $12\frac{1}{2}$ (3) $1\frac{1}{8}$ (4) $12\frac{1}{4}$

71. The LCM of 12, 24 and 30 is
(1) 2 (2) 30 (3) 60 (4) 120

72. If $178 \times 34 = 6052$, what is $60.52 \div 17.8$?
(1) 34 (2) 3.4
(3) 0.34 (4) 0.034

73. 0.075 when expressed as per cent, is
(1) 75% (2) 7.5%
(3) 0.75% (4) 0.075%

74. On simplifying $15 \times 4 - 10 \div 5$, we get
(1) 10 (2) 30
(3) 58 (4) 120

75. A drum is two-third full. If 50 L more required to fill it up, how much is the capacity of the drum?
(1) 150 L (2) 120 L (3) 100 L (4) 90 L

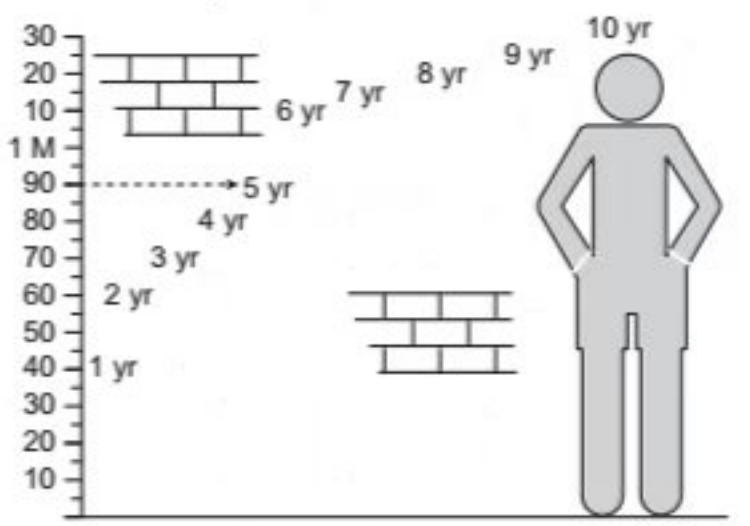
76. A shopkeeper bought 2 dozen of brushes at the rate of ₹ 10 per dozen. If he sells them at ₹ 1 per brush, what profit will he earn?
(1) ₹ 9 (2) ₹ 7
(3) ₹ 6 (4) ₹ 4

77. Some oranges were purchased by three persons for ₹ 3.00, ₹ 5.25 and ₹ 6.75 respectively. What is the maximum price of an orange?
(1) 25 paise (2) 75 paise
(3) ₹ 1 (4) ₹ 1.25

78. A bus left Delhi for Dehradun at 10 : 15 am. It took 6 h 30 min in journey. At what time did the bus reach at Dehradun?
(1) 4 : 15 pm (2) 4 : 30 pm
(3) 4 : 45 pm (4) 5 : 00 pm

79. A train is running at a uniform speed of 75 km/h. How much times does it take to cover a distance of 350 km?
(1) 4 h (2) 5 h
(3) 4 h 30 min (4) 4 h 40 min

80. Read the graph and find how tall was Tarun when he was 5 yr old?



(1) 80 cm (2) 85 cm
(3) 90 cm (4) 95 cm

Section II **Language Test** (English)

Directions (Q.Nos. 81-100) *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 letters* (1), (2), (3) *and* (4) *are given. Only one out of these is correct. You have to choose the correct answer.*

Passage I

I was about six years old. Once I saw a beautiful picture in a book. It was a picture of a dense forest. I thought about the forest and drew a picture of an animal. I showed it to some grown-ups and asked them, 'Are you afraid of it?'' But they asked me, ''Afraid? Why should one be afraid of a hat?''

My drawing was not of a hat. To me, it was an elephant. But the grown-ups were not able to understand it. One of those grown-ups even advised me, ''Stop drawing. Devote yourself instead to Geography, Arithmetic or Grammar.'' That is why I gave up drawing. That is why I could not become a great artist.

81. The boy drew a picture of
(1) a forest (2) an animal
(3) a girl (4) a hat

82. 'Afraid?' is
(1) a question (2) a statement
(3) a requst (4) an order

83. But for the advice of grown-ups, the child would have become
(1) a geographer
(2) a mathematician
(3) an artist
(4) a grammarian

84. Why did the child give up drawing?
(1) He was so advised
(2) He wnated to become a mathematician
(3) He had no time for it
(4) It was very difficult to draw

85. The opposite word for 'beautiful' is
(1) tidy (2) lovely
(3) pretty (4) ugly

Passage II

It was a full-moon's night. Bright moonlight flooded the road. I was walking slowly. Suddenly I heard a whistling sound. At first, I thought it was another late evening stroller like me. The sound was loud and cheerful. Suddenly a boy on a bicycle sped past me. I could not see his face. After a few minutes he was back again. This time he stopped a few feet away from me and gave me a smile. He looked like a slim boy of fourteen. He wore a school blazer, a cap and a scarf. His eyes were bright and cool like moon-light. ''You don't have a bell on your bicycle'', I said. He said nothing. I put out my hand but he did not take it. Then quite suddenly he sped past again. The next day I learnt that, that whistling boy was a ghost!

86. Who appeared quite rapidly?
(1) The whistling boy (2) The Author
(3) The moon (4) The bicycle

87. Why could the narrator not see the face of the boy?
(1) He was afraid of the boy
(2) The boy sped past quickly
(3) The boy did not like him
(4) He was an ugly looking boy

88. What did the boy not wear?
(1) A scarf (2) A cap
(3) An overcoat (4) A blazer

89. Why did the boy not take the hands of the stroller?
(1) He was busy (2) He did not like him
(3) He was a ghost (4) He was in hurry

90. What was most unusual about the boy?
(1) He was cycling fast
(2) His eyes were bright but cool like moon-light
(3) He wore a school uniform
(4) He was whistling

Passage III

Simi was a puppy. She was very cute. Asha found her crying in a park. When she picked her up, the puppy stopped crying and looked at her. Asha liked that glance of her and she decided to take her home. Her mother approved the idea. They together gave her the name 'Simi', and happily brought her home.

So far nobody had trained the puppy, so Asha thought she should train her. Next morning she took Simi out and gave her some lessons. A trainer has to be a bit strict. So she punished her when she disobeyed and rewarded her when she did what Asha wanted her to do. On the whole, the training was not so difficult. In a week's time Simi became a good cultured puppy.

91. Asha took the puppy home, because she
(1) pitied her (2) liked her glance
(3) liked dogs (4) needed a puppy

92. "She disobeyed ..." 'She' here refers to
(1) Asha (2) Asha's mother
(3) The puppy (4) The Storyteller

93. What is opposite word for reward?
(1) Encouragement (2) Punishment
(3) Gift (4) Scolding

94. The puppy was named Simi by
(1) Asha
(2) Her mother
(3) Asha and her mother
(4) A friend of Asha

95. Which of the following words means "... did what she wanted her to do"?
(1) Obeyed (2) Performed
(3) Followed (4) Picked

Passage IV

Alexander, on his way back, met a saint. The saint was sitting on a course grassmat and basking in the sunshine. Alexander stood in front of him and hoped that the saint would pay respect to him, but he did not. Instead, he said, "please stand aside. Let the sunshine come to me."

Alexander saked angrily, "Do you know who am I?" The saint did not reply.

" I am an emperor—Alexander the Great", he said, "Emperor ! you ! No, you are not', said the saint. "Yes I am ", said Alexander, "I have conquered half of the world".

To this the saint said, calmly, "The emperors do not roam restlessly like you. Go, man, try to conquer the hearts of the people by love". Alexander bowed and quietly walked away.

96. Why did the saint asked Alexander to stand aside?
(1) He was not a devotee
(2) He was blocking the sunshine
(3) He wandered restlessly
(4) He did not seek permission

97. Which of the following words mean 'conquer'?
(1) Win
(2) Defeat
(3) Tell
(4) Bow

98. What the emperors usually do not do?
(1) Visit a saint (2) Rule an empire
(3) Roam restlessly (4) Bow to saints

99. Which of the following does not describe an emperor?
(1) A ruler (2) A king
(3) An employee (4) A conqueror

100. Hearts of the people can be won by
(1) love (2) power
(3) money (4) sword

Answers

1. (3)	**2.** (1)	**3.** (1)	**4.** (1)	**5.** (2)	**6.** (1)	**7.** (4)	**8.** (2)	**9.** (3)	**10.** (2)
11. (3)	**12.** (3)	**13.** (1)	**14.** (1)	**15.** (3)	**16.** (3)	**17.** (3)	**18.** (3)	**19.** (2)	**20.** (3)
21. (3)	**22.** (1)	**23.** (2)	**24.** (1)	**25.** (1)	**26.** (3)	**27.** (2)	**28.** (2)	**29.** (3)	**30.** (4)
31. (1)	**32.** (3)	**33.** (4)	**34.** (3)	**35.** (1)	**36.** (1)	**37.** (4)	**38.** (4)	**39.** (1)	**40.** (4)
41. (4)	**42.** (2)	**43.** (4)	**44.** (2)	**45.** (3)	**46.** (4)	**47.** (4)	**48.** (2)	**49.** (4)	**50.** (2)
51. (2)	**52.** (4)	**53.** (3)	**54.** (1)	**55.** (2)	**56.** (1)	**57.** (3)	**58.** (2)	**59.** (3)	**60.** (1)
61. (3)	**62.** (2)	**63.** (3)	**64.** (2)	**65.** (4)	**66.** (1)	**67.** (2)	**68.** (3)	**69.** (2)	**70.** (1)
71. (4)	**72.** (2)	**73.** (2)	**74.** (3)	**75.** (1)	**76.** (4)	**77.** (2)	**78.** (3)	**79.** (4)	**80.** (3)
81. (4)	**82.** (1)	**83.** (3)	**84.** (1)	**85.** (4)	**86.** (1)	**87.** (2)	**88.** (3)	**89.** (3)	**90.** (2)
91. (2)	**92.** (3)	**93.** (2)	**94.** (3)	**95.** (1)	**96.** (2)	**97.** (1)	**98.** (3)	**99.** (3)	**100.** (1)

Hints and Solutions

1. In all others, both designs are same.

2. In all others, the eyes are round.

3. In all others, the lines are joined from any where.

4. All others are closed shape.

5. In all others, the inner design is in the shape of X.

6. All other figures are opened upward.

7. In all others, the arrows are in same direction.

8. All other figures have a circular side.

9. In all others, the curved circle is inside.

10. In all others, the small lines and circle is in same direction.

31. In the following figure, the half of the total number of dots come down.

32. The design is moving 90° in clockwise direction and after arc moves 90° in clockwise direction.

33. The angle is increasing 45° by its value subsequently.

34. The design is moving 135° in clockwise direction.

35. In the figure the design (—•) is moving 90° in anti-clockwise direction and the design (→) is moving 60° in clockwise direction.

36. The design is moving 90° in clockwise direction and right corner's side is half eliminated.

37. The design is moving 45° in clockwise direction and the circle is rotating in clockwise direction.

38. The shadded part is moving one part in anti-clockwise direction and '5' sign is moving one part in clockwise direction.

39. The black part is moving two part ahead in clockwise direction.

40. The design is moving 90° in clockwise direction and black shaded part back one part.

41. The Inner design comes outside and outside design moves in the left corner of the design.

42. The problem figure 1 is same as problem figure 3. Thus, the answer figure will be same as problem figure 2.

43. The design is inverted and joining.

44. In the following figure, one line is adding.

45. In the following figure, one line is subtracting.

46. The problem figure 3 is same problem figure 1. Thus, the answer figure will be same as problem figure 2.

47. In the problem figures 1 and 3. The design is moving 90° in clockwise direction.

48. The outer design comes inside.

49. The design is moving 180° in clockwise direction.

50. The problem figure 3 is same as problem figure 1. Thus, the answer figure will be same as problem figure 2.

61. Total number of 4 digits are

$$= 9999 - 999 = 9000$$

62. 37500

63. 171717

64. $\because$ Difference = 10170 – 8369 = 1801

65. 7510

66. 33719

67. $\because$ $316 = 1 \times 316$

$= 2 \times 158$

$= 4 \times 79$

$\therefore$ Factors of 316 are 1, 2, 4, 79, 158, 316.

Hence, 8 is not factor of 316.

68. $\because$ Product of two numbers $= \frac{5}{4}$

One number $= \frac{5}{6}$

Other number $= \frac{5}{4} \div \frac{5}{6} = \frac{5}{4} \times \frac{6}{5} = \frac{3}{2}$

69. In the given series all numbers are prime. Therefore, the next prime number is 13.

70. $\because 1.25 = \frac{125}{100} = \frac{5}{4} = 1\frac{1}{4}$

71.

2	12, 24, 30
2	6, 12, 15
3	3, 6, 15
	1, 2, 5

$\therefore$ LCM $= 2 \times 2 \times 3 \times 2 \times 5 = 120$

72. $\because$ $178 \times 34 = 6052$

$\Rightarrow$ $34 = \frac{6052}{178}$

$\Rightarrow$ $\frac{34}{10} = \frac{6052}{178 \times 10}$

$\Rightarrow$ $3.4 = 60.52 \div 17.8$

73. $0.075 = 0.075 \times 100 = 7.5\%$ (To express number into per cent it is multiplied by 100)

74. $15 \times 4 - 10 \div 5 = 15 \times 4 - 2$

$= 60 - 2 = 58$

75. Let the capacity of drum be x L.

According to the question,

$x - \frac{2}{3}x = 50$

$\Rightarrow$ $\frac{1}{3}x = 50$

$\Rightarrow$ $x = 3 \times 50 = 150$ L

76. $\because$ The CP of 2 dozen brushes

$= 2 \times 10 =$ ₹ 20

SP of 1 brush = ₹ 1

SP of 2 dozen or 24 brushes $= 1 \times 24 =$ ₹ 24

$\therefore$ Profit $= 24 - 20 =$ ₹ 4

77. Maximum price of the oranges will be the HCF of 300 paise, 525 paise and 675 paise.

```
300) 675 (2                    75) 525 (7
     600                           525
     ----------                    ---
      75) 300 (4                    ×
          300
          ---
           ×
```

HCF = 75

$\therefore$ Maximum price = 75 paise

78. Departure of bus from Delhi = 10 : 15 am

Time taken in the journey = 6 h 30 min

$\therefore$ Arrival of bus at Dehradun

$= 10:15 + 6:30$

$= 16:45 = 4:45$ pm

79. $\because$ $\text{Time} = \frac{\text{Distance}}{\text{Speed}}$

$\therefore$ $\text{Time} = \frac{350}{75} = \frac{14}{3} = 4\frac{2}{3}$ h

$= 4$ h 40 min

80. From the graph, Tarun was 90 cm tall at the age of 5.

Jawahar
Navodaya Vidyalaya
Entrance Exam (Class VI)

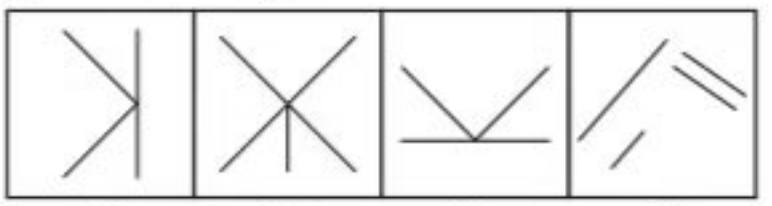
Solved Paper 2007

Section I Mental Ability Test

Part I

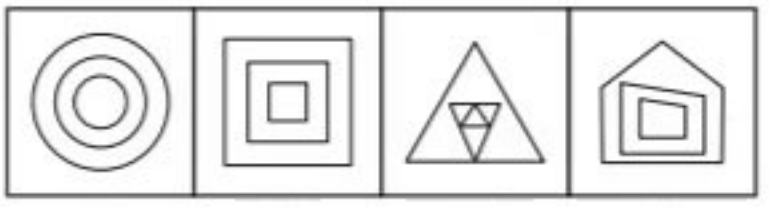
Directions (Q.Nos. 1-10) *In the following questions, four figures* (1), (2), (3) *and* (4) *have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and indicate the correct letter below it.*

1.



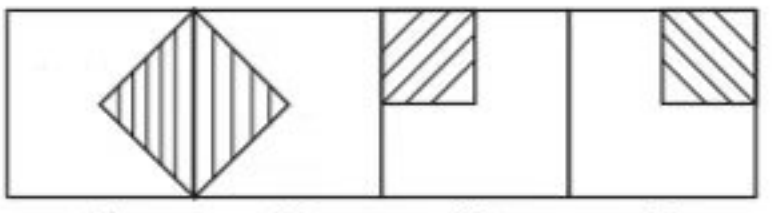
(1) (2) (3) (4)

2.



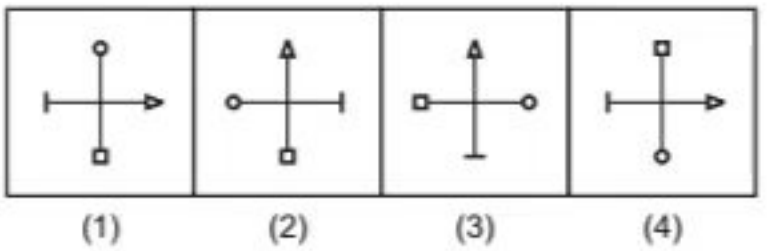
(1) (2) (3) (4)

3.



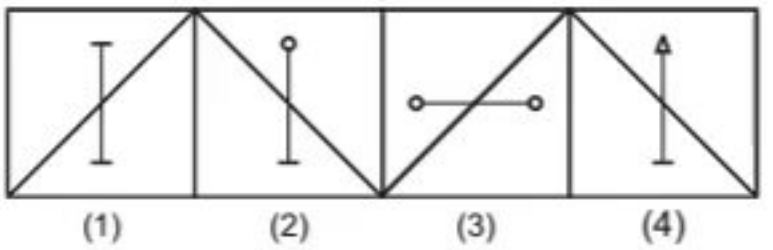
(1) (2) (3) (4)

4.



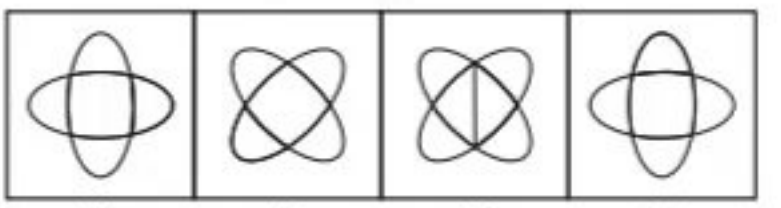
(1) (2) (3) (4)

5.



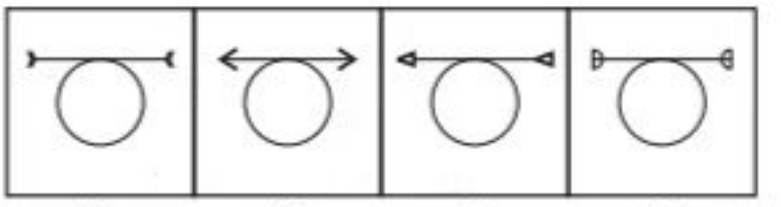
(1) (2) (3) (4)

6.



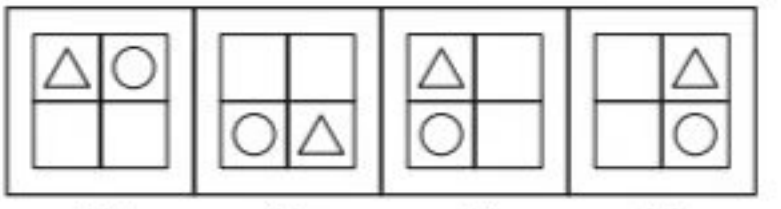
(1) (2) (3) (4)

7.



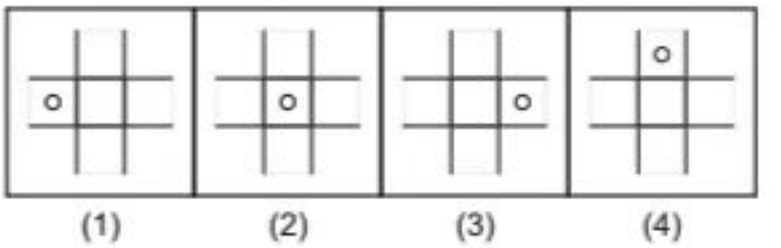
(1) (2) (3) (4)

8.



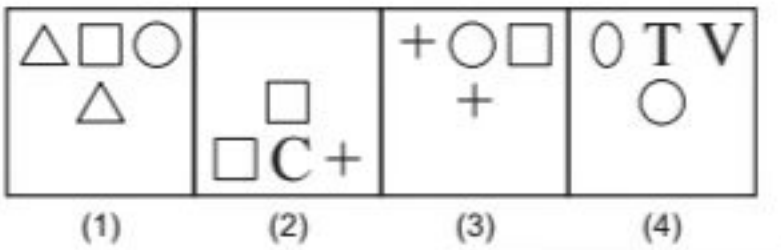
(1) (2) (3) (4)

9.



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

10.



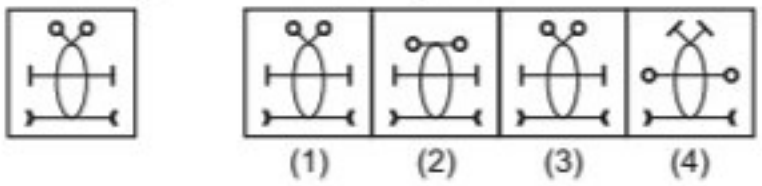
(1) (2) (3) (4)

Based on Memory

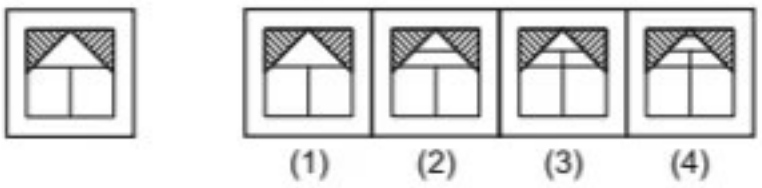
Part II

Directions (Q.Nos. 11-20) *In the following questions, a problem figure is given on the left hand side and four answer figures lettered* (1), (2), (3) *and* (4) *are given on the right hand side. Select the answer figure which is exactly the same as the problem figure and indicate the letter below the correct answer figure.*

11. Prob. Fig. **Answer Figures**



12.



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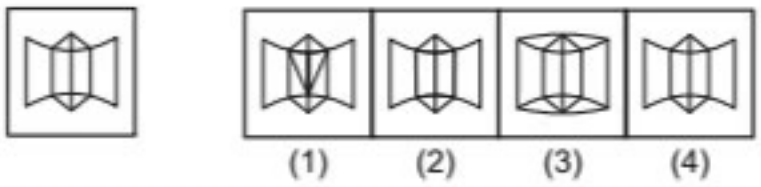

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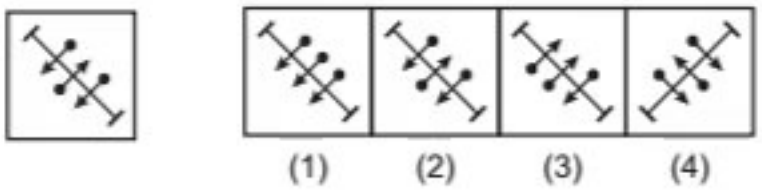
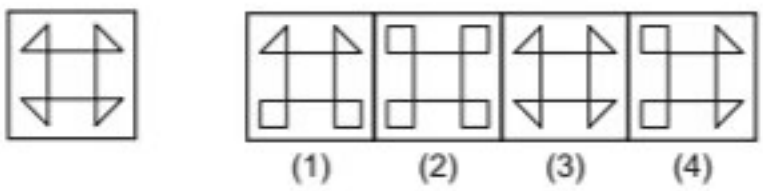
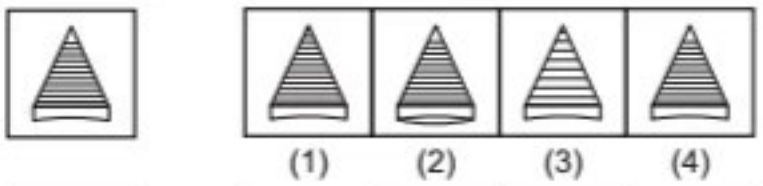


15.



16. Prob. Fig. **Answer Figures**



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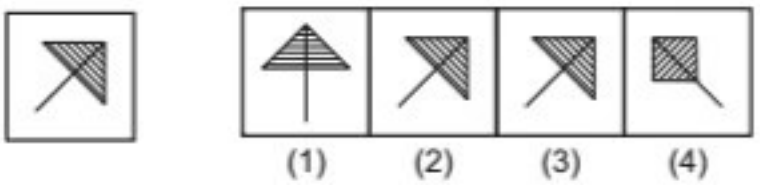

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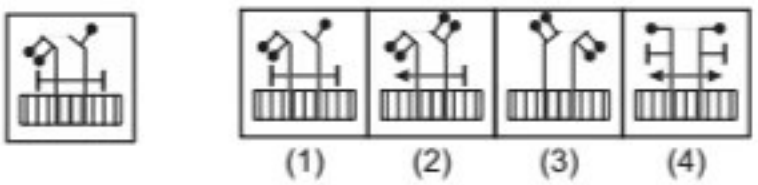

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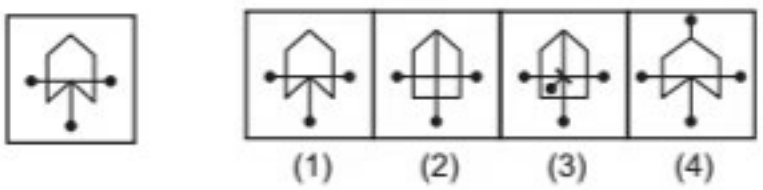
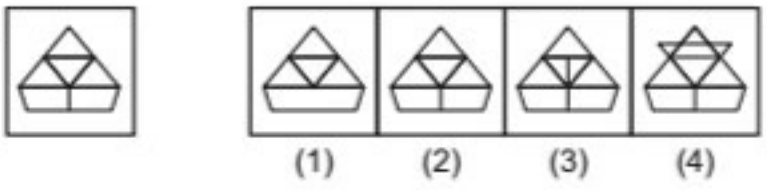


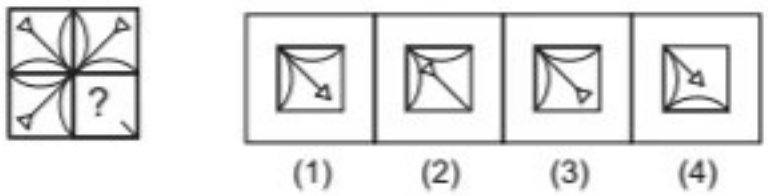
20.



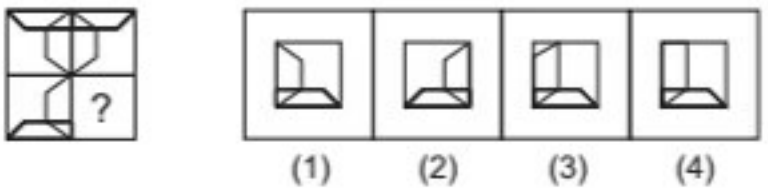
Part III

Directions (Q.Nos. 21-30) *In the following questions, there is a problem figure on the left hand side. A part of which is missing. Observe the answer figures* (1), (2), (3) *and* (4) *on the right hand side and find out the answer figure which, without changing the direction, fits in the missing part of the problem figure in order to complete the pattern in the problem figure. Indicate your answer.*

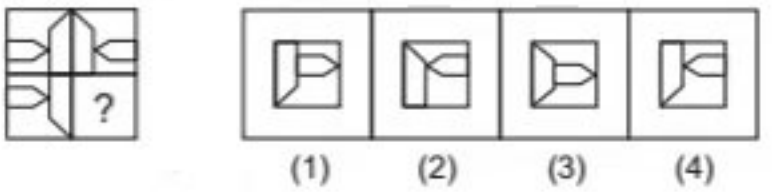
21. Prob. Fig. **Answer Figures**



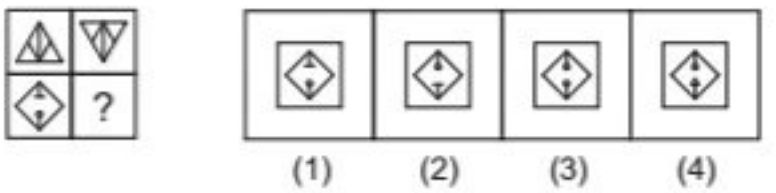
22. Prob. Fig. **Answer Figures**



23. **Prob. Fig.** **Answer Figures**



24.



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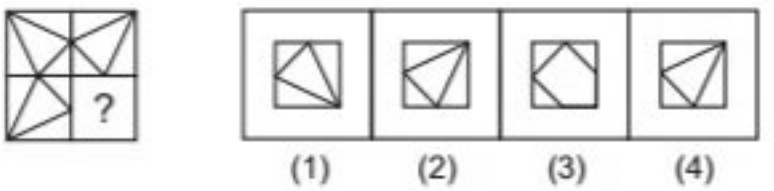

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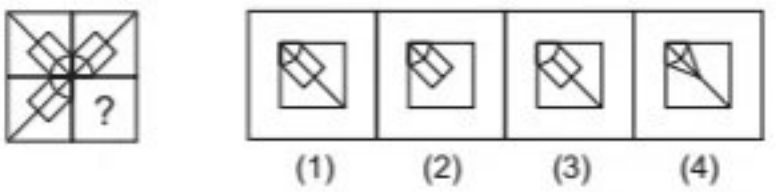
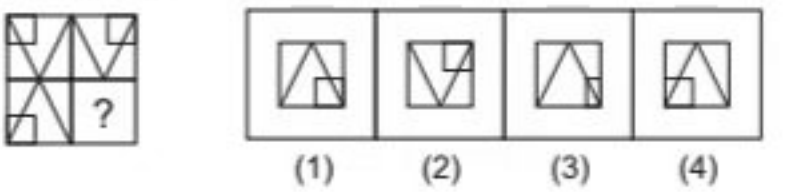
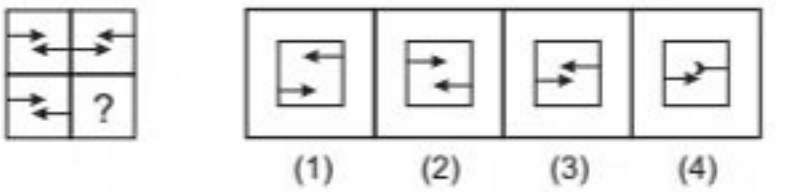


27. **Prob. Fig.** **Answer Figures**



28.



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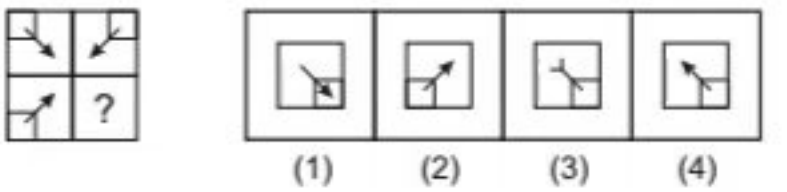

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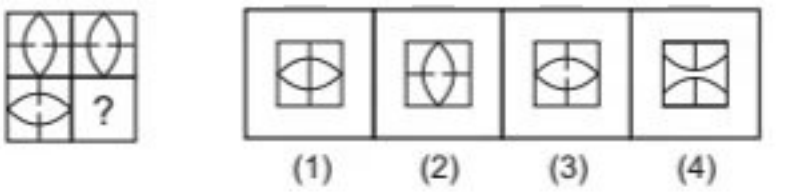
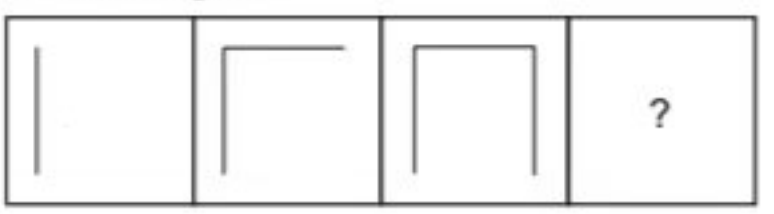
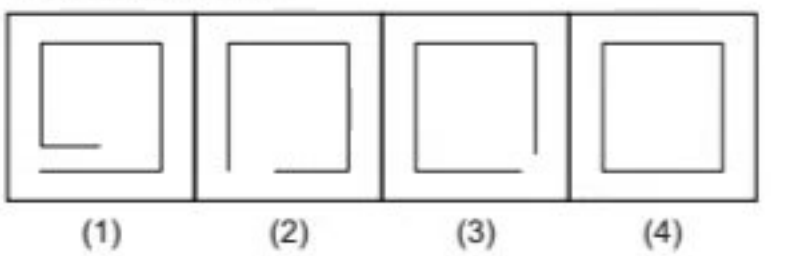


Part IV

Directions (Q. Nos. 31-40) *In the following questions, there are three problem figures and the space for the fourth figure is left blank. The problem figures are in a series. Find out one figure from among the answer figures which occupies the blank space for the fourth figure and which completes the series. Indicate your answer by the letter on the answer figure chosen by you.*

31. **Problem Figures** **Answer Figures**





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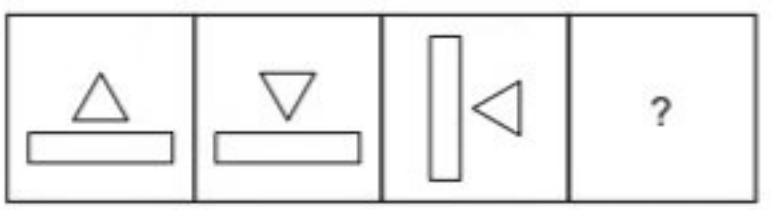
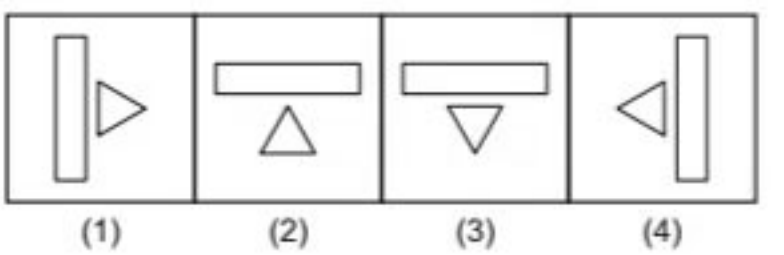
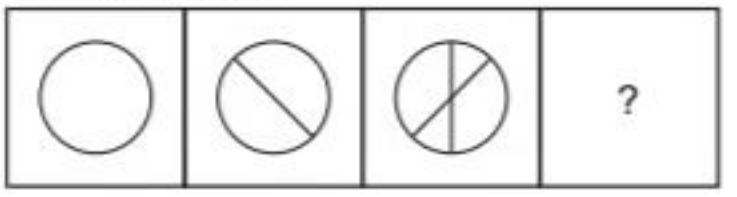
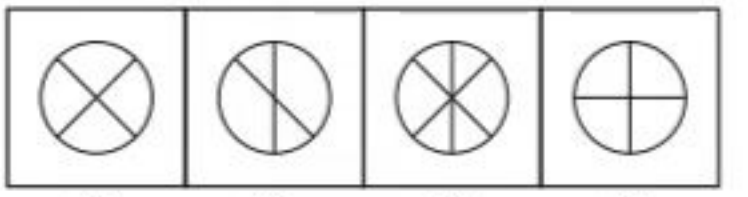




33. **Problem Figures**



Answer Figures



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

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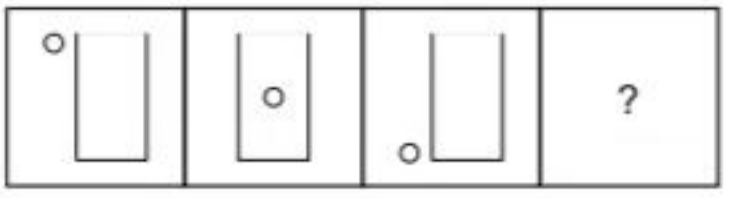

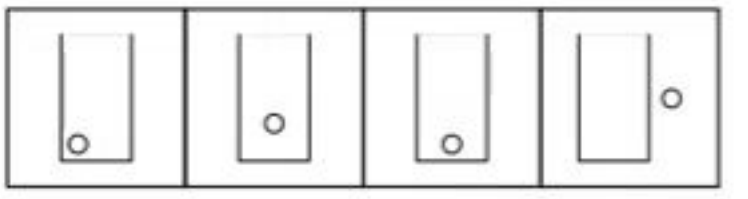

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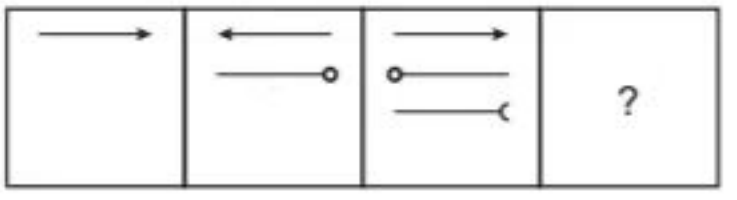

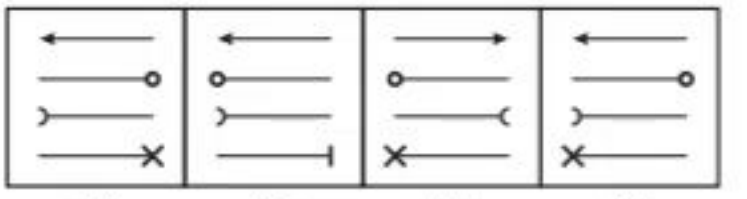

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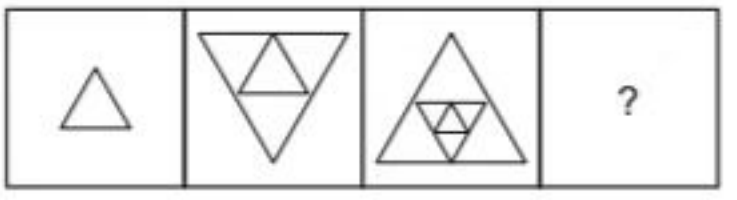

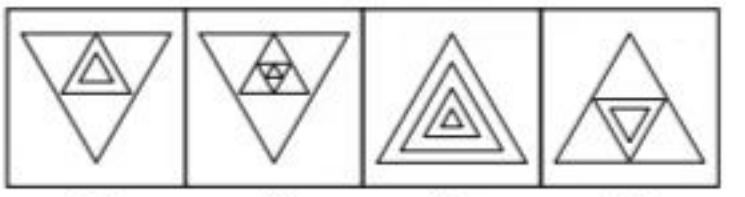

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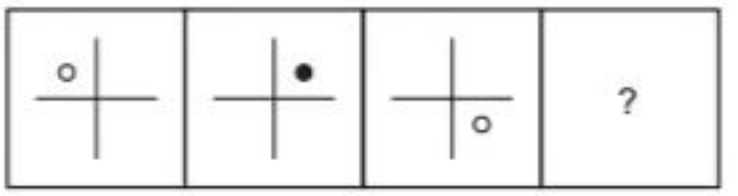

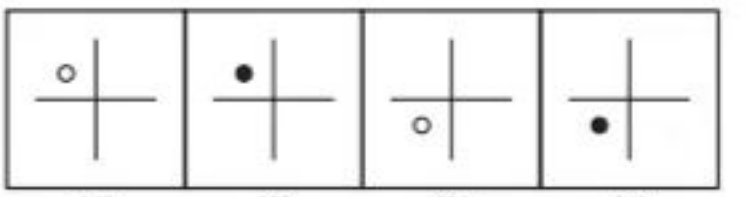

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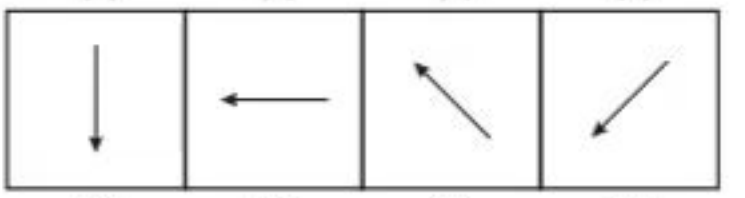

(1) (2) (3) (4)

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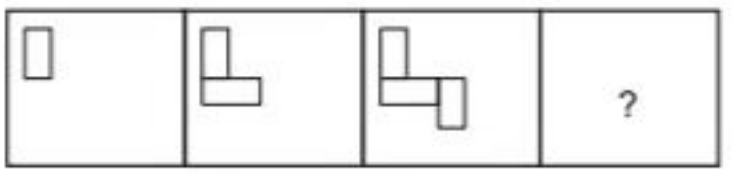

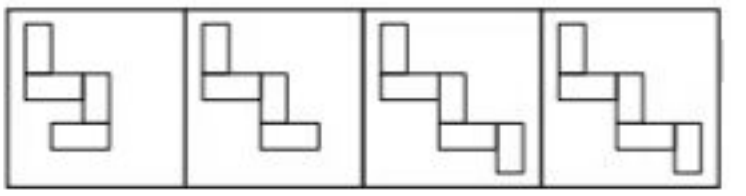

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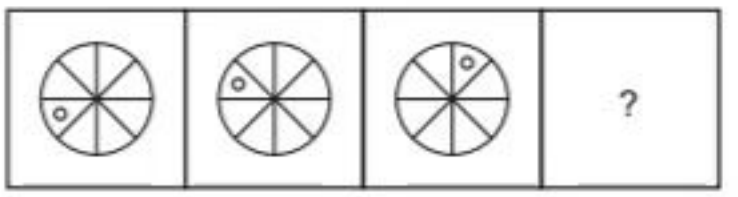
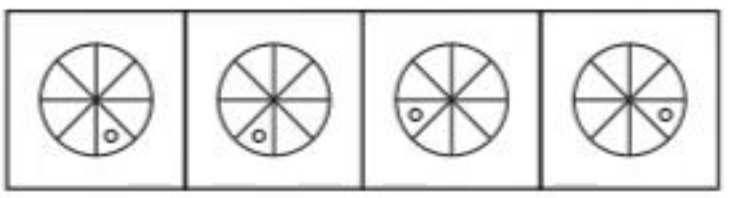


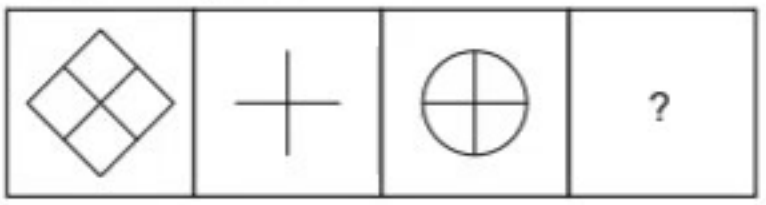


(1) (2) (3) (4)

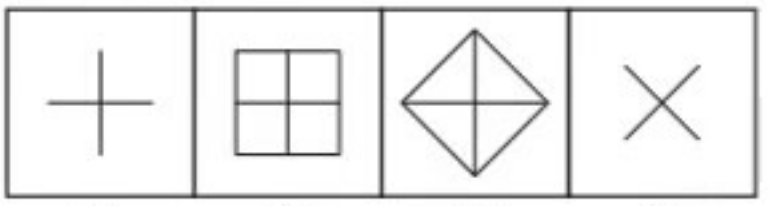
Part V

Directions (Q.Nos. 41-50) *In the following questions, there are three problem figures followed by a mark of interrogation (?) for the fourth one. There exists a relationship between the first two problem figures. A similar relationship should exist between the third and fourth problem figures. Select one figure from the answer figures which replaces the mark of interrogation (?). Indicate the correct letter of the answer figure.*

41. Problem Figures

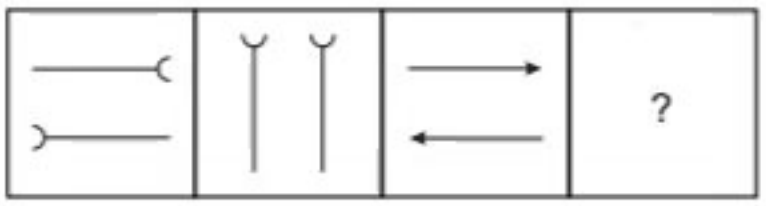


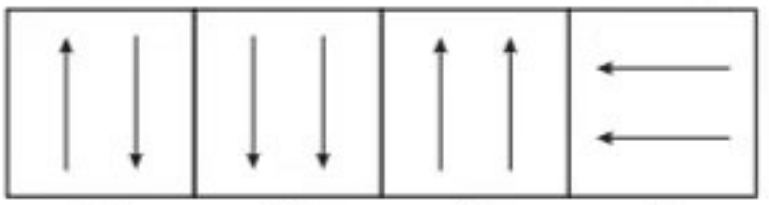
Answer Figures



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

42.





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

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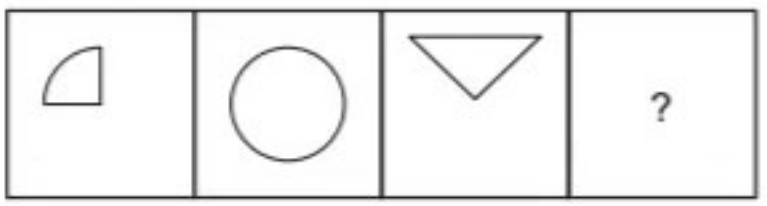

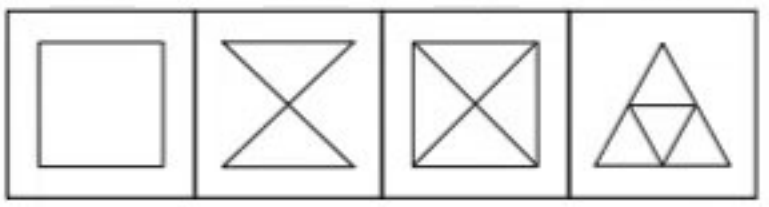

(1) (2) (3) (4)

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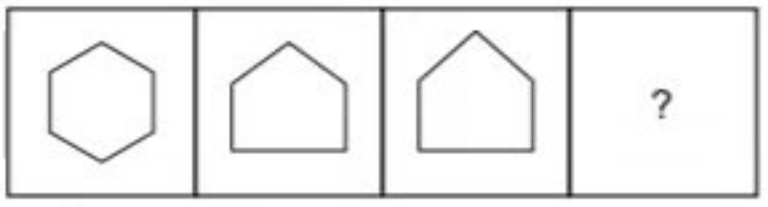

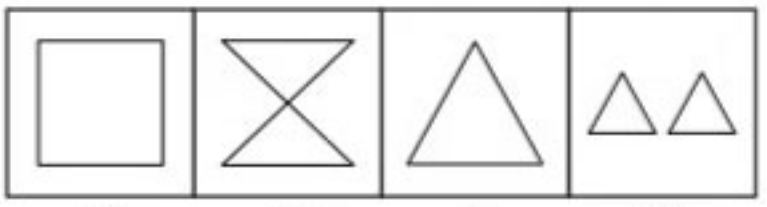

(1) (2) (3) (4)

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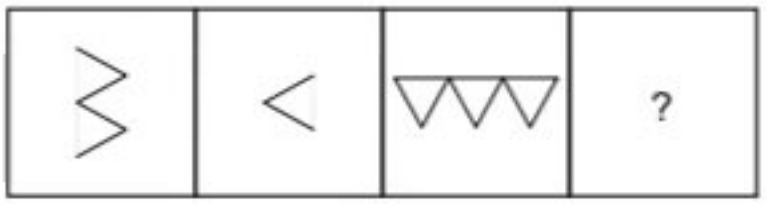
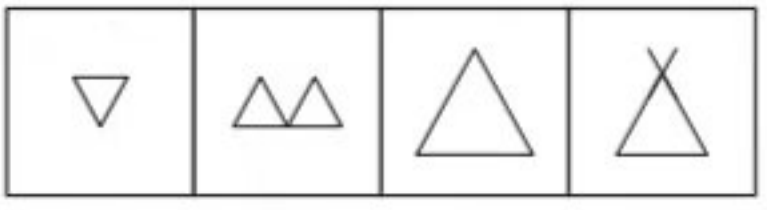
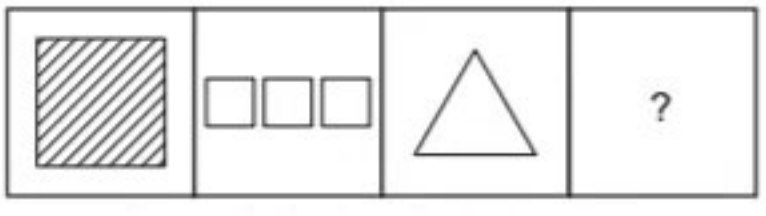
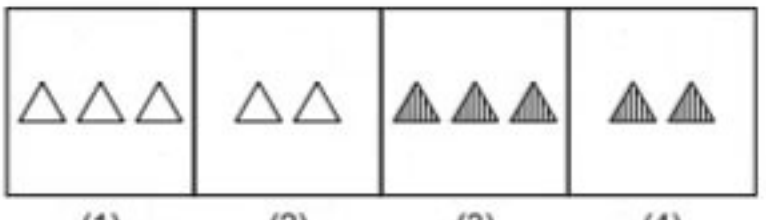




(1) (2) (3) (4)

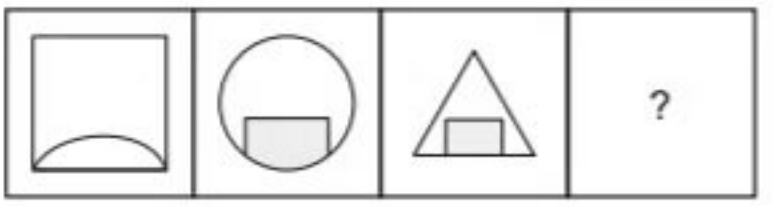
46.



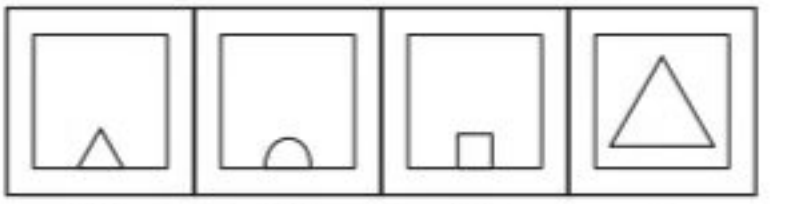


(1) (2) (3) (4)

47. **Problem Figures**

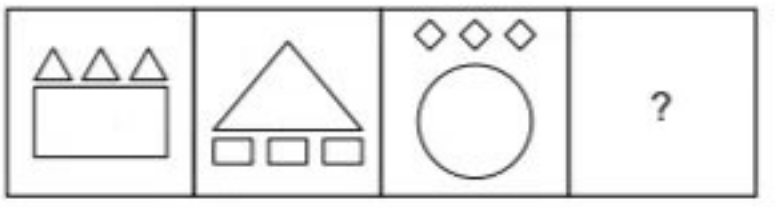


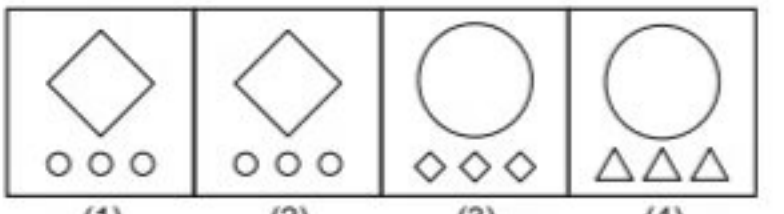
Answer Figures



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

48.





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

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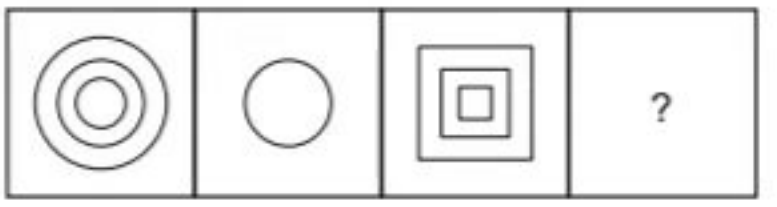

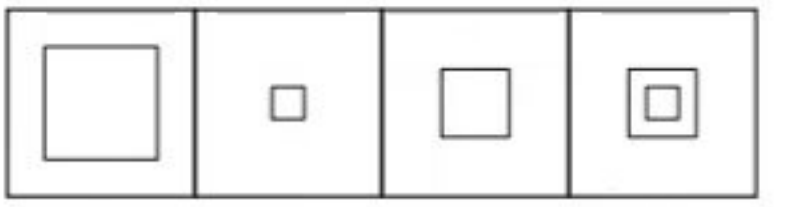

(1) (2) (3) (4)

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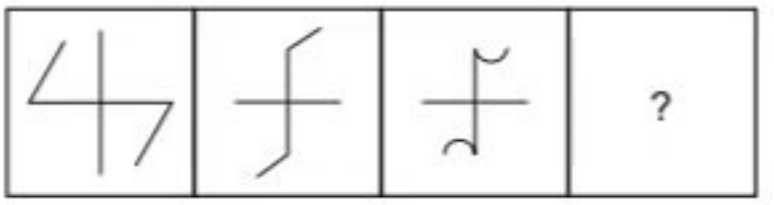
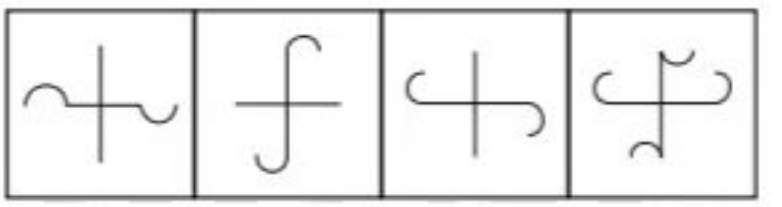




(1) (2) (3) (4)

Part VI

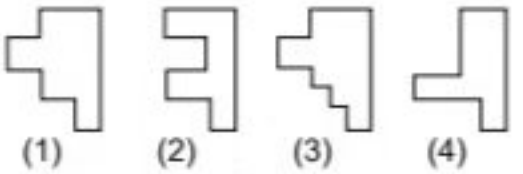
Directions (Q.Nos. 51-60) *In the following questions, one part of a square is given on the left hand side and the other one is among the four figures* (1), (2), (3) *and* (4) *on the right hand side. Find the figure on the left hand side that completes the square. Indicate the correct letter answer of the figure.*

51. **Prob. Fig.**

Answer Figures

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

52.



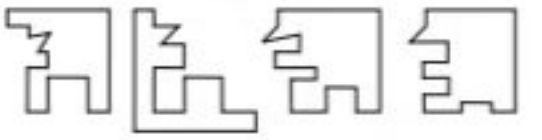
(1) (2) (3) (4)

53.

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

54. **Prob. Fig.**

Answer Figures



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

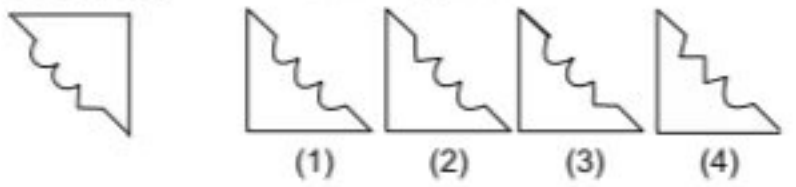
55.

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

56.

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

57. **Prob. Fig.** **Answer Figures**



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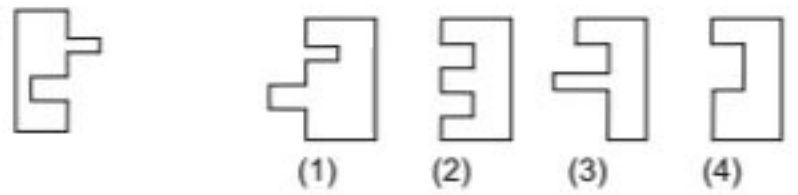
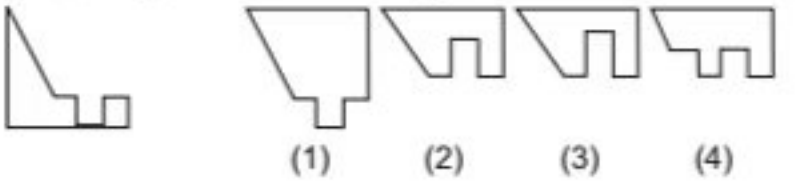


59. **Prob. Fig.** **Answer Figures**



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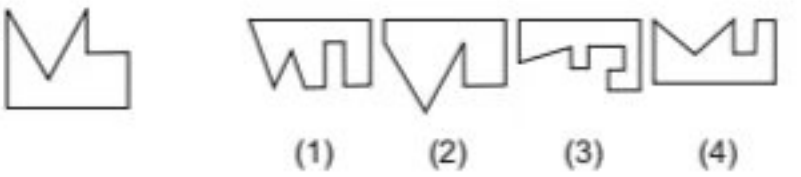


Section II Arithmetic Test

Directions (Q.Nos. 61-80) *Four alternative choices* (1), (2), (3) *and* (4) *are given for the all questions, in which only one is correct. To select the correct answer.*

61. What will be the sum of the numbers from 1 to 25?
(1) 322 (2) 325
(3) 340 (4) 285

62. What will be the HCF of 48, 144 and 576?
(1) 576 (2) 144
(3) 48 (4) 1

63. Simplify $(0.50 + 0.15 \div 0.05) \times \frac{2}{7}$
(1) 1 (2) 0 (3) 3 (4) 5

64. What is the approx value of 16268?
(1) 16200 (2) 16300
(3) 16260 (4) 16270

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

66. Which group of numbers will come in the next row?

6	24	624
7	28	728
8	32	832
?	?	?

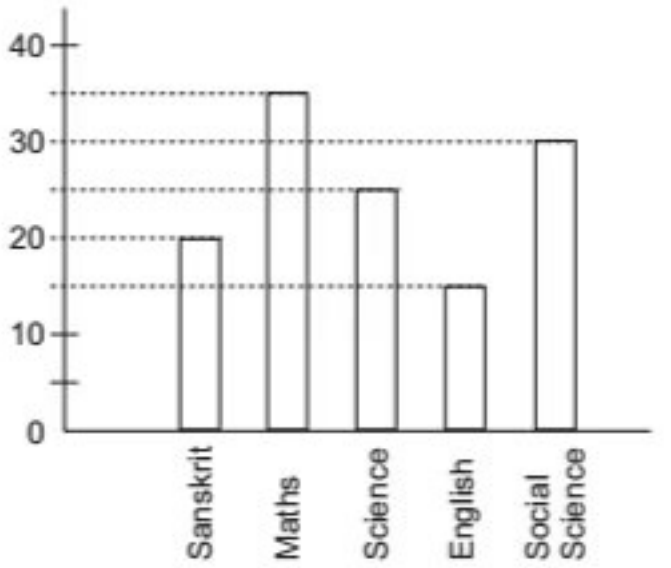
(1) 9, 36, 936 (2) 9, 36, 972
(3) 9, 81, 981 (4) 9, 63, 963

67. The 31st May of a year is Thursday, then the day of the 30th June of the same year will be
(1) Sunday (2) Friday
(3) Saturday (4) Thursday

68. A sum amounted to ₹ 2486 with the interest of 13% per annum, then what is the sum?
(1) ₹ 2300 (2) ₹ 2150
(3) ₹ 2000 (4) ₹ 2200

69. Sampurna Kranti Express departures from Patna at 5 : 50 pm and arrives New Delhi at 8:15 am of the next day. What is the total time of the journey?
(1) 12 h 25 min (2) 14 h 35 min
(3) 14 h 25 min (4) 12 h 35 min

70. In different subjects, the number of passed students in a class of 40 students.



To study the graph say that, what per cent of the student in English has passed?
(1) 36.5 (2) 37.5 (3) 36 (4) 37

71. What is the greatest four digits number in which all the digits are different?
(1) 9876 (2) 9768 (3) 9867 (4) 9786

72. What is the greatest number in the following numbers?
84650, 86450, 85604, 80654
(1) 84650 (2) 86450
(3) 85604 (4) 80654

73. What will be the sum of 4006, 4055, 44004 and 444?
(1) 52209 (2) 52409
(3) 52509 (4) 52309

74. In which number quotient is 23 and remainder is 7. When divided by 17?
(1) 368 (2) 328
(3) 358 (4) 398

75. How much should be added is 5618 and 3845, so that, resultant is 12850?
(1) 3387 (2) 3247
(3) 3347 (4) 3267

76. 2408 × 200 is equal to
(1) 480160 (2) 480016
(3) 481600 (4) 461600

77. The value of $\frac{1}{125}$ is
(1) 0.8 (2) 0.08 (3) 0.008 (4) 0.0008

78. The value of $5-\left(2\frac{1}{2}-\frac{3}{4}\right)+\left(3\frac{1}{2}-1\frac{1}{4}\right)$ is
(1) $4\frac{1}{2}$ (2) $5\frac{1}{2}$ (3) $5\frac{1}{4}$ (4) $3\frac{1}{2}$

79. The product of three numbers is 7980. In which the product of two numbers is 228, then what is the third number?
(1) 25 (2) 15 (3) 16 (4) 35

80. The value of 0.05% is
(1) 0.0005 (2) 0.005 (3) 0.05 (4) 0.5

Section III Language Test (English)

Directions (Q.Nos. 81-100) *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 are correct. You have to choose the correct answer.*

Passage I

A certain king once fell ill and doctors declared that only a sudden fright would restore him to health. But the king was not a man for anyone to play tricks on, except his fool. One day, when the fool was with him in his boat, he cleverly pushed the king into the water. Help had already been arranged and the king was drawn ashore and put to bed. The fright, the bath and the rest in bed cured the diseased king, but he was so angry with the fool that he turned him out of the country. The fool returned, however and the king ordered him to be put to death. Saying privately that he would only repay fright with fright, he directed the executioner not to use the axe but to let fall a single drop of water on the fool's neck. The fool was led to the gallows. The executioner dropped a drop of water on the fool's neck and amidst shouts and laughter the fool was asked to rise and thank the king for his kindness. But the fool never moved; he was dead-killed by his master's joke.

81. How could the sick king be cured?
(1) The fool pushed the king into the water from his boat. The fright so caused, the bath and the rest in bed cured the king of his sickness
(2) The fool arranged for expert doctors who cured the sick king
(3) The doctors attending on the sick king cut with him fine jokes which cured the sick king
(4) The king undertook the treatment given by the doctors very carefully; therefore, he was cured in due course

82. Who alone could afford to play tricks on the king?
(1) The queen alone
(2) The fool alone
(3) The doctor alone
(4) The king's son alone

83. Why did the king turn the fool out of his country?
(1) Because the fool was useless and didn't do anything
(2) Because the fool played a dangerous trick on the king and this made the king very angry with him

(3) Because the doctors had advised him to do so since the fool overstepped his authority
(4) Because the fool had consciously misbehaved with the king

84. How did the fool meet his end?
(1) His master, the king's joke killed him
(2) He was drowned into the water and was killed
(3) The king got him hanged on the gallows
(4) The king turned the fool out of the country; the fool starved and died uncared for

85. Did the king really want the fool to die?
(1) Yes, the king really wanted the fool to die
(2) No, the king didn't really want the fool to die
(3) No mention has been made in the passage regarding the king's intention in this regard
(4) It is difficult to ascertain from king's order to send him to gallows

Passage II

Prevention is better than cure, and it is recognised that the only way to get rid of malaria completely is to get rid of the mosquitoes which cause it. Malaria is always associated with damp and marshy land. This is not because the land is damp, but because stagnant water is the breeding place of the mosquito which begins its life as a larva living in the water. Malaria does not frequently occur in dry desert countries because mosquitoes cannot breed there. The only way to destroy mosquitoes is to prevent their breeding in standing water.

86. What can be a suitable title for the passage?
(1) Prevention is better than cure
(2) How to get rid of malaria
(3) The breeding ground of malaria
(4) The deadly mosquito

87. How does malaria occur?
(1) It is caused by contaminated food
(2) It is caused by contaminated water
(3) It is caused by mosquitoes breeding in damp and marshy land
(4) It is a seasonal disease, no cause is associated with it

88. How can we get rid of malaria?
(1) We can get rid of malaria by destroying mosquitoes and preventing their breeding in standing water
(2) We can get rid of malaria by inoculation
(3) We can get rid of malaria by vaccination
(4) We can prevent malaria by taking quinine pills regularly

89. Why do we not get malaria in the dry desert?
(1) Because the sand of the dry desert kills mosquitoes causing malaria
(2) Because mosquitoes causing malaria do not breed in dry desert
(3) Because there is no pollution in the atmosphere of a dry desert
(4) Because we develop immunity to malaria in the climate of dry desert

90. Give the opposite would of 'stagnant'.
(1) still (2) deep
(3) shallow (4) flowing

Passage III

All the housewives who went to the Kalpatharu Supermarket in Bengaluru had one great ambition : to be the lucky customer who did not have to pay for her shopping. For this was what the notice just inside the entrance promised. It said : 'Remember, once a week, one of our customers gets free goods. This may be your lucky day !' For several weeks Mrs Batliwala hoped, like many of her friends, to be the lucky customer, Unlike her friends she never gave up hope. Her kitchen was full of things which she did not need. Her husband failed to dissuade her. She dreamed of the day when the manager of the Supermarket would approach her and say : ''Madam, this is your lucky day. Everything in your basket is free''.

One Saturday morning, Mrs Batliwala finished her shopping and left the Supermarket. But soon she discovered that she had forgotten to buy tea. She rushed back, got the tea and went towards the cash-desk. As she did so, she saw the manager of the Supermarket come up to her. 'Madam', he said, holding out his hand, "I want to congratulate you ! You are our lucky customer and everything you have in your basket is free".

91. 'It said' What does 'It' stand for?
(1) The notice (2) The cash-desk
(3) The basket (4) The Supermarket

92. What happened on lucky days?
(1) Prize was awarded to the customer having made the largest purchases
(2) One of the customers got free goods
(3) Every customer got some prize money irrespective of what he or she purchased
(4) One of the items of purchase was allowed to be taken free by every customer

93. Why did Mrs Batliwala buy things which she did not need?
(1) She dreamed of the lucky day when she would get every item in the basket free of cost
(2) She was fond of shopping for shopping's sake
(3) She was generous enough to share items, which she did not need, with her friends
(4) She used to flaunt her superiority by buying things which she didn't need

94. 'Her husband failed to dissuade her'. What did her husband want?
(1) Her husband wanted her to continue shopping every day until she became the lucky customer
(2) Her husband wanted her to stop purchasing of things which she did not need
(3) Her husband wanted her not to be misguided by the manager of the Supermarket
(4) Her husband wanted to make purchases himself

95. Why did the manager congratulate Mrs Batliwala?
(1) As she had become their permanent customer
(2) Since she had become the luckiest of all customers
(3) Since he knew that she had got a very generous husband
(4) Mrs Batliwala had become the lucky customer for she did not have to pay for her shopping

Passage IV

A person who looks at the good side of things sees good things. We call such a person an *optimist*. One who looks at the bad side of things is a *pessimist*. One who looks at the good qualities of others will make many friends and live a happy life. The others will make their own as well as the lives of others miserable. We expect others not to look at or mind our bad qualities. Let us remember that the others too expect the same from us. A very good way to live a happy life with several friends is to lean to look at the good qualities of other.

96. Who is an optimist?
(1) One who looks at the dark side of things
(2) One who looks at the good side of things
(3) One who enjoys helping others
(4) One who relishes finding fault with others

97. What do we expect from others?
(1) They must help us
(2) They must be friendly with us
(3) They must not look at or mind our bad qualities
(4) They should live like good neighbours

98. What does a pessimist do?
(1) A pessimist looks at the good side of things
(2) A pessimist looks at the bad side of things
(3) A pessimist believes in making friends with others
(4) A pessimist is a selfish sort of person

99. In what way does being an optimist help one?
(1) It helps one make many friends and live a happy life
(2) An optimist acquires good habits which help him to live happily
(3) An optimist can easily withstand the troubles of life
(4) An optimist helps others, therefore others are always ready to help him

100. Which word in the passage means 'unhappy, pitiable'?
(1) Pessimist
(2) Optimist
(3) Bad
(4) Miserable

Answers

1. (4)	**2.** (4)	**3.** (2)	**4.** (2)	**5.** (3)	**6.** (3)	**7.** (3)	**8.** (3)	**9.** (2)	**10.** (4)
11. (3)	**12.** (1)	**13.** (4)	**14.** (2)	**15.** (3)	**16.** (4)	**17.** (3)	**18.** (1)	**19.** (1)	**20.** (2)
21. (3)	**22.** (1)	**23.** (4)	**24.** (2)	**25.** (1)	**26.** (1)	**27.** (1)	**28.** (3)	**29.** (4)	**30.** (3)
31. (4)	**32.** (1)	**33.** (3)	**34.** (2)	**35.** (1)	**36.** (2)	**37.** (4)	**38.** (4)	**39.** (2)	**40.** (1)
41. (4)	**42.** (3)	**43.** (3)	**44.** (1)	**45.** (2)	**46.** (3)	**47.** (1)	**48.** (2)	**49.** (3)	**50.** (1)
51. (3)	**52.** (1)	**53.** (1)	**54.** (2)	**55.** (4)	**56.** (2)	**57.** (3)	**58.** (1)	**59.** (1)	**60.** (2)
61. (2)	**62.** (3)	**63.** (1)	**64.** (4)	**65.** (2)	**66.** (1)	**67.** (3)	**68.** (4)	**69.** (3)	**70.** (2)
71. (1)	**72.** (2)	**73.** (3)	**74.** (4)	**75.** (1)	**76.** (3)	**77.** (3)	**78.** (2)	**79.** (4)	**80.** (1)
81. (1)	**82.** (2)	**83.** (2)	**84.** (1)	**85.** (2)	**86.** (2)	**87.** (3)	**88.** (1)	**89.** (2)	**90.** (4)
91. (1)	**92.** (2)	**93.** (1)	**94.** (2)	**95.** (4)	**96.** (2)	**97.** (3)	**98.** (2)	**99.** (1)	**100.** (4)

Hints and Solutions

1. There are four (even) and also untouched lining.

2. Out of three figures there are two qualities.

3. In all the figures there are five lining vertically or diagonally except figure (2) which has four lines.

4. There are two pairs group. One is ↦ and •—o . But in figure (2) It is not same.

5. In figure (3), a horizontal line with two circles at the end.

6. Black portion is in the inner part.

7. Lining figure ended with adverse direction figure but in the figure (3) it is in the same direction.

8. Circle is on the right side of the triangle but in the figure (3) it is on the left side.

9. A small point is placed at the centre in figure (2), but it is placed in between two lines in others.

10. All four figures are different in (4).

11. Figure (3) is the same as problem figure.

12. Figure (1) is the same as problem figure.

13. Figure (4) is the same as problem figure.

14. Figure (2) is the same as problem figure.

15. Figure (3) is the same as problem figure.

16. Figure (4) is the same as problem figure.

17. Figure (3) is the same as problem figure.

18. Figure (1) is the same as problem figure.

19. Figure (1) is the same as problem figure.

20. Figure (2) is the same as problem figure.

21. Mirror image of the left figure or water image of the upper figure.

22. Mirror image of the left figure or water image of the upper figure.

23. Mirror image of the left figure or water image of the upper figure.

24. Mirror and water image of the left section figure.

25. Mirror image of the left figure.

26. Mirror image of the left figure.

27. Mirror image of the left figure or water image of the upper figure.

28. Mirror image of the left figure.

29. Mirror image of the left figure or water image of the upper figure.

30. Same of left side figure.

31. One line increases respectively.

32. From figure (1) to (2) only triangle adverses its side. Hence, figure (3) to (4) only triagnle will adverse its side.

33. There should be three diameters now.

34. Black circle is 'out and in' is the respective figure. But in the answer figure (1) and (3) black circle is about to touch the line. Hence, answer will be (2).

35. Arrow and all new figures change their direction in the next figure.

36. There should be four touched triangles together.

37. Move the circle clockwise with black and white respectively.

38. Move 45°, 90° and then 135°, so answer figure is (4).

39. There should be four rectangles in the same form.

40. Black circle moves +1 section, +2 sections and now +3 sections.

41. From figure (1) to (2) diagonal lines (×) becomes (+) so, from (3) to answer figure (+) will become (×).

42. Consider (2) = (3), then 2 = answer figure (3)

43. Figure (1) the quarter portion of the next figure 'circle', hence the answer figure will be just four times of the figure (3).

44. From figure (1) to (2) a single line decreases, hence from figure (3) to answer figure, a single line will decrease.

45. From figure (1) to (2) figure (>) has been reduced and adversed move. Hence, in figure (3) a figure of (Δ) will reduced and adversed move. Hence, answer figure (2) will be the answer.

46. A lining big figure converted into three small without lining figure, hence now a big figure but without lining will convert into three small figures with lining.

47. Size of both figures from (1) to (2) interchanges. Hence, figure (3) will be as answer figure (1).

48. Compare the figure from (1) to figure (2), so that the compare the figure from (3) to answer figure (2).

49. Middle circle of figure (1) is placed in figure (2). Hence, middle rectangle of figure (3) will be placed in the answer figure. So (3) is the answer.

50. Both curve lines move clockwise from figure (1) to figure (2). So, both semicircle will move from figure to the answer figure (1).

51. Answer figure (3) will complete the square.

52. Answer figure (1) will complete the square.

53. Answer figure (1) will complete the square.

54. Answer figure (2) will complete the square.

55. Answer figure (4) will complete the square.

56. Answer figure (2) will complete the square.

57. Answer figure (3) will complete the square.

58. Answer figure (1) will complete the square.

59. Answer figure (1) will complete the square.

60. Answer figure (2) will complete the square.

61. The sum of nth term $= \frac{n(n+1)}{2}$. Here, $n = 25$

$\therefore$ Sum $= \frac{(1+25)\times 25}{2} = \frac{26\times 25}{2} = 25\times 13 = 325$

62.

```
        48) 144 (3
            144
              ×
Again,  48) 576 (12
            48
            96
            96
             ×
```

$\therefore$ HCF = 48

63. $\left(0.50 + 0.15\times\frac{1}{0.05}\right)\times\frac{2}{7}$

$= (0.50 + 3)\times\frac{2}{7} = 3.5\times\frac{2}{7} = \frac{7}{7} = 1$

64. Approx. value of 16268 = 16270

65. Let the cost price = 100% = ₹ 750

Then, the selling price = 100 + 18 = 118%

$= \frac{118\times 750}{100} =$ ₹ 885

66. 6 and 24 becomes 624. Where $6\times 4 = 24$

Hence, 9 and $9\times 4 = 36$ becomes 936

$\therefore$ Next group will be 9, 36, 936.

67. 31st may to 30th June = 30 days

$\therefore$ In 30 days, divided by 7, remainder is 2

$\therefore$ Required day = Thursday + 2 = Saturday

68. Let the sum is 100%, then sum amounted with 13% per annum interest = 100 + 13 = 113%

$\because$ 113% = 2486

$\therefore$ $100\% = \frac{100\times 2486}{113} =$ ₹ 2200

69. Time taken in the journey

= 8 : 15 am of the next day – 5 : 50 pm

= 20 : 15 – 5 : 50 = 14 : 25 = 14 h 25 min

70. $\because$ 40 = 100% $\therefore$ $15 = \frac{15\times 100}{40} = 37.5\%$

71. Arrange it in descending order starting from 9. Hence, required number = 9876

72. 86450 is the greatest number.

73. Required sum = 4006 + 4055 + 44004 + 444

= 52509

74. Number $= 17\times 23 + 7 = 391 + 7 = 398$

75. Required number = 12850 – (5618 + 3845)

= 12850 – 9463 = 3387

76. $2408\times 200 = 481600$

77. Required value = 0.008

78. $5 - \left[\frac{5}{2} - \frac{3}{4}\right] + \left[\frac{7}{2} - \frac{5}{4}\right]$

$= 5 - \left[\frac{10-3}{4}\right] + \left[\frac{14-5}{4}\right] = 5 - \frac{7}{4} + \frac{9}{4}$

$= \frac{20-7+9}{4} = \frac{22}{4} = \frac{11}{2} = 5\frac{1}{2}$

79. Third number $= \frac{7980}{228} = 35$

80. $0.05\% = \frac{0.05}{100} = 0.0005$

Jawahar *Navodaya Vidyalaya* Entrance Exam (Class VI)

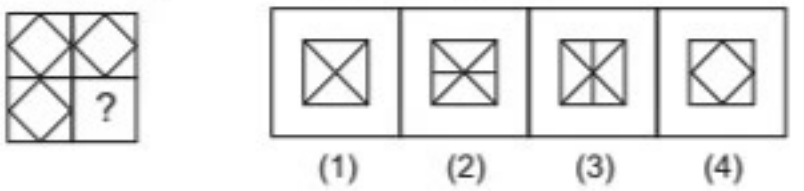
Solved Paper 2006

Section I Mental Ability Test

Part I

Directions (Q.Nos. 1-15) *In the following questions, a problem figure is given on the left side of the line which is incomplete. One, out of the four answer figures* (1), (2), (3) *and* (4) *on the right hand side can complete the same. You have to locate the answer figure which if inserted in the problem figure, without changing the direction, completes the same.*

1. Prob. Fig. **Answer Figures**



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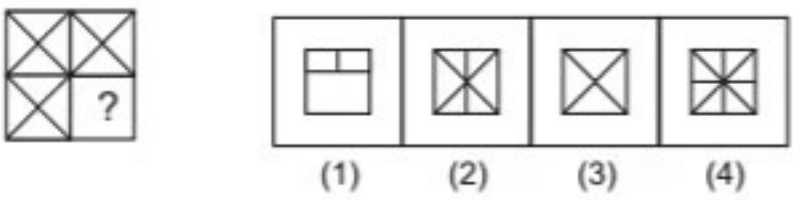

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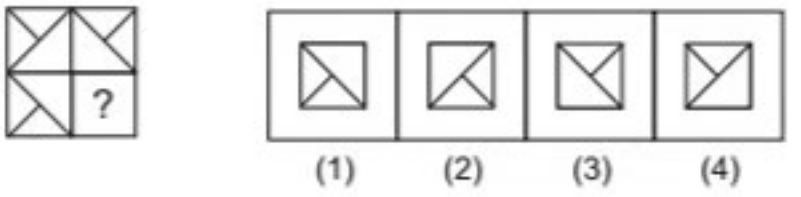

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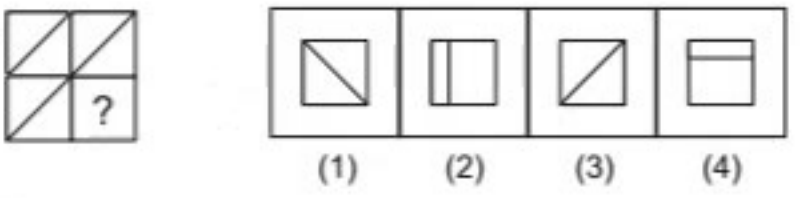
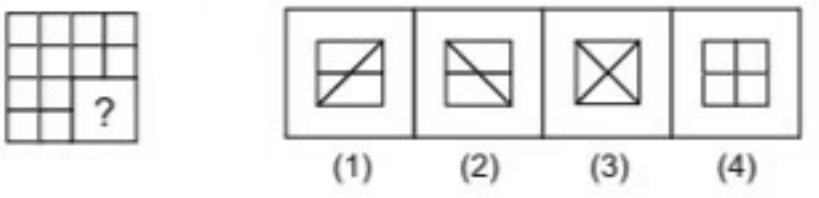
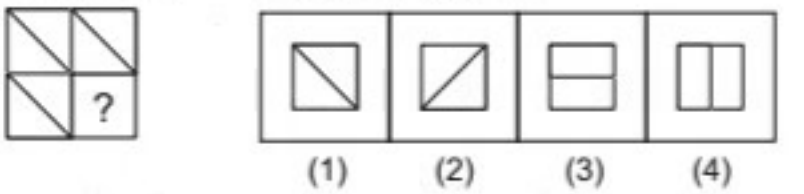


5.



6. Prob. Fig. **Answer Figures**



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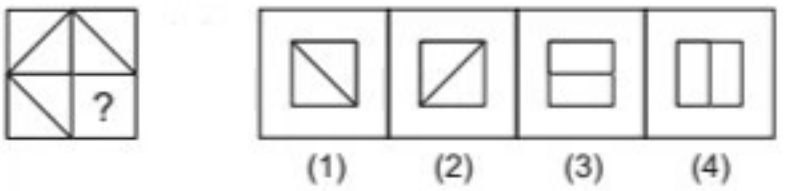

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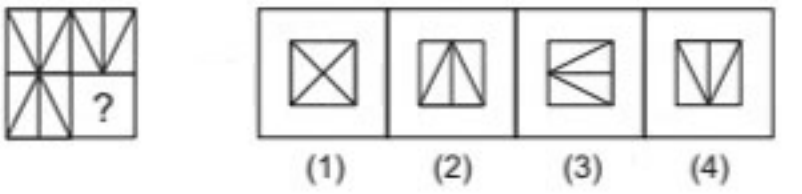

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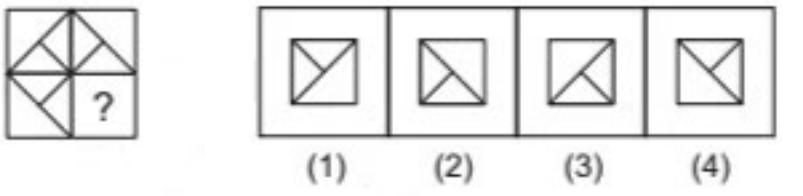

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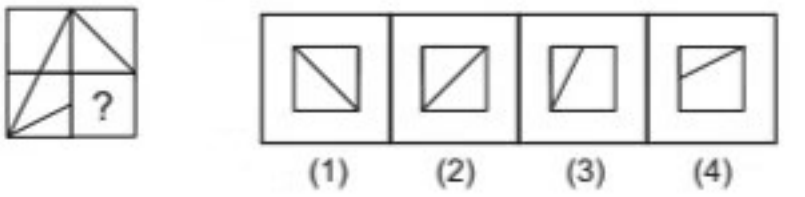
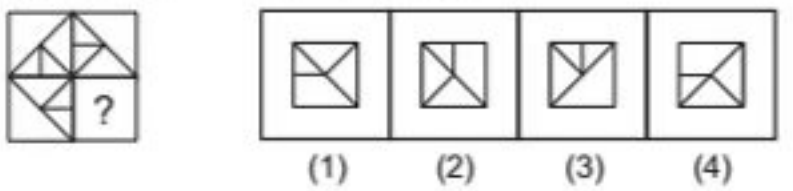
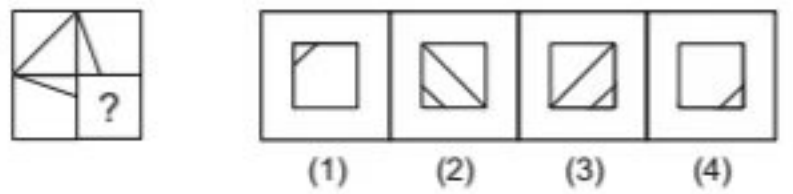


Based on Memory

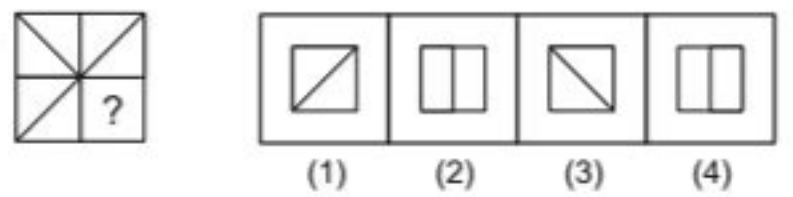
11. **Prob. Fig.** **Answer Figures**



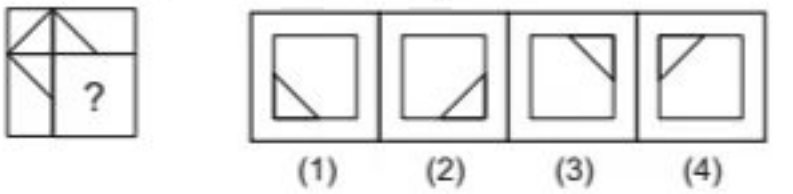
12.



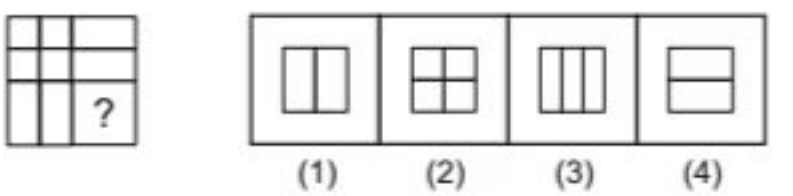
13.



14. **Prob. Fig.** **Answer Figures**



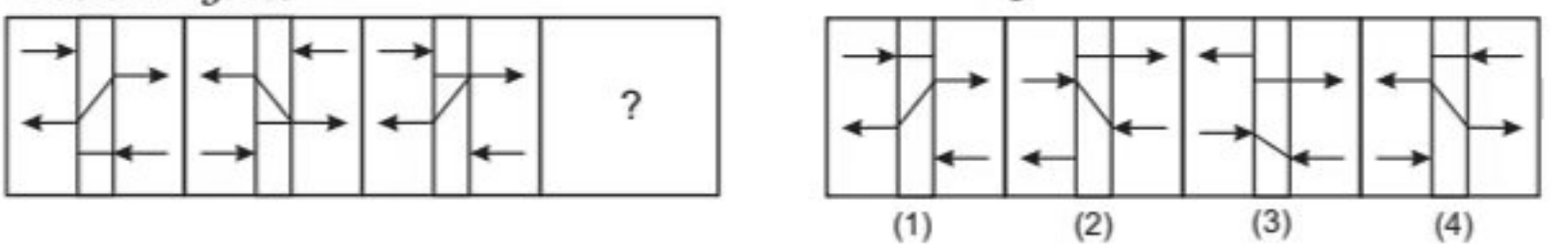
15.



Part II

Directions (Q.Nos. 16-30) *In the following questions, there are three problem figures and the space for the fourth figure is left blank. The problem figures are in series. Pick one figure from among the answer figures given below which occupies the blank space for the fourth figure and which completes the series. Indicate your answer.*

16. **Problem Figures** **Answer Figures**



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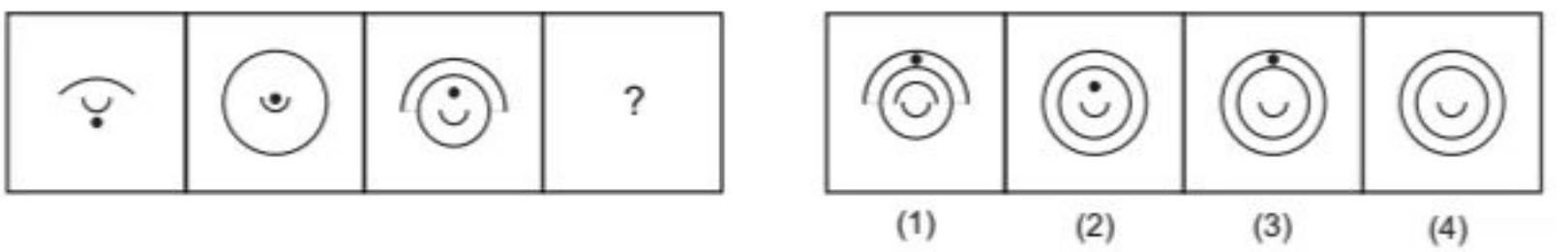

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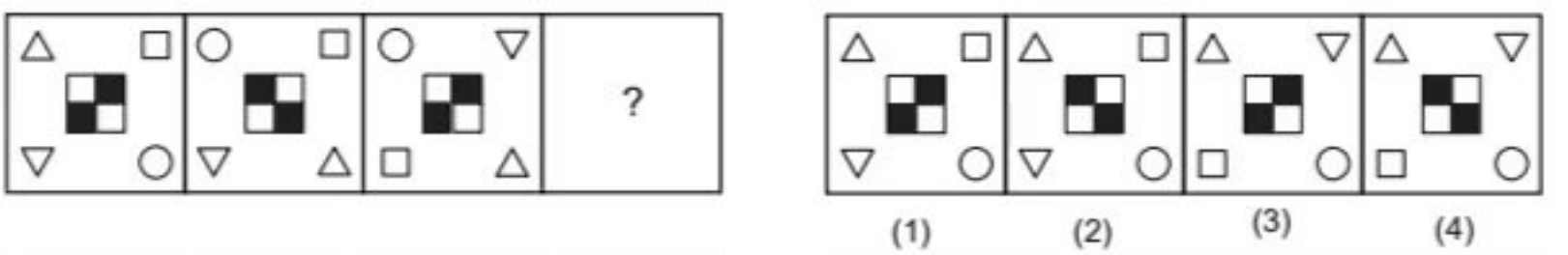

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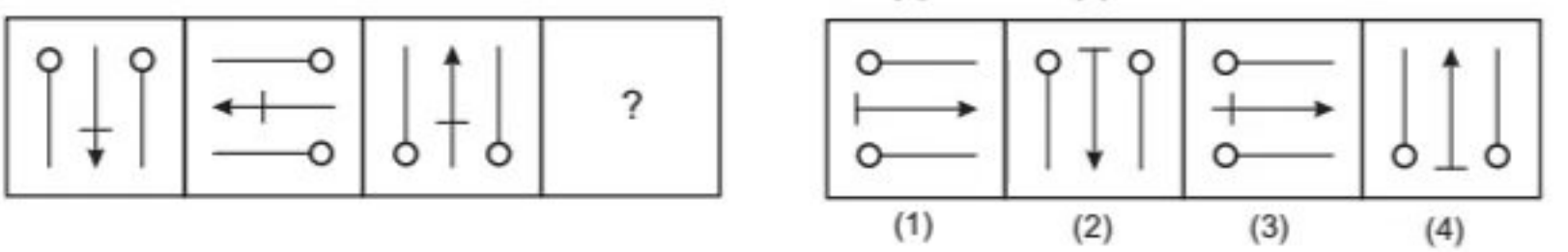
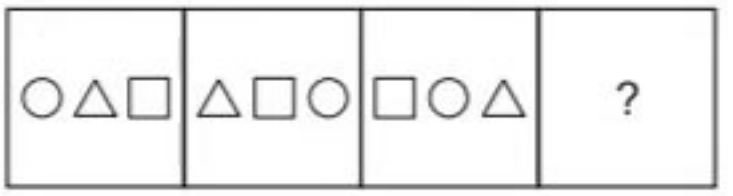
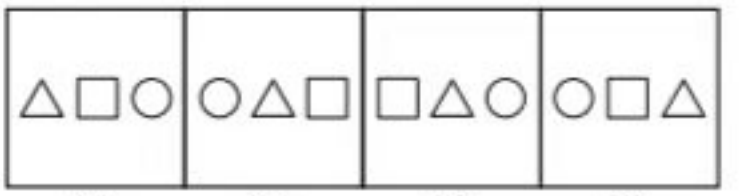


20. **Problem Figures**



Answer Figures



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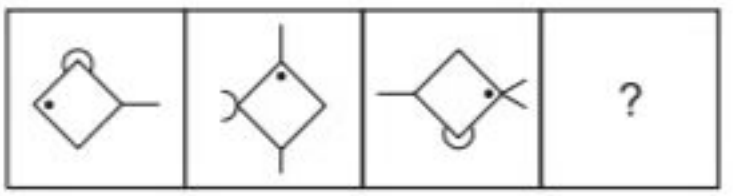

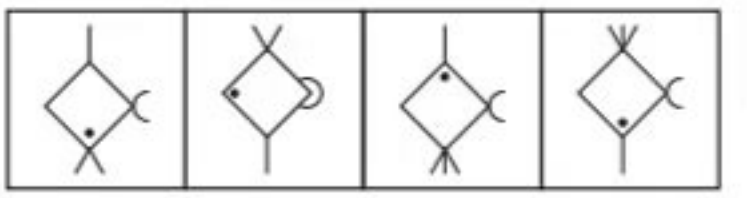

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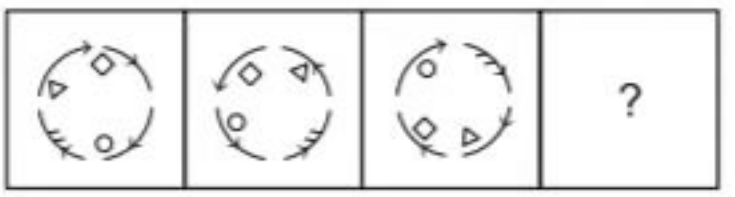

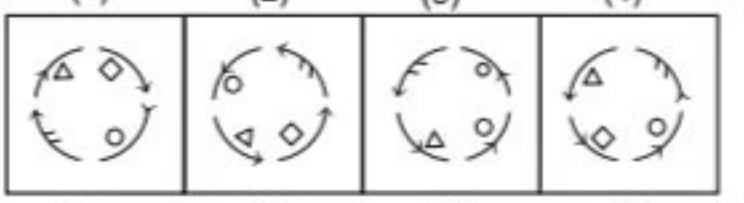

(1) (2) (3) (4)

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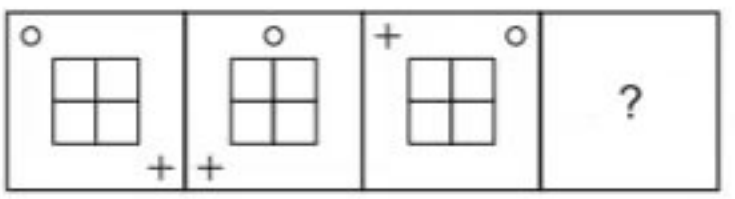

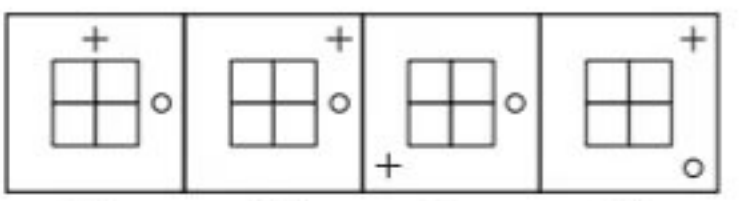

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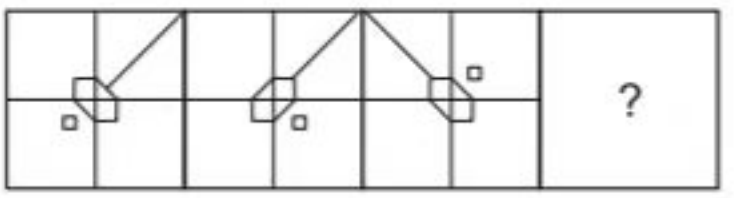

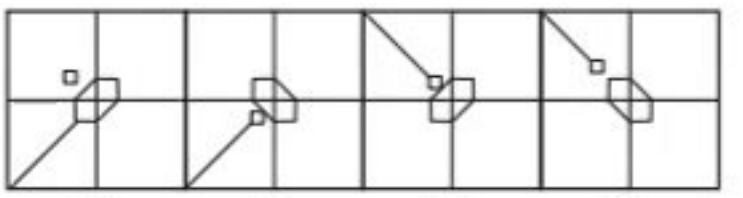

(1) (2) (3) (4)

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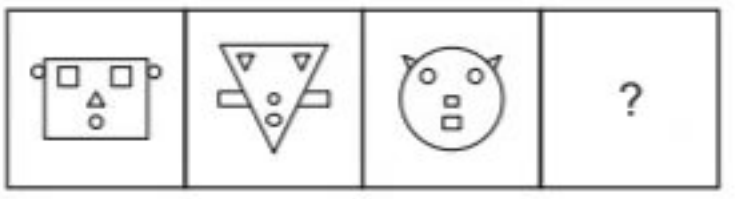

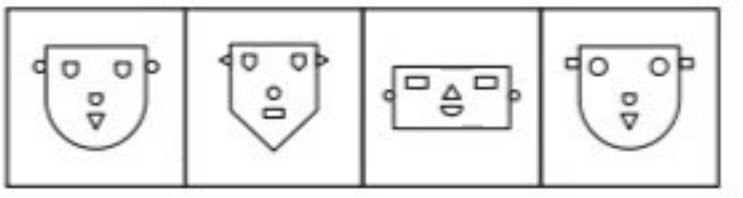

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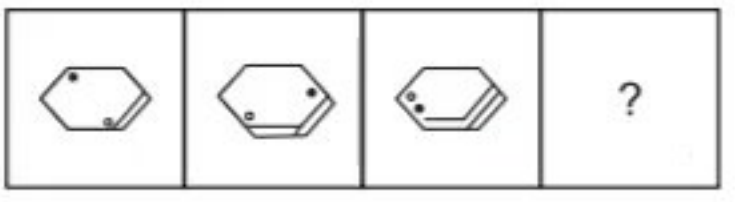

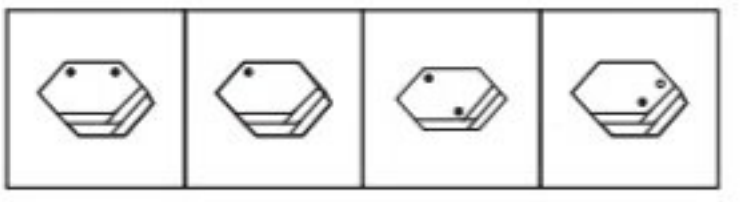

(1) (2) (3) (4)

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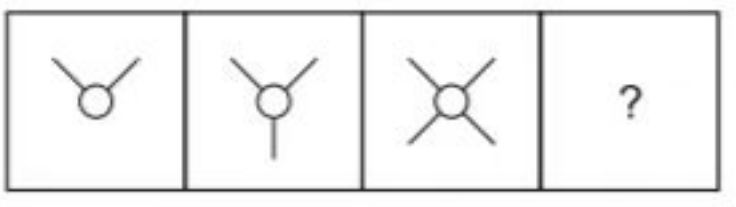
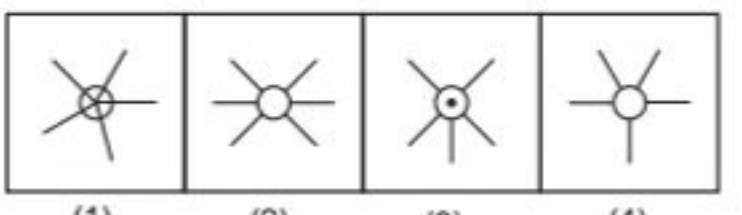
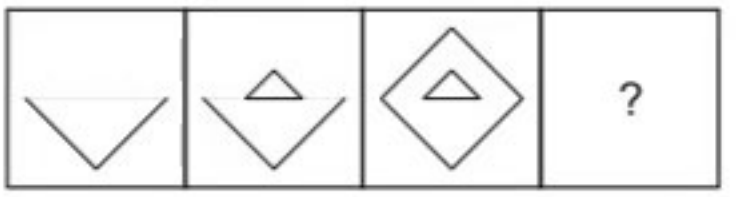


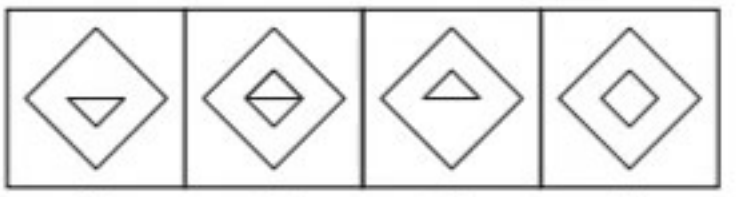


(1) (2) (3) (4)

28. **Problem Figures**



Answer Figures



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

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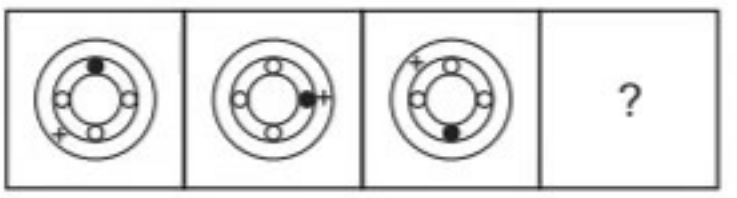

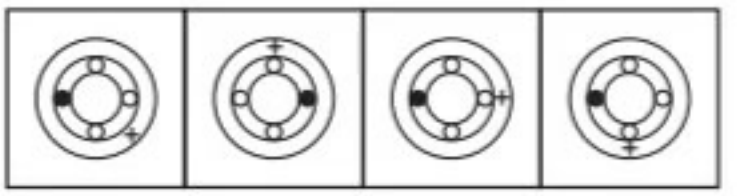

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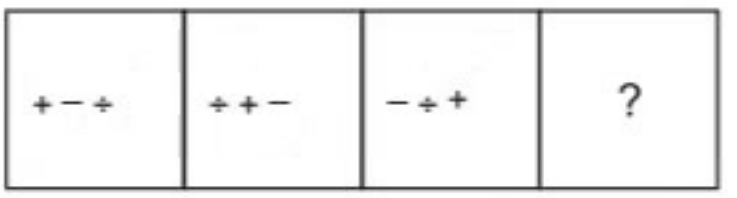
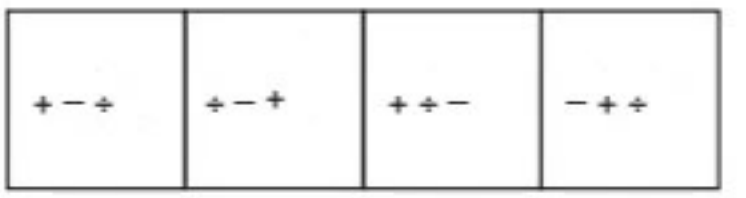


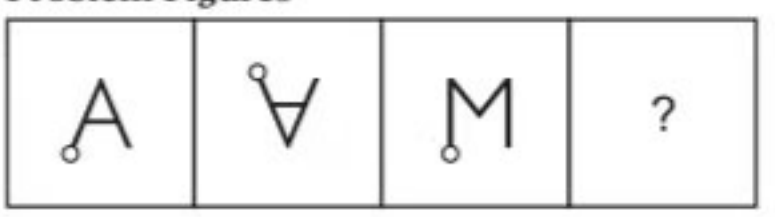


(1) (2) (3) (4)

Directions (Q.Nos. 31-45) *There are three problem figures are given on the left side. There is some relationship between the first and second figure. Same relationship should exist between the third and fourth figure. Fourth space is left blank. Select the figure from the answer figures given below, which fits suitably in the fourth space. That will be your answer.*

Part III

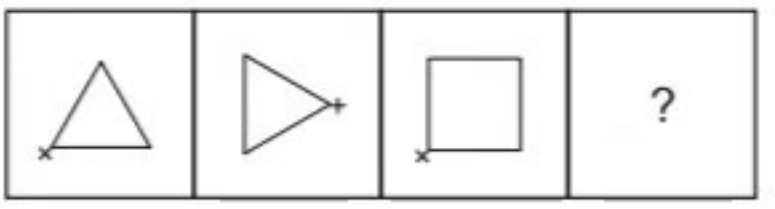
31. **Problem Figures**

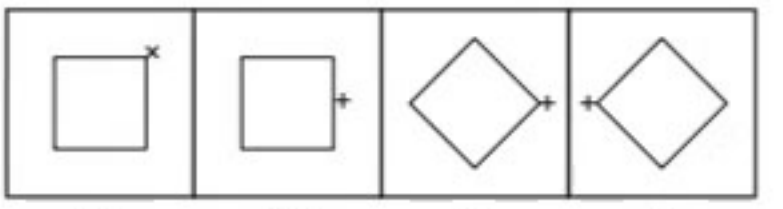


Answer Figures

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

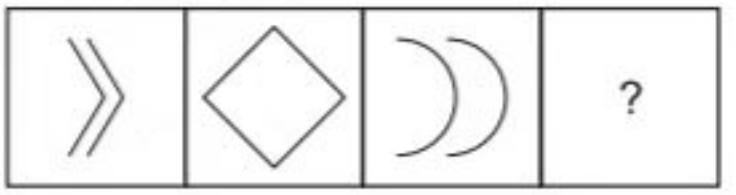
32.





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

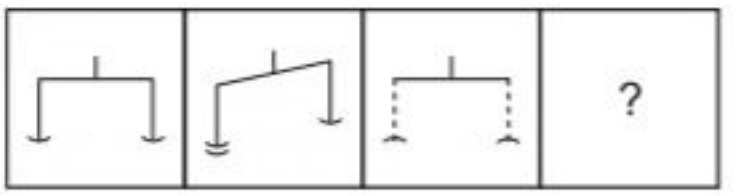
33. **Problem Figures**

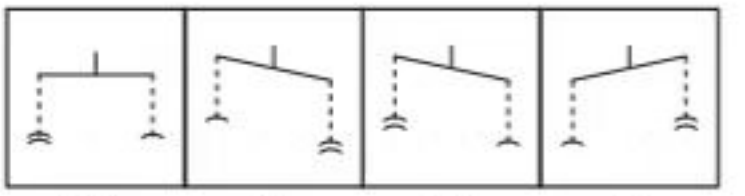


Answer Figures

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

34.





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

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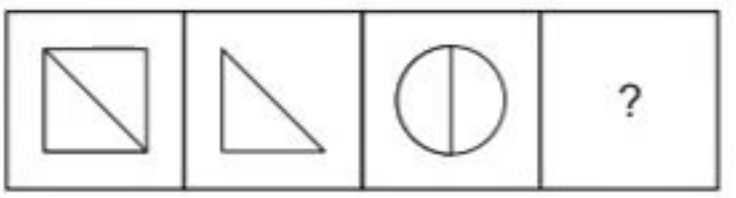

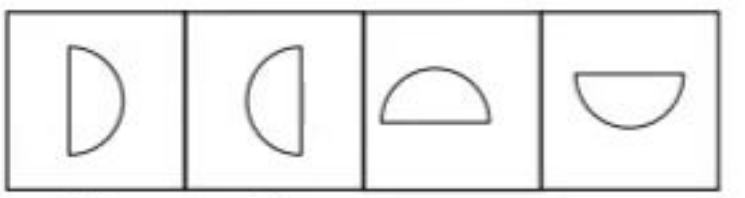

(1) (2) (3) (4)

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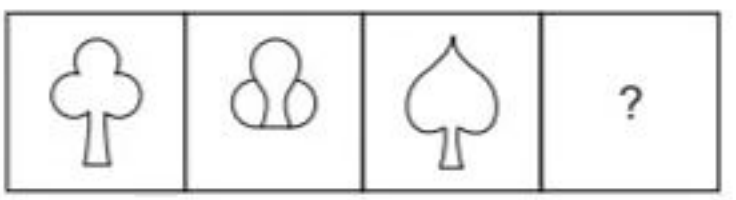

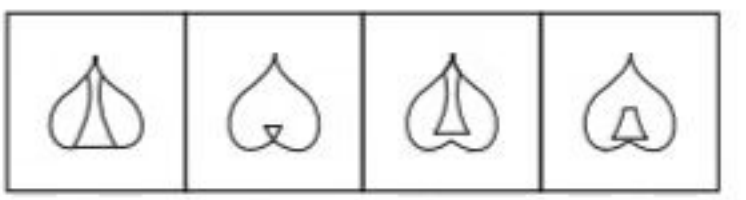

(1) (2) (3) (4)

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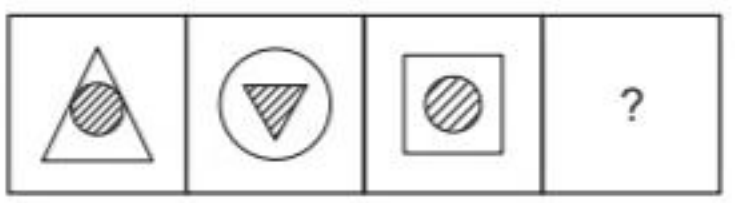

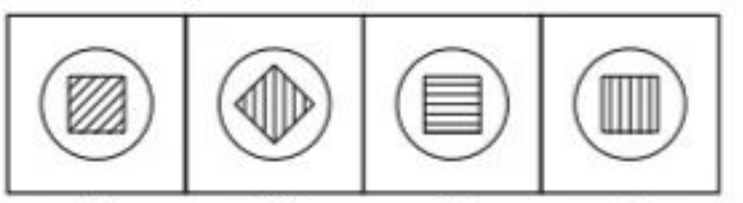

(1) (2) (3) (4)

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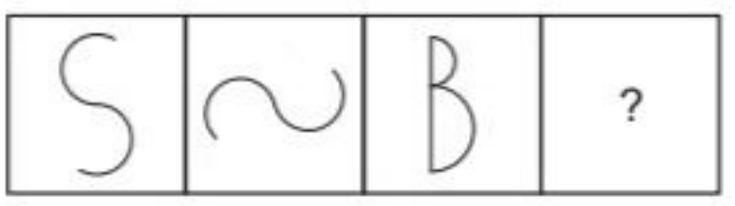

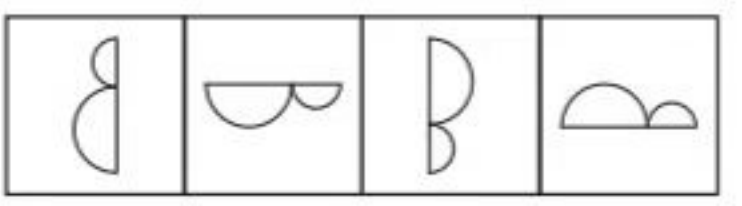

(1) (2) (3) (4)

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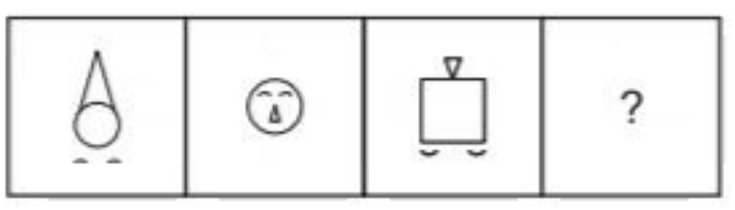

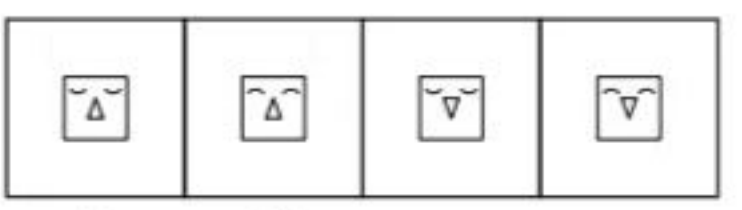

(1) (2) (3) (4)

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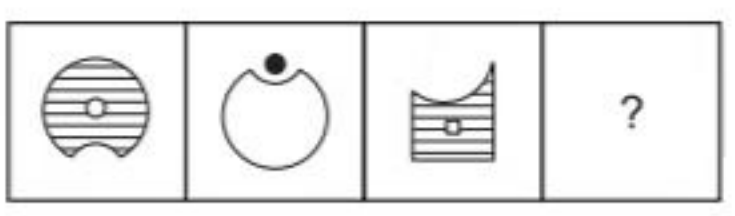
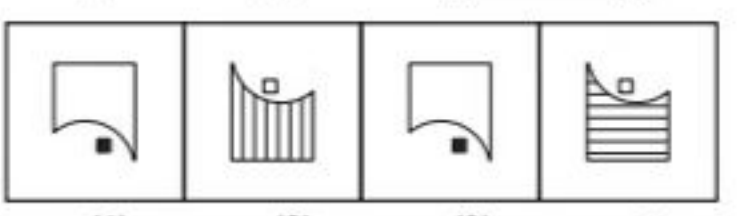
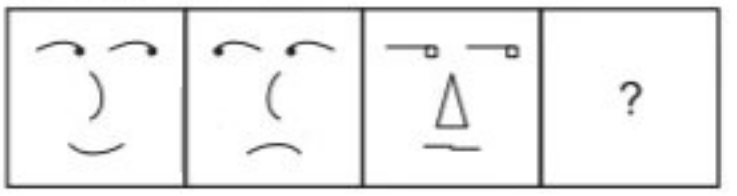


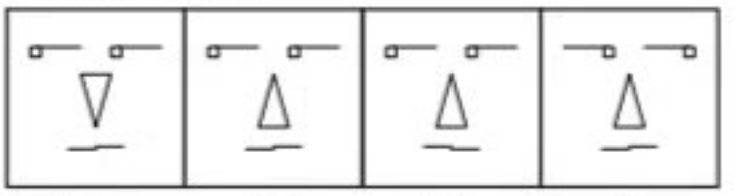


(1) (2) (3) (4)

41. **Problem Figures**



Answer Figures



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

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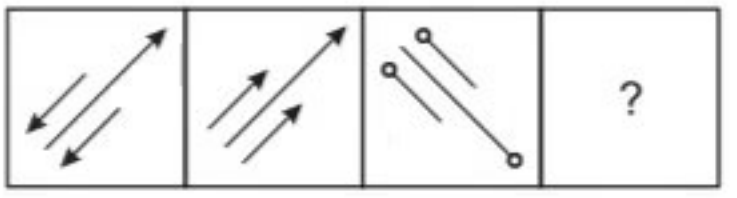

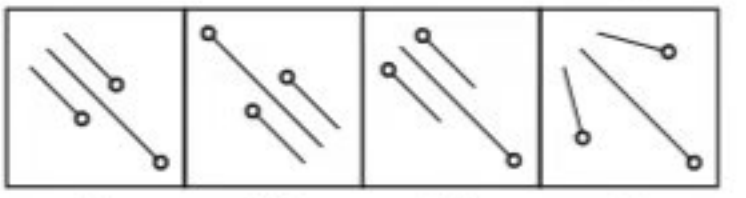

(1) (2) (3) (4)

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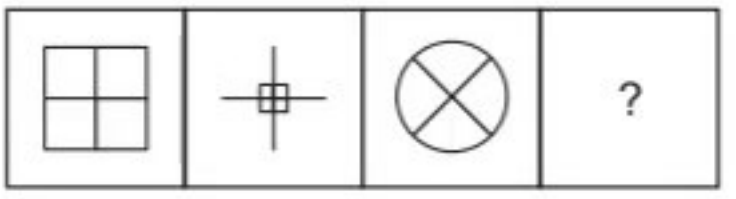

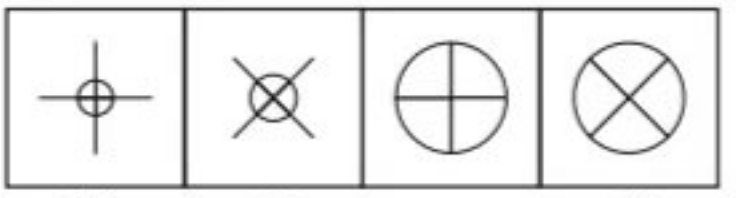

(1) (2) (3) (4)

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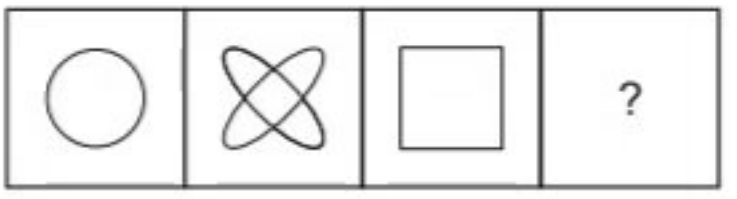
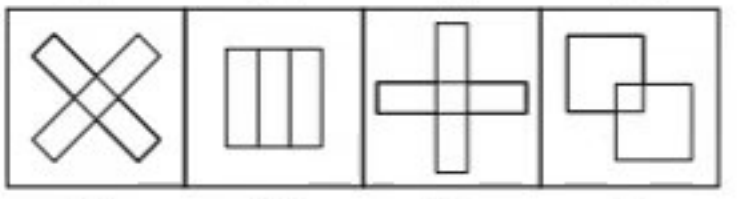
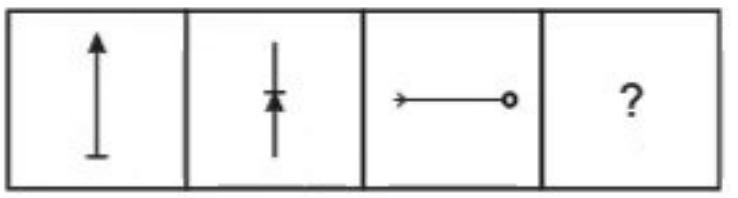
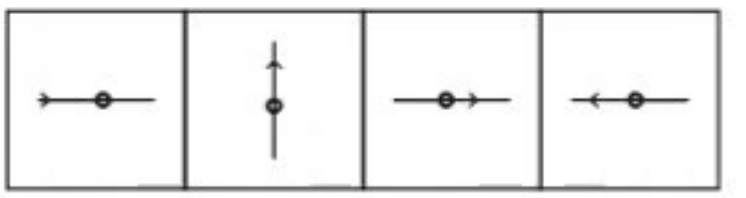




(1) (2) (3) (4)

45.



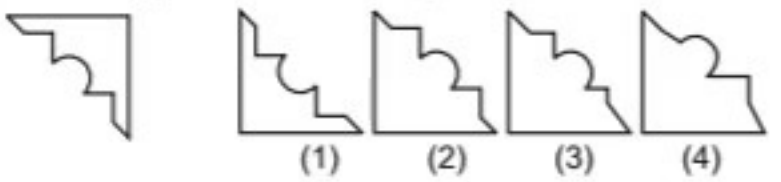


(1) (2) (3) (4)

Part IV

Directions (Q.Nos. 46-60) *In the following questions one part of a square is on the left hand side and the other one is among the four figures* (1), (2), (3) *and* (4) *on the right hand side. Find the figure on the right hand side that completes the square.*

46. Prob. Fig. **Answer Figures**



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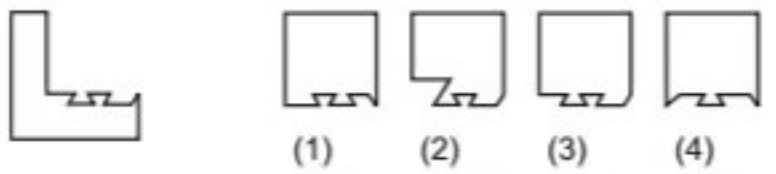

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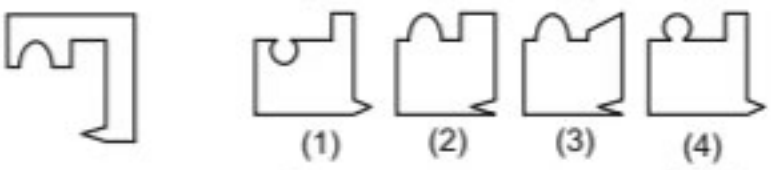

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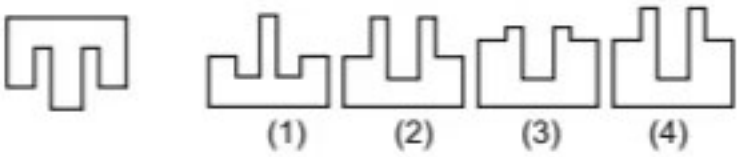
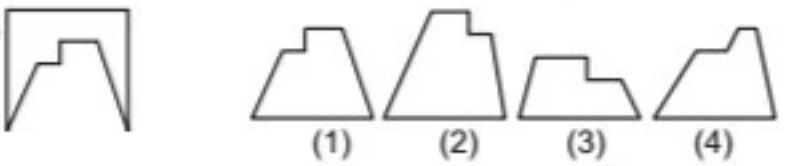


50.

51.



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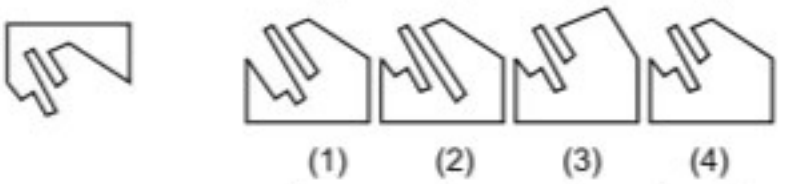

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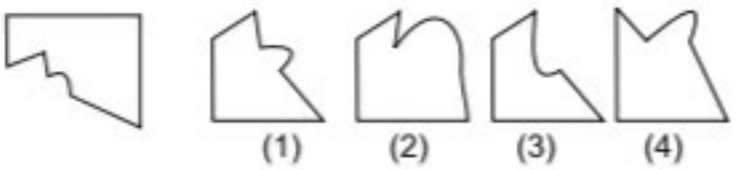
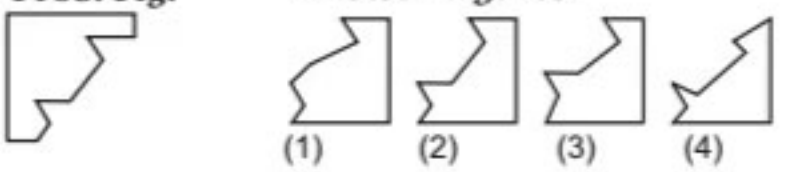


54. Prob. Fig. **Answer Figures**



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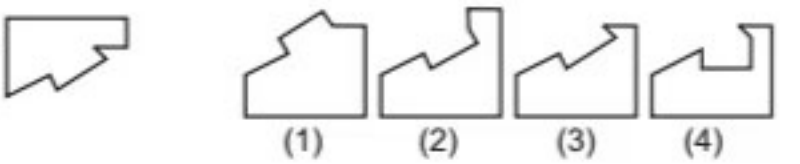

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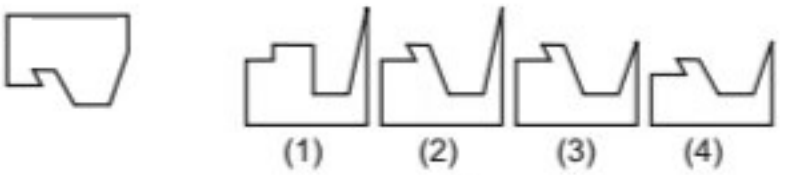

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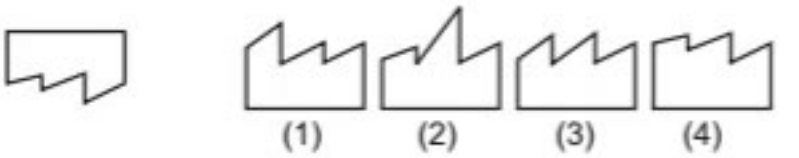

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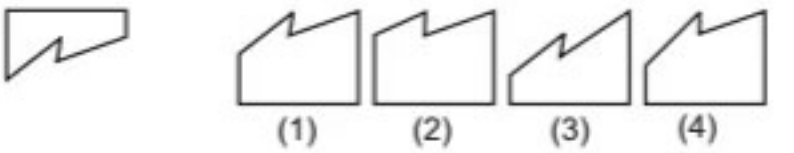

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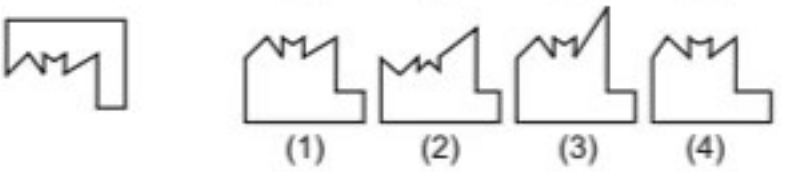

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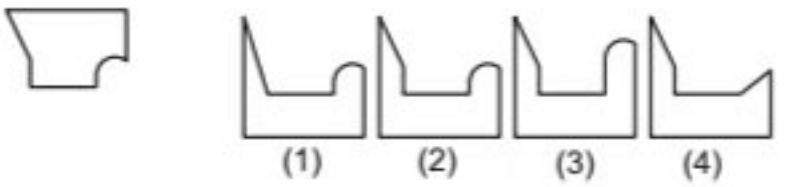


Section II Arithmetic Test

Directions (Q.Nos. 61-80) *For every question four probable answers bearing letters* (1), (2), (3) *and* (4) *are given. Only one out of these is correct. You have to choose the correct answer and*

61. The difference of place value and face value of 4 in number 46890 is

(1) 4 (2) 40000
(3) 39996 (4) 39969

62. The cost of 7 chairs is equal to the cost of 2 tables. The cost of a table is ₹ 1050, the cost of a chair will be

(1) ₹ 105 (2) ₹ 150
(3) ₹ 300 (4) ₹ 525

63. Out of a total of 250 marks, a student got 30% marks and failed by 25 marks. The marks necessary for passing is

(1) 50 (2) 75
(3) 100 (4) 125

64. The correct arrangement of the fractional numbers $\frac{17}{25}, \frac{17}{13}, \frac{17}{19}$ and $\frac{17}{27}$ in ascending order is

(1) $\frac{17}{19}, \frac{17}{13}, \frac{17}{27}, \frac{17}{25}$ (2) $\frac{17}{27}, \frac{17}{25}, \frac{17}{19}, \frac{17}{13}$
(3) $\frac{17}{27}, \frac{17}{19}, \frac{17}{13}, \frac{17}{25}$ (4) $\frac{17}{13}, \frac{17}{25}, \frac{17}{19}, \frac{17}{27}$

65. The simplification of

$98 - [65 + \{32 - (12 + 5)\}]$ gives the result

(1) 8 (2) 18
(3) 178 (4) 212

66. A person buys 60 oranges at the rate of ₹ 21 per dozen and sells them at the rate of ₹ 24 per dozen. He makes a

(1) profit of ₹ 3 (2) profit of ₹ 15
(3) loss of ₹ 5 (4) profit of ₹ 180

67. A person lends ₹ 1500 from a bank. If the bank fixes the rate of interest as 11% per annum, then the amount he has to pay back after 2 yr will be?

(1) ₹ 330 (2) ₹ 1830
(3) ₹ 1860 (4) ₹ 1900

68. The number 66.0684, correct to the nearest ten is

(1) 66.068 (2) 66.07
(3) 66.1 (4) 70

69. The perimeter of a square courtyard is 200 m, its area will be

(1) 800 m (2) 2500 m
(3) 800 sq m (4) 2500 sq m

70. The value of $50 \times 5 \times 0.05$ is

(1) 1.25 (2) 12.50 (3) 125 (4) 1250

71. A student went to sleep at 9 : 30 pm and got up at 4 : 15 am. For how much time did the student sleep?

(1) 5 h 45 min (2) 6 h 15 min
(3) 6 h 45 min (4) 7 h 45 min

72. A train leaves New Delhi railway station at 10 : 50 am. It travels at a speed of 80 km/h. The train covers a distance of 120 km by

(1) 11 : 50 am (2) 12 : 10 pm
(3) 12 : 20 pm (4) 12 : 50 pm

73. The mean proportion of the term 9 and 16 will be

(1) 4 (2) 8 (3) 12 (4) 36

74. The average of the first five even numbers is

(1) 4 (2) 5 (3) 6 (4) 7

75. A motorist drives at a speed of 80 km/h. He drives for 4 h and 6 min to reach his house. The distance covered by him to reach his house is

(1) 325 km (2) 328 km
(3) 331 km (4) 334 km

76. Fifty lakh five thousand fifty as a numeral is written as

(1) 505050 (2) 5005050
(3) 5050050 (4) 50500050

77. The number of prime factors of 105 is

(1) 2 (2) 3 (3) 4 (4) 5

78. The decimal form of $\frac{185 \times 25 \times 16}{37 \times 500}$ is

(1) 0.04 (2) 0.40
(3) 4.0 (4) 40.00

79. An old table was purchased for ₹ 180 and ₹ 20 were spent on its repairs. If it was sold at a profit of 20%, the selling price of the table was

(1) ₹ 200 (2) ₹ 216
(3) ₹ 240 (4) ₹ 250

80. The volumes of a cube and a cuboid are equal. If the dimensions of the cuboid are 18 cm, 12 cm and 8 cm the edge of the cube is

(1) 8 cm (2) 10 cm
(3) 12 cm (4) 16 cm

Section III Language Test (English)

Directions (Q.Nos. 81-100) *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 letters* (1), (2), (3) *and* (4) *are given. Only one out of these is correct. You have to choose the correct answer.*

Passage I

Once a farmer lived in a village. He was old and he had five sons. The sons were lazy and did nothing. One day he called them and said, "My dear sons, I may die some day. All the gold and silver I have is yours. It is hidden in the fields."

After some time, the farmer died. The obedient sons began to look for the treasure. They carefully dug up the field from one end to the other but could not find any treasure.

One brother said, "We have taken so much trouble in digging the field, we should sow it."

This they did. In good time, there grew a rich crop. The sons remembered their father's words and understood the meaning of his words. Certainly they had found the hidden treasure.

81. "I may die some day" 'may' here refers to
(1) a suggestion
(2) a request
(3) a possibility
(4) wish and hope

82. The sons dug the field
(1) to grow a crop
(2) to scatter seeds on the ground
(3) to get rid of their laziness
(4) to find gold

83. 'This they did'. 'This' here refers to
(1) obeying their father (2) digging the field
(3) sowing corn (4) finding gold

84. The farmer wanted his sons to be
(1) obedient (2) hardworking
(3) strong (4) good farmers

85. The passage shows that the farmer was
(1) wise (2) honest
(3) rich (4) hard working

Passage II

Fishing is my favourite sport. I often fish for hours without catching anything. But this does not worry me. Some fishermen are unlucky. Instead of catching fish, they catch old boots and rubbish. I am even less lucky. I never catch anything—not even old boots. After having spent whole mornings on the river, I always go home with an empty bag. 'You must give up fishing !' my friends say, 'Its a waste of time.' But they don't realize one important thing. I am not really interested in fishing. I am only interested in sitting in a boat and doing nothing at all.

86. Some fishermen are unlucky because
(1) they never catch a fish
(2) fishing is not their favourite sport
(3) they fish for hours together
(4) sometimes they catch old boots and rubbish instead of fish

87. Fishing is the writer's favourite sport as he
(1) always catches fish
(2) finds it a funny sport
(3) enjoys doing nothing while sitting in a boat
(4) collects odd boots

88. The writer is not a good fisherman because
(1) he never catches anything
(2) he only catches old boots and rubbish
(3) he goes alone
(4) he spends hours fishing

89. The bag that writer carries home is
(1) empty (2) old
(3) full of fish
(4) full of old boots and rubbish

90. The writer's friends ask him to give-up fishing because
(1) they are angry with him
(2) they want him to try another sport
(3) they want his company
(4) they think he is only wasting his time

Passage III

There are so many ways in which we can avoid waste.

We can see that taps are turned off properly so that water is not wasted.

We must save energy. And energy means everything from electricity to petrol to cooking gas and firewood. Energy is useful in running all our factories, our transport, even the water pumps in the fields. Careful use of our energy resources can save us millions of rupees.

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

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

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

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

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

95. By wasting paper we cause
(1) more felling of trees
(2) more loss of water
(3) shortage of books
(4) shortage of food

Passage IV

Jawahar Lal Nehru studied at Harrow and Cambridge in England. When he returned to India, He came under the influence of Mahatma Gandhi. After the Jallianwala Bagh massacre of 1919, he joined in the struggle for India's freedom. He was the President of Indian National Congress several times. He was sent to jail at various times. It was here that he wrote his famous book, "The Discovery of India".

On 15th August in 1947, he became the first Prime Minster of free India, and held that office until his death on May 27th, 1964. He always worked for peace and friendship among nations. People everywhere respected him as an outstanding world leader and a statesman of the highest stature.

96. Nehru joined the freedom movement because
(1) he had come from England
(2) he had learnt about it at Harrow and Cambridge
(3) Mahatma Gandhi had impressed him
(4) the British ruled over India

97. Nehru was sent to prison a number of times because
(1) he was the President of the Indian National Congress
(2) he fought for India's independence
(3) he encouraged other people to work for peace
(4) he was an advocate of peace and friendship

98. "It was here that ....."
In this sentence the word 'here' refers to
(1) Harrow (2) Cambridge
(3) Jallianwala Bagh (4) Jail

99. People respected Nehru because
(1) he was an author
(2) he was close to Mahatma Gandhi
(3) He was an able statesman
(4) He went to jail

100. Which of the following statements is not true?
(1) Jawahar Lal Nehru had no admiration for Mahatma Gandhi
(2) The Discovery of India was written in prison
(3) Jawahar Lal Nehru was the first Prime Minister of India
(4) Jawahar Lal Nehru was one of the famous leaders of the world

Answers

1. (4)	**2.** (3)	**3.** (2)	**4.** (3)	**5.** (4)	**6.** (1)	**7.** (2)	**8.** (2)	**9.** (1)	**10.** (4)
11. (3)	**12.** (1)	**13.** (3)	**14.** (4)	**15.** (2)	**16.** (4)	**17.** (3)	**18.** (4)	**19.** (3)	**20.** (2)
21. (4)	**22.** (4)	**23.** (2)	**24.** (3)	**25.** (1)	**26.** (2)	**27.** (4)	**28.** (2)	**29.** (4)	**30.** (1)
31. (2)	**32.** (3)	**33.** (1)	**34.** (2)	**35.** (2)	**36.** (1)	**37.** (1)	**38.** (4)	**39.** (3)	**40.** (1)
41. (2)	**42.** (1)	**43.** (2)	**44.** (1)	**45.** (3)	**46.** (2)	**47.** (3)	**48.** (2)	**49.** (2)	**50.** (3)
51. (1)	**52.** (4)	**53.** (1)	**54.** (2)	**55.** (3)	**56.** (4)	**57.** (4)	**58.** (1)	**59.** (4)	**60.** (2)
61. (3)	**62.** (3)	**63.** (3)	**64.** (2)	**65.** (2)	**66.** (2)	**67.** (2)	**68.** (4)	**69.** (4)	**70.** (2)
71. (3)	**72.** (3)	**73.** (3)	**74.** (3)	**75.** (2)	**76.** (2)	**77.** (2)	**78.** (3)	**79.** (3)	**80.** (3)
81. (3)	**82.** (4)	**83.** (3)	**84.** (2)	**85.** (1)	**86.** (4)	**87.** (3)	**88.** (1)	**89.** (1)	**90.** (4)
91. (3)	**92.** (2)	**93.** (1)	**94.** (1)	**95.** (1)	**96.** (3)	**97.** (2)	**98.** (4)	**99.** (3)	**100.** (1)

Hints and Solutions

16. The design moves 180° or laterally and the horizontal line comes upwards.

17. The arc is increasing by half in upside and that forming circle. The inner arc is coming down slowly and the black dots goes upwards.

18. The inner black square is interchanging and the upper design interchanging their place.

19. The design is moving 90° in clockwise direction.

20. The first design takes place to the third design.

21. The inner black dot is moving 90° in clockwise direction and the outer arc is moving 90° in anti-clockwise direction and one line adds.

22. The problem figure 3 is same as problem figure 1. Thus, the answer figure will be same as problem figure 2.

23. The circle is moving half part in clockwise direction

24. The centre design is moving 90° in clockwise direction and the square moves 90° in anti-clockwise direction. In first two figures, the slant line is the North-East direction and the last two figure, it is in the North-West directions.

25. In the following figures the outer face is same as the mouth of the previous figure and the shape of eyes are same as the shape of face.

26. The black dot is moving next corner in clockwise direction and circle is moving one corner in clockwise direction.

27. In the following figure, one line is adding.

28. The slant lines '^' are adding subsequently.

29. The black circle moves 90° in clockwise direction and the sing '+' moves 135° in anti-clockwise direction.

30. The last sign is taking place of the first sign.

31. The problem figure is same as problem figure 2. Thus, the answer figure will be same as problem figure 3.

32. The design is moving 135° in anti-clockwise direction.

33. The design is made by joining both two parts of the design.

34. The problem figure 3 is same as problem figure 1. Thus, the answer figure will be the same as problem figure 2.

35. The second figure is the half design of the first figure.

36. The problem figure 3 is same as problem figure 1. Thus, the answer figure will be same as problem figure 2.

37. The inner design comes outside and the outer design revert.

38. The design is reverting and then moving 90° in clockwise direction.

39. The problem figure 3 is same as problem figure 1. Thus, the answer figure will be the same as problem figure 2.

40. The design is reverting and the white part change into shaded part.

41. In the shape, the eyes and nose are reversing.

42. The small arrows changes into big arrows and big arrow change into small one.

43. The outer design becomes short and joining.

44. One design is changing into two designs and joining.

45. The problem figure 3 is same as problem figure 1. Thus, the answer figure will be same as problem figure 2.

61. ∵ The place value of 4 in number 46890
$= 40000$
Face value of 4 = 4
∴ Difference = 40000 – 4 = 39996

62. ∵ The cost of 1 table = ₹ 1050
∴ The cost of 2 tables = 2 × 1050 = ₹ 2100
∴ The cost of 7 chairs = ₹ 2100
[∵ Cost of 7 chairs = Cost of 2 tables]
∴ The cost of 1 chair = 2100 ÷ 7 = ₹ 300

63. ∵ Total marks = 250
Student got = 30%
i.e., $250 \times \frac{30}{100} = 75$ marks
Failed by = 25 marks
∴ Pass marks = 75 + 25 = 100 marks

64. $\frac{17}{27}, \frac{17}{25}, \frac{17}{19}, \frac{17}{13}$ are in ascending order
(In like fractions with equal numerators, the fraction with greatest denominators is the smallest.)

65. $98 - [65 + \{32 - (12 + 5)\}]$
$= 98 - [65 + \{32 - 17\}]$
$= 98 - [65 + 15] = 98 - 80 = 18$

66. CP of 1 dozen oranges = ₹ 21
CP of 60 oranges of 5 dozen oranges
$= 21 \times 5$
= ₹ 105 [∵ 1 dozen = 12]
SP of 1 dozen oranges = ₹ 24
SP of 5 dozen oranges = 24 × 5 = ₹ 120
∴ Profit = SP – CP = 120 – 105 = ₹ 15

67. Given, P = ₹ 1500, $r = 11\%$, $t = 2$ yr
$$SI = \frac{P \times r \times t}{100}$$
$$= \frac{1500 \times 11 \times 2}{100} = ₹\ 330$$
Amount, $A = P + SI = 1500 + 330 =$ ₹ 1830

68. The number, correct to the nearest ten is 70.

69. The side of square $= \frac{\text{Perimeter}}{4}$
∴ The side of the given square $= \frac{200}{4} = 50$ m
∴ Area = Side × Side
$= 50 \times 50$
= 2500 sq m

70. $50 \times 5 \times 0.05 = 250 \times \frac{5}{100} = \frac{25}{2} = 12\frac{1}{2} = 12.50$

71. The student went to sleep at = 9 : 30 pm
The student got up at = 4 : 15 am
Time from 9 : 30 to 12 : 00 (midnight)
= 2 h 30 min
Time from 12 : 00 to 4 : 15 = 4 h 15 min
Total time = 6 h 45 min
∴ The student slept for = 6 h 45 min

72. ∵ Time $= \frac{\text{Distance}}{\text{Speed}}$
$= \frac{120}{80} = \frac{3}{2}$ h = 1 h 30 min
The train will cover the distance by
= 10 : 50 am + 1 h 30 min
= 12 : 20 pm

73. The mean proportion of the term 9 and 16 is
$= \sqrt{9 \times 16} = 3 \times 4 = 12$

74. ∵ First five even numbers are = 2, 4, 6, 8, 10
Their average $= \frac{2 + 4 + 6 + 8 + 10}{5} = \frac{30}{5} = 6$

75. ∵ Speed = 80 km/h
∴ Time = 4 h 6 min
$= 4 \text{ h } \frac{6}{60} \text{ h} = 4\frac{1}{10} \text{ h} = \frac{41}{10} \text{ h}$
∵ Distance = Speed × Time
∴ Distance $= 80 \times \frac{41}{10} = 328$ km

76. 5005050

77.

3	105
5	35
	7

Prime factors of 105 are 3, 5 and 7.
∴ Number of factors of 105 are = 3

78. $\frac{185 \times 25 \times 16}{37 \times 500} = 4.0$

79. Total CP of the table = 180 + 20 = ₹ 200
Profit = 20%
SP of the table $= \frac{\text{CP} \times (100 + \text{Profit per cent})}{100}$
$= \frac{200 \times 120}{100} =$ ₹ 240

80. Volume of cuboid $= l \times b \times h$
$= 18 \times 12 \times 8$ cu cm
Volume of cube = Volume of cuboid
$= 18 \times 12 \times 8$
∴ Edge of cube $= \sqrt[3]{18 \times 12 \times 8} = 12$ cm

Jawahar
Navodaya Vidyalaya
Entrance Exam (Class VI)

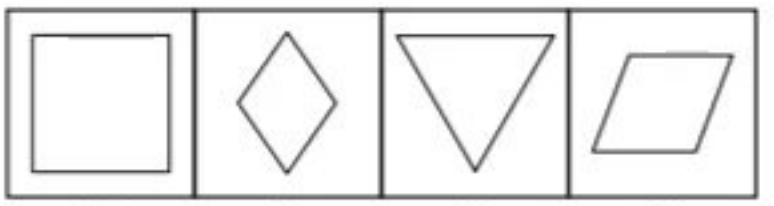
Solved Paper 2005

Section I Mental Ability Test

Part I

Directions (Q.Nos. 1-10) *In the following questions, four figures* (1), (2), (3) *and* (4) *have been given below. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different and indicate the correct letter below it.*

1.



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

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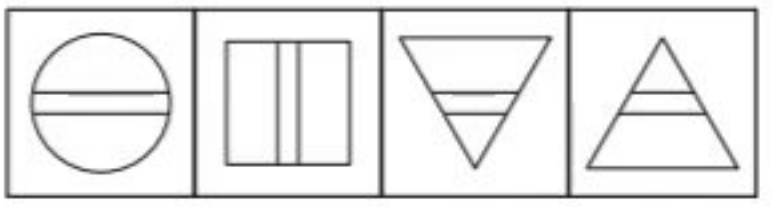

(1) (2) (3) (4)

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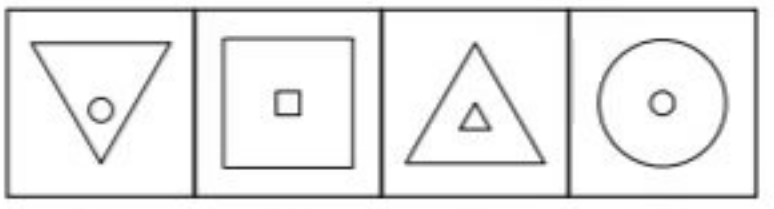

(1) (2) (3) (4)

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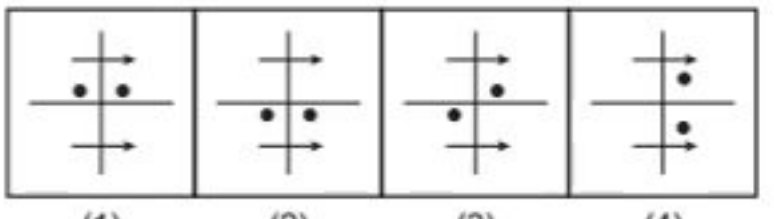
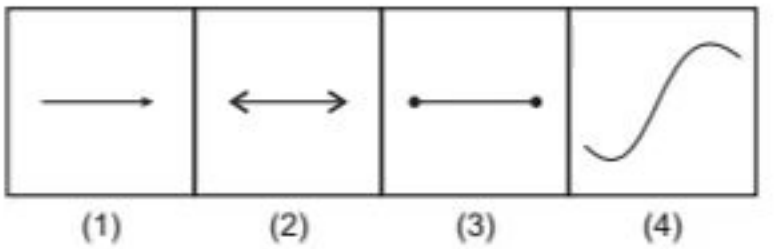


(1) (2) (3) (4)

5.



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

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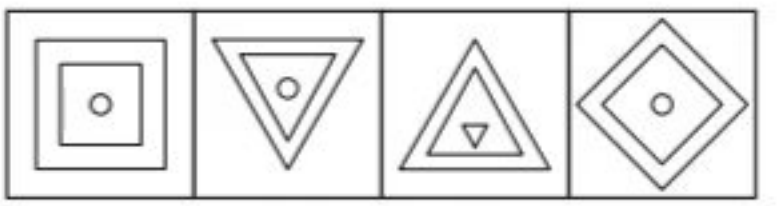

(1) (2) (3) (4)

7.

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

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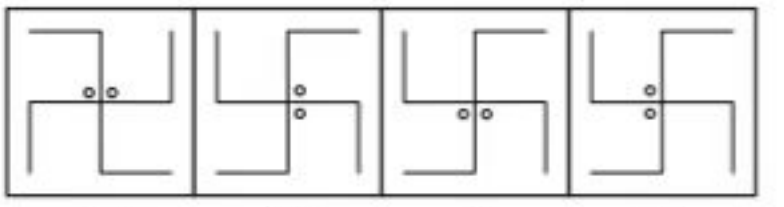
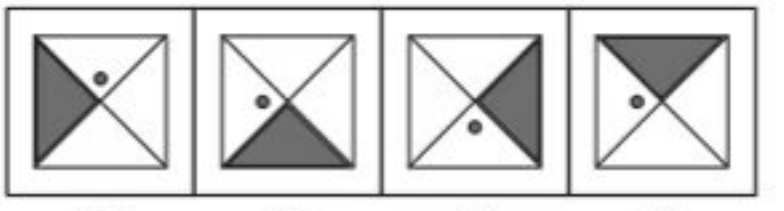


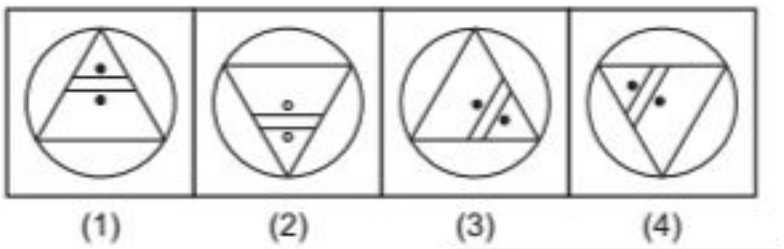
(1) (2) (3) (4)

9.



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

10.



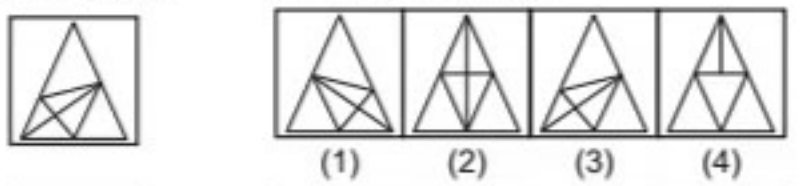
(1) (2) (3) (4)

Based on Memory

Part II

Directions (Q. Nos. 11-20) *In the following questions, a problem figure is given on the left hand side and four answer figures lettered* (1), (2), (3) *and* (4) *are given on the right hand side. Select the answer figure which is exactly the same as the problem figure and indicate the letter below the correct answer figure.*

11. Prob. Fig. **Answer Figures**



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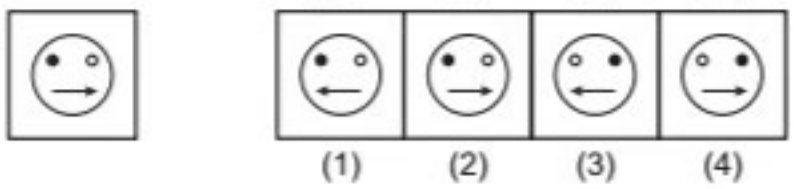

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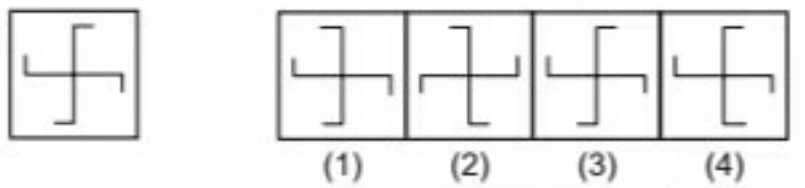

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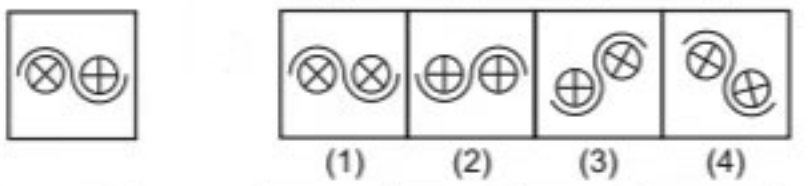

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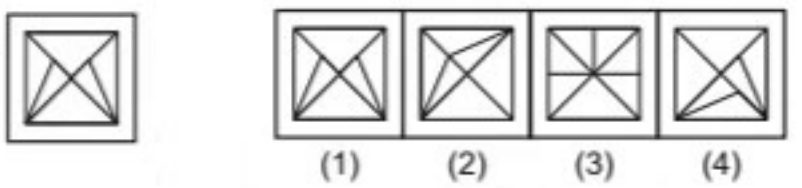
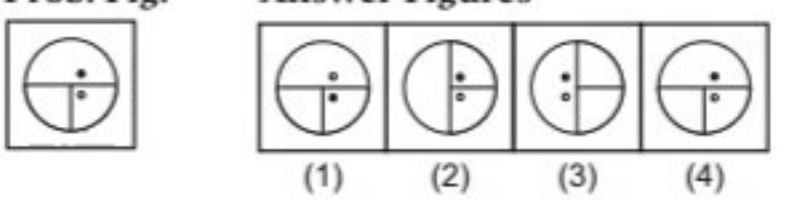


16. Prob. Fig. **Answer Figures**



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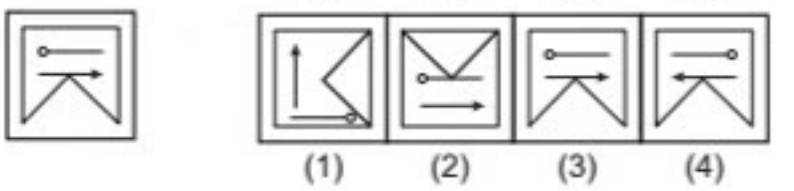

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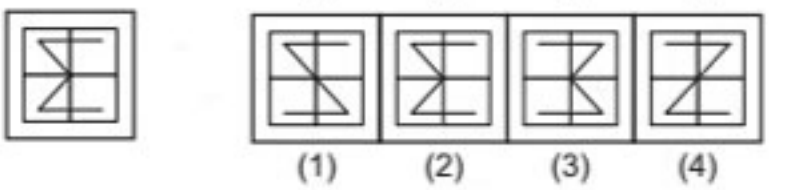

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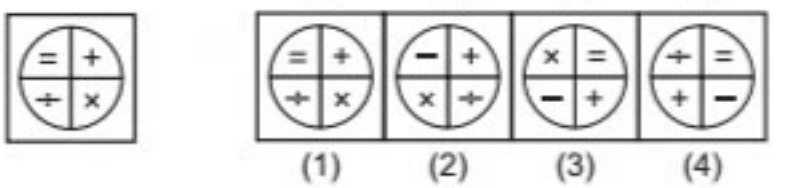

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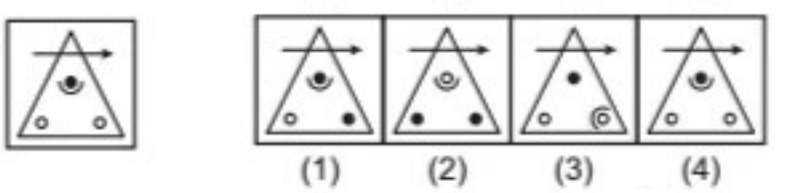
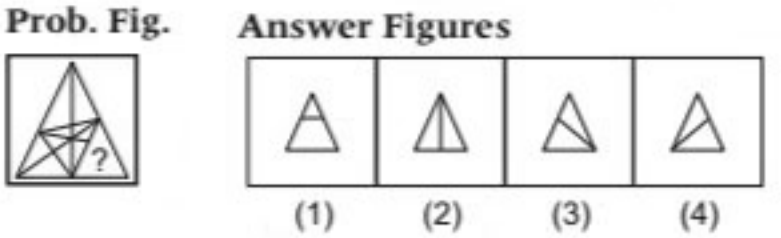


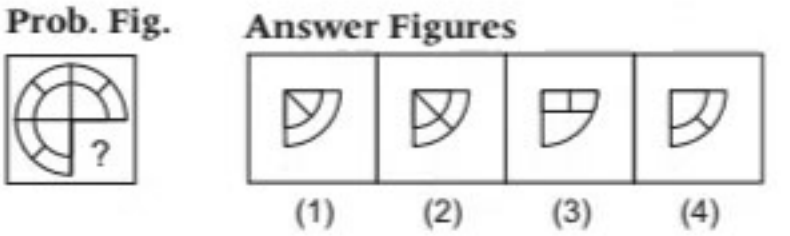
Part III

Directions (Q.Nos. 21-30) *In the following questions, there is a problem figure on the left hand side, a part of which is missing. Observe the answer figures* (1), (2), (3) *and* (4) *on the right hand side and find out the answer figure which without changing the direction, fits in the missing part of the problem figure in order to complete the pattern in the problem figure. Indicate your answer.*

21. Prob. Fig. **Answer Figures**

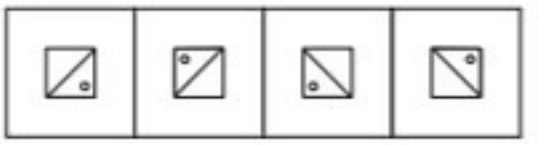


22. Prob. Fig. **Answer Figures**



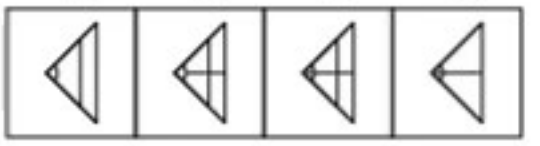
23. Prob. Fig.

Answer Figures



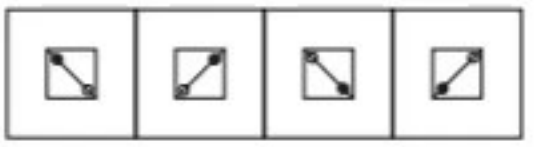
(1) (2) (3) (4)

24.



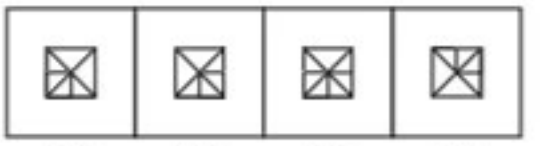
(1) (2) (3) (4)

25.



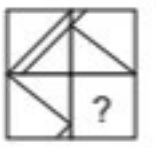
(1) (2) (3) (4)

26.

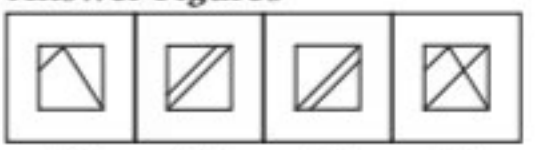


(1) (2) (3) (4)

27. Prob. Fig.



Answer Figures

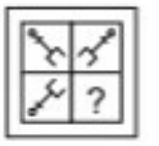


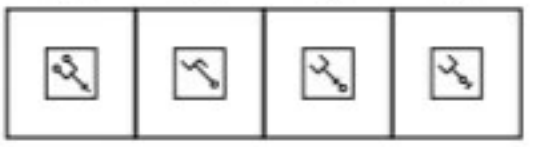
(1) (2) (3) (4)

28.

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

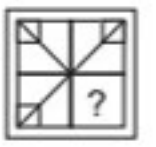
29.

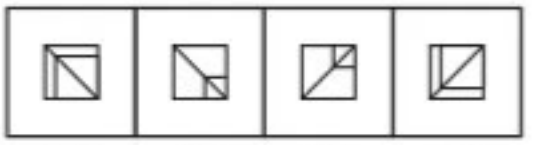




(1) (2) (3) (4)

30.



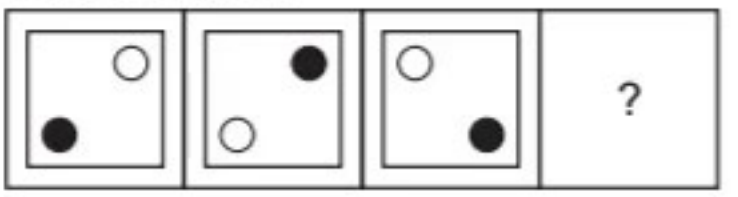


(1) (2) (3) (4)

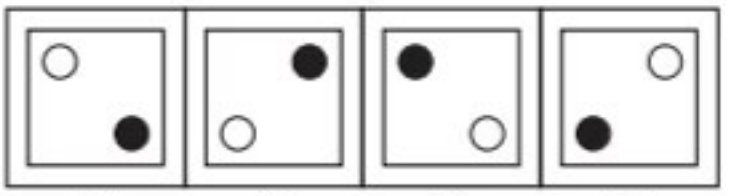
Part IV

Directions (Q.Nos. 31-40) *In the following questions, there are three problem figures and the space for the fourth figure is left blank. The problem figures are in a series. Find out one figure from among the answer figures which occupies the blank space for the fourth figure and which completes the series. Indicate your answer by the letter of the answer figure chosen by you.*

31. Problem Figures

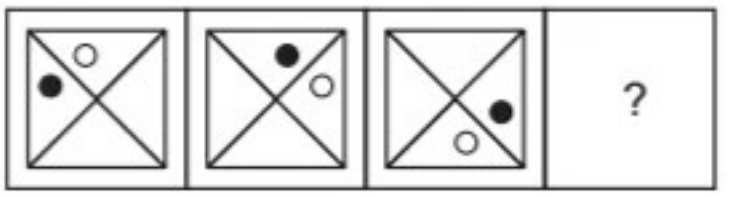


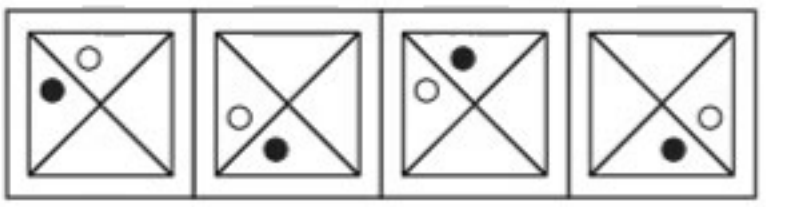
Answer Figures



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

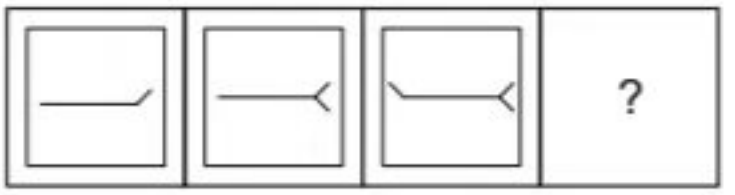
32.



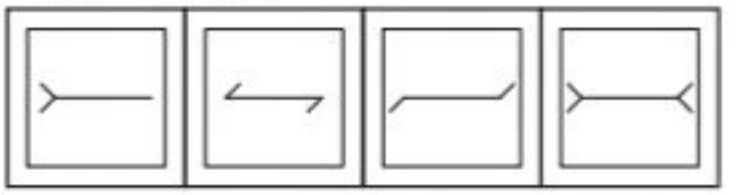


(1) (2) (3) (4)

33. **Problem Figures**

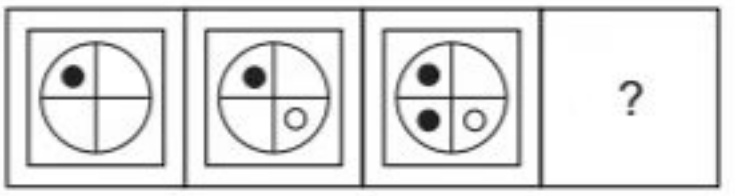


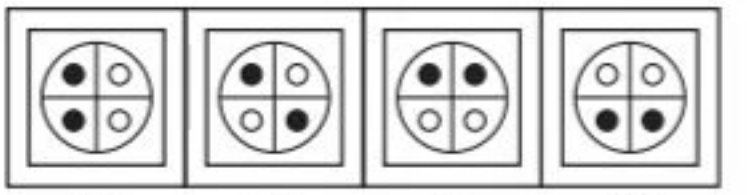
Answer Figures



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

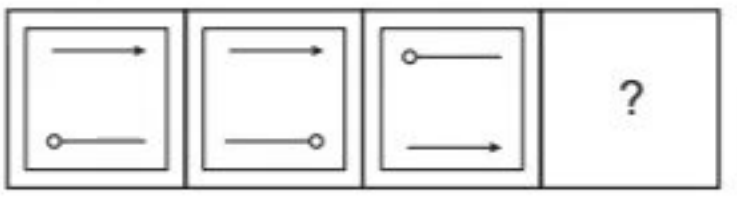
34.

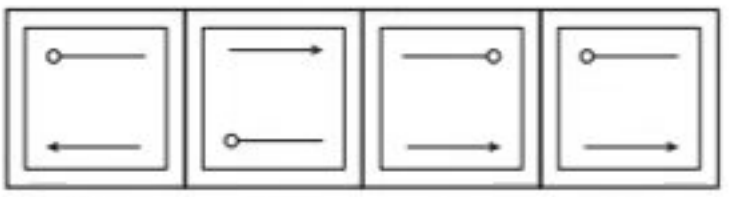




(1) (2) (3) (4)

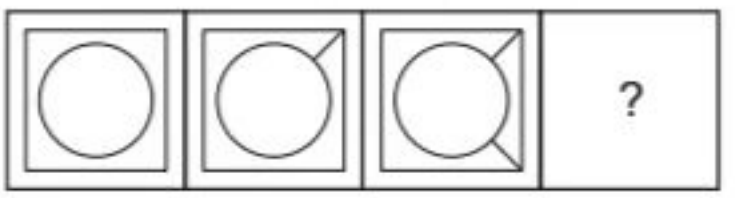
35.

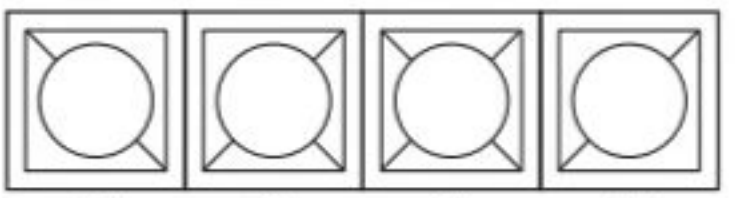




(1) (2) (3) (4)

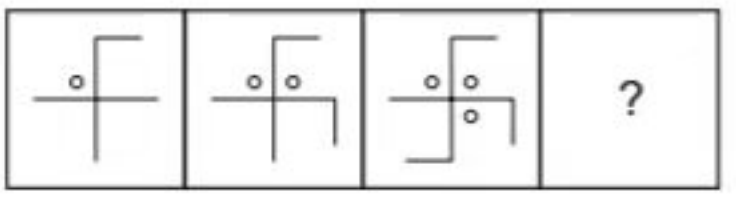
36.

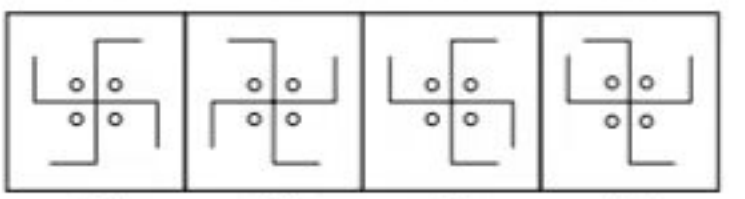




(1) (2) (3) (4)

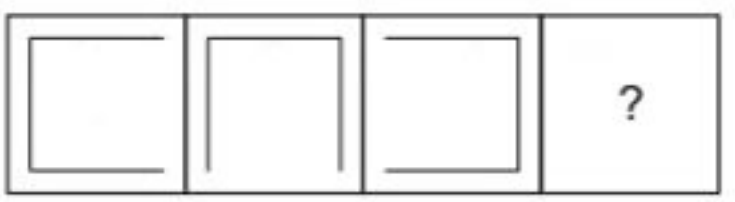
37.

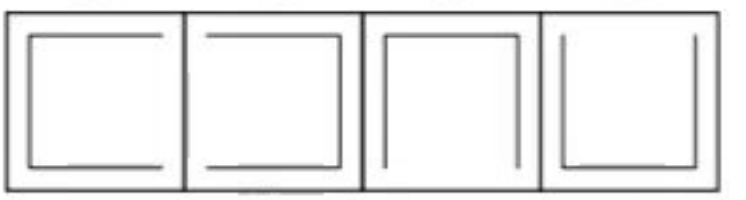




(1) (2) (3) (4)

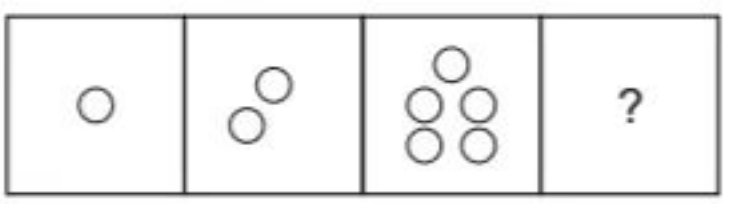
38.

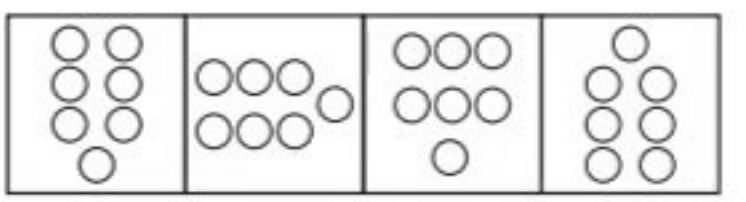




(1) (2) (3) (4)

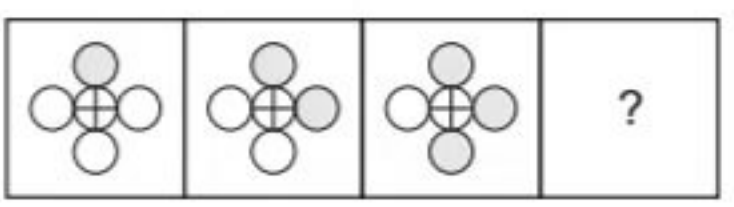
39.

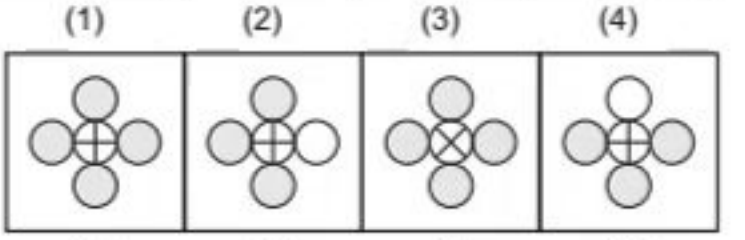




(1) (2) (3) (4)

40.



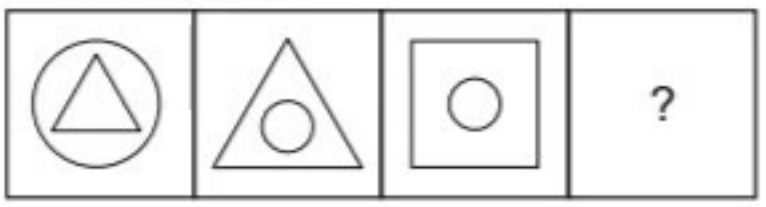


(1) (2) (3) (4)

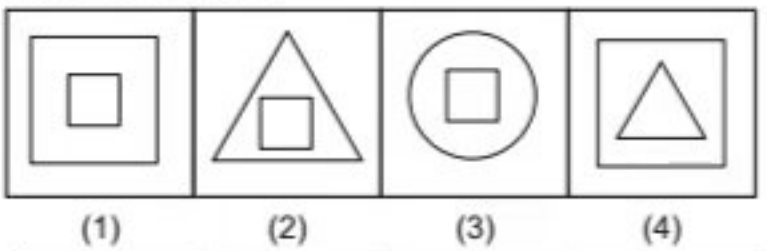
Part V

Directions (Q.Nos. 41-50) *In the following questions, there are three problem figures followed by a mark of interrogation (?) for the fourth one. There exists a relationship between the first two problem figures. A similar relationship should exist between the third and fourth problem figures. Select one figure from the answer figures which replaces the mark of interrogation (?). Indicate the correct letter of the answer figure.*

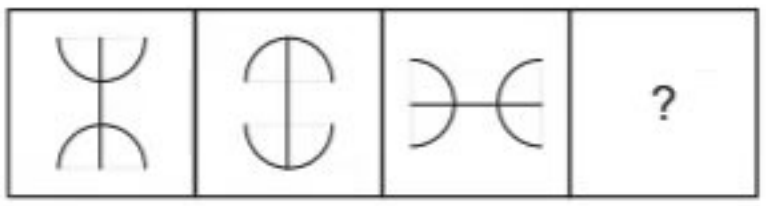
41. Problem Figures

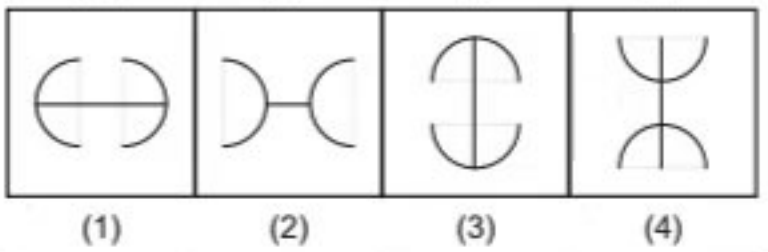


Answer Figures



42.





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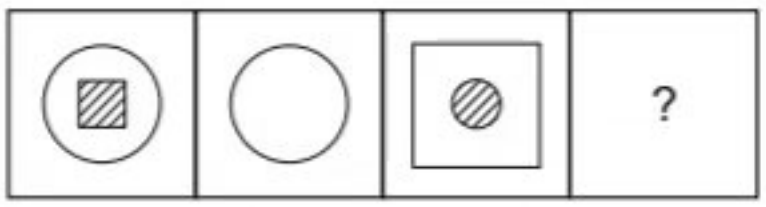
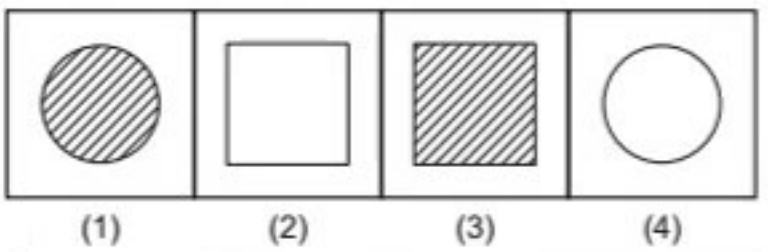
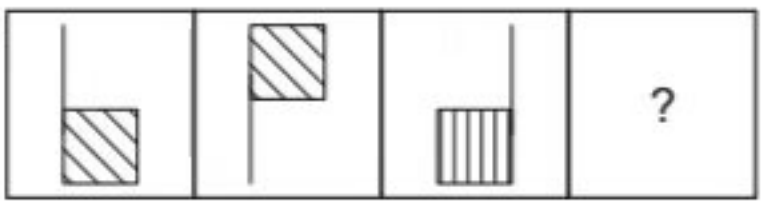
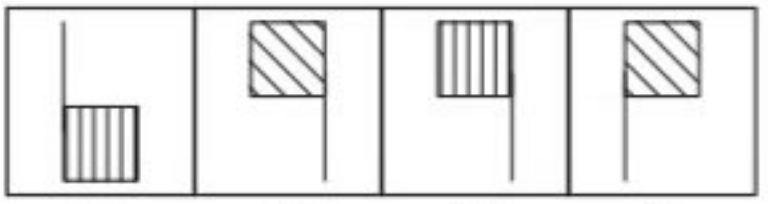




44.





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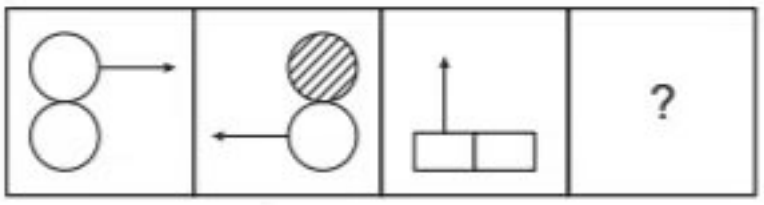

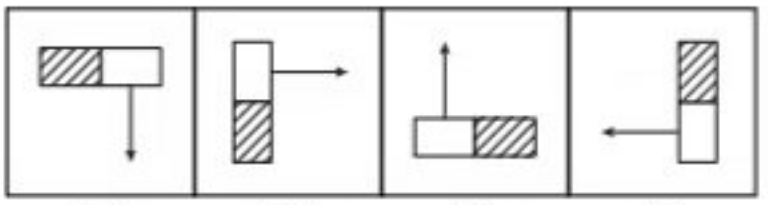

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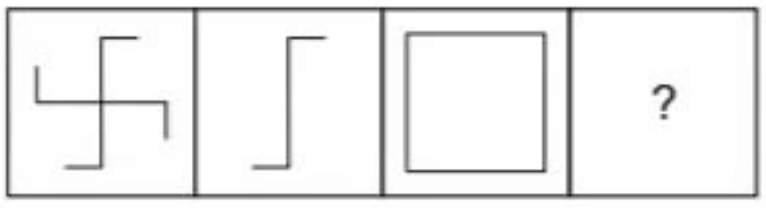
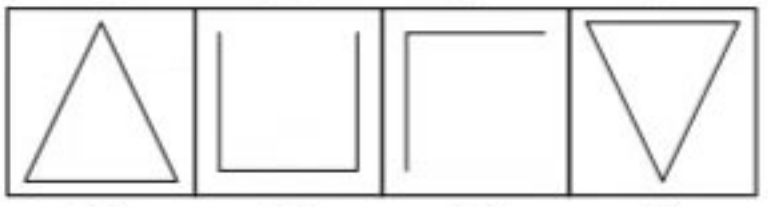
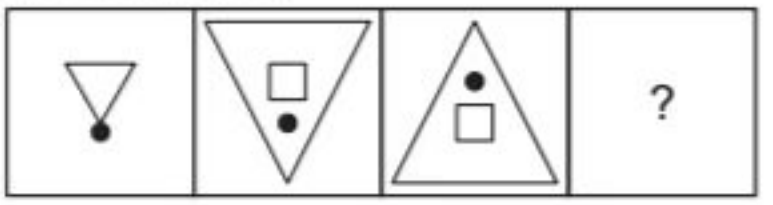
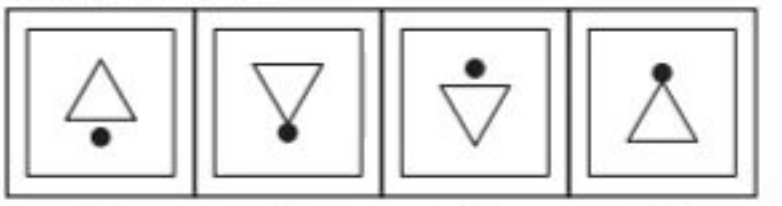




47. **Problem Figures**

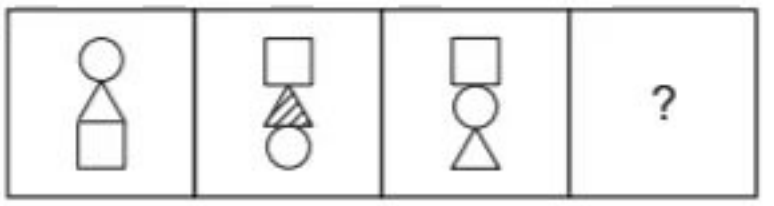


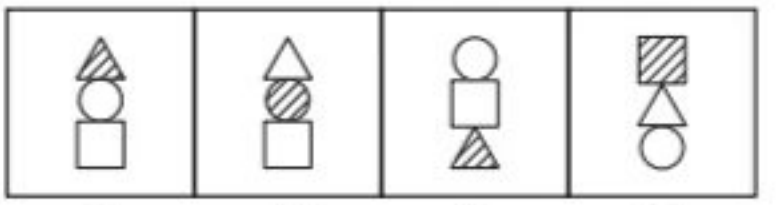
Answer Figures



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

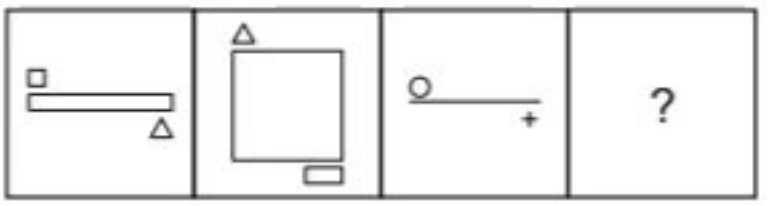
48.





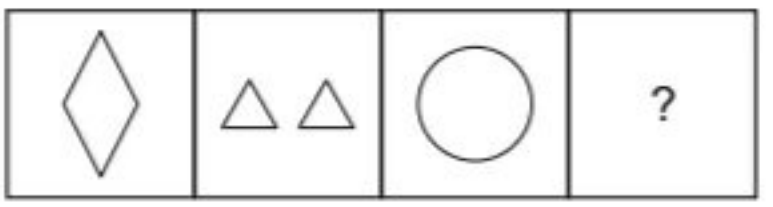
(1) (2) (3) (4)

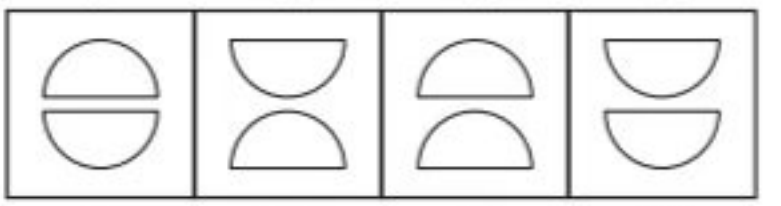
49.



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

50.





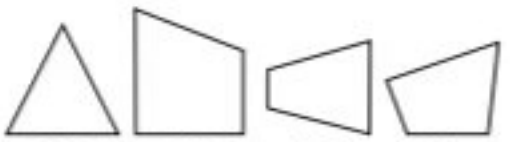
(1) (2) (3) (4)

Part VI

Directions (Q.Nos. 51-60) *In the following questions, one part of a square is given on the left hand side and the other one is among the four figures* (1), (2), (3) *and* (4) *given on the right hand side. Find the figure on the right hand side that completes the square. Indicate the correct letter answer of the figure.*

51. **Prob. Fig.**

Answer Figures



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

52.

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

53.

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

54. **Prob. Fig.**

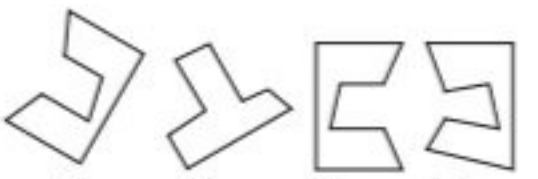
Answer Figures

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

55.

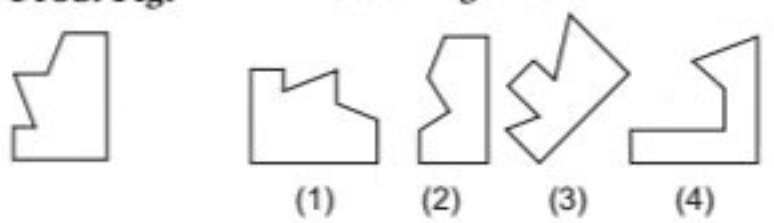
(1) (2) (3) (4)

56.

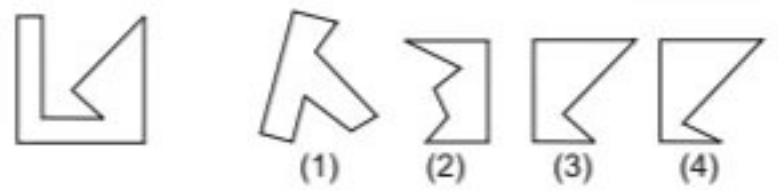


(1) (2) (3) (4)

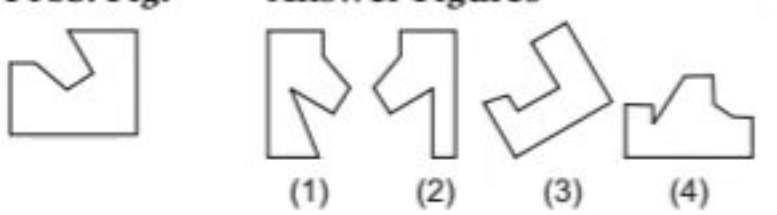
57. **Prob. Fig.** **Answer Figures**



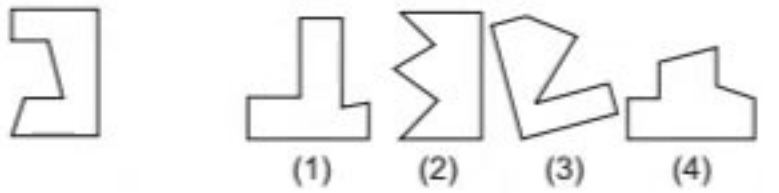
58.



59. **Prob. Fig.** **Answer Figures**



60.



Section II Arithmetic Test

Directions (Q.Nos. 61-80) *For every question, four probable answers bearing letters* (1), (2), (3) *and* (4) *given. Only one out of these is correct. You have to choose the correct answer.*

61. 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

62. What is the LCM of 16, 80 and 48?
(1) 8 (2) 16
(3) 240 (4) 480

63. How many seconds are there in 24 h?
(1) 30 (2) 60
(3) 3600 (4) 86400

64. In the number 30746, which digit has the greatest place value?
(1) 3 (2) 7
(3) 4 (4) 6

65. In per cent, what is 10.01 written as?
(1) 10.01% (2) 10%
(3) 1001% (4) 100100%

66. What is the decimal equivalent of $1\frac{5}{8}$?
(1) 1.58 (2) 1.62 (3) 1.622 (4) 1.625

67. 4.4% is equivalent to which of the following?
(1) $\frac{4.4}{10}$ (2) $\frac{4.4}{100}$ (3) $\frac{44}{10}$ (4) $\frac{44}{100}$

68. On dividing 93.45 by 0.015, what is the approximate answer?
(1) 0.6 (2) 60 (3) 600 (4) 6000

69. An engine pumps out 84500 L of water in an hour. The engine is run for 10 h a day. How many litres of water will it pump out in 5 days?
(1) 169 (2) 4225
(3) 42250 (4) 4225000

70. 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

71. What will be the next row of numbers in the following pattern?

4	16	64
6	36	216
18	64	512
?	?	?

(1) 8, 68, 518 (2) 10, 100, 1000
(3) 10, 200, 2000 (4) 10, 500, 5000

72. 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

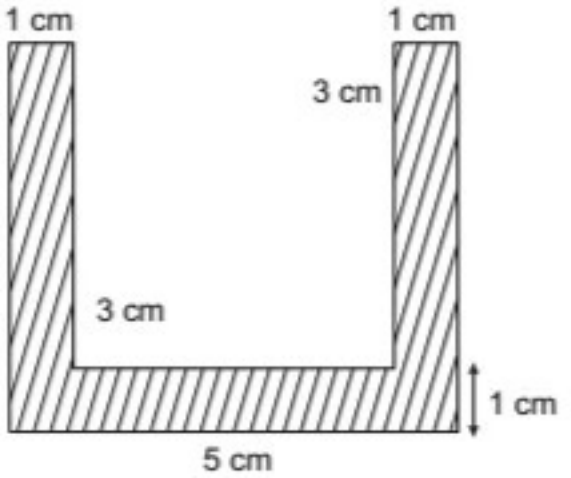
73. If 1 cm = 10 mm, how much is 10 cu cm?
(1) 100 cm mm (2) 1000 cu mm
(3) 10000 cu mm (4) 100000 cu mm

74. A man borrows ₹ 600 from his friend. He agrees to pay it back after 8 months together with simple interest at 8% per annum. What amount will he pay back?
(1) ₹ 32 (2) ₹ 384
(3) ₹ 984 (4) ₹ 632

75. A shopkeeper bought 15 tables at the rate of ₹ 500 each and 20 chairs at the rate of ₹ 300 each. He spent ₹ 40 on transportation. He sold the tables and chairs at a flat rate of ₹ 380 each. What is gain or loss?

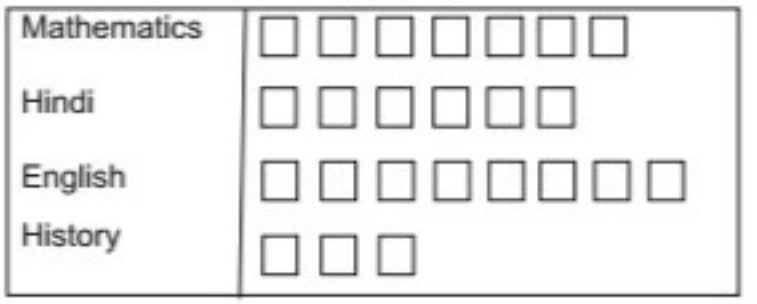
(1) ₹ 240, loss (2) ₹ 240, gain
(3) ₹ 250, loss (4) ₹ 250, gain

76. How much is the area of the shaded portion in the following figure?



(1) 11 sq cm (2) 9 sq cm
(3) 11 cu cm (4) 9 cu cm

77. A school library has different subject books, as shown in the following pictograph.



One symbol represents 50 books. Read the pictograph and answer the following question. Which subject books are minimum in number?

(1) Mathematics
(2) Hindi
(3) English
(4) History

78. At the start of a journey, the meter of a car reads 678.3 km. At the end of the journey, the meter reads 913.5 km. What was the distance covered by the car during the journey?

(1) 687.3 km
(2) 931.5 km
(3) 1591.8 km
(4) 235.2 km

79. 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

80. 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) $2 \times 4 \times 25 \times 27 \times 7$

Section III Language Test (English)

Directions (Q.Nos. 81-100) *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 questions four probable answer bearing letters* (1), (2), (3) *and* (4) *are given. Only one out of these is correct. You have to choose the correct answer and indicate your correct response.*

Passage I

About three hundred and fifty years ago there lived in India an Emperor called Shah Jahan. He had a beautiful and intelligent wife, whom he loved very much. Her name was Mumtaz Mahal; its shortened form, Taj Mahal, means 'pride of the palace'. In the year 1630 this beloved wife of the emperor died. The emperor decided, out of love for his wife, to build her the most beautiful tomb that had ever been seen. Shah Jahan gathered the best artists and architects from India, Turkey, Persia and Arabia to design the building. It took more than 20,000 men working over a period of 18 years to build the Taj Mahal, perhaps the most beautiful building in India.

81. Taj Mahal was built
(1) out of love for Mumtaz Mahal
(2) because Mumtaz Mahal was intelligent
(3) to let the world know that Mumtaz Mahal was beautiful
(4) to protect Mumtaz Mahal from his enemies

82. Which one of the following pairs is not associated with buildings?
(1) Painters and carpenters
(2) Teachers and doctors
(3) Architects and engineers
(4) Masons and plumbers

83. Which of the following is the work of an 'architect'?
(1) To advise the king
(2) To build a palace
(3) To design a building
(4) To supervise cooking of meals

84. Which one of the statements agrees with the paragraph?
(1) Shah Jahan wanted to build a palace for himself
(2) Artists and Architects from India asked Shah Jahan to give them work
(3) 'Pride of the palace' means 'Shah Jahan'
(4) Shah Jahan decided to build a beautiful tomb for his beloved wife

85. People consider Taj Mahal as
(1) A large river
(2) the most beautiful building in India
(3) a very tall building
(4) a memory of an emperor

Passage II

Man-made satellites play a very important role in the modern man's world today. It helps in the study of space which has fascinated and inspired people for centuries and also helps us to find out more about the earth and our solar system. Advances in satellite technology have diversified to such an extent that it has improved our quality of life. Satellites help us communicate with people anywhere in the world, forecast weather, look at climate change and monitor disaster. Almost everyone today use satellite technology. Paying by credit card, or using an ATM machine-all involve satellite technology. Thus satellites have become an integral part of present-day man.

86. Satellites help in the study of
(1) animals (2) space
(3) plastics (4) bacteria

87. The word 'fascinated' used in the paragraph means
(1) pleased (2) interested
(3) affected (4) enthused

88. Which of the following sequences is correct as mentioned in the paragraph?
(1) Technology—Monitor—Study
(2) Monitor—study—Technology
(3) Study—Monitor—Technology
(4) Technology—Study—Monitor

89. The phrase 'present-day man' means
(1) man who is present
(2) man present everyday
(3) man of everyday
(4) man of today

90. Satellite technology cannot be used for
(1) speaking to a friend in America
(2) washing and drying clothes
(3) taking out money from a bank
(4) warning against a storm

Passage III

Desert is a place where there is send all-around. It is a hot and dry place. There is very little rain in Deserts. So, very few trees grow there. The only plants that grow in the deserts are cactus, date palms and thorny bushes which do not need much water to grow.

The Sahara is the biggest desert in the world. It stretches across the whole of North Africa. The Arabian desert is also a very large desert. In India too, there is a desert called Thar desert in Rajasthan. Life in a desert is tough. The days are very hot and nights are cool.

91. The biggest desert in the world is in
(1) India (2) Africa
(3) Arabia (4) America

92. Date palms grow in
(1) plains (2) hilly regions
(3) deserts (4) snowy regions

93. In desert regions
(1) there is no rainfall (2) it rains heavily
(3) there is enough rain (4) there is a little rain

94. The climate in a desert is
(1) pleasant (2) difficult
(3) comfortable (4) cold

95. Very few trees grow in deserts because
(1) most trees need water to grow
(2) there is sand all-around
(3) nights are very cold
(4) there is no one to take care of trees

Passage IV

Long ago, a large redwood tree, which was very tall, stood in the forest. "'Why am I here?" the redwood asked. But sadly no one heard him. The redwood tree stood there for many more years. It had green needle like leaves, and it was green all year. That is why the birds liked the tree. And they grew up and had babies. They all lived in that redwood tree.

About two hundred bird families called it a home. At sundown the sound of nesting birds was so loud that deers couldn't rub their backs on the tree 's trunk. The bird noises hurt their ears.

One day the tree asked the same question he had asked for all those years. "Why am I here? I wish someone would cut me down and build ten homes with my wood. Them I would be good for something."

A black bird heard the tree. She flew up from the ground to the tip of the top telling all the other birds, "Our tree wants to leave the forest. Our tree does not think he is doing good things. All together let us tell the tree." They said, "Today you are two hundred homes not ten homes but twenty times ten! Your are home for all of us. Please don't leave the forest." That day the tree was happy to find out why he was there.

96. Birds liked the redwood tree because
(1) they could eat its seeds and sit on its branches
(2) it was green all year round and had needle like leaves
(3) they could live close to the ground
(4) they could live near the top

97. The tree was sad because
(1) it was lonely in the forest
(2) it wanted its wood to be made into homes
(3) the deer rubbed its back against the tree
(4) the birds noises hurt its ears

98. 'From the ground to the tip of the top' means
(1) under the tree
(2) from the ground to the middle of the tree
(3) from the ground to the topmost part of the tree
(4) from the middle to the topmost part of the tree

99. The writer wrote this story mainly to
(1) tell why the redwood trees are important to the forest
(2) make people buy redwood trees to build houses
(3) make birds happy
(4) tell facts about why redwood trees are unhappy

100. How does the redwood tree feel at the end of the story?
(1) Angry (2) Happy
(3) Afraid (4) Funny

Answers

1. (3)	**2.** (2)	**3.** (1)	**4.** (3)	**5.** (4)	**6.** (3)	**7.** (2)	**8.** (1)	**9.** (4)	**10.** (2)
11. (3)	**12.** (2)	**13.** (3)	**14.** (4)	**15.** (1)	**16.** (4)	**17.** (3)	**18.** (2)	**19.** (1)	**20.** (4)
21. (3)	**22.** (4)	**23.** (2)	**24.** (1)	**25.** (3)	**26.** (2)	**27.** (2)	**28.** (1)	**29.** (3)	**30.** (2)
31. (3)	**32.** (2)	**33.** (4)	**34.** (1)	**35.** (1)	**36.** (2)	**37.** (1)	**38.** (4)	**39.** (4)	**40.** (1)
41. (3)	**42.** (1)	**43.** (2)	**44.** (3)	**45.** (1)	**46.** (3)	**47.** (4)	**48.** (2)	**49.** (2)	**50.** (3)
51. (2)	**52.** (4)	**53.** (2)	**54.** (3)	**55.** (2)	**56.** (3)	**57.** (1)	**58.** (3)	**59.** (2)	**60.** (4)
61. (2)	**62.** (3)	**63.** (4)	**64.** (1)	**65.** (3)	**66.** (4)	**67.** (2)	**68.** (4)	**69.** (4)	**70.** (1)
71. (2)	**72.** (2)	**73.** (3)	**74.** (4)	**75.** (1)	**76.** (1)	**77.** (4)	**78.** (4)	**79.** (1)	**80.** (2)
81. (1)	**82.** (2)	**83.** (3)	**84.** (4)	**85.** (2)	**86.** (2)	**87.** (2)	**88.** (3)	**89.** (4)	**90.** (2)
91. (2)	**92.** (3)	**93.** (4)	**94.** (2)	**95.** (1)	**96.** (2)	**97.** (2)	**98.** (3)	**99.** (1)	**100.** (2)

Hints and Solutions

1. In the given figures all figures are quadrilaterals but figure (3) is a triangle. Therefore, figure (3) is different from other figures.
2. All figures in serial numbers (1), (3) and (4) have two parallel lines drawn horizontally but in figure (2) the parallel lines are drawn vertically, therefore figure (2) is different from other remaining figures.
3. Figures (2), (3) and (4) are similar *ie,* a small square is drawn in a big square, a small triangle is drawn in a big triangle and a small circle is drawn in a big circle. In figure (1) a small circle is drawn in a big triangle. Therefore, figure (1) is different from other remaining figure.
4. Considering the positions of two black small circles figure (3) is different from other figures.
5. All figures have straight lines but figure (4) has a curved line which is different than the other figure.
6. A small circle has been drawn inside the figures in serial number (1), (2) and (4). But in figure (3) a small triangle has been drawn inside the figure (3).
7. Figures in serial numbers (1), (3) and (4) have two figures resembling with English alphabet W drawn separately but in figure number (2) two 'W's have been joined together. Therefore, figure (2) is different.
8. Figures in serial numbers (2), (3) and (4) have proper Swastik sign but in figure number (1) Swastik sign has been drawn incorrectly.
9. In figures at serial numbers (1), (2) and (3) a black circle and a black triangle are moving one part in anti-clockwise direction. In figure number (4) the black circle has been drawn at a wrong place.
10. In all the figure blackened circle at a vertex of a triangle but in figure (2) there the circle has not been blackened.
11. In the problem figure the parallelogram has been drawn at the corner of the base of the triangle. Diagonals are intersecting each other. The same figure is drawn in answer figure (3).
12. In the problem figure a blackened circle is followed by an empty circle. An arrow has been drawn horizontally pointing towards empty circle. The same figure pattern has been repeated in answer figure (2).
13. Clearly, answer figure (3) resembles completely with the problem figure.
14. In problem figure signs of multiplication and addition are drawn under curved loop. Answer figure (4) resembles with the problem figure.
15. In the problem figure two diagonals of a square have been drawn intersecting each other. Mid point of the portion of the diagonals lying between the point of intersection and the upper are joined with two lines with the opposite vertices. The pattern in answer figure (1) resembles with the problem figure.
16. In the given pattern of the problem figure, answer figure (4) resembles completely with the problem figure.
17. Answer figure (3) resembles completely with the given problem figure.
18. In the problem figure the square has been divided into four equal parts by joining the mid points of the opposite sides. A 'W' type figure has been drawn at the centre of the square. Answer figure (2) resembles with the problem figure.
19. Each quardrant of the circle has a signs of is equal, plus, multiplication and division. Answer figure (1) resembles completely with the problem figure.
20. Answer figure (4) resembles completely with the problem figure.
21. In the given problem figure answer figure (3) will complete the missing part of the problem figure.
22. In the given pattern of the problem figure the missing part of this figure can be filled by answer figure (4) without changing the direction.
23. If we place answer figure (2) without changing its direction, it will complete the missing part to the problem figure.
24. Answer figure (1) will complete the missing part of the problem figure.
25. In the given positions of blackened circle and empty circle. In answer figure (3) will complete the given problem figure.
26. Missing part of the problem figure will be of the same pattern as the figures in its opposite side. Hence, answer figure (2) will complete the missing part of the problem figure.
27. In the given pattern of the problem figure answer figure (2) will complete the design of the missing part of the problem figure.

28. Shift answer figure (1) on the missing part of the problem figure, it will complete the problem figure.

29. In the given problem figure answer figure (3) will complete the missing part of the problem figure.

30. Shift answer figure (2) and put it on the missing part of the problem figure, it will complete the problem figure.

31. In problem figure first and second the empty circle and blackened circle change their positions respectively. Under this rule answer figure (3) should occupy the blank space.

32. In problem figures circles are moving in clockwise direction. Therefore, answer figure (2) will occupy the blank space.

33. In problem figures one small lines are increasing in each problem figure. Therefore, answer figure (4) will occupy in the blank space.

34. Answer figure (1) will occupy the blank space.

35. In the problem figures lines drawn on upper part are not changing the directions of lines drawn in lower part are changing directions. Therefore, answer figure (1) will occupy the blank space.

36. In problem figures a pattern is being formed in which no line, one line and two lines are drawn from the vetex (vertices) of the square joining the circle. Therefore, answer figure (2) will occupy the blank space.

37. In problem figures one small line and a small circle is increasing by one in subsequent figures. Therefore, answer figure (1) will occupy the blank space.

38. Problem figures first, second and third are being turned in clockwise direction. Therefore, answer figure (4) will occupy the blank space.

39. In problem figures the number of small circles are increasing by 1, 3 and 5. Therefore, answer figure (4) will occupy the blank space.

40. In problem figures the number of black shaded circles are increasing by (1) starting from zero. Therefore, answer figure (1) will occupy the blank space.

41. In first two problem figures triangle and circle are changing their places from inside to outside. Similarly, answer figure (3) will occupy the place marked with the sign of interrogation.

42. In the given problem figure first to second each half circle figure turns and goes to the upper section of the perpendicular line. Similar changes are happened in the answer figure (1) to problem figure third.

43. In the given problem figures second figure are getting by deleteting the shaded square figure. In the similar way, answer figure (2) will come in the space marked by the sign of interrogation.

44. In problem figure second the shaded square is coming at the upper portion. Similarly, answer figure (3) will occupy the space marked by the mark of interrogation.

45. In the given problem figure first to second, the figure turns two places in the clockwise direction and a shaded part comes in the upper section of the figure. Similarly answer figure (1) will occupy the blank space.

46. We get, second problem figure by deleting half portion of the first problem figure. Obeying this rule answer figure (3) will occupy the blank space.

47. Considering the pattern of interchanging the figures in the problem figures first and second answer figure (4) will occupy the space marked by the sign of interrogation.

48. In problem figures first and second the upper figure and lower figure changes the positions and the middle figure becomes shaded. Answer figure (2) will occupy the blank space marked with the sign of interrogation.

49. In the given problem figure there are three figures a small square, a thin rectangle and a small triangle in first problem figure. In second problem figure, small square changes into a big square and a thin rectangle becomes a small rectangle and comes at the lower side. The small triangle comes on the top without changing the size. Therefore answer figure (2) will occupy the space marked by the sign of interrogation.

50. For getting second problem figure. First problem figure is bisected into two triangles. The second triangle is turned by an angle of 180° and placed by the side of the first triangle, Similarly, in the third figure circle is bisected into two parts. The second circle '◡' turns 180° and placed by the first circle. Therefore, answer figure (3) will occupy the space marked with the sign of interrogation.

51. The square of the problem figure can be completed by turning the answer figure (2).

52. Answer figure (4) will be the correct figure which complete the square of the problem figure.

53. For completing the square of the problem figure, answer figure (2) should be turned and placed on the square.

54. For completing the square of the problem figure turn answer figure (3) which will complete the square of the problem figure.

55. For completing the problem figures, turn answer figure (2) and put it on the problem figure, we get the complete square of the problem figure.

56. Answer figure (3) will complete the square of the problem figure by shifting and turning.

57. Answer figure (1) should be turned and placed on the problem figure which will complete the square of the problem figure.

58. By shifting answer figure (3) the problem figure will complete the square of the problem figure.

59. Turn answer figure (2) and placed on the square of the problem figure which will complete the problem figure.

60. If we shift answer figure (4) and put it after turning slightly the square of the problem figure will be completed.

62. 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

$$\text{LCM} = 2 \times 2 \times 2 \times 2 \times 5 \times 3$$
$$= 16 \times 15 = 240$$

65. $10.01 = \frac{1001}{100} = 1001\%$

68. $93.45 \div 0.015 = \frac{93450}{15} = 6230 = 6000$ (approx.)

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

$$= \frac{2.5}{0.5} \times 0.1 - 0.05$$
$$= 5 \times 0.1 - 0.05$$
$$= 0.5 - 0.05 = 0.45$$

72. Volume of a soapcake $= 7 \times 5 \times 2.5$ cu cm

volume of the cardboard box

$$= 56 \times 40 \times 25 \text{ cu cm}$$

Number of cakes that can be put inside the cardboard box

$$= \frac{56 \times 40 \times 25}{7 \times 5 \times 2.5} = 640$$

73. 1 cm = 10 mm

1 cu cm $= 10 \times 10 \times 10$ cu mm

10 cu cm $= 10 \times 10 \times 10 \times 10 = 10000$ cu mm

74. Principal = ₹ 600

$$\text{Time} = \frac{8}{12} \text{ yr}$$

Rate = 8%

$$\text{Simple interest} = \frac{600 \times 8 \times 8}{12 \times 100}$$

= ₹ 32

Total amount paid = 600 + 32

= ₹ 632

75. Cost price of 15 tables $= 500 \times 15$

= ₹ 7500

Cost price of 20 chairs $= 300 \times 20$

= ₹ 6000

Expenditure on transportation = ₹ 40

Total cost price = 7500 + 6000 + 40

(Including expenditure on transportation)

= ₹ 13540

Selling price $= 380 \times 35$

Loss = 13540 − 13300 = ₹ 240

76. Area of the shaded portion

$$= 3 \times 1 + 5 \times 1 + 3 \times 1$$
$$= 3 + 5 + 3 = 11 \text{ cm}^2$$

79. Cost of the moped = ₹ 7250

Cost of the scooter = 7250 + 3750

= ₹ 11000

Total cost of both the vehicles

= 11000 + 7250 = ₹ 18250

80.

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

Prime factorisation

$$= 2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 5 \times 5 \times 7$$

Jawahar
Navodaya Vidyalaya
Entrance Exam (Class VI)

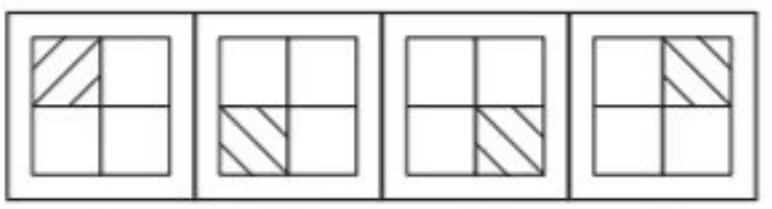
Solved Paper 2004

Section I Mental Ability Test

Part I

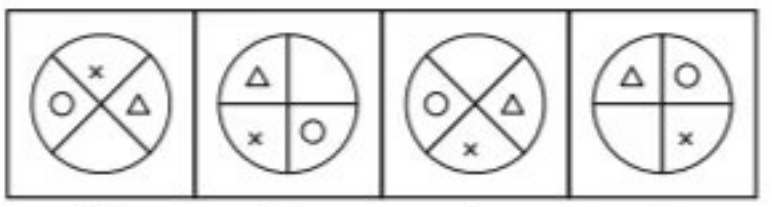
Directions (Q.Nos. 1-10) *In the following questions, four figures* (1), (2), (3) *and* (4) *are given. Out of these four figures, three are similar in some way and one figure is different. Select the figure which is different.*

1.



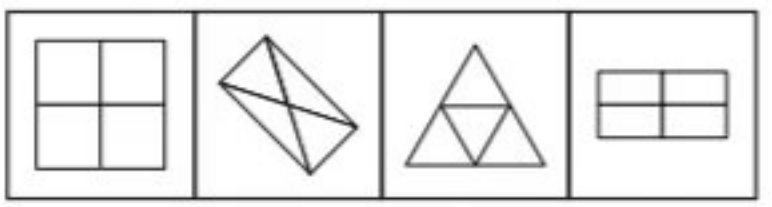
(1) (2) (3) (4)

2.



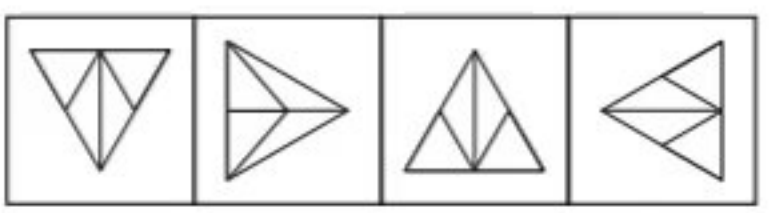
(1) (2) (3) (4)

3.



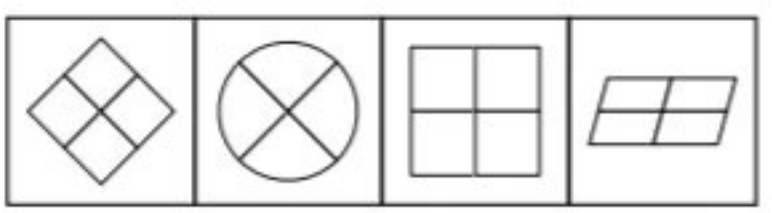
(1) (2) (3) (4)

4.



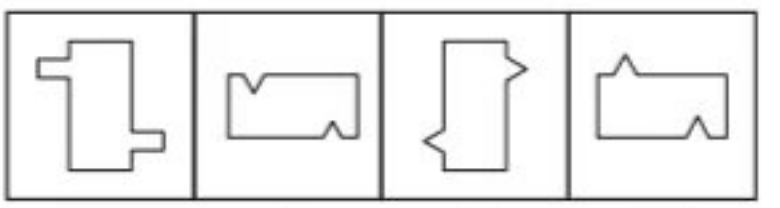
(1) (2) (3) (4)

5.



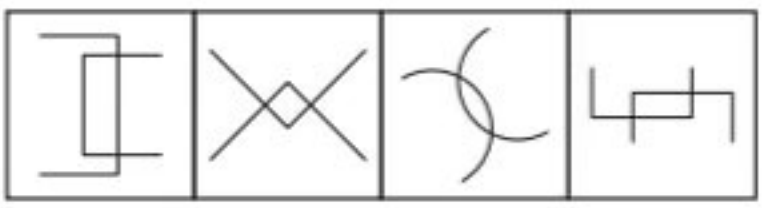
(1) (2) (3) (4)

6.



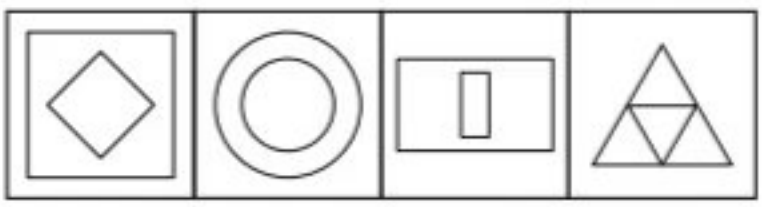
(1) (2) (3) (4)

7.



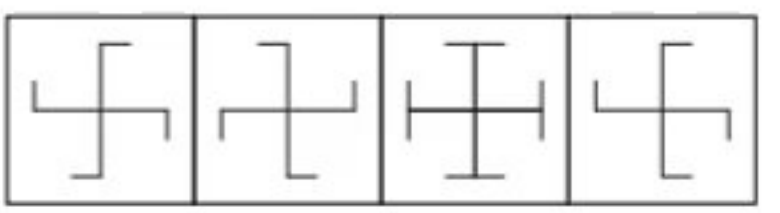
(1) (2) (3) (4)

8.



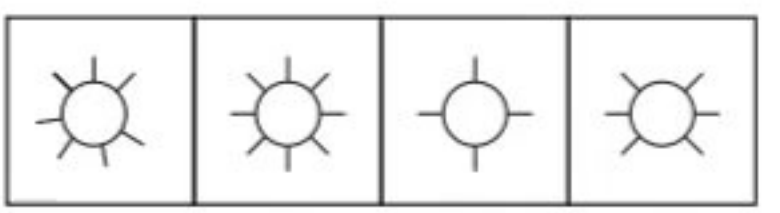
(1) (2) (3) (4)

9.



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

10.



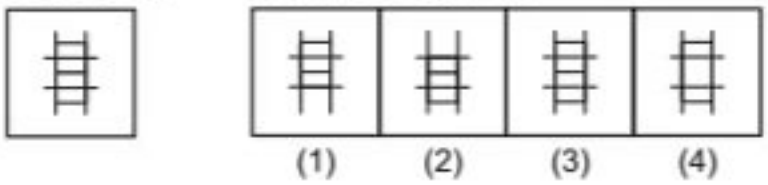
(1) (2) (3) (4)

Based on Memory

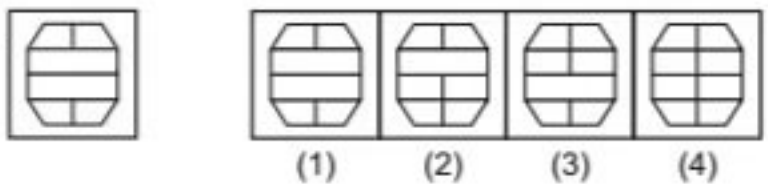
Part II

Directions (Q.Nos. 11-20) *In the following questions, a problem figure is given on the left hand side and four answer figures marked* (1), (2), (3) *and* (4) *are given on the right hand side. Select the answer figure which is exactly the same as the problem figure.*

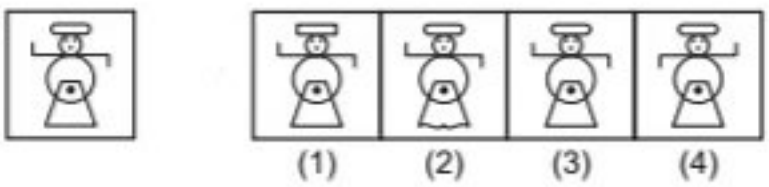
11. Prob. Fig. **Answer Figures**



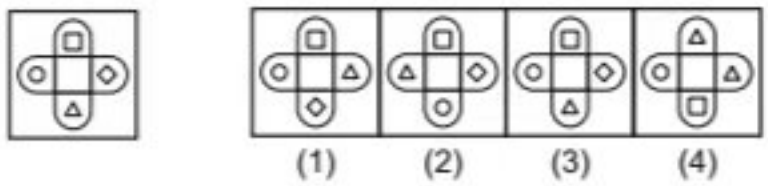
12.



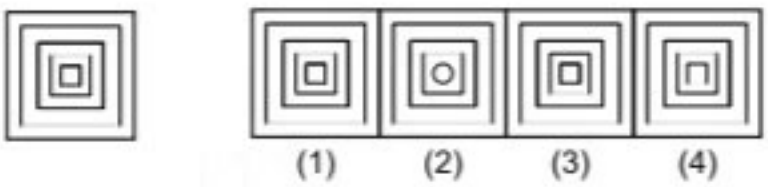
13.



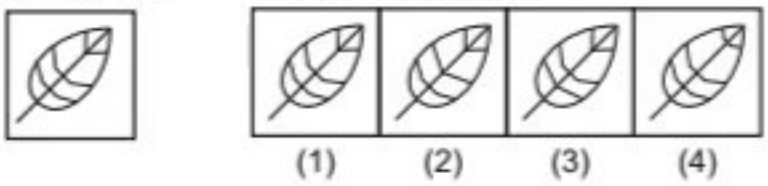
14.



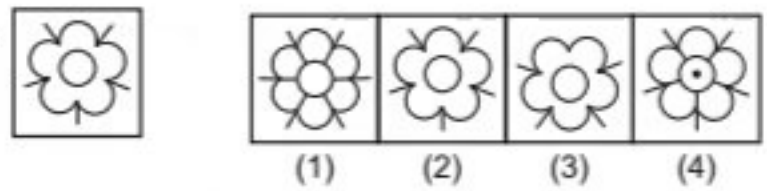
15.



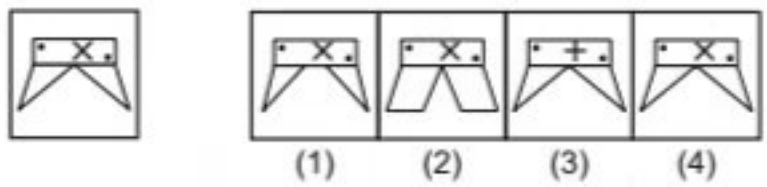
16. Prob. Fig. **Answer Figures**



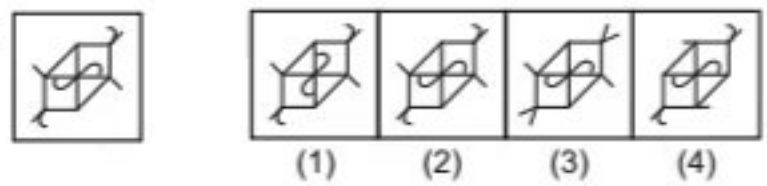
17.



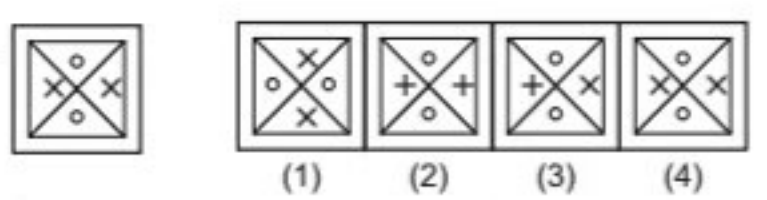
18.



19.



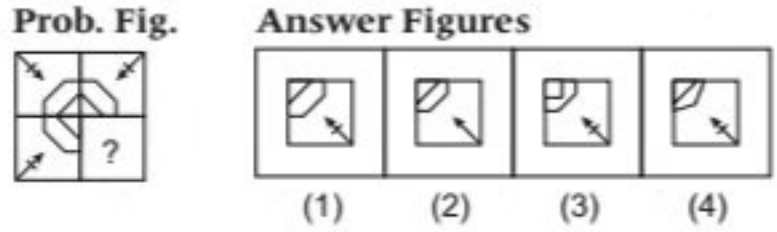
20.



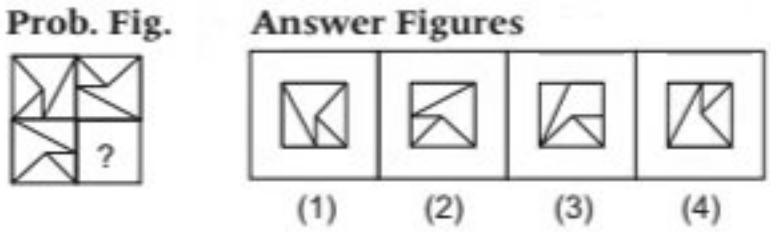
Part III

Directions (Q.Nos. 21-30) *In the following questions, a problem figure is on the left hand side a part of which is missing. Observe the answer figures* (1), (2), (3) *and* (4) *on the right hand side and find out the answer figure which without changing the direction, fits in the missing part of the problem figure in order to complete the pattern in the problem figure. Indicate your answer.*

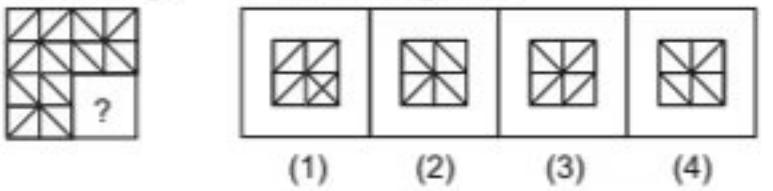
21. Prob. Fig. **Answer Figures**



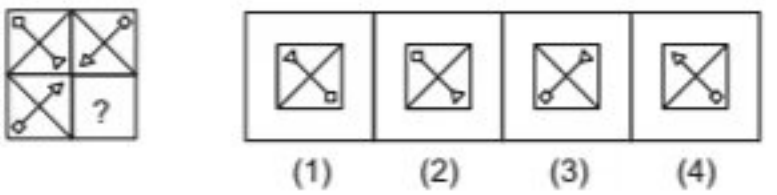
22. Prob. Fig. **Answer Figures**



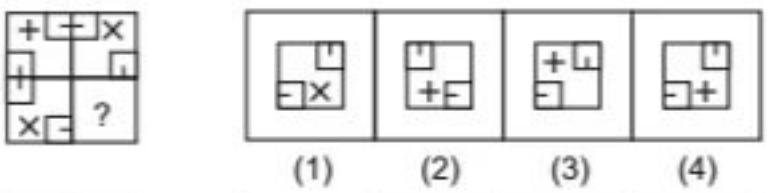
23. **Probl. Fig.** **Answer Figures**



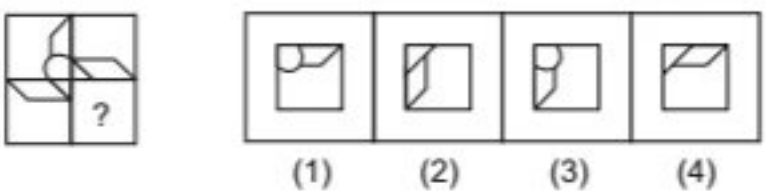
24.



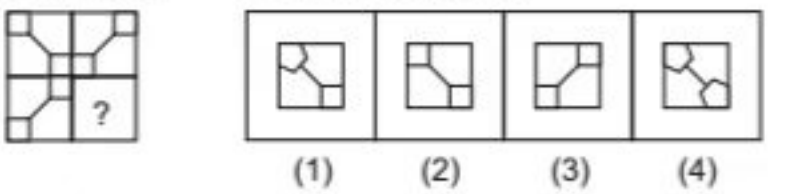
25.



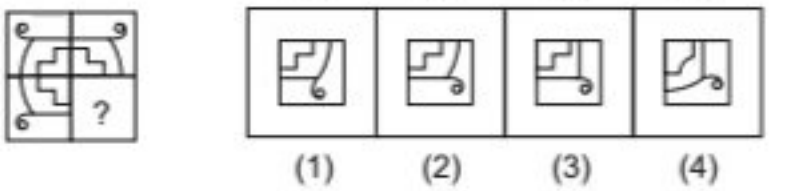
26.



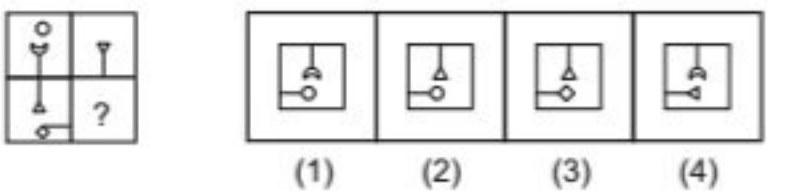
27. **Prob. Fig.** **Answer Figures**



28.



29.

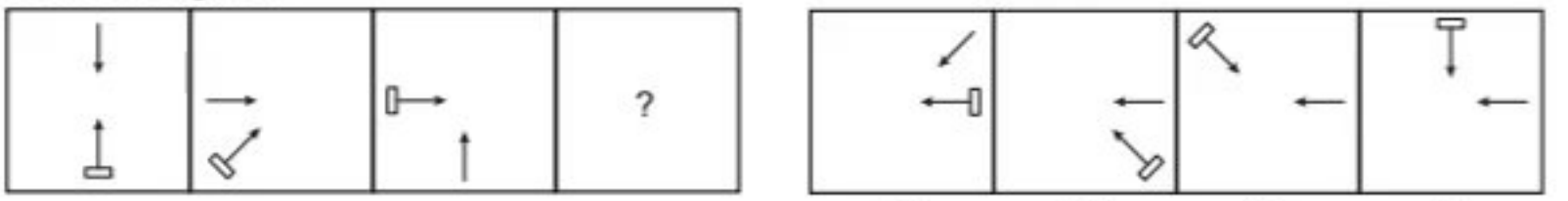


30.

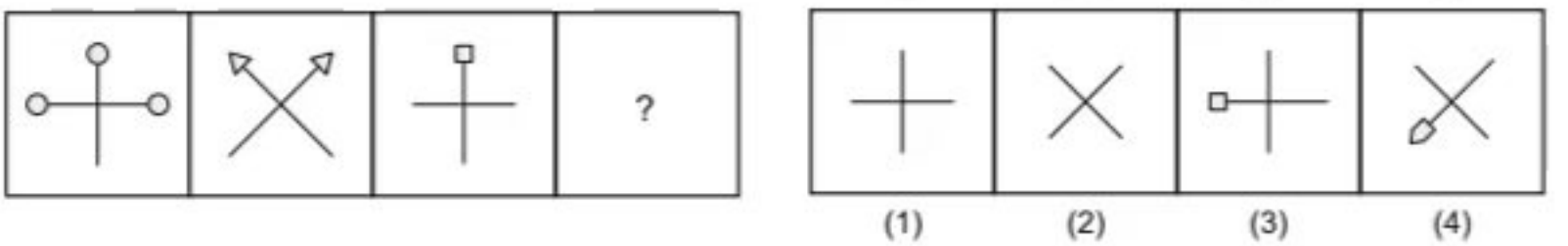
Part IV

Directions (Q.Nos. 31-40) *In the following questions, there are three problem figures and the space for the fourth figure is left blank. The problem figures are in a series. Find out one figure from among the answer figures given below which occupies the blank space for the fourth and which completes the series. Indicate your answer.*

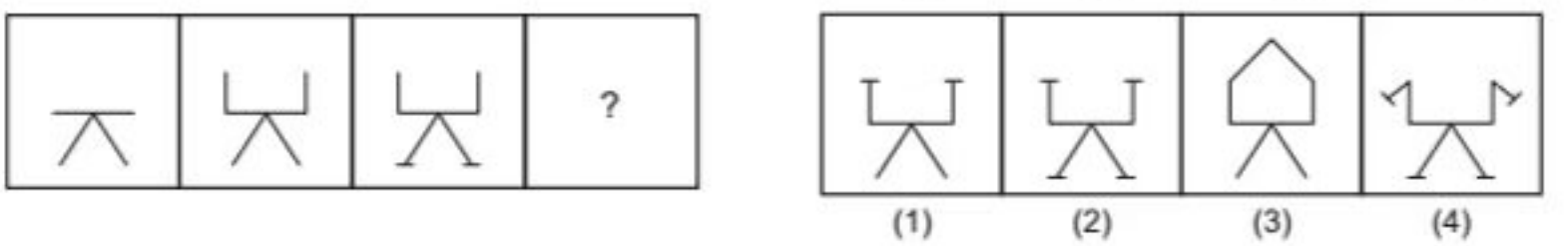
31. **Problem Figures** **Answer Figures**



32.

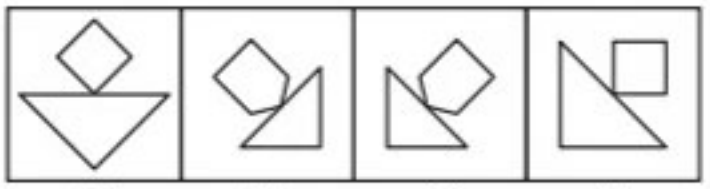


33.



34. **Problem Figures**

Answer Figures



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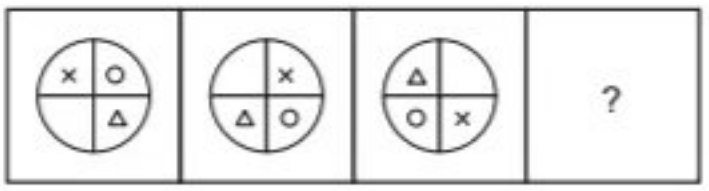

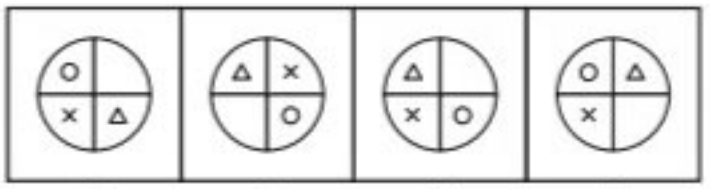

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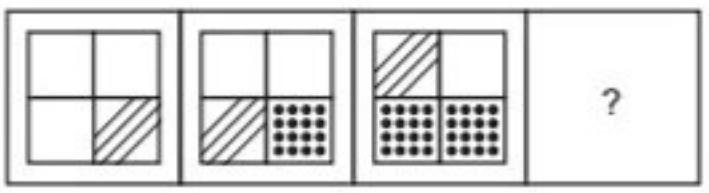

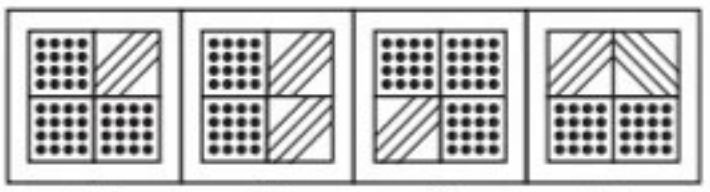

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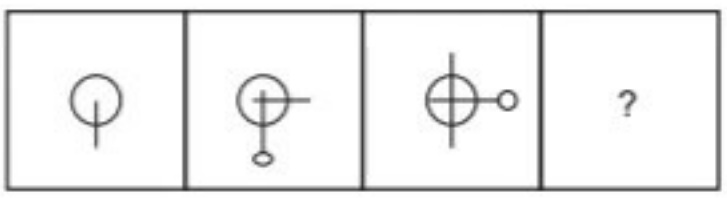

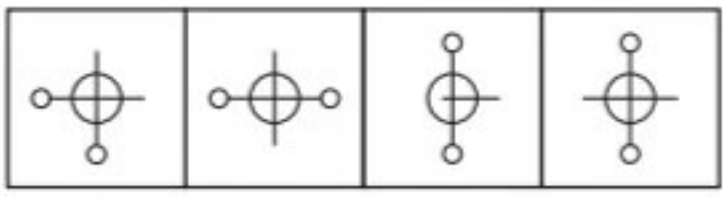

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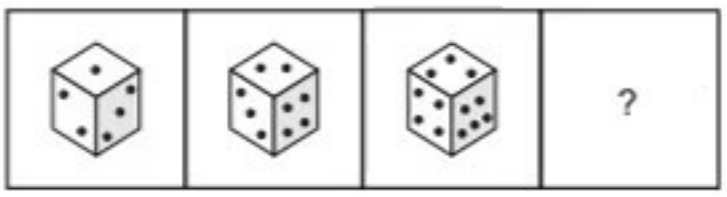

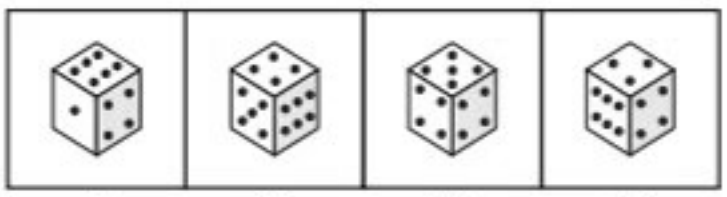

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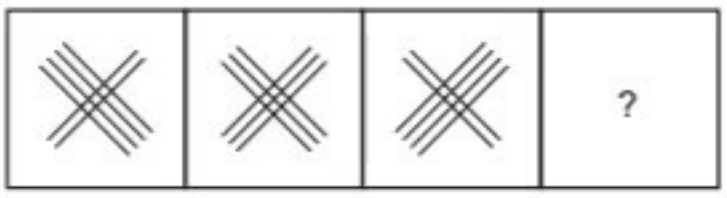

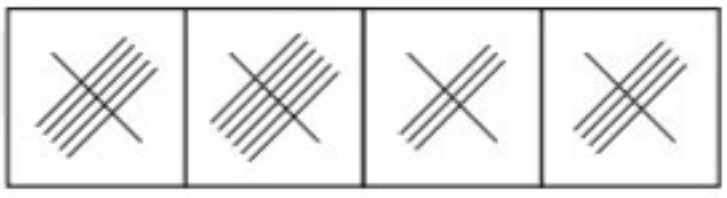

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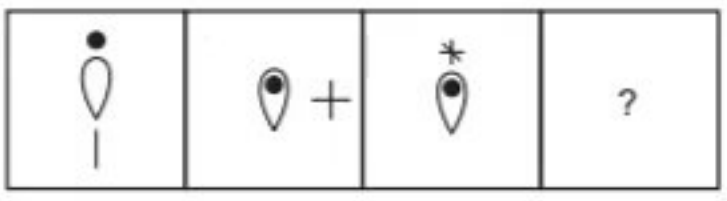
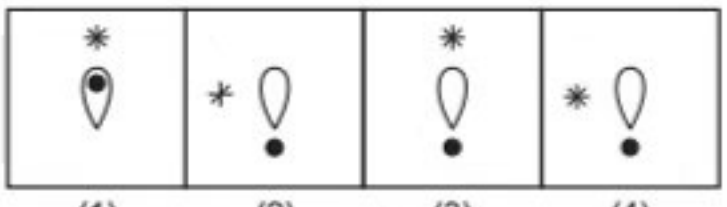


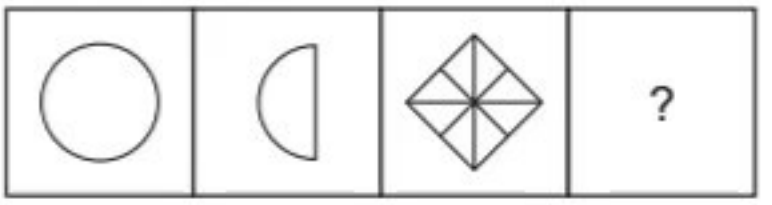


(1) (2) (3) (4)

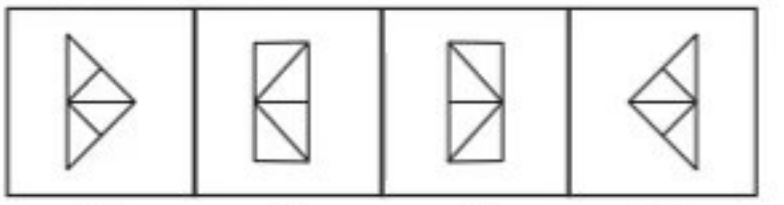
Part V

Directions (Q.Nos. 41-50) *In the following questions, three problem figures followed by a mark of interrogation (?) for the fourth one. There exists a relationship between the first two problem figures. A similar relationship should exist between the third and fourth problem figures. Select one figure from the answer figures which replaces the mark of interrogation (?)*

41. **Problem Figures**

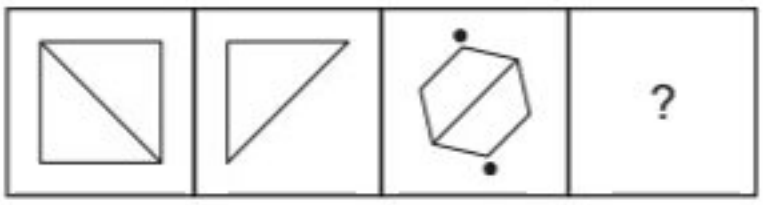


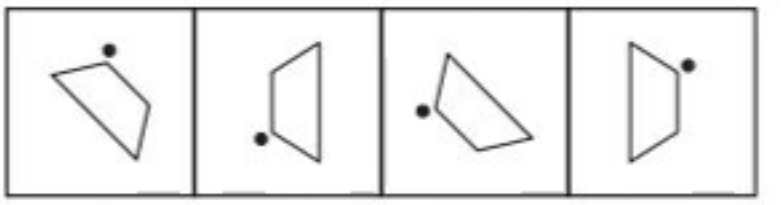
Answer Figures



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

42.





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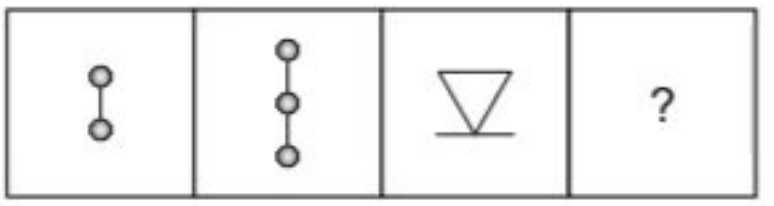

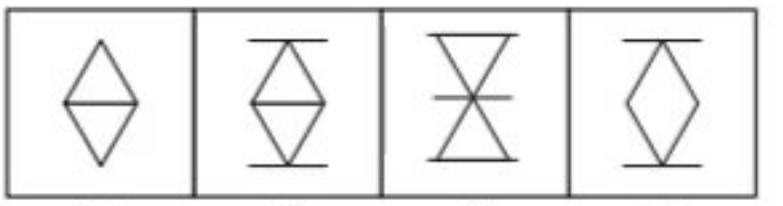

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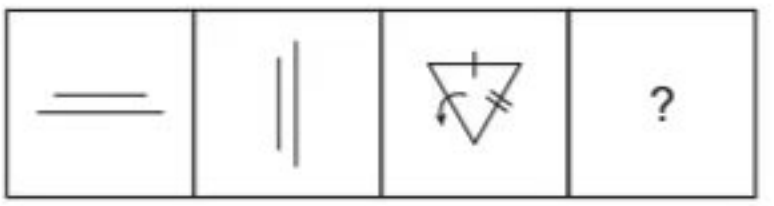

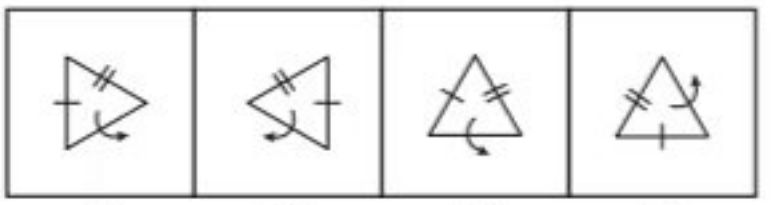

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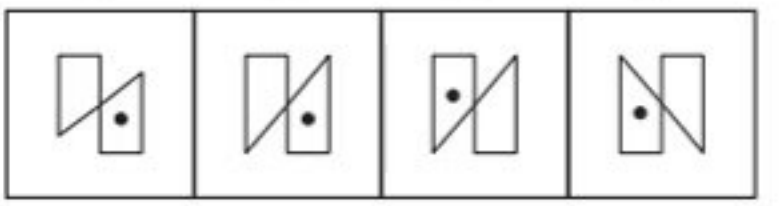

(1) (2) (3) (4)

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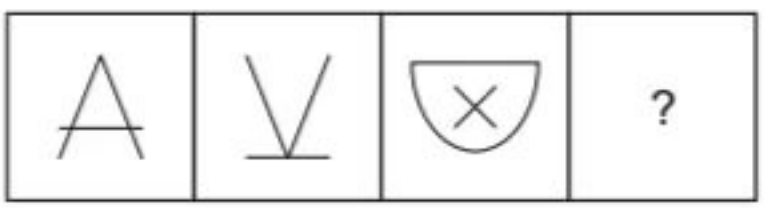
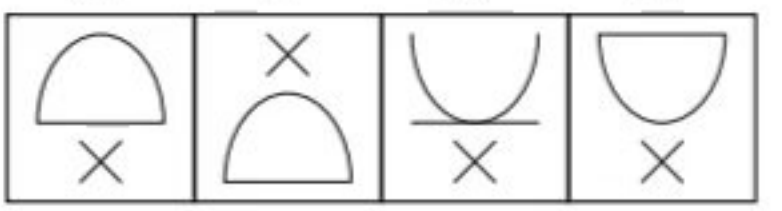
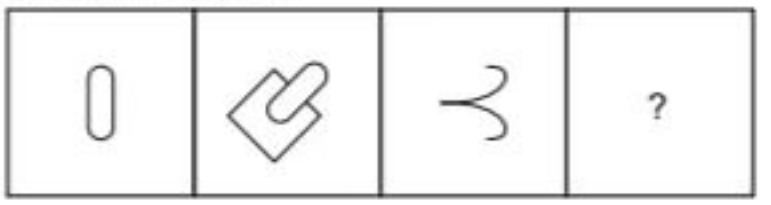


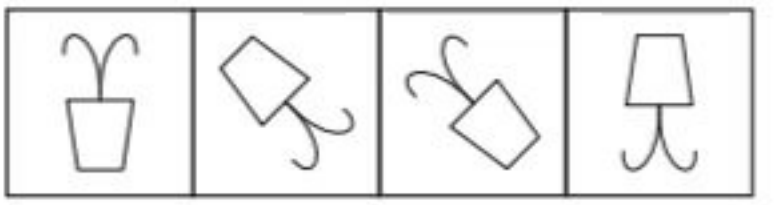


(1) (2) (3) (4)

47. **Problem Figures**

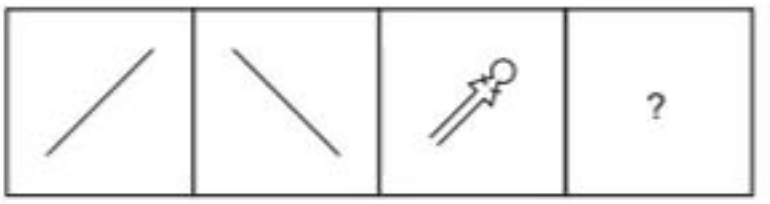


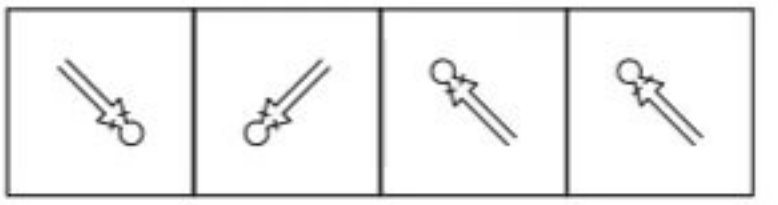
Answer Figures



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

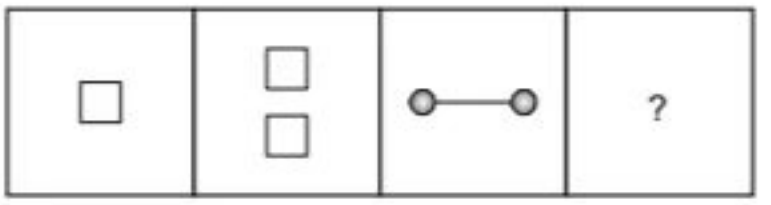
48.

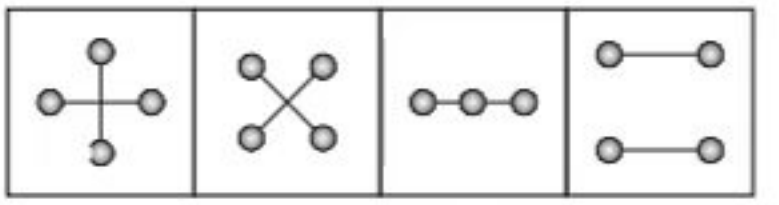




(1) (2) (3) (4)

49.





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

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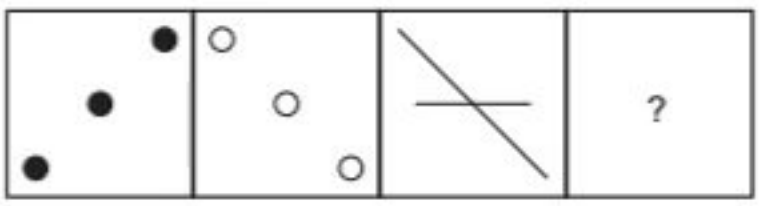
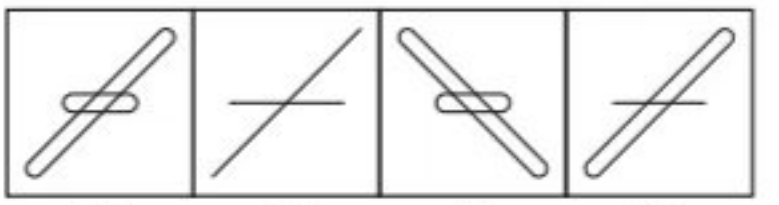




(1) (2) (3) (4)

Part VI

Directions (Q.Nos. 51-60) *In the following questions, one part of a square is given on the left hand side and the other one is among the four figures* (1), (2), (3) *and* (4) *on the right hand side. Find the figure on the right hand side that completes the square.*

51. **Prob. Fig.**

Answer Figures

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

52.

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

53.

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

54. **Prob. Fig.**

Answer Figures

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

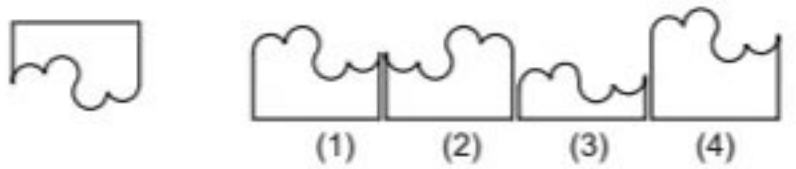
55.

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

56.

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

57. **Prob. Fig.** **Answer Figures**



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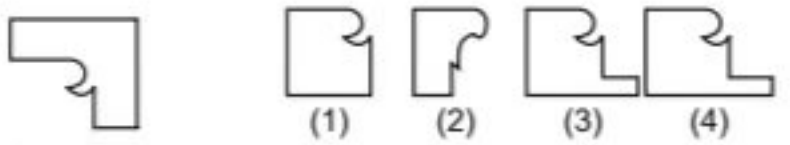
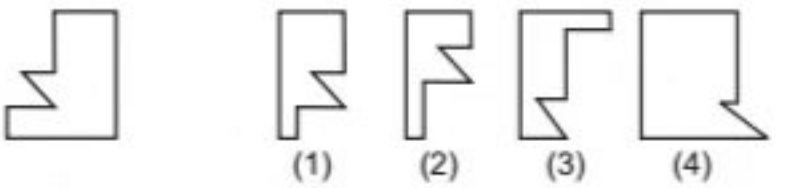


59. **Prob. Fig.** **Answer Figures**



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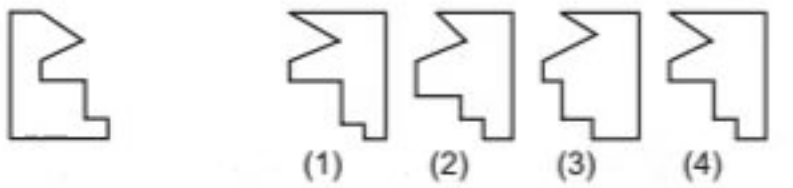


Section II Arithmetic Test

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

61. Three bells start ringing together at 8 : 35 am, if they ring after 12, 15 and 18 s respectively each time, the next time they will toll together at
(1) 8 : 38 am (2) 8 : 40 am
(3) 8 : 41 am (4) 8 : 45 am

62. The next two terms in the series 123, 234, 345, ..., ..., are
(1) 456, 457 (2) 346, 347
(3) 456, 567 (4) 456, 678

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

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

65. A person gets ₹ 15 for an hour. If he works 8 h daily for 5 days how much will be earn?
(1) ₹ 75 (2) ₹ 120 (3) ₹ 500 (4) ₹ 600

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

67. In decimal 80% can be expressed as
(1) $\frac{8}{10}$ (2) $\frac{8}{100}$ (3) $\frac{100}{8}$ (4) $\frac{10}{8}$

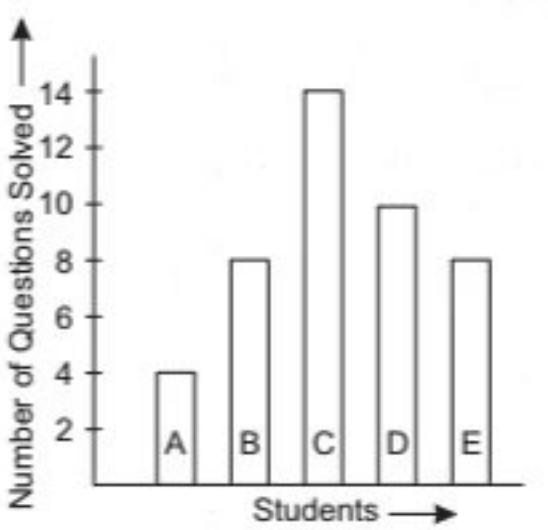
68. In a question of division if divisor is 51, quotient 16 and remainder 27, then the dividend will be
(1) 843 (2) 483 (3) 94 (4) 1393

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

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

71. How many times does 9 come in writing the number from 1 to 100?
(1) 9 (2) 100
(3) 20 (4) 21

72. From the graph calculate how many questions do C and D solve more than A, B and E?



(1) 3 (2) 4
(3) 10 (4) 14

73. 80% of ₹ 240 is more than 35% of ₹ 400 by
(1) ₹ 52 (2) ₹ 42
(3) ₹ 192 (4) ₹ 140

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

75. The sum of the greatest and the smallest 4 digit numbers is
(1) 8999 (2) 10999
(3) 11110 (4) 111111

76. The product of two numbers is 8192. One of the number is two times the second number, the smaller number is
(1) 8 (2) 16
(3) 32 (4) 64

77. The difference between the LCM and HCF of the numbers 30, 36 and 90 is
(1) 366 (2) 354
(3) 186 (4) 174

78. The simplification of
$10 + 4 \div 2 - 3 \times 2 + 4 \div 2 \times 2 - 4$ gives
(1) 0 (2) 1
(3) 6 (4) 8

79. The smallest odd number formed by the digits 1, 0, 3, 4 and 5 will be
(1) 10345 (2) 10453
(3) 10543 (4) 10534

80. The number of 15 cm square tiles required to lay a floor of size 3.6 m × 4.5 m is
(1) 720 (2) 360
(3) 10800 (4) 5400

Section III Language Test (English)

Directions (Q.Nos. 81–100) *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 I

I felt lonely in a classroom full of boys and girls and a teacher. The teacher walked up to me smilling. She put her hand tenderly on my shoulder and asked—"What is your name?" "Abhayankar..."— I whispered. "Say loudly, 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.

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

82. 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

83. The word 'whispered' means
(1) said slowly (2) told loudly
(3) kept quiet (4) did not speak

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

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

Passage II

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 sleep. 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.

"Who are you? What do you want?" A tall man came towards me.

"Where is the woman?" I shouted.

"Which woman? Are you mad?"

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".

86. 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

87. 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

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

89. 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

90. Who solved the mystery of the story?
(1) The narrator (2) The tall man
(3) The sobbing woman (4) The radio announcer

Passage III

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.

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

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

93. 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

94. 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

95. 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 IV

The boys and 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.

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

97. 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

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

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

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

Answers

1. (3)	**2.** (4)	**3.** (3)	**4.** (2)	**5.** (2)	**6.** (1)	**7.** (4)	**8.** (2)	**9.** (4)	**10.** (1)
11. (3)	**12.** (1)	**13.** (3)	**14.** (3)	**15.** (1)	**16.** (1)	**17.** (2)	**18.** (4)	**19.** (2)	**20.** (4)
21. (1)	**22.** (4)	**23.** (3)	**24.** (1)	**25.** (4)	**26.** (3)	**27.** (2)	**28.** (2)	**29.** (1)	**30.** (2)
31. (3)	**32.** (2)	**33.** (2)	**34.** (3)	**35.** (4)	**36.** (1)	**37.** (4)	**38.** (2)	**39.** (1)	**40.** (4)
41. (4)	**42.** (3)	**43.** (2)	**44.** (1)	**45.** (2)	**46.** (1)	**47.** (2)	**48.** (3)	**49.** (4)	**50.** (2)
51. (2)	**52.** (2)	**53.** (1)	**54.** (3)	**55.** (3)	**56.** (4)	**57.** (1)	**58.** (4)	**59.** (1)	**60.** (4)
61. (1)	**62.** (3)	**63.** (3)	**64.** (2)	**65.** (4)	**66.** (2)	**67.** (1)	**68.** (1)	**69.** (2)	**70.** (4)
71. (3)	**72.** (2)	**73.** (1)	**74.** (4)	**75.** (2)	**76.** (4)	**77.** (4)	**78.** (3)	**79.** (1)	**80.** (1)
81. (3)	**82.** (2)	**83.** (1)	**84.** (4)	**85.** (1)	**86.** (2)	**87.** (2)	**88.** (4)	**89.** (3)	**90.** (4)
91. (3)	**92.** (4)	**93.** (4)	**94.** (2)	**95.** (1)	**96.** (1)	**97.** (3)	**98.** (4)	**99.** (2)	**100.** (2)

Hints and Solutions

1. In all others, the line does not intersect the centre.

2. In all others, sign '×' is between Δ and O.

3. In all others, two lines divided in four equal parts.

4. In all others, the inner design of triangles is in the shape of ↑.

5. All others are rectangle or made by lines.

6. All other rectangles have 'V' shaped design.

7. All other designs cut to one another in middle.

8. In all others, the inner design is inverse design of outer one.

9. All other figures have two same designs.

10. In all others, the number of outer lines are even.

31. In the figure, the design '↑' is moving 45° in anti-clockwise direction and ↓ is moving 90° clockwise direction.

32. The figures and designs are ended subsequently.

33. In the figures, two lines are adding subsequently in the design.

34. The figure is moving 90° in clockwise direction and a new line is added.

35. The design is moving 90° in clockwise direction.

36. The design is moving 90° in clockwise direction and one new design with 16 dots is adding.

37. The design is moving 90° in anti-clockwise direction and new design is adding one by one.

38. The top number of dice is increasing subsequently.

39. The left side lines are decreasing and right side lines increasing one by one.

40. The up design is moving downwards and down design is moving 90° in anti-clockwise direction with the addition of one line.

41. The next figure is being made by cutting half first figure.

42. The next is being made by cutting half first figure and then move 90°.

43. Next figure is being made by joining the same design in reverse position.

44. The design is moving 90° in anti-clockwise direction.

45. The next figure is the reverse of the previous figure.

46. The main design is reversing and the auxiliary design is coming down side.

47. The design is moving 45° in clockwise direction and a new big design is joined.

48. The next design is moving 90° in anti-clockwise direction.

49. The next figure is double of first figure.

50. The problem figure 3 is same as problem figure 2. Thus, the answer figure will be the same in direction as problem figure 1.

61.

2	12, 15, 18
3	6, 15, 9
	2, 5, 3

$$\text{LCM} = 2 \times 3 \times 2 \times 5 \times 3$$
$$= 180 \text{ s or } 3 \text{ min}$$

After 3 min the bells will toll together

i.e., 8 : 35 + 3 min = 8 : 38 am

62.

1	2	3				
×	2	3	4			
	×	3	4	5		
		×	4	5	6	
			×	5	6	7

In the series, left most digit in each term is omitting and the predecessor of the right most digit is appearing.

63. ∵ $\frac{1}{3} = 0.33$

$\frac{1}{2} = 0.50$

∴ In ascending order the numbers will be written as

$$0.25 < 0.33 < 0.50$$

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

64. ∵ Bus left Delhi at = 5 : 30 pm

Reached at = 7 : 36 am

Time from 5 : 30 pm to 12 : 00 pm (midnight)

= 12 : 00 – 5 : 30 = 6 h 30 min

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

∴ Total time = 6 h 30 min + 7 h 36 min

= 14 h 6 min

65. Working hours of 1 day = 8

Working hours of 5 days = 5 × 8 = 40 h

Earning of 1 h = ₹ 15

Earning of 40 h = 15 × 40 = ₹ 600

66. ∵ The side of a square = $\frac{\text{Perimeter}}{4}$

∴ The side of given square = $\frac{48}{4} = 12$ m

∴ Area = Side × Side = 12 × 12 = 144 sq m

67. $80\% = \frac{80}{100} = \frac{8}{10}$

68. As we know,

Dividend = Divisor × Quotient + Remainder

∴ Dividend = 51 × 16 + 27

= 816 + 27 = 843

69. $1 + \frac{1}{10} + \frac{1}{100} + \frac{1}{1000}$

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

70. 30 = 1 × 30 = 2 × 15

= 3 × 10 = 5 × 6

∴ Factors of 30 are 1, 2, 3, 5, 6, 10, 15, 30.

71. 9, 19, 29, 39, 49, 59, 69, 79, 89 = 9

90, 91, 92, 93, 94, 95, 96, 97, 98 = 9

99 = 2

Total = 20

72. Number of questions solved by C = 14

Number of questions solved by D = 10

Total = 24

Number of questions solved by A, B and E

= 4 + 8 + 8 = 20

⇒ 24 – 20 = 4

73. 80% of ₹ 240 $= \frac{240 \times 80}{100} =$ ₹ 192

35% of ₹ 400 $= \frac{400 \times 35}{100} =$ ₹ 140

Difference = (192 – 140) = ₹ 52

74. Interest $= \frac{\text{Principal} \times \text{Rate} \times \text{Time}}{100}$

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

75. The greatest 4 digit number = 9999

The smallest 4 digit number = 1000

Total = 10999

76. Let the number be x and $2x$.

$\therefore \quad x \times 2x = 8192$

$\Rightarrow \quad x \times x = \frac{8192}{2} = 4096$

$\Rightarrow \quad x^2 = 4096$

$\Rightarrow \quad x = \sqrt{4096} \Rightarrow x = 64$

77.

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

LCM $= 2 \times 2 \times 3 \times 3 \times 5 = 180$

```
36) 90  (2
    72
    18) 36  (2
        36
        ×
        18) 30  (1
            18
            12) 18  (1
                12
                 6) 12  (2
                    12
                    ×
```

HCF = 6

$\therefore$ Difference $= 180 - 6 = 174$

78. $10 + 4 \div 2 - 3 \times 2 + 4 \div 2 \times 2 - 4$

$= 10 + 2 - 3 \times 2 + 2 \times 2 - 4$

$= 10 + 2 - 6 + 4 - 4$

$= 10 + 2 + 4 - 6 - 4$

$= 16 - 10 = 6$

79. 10345

80. Number of tiles required

$= \frac{\text{Area of floor}}{\text{Area of one tile}}$

$= \frac{3.6 \times 4.5}{0.15 \times 0.15}$

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

Jawahar *Navodaya Vidyalaya* Entrance Exam (Class VI)

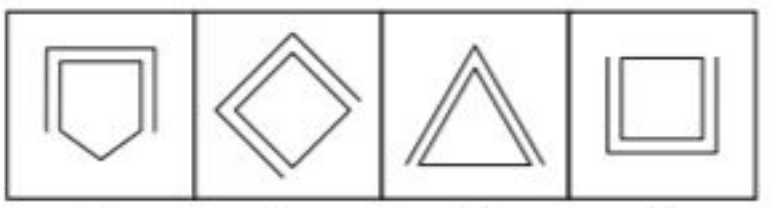
Solved Paper 2004

Section I Mental Ability Test

Part I

Directions (Q.Nos. 1-10) *In the following questions, four figures* (1), (2), (3) *and* (4) *are given. Out of these four figures, three are similar, one way or the other but one figure is different. Spot out the different figure.*

1.

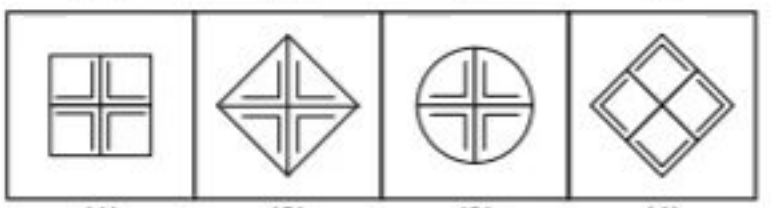


(1) (2) (3) (4)

2.

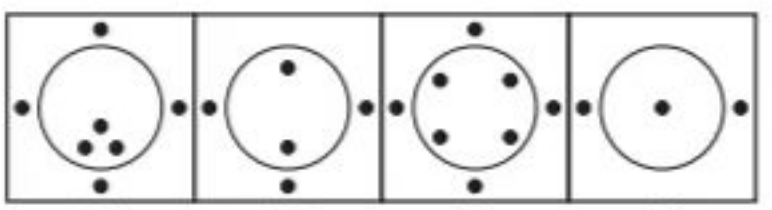
(1) (2) (3) (4)

3.



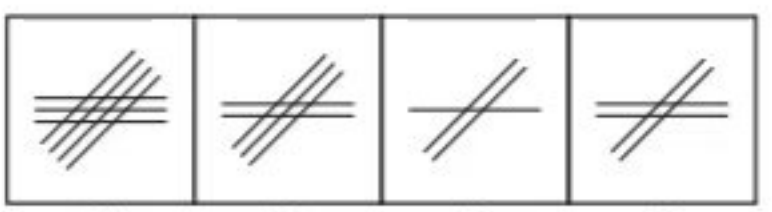
(1) (2) (3) (4)

4.



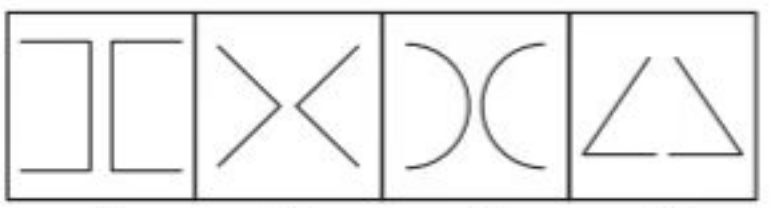
(1) (2) (3) (4)

5.



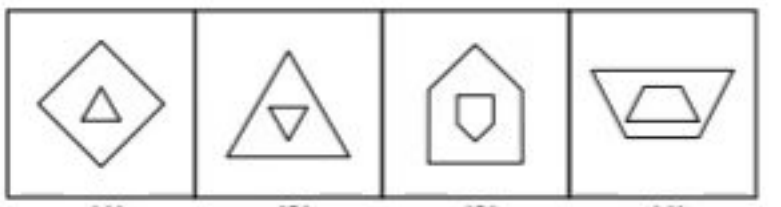
(1) (2) (3) (4)

6.



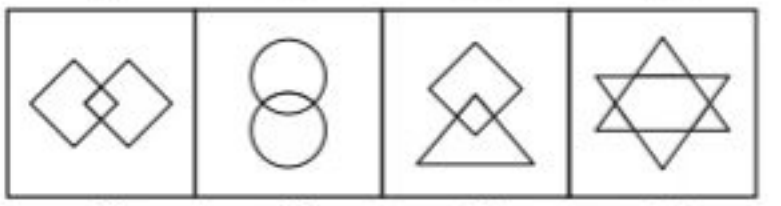
(1) (2) (3) (4)

7.



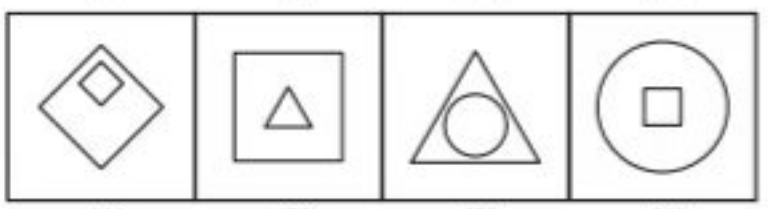
(1) (2) (3) (4)

8.



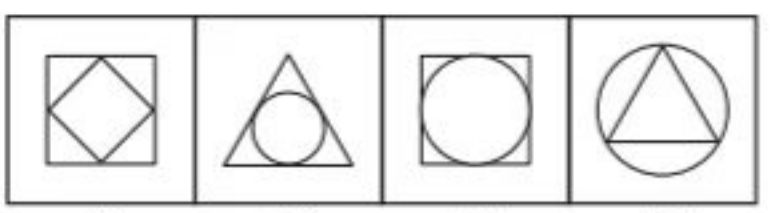
(1) (2) (3) (4)

9.



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

10.



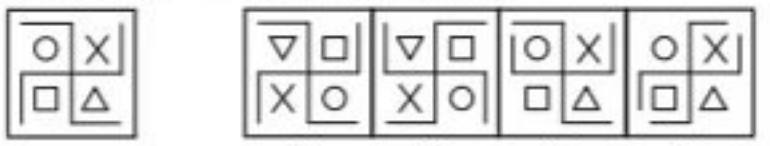
(1) (2) (3) (4)

Based on Memory

Part II

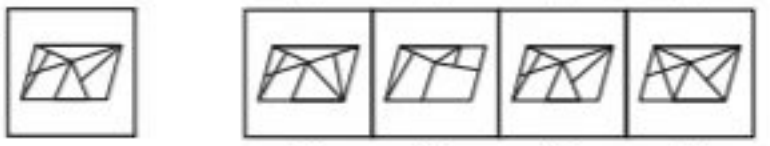
Directions (Q.Nos. 11-20) *In the following questions, a problem figure is given on the left side. Four answer figures* (1), (2), (3) *and* (4) *are given on the right side. Spot out the figure similar to the problem figure.*

11. Prob. Fig. **Answer Figures**



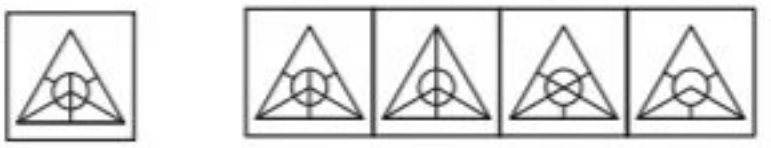
(1) (2) (3) (4)

12.



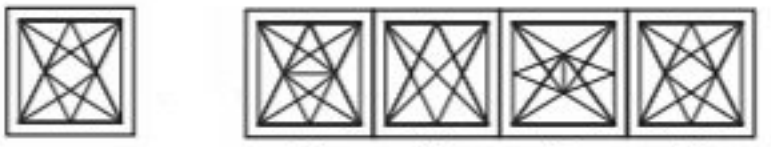
(1) (2) (3) (4)

13.



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

14.

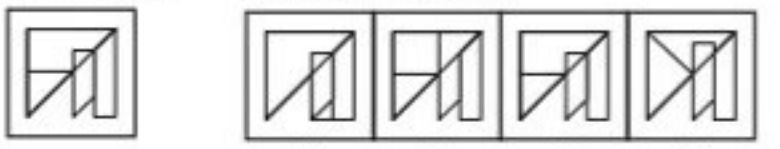


(1) (2) (3) (4)

15.

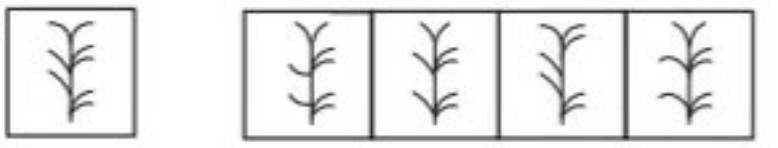
(1) (2) (3) (4)

16. Prob.Fig. **Answer Figures**



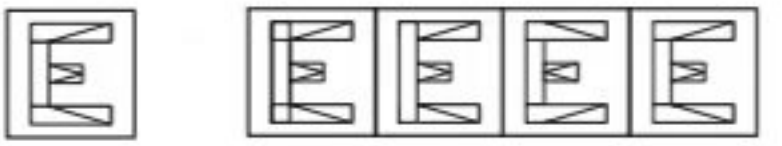
(1) (2) (3) (4)

17.



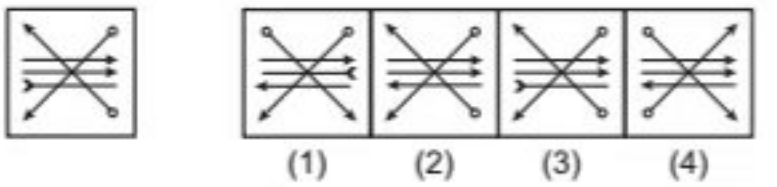
(1) (2) (3) (4)

18.



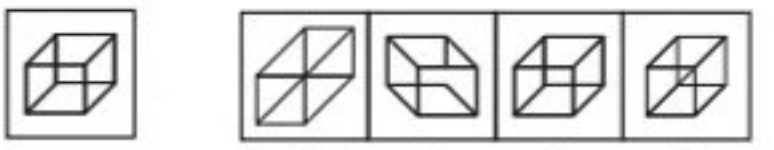
(1) (2) (3) (4)

19.



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

20.

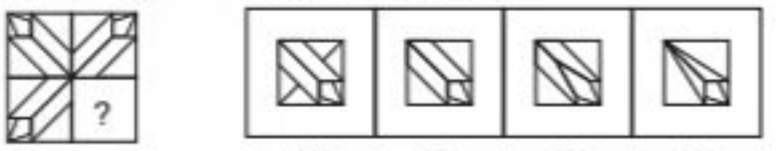


(1) (2) (3) (4)

Part III

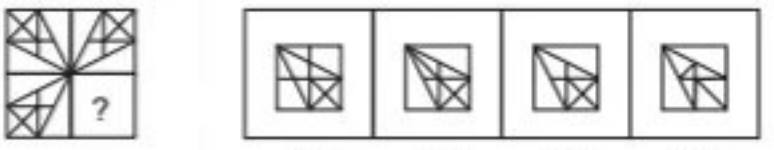
Directions (Q.Nos. 21-30) *In the following questions, a problem figure is given, which is incomplete. One, out of the four answer figures* (1), (2), (3) *and* (4) *can complete the same. You have to locate the answer figure which if inserted in the problem figure, without changing the direction, completes the same.*

21. Prob. Fig. **Answer Figures**



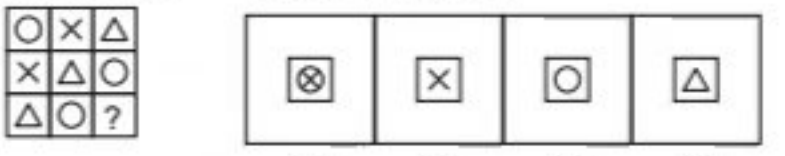
(1) (2) (3) (4)

22.



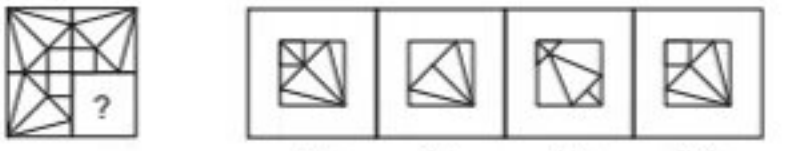
(1) (2) (3) (4)

23. Prob. Fig. **Answer Figures**



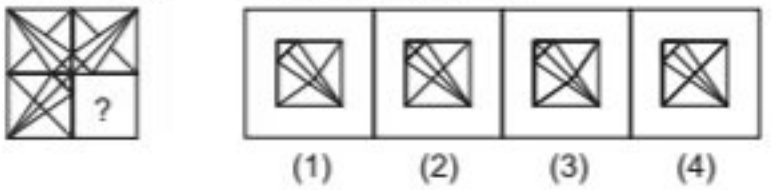
(1) (2) (3) (4)

24.

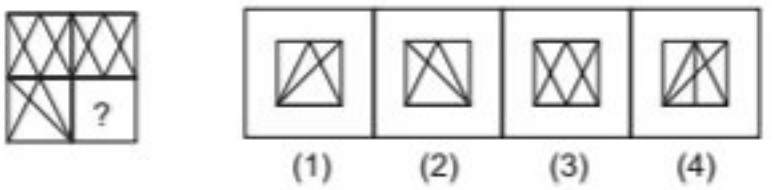


(1) (2) (3) (4)

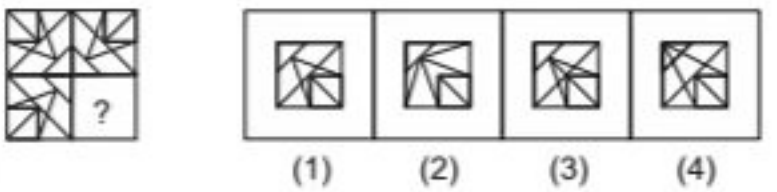
25. **Prob. Fig.** **Answer Figures**



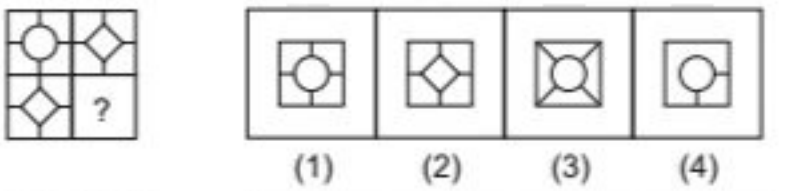
26.



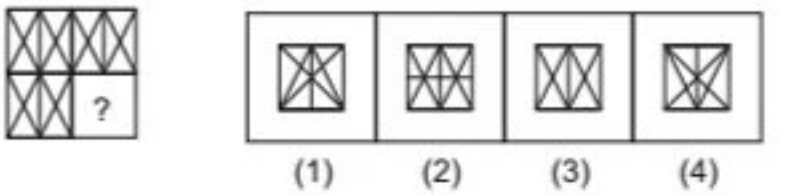
27.



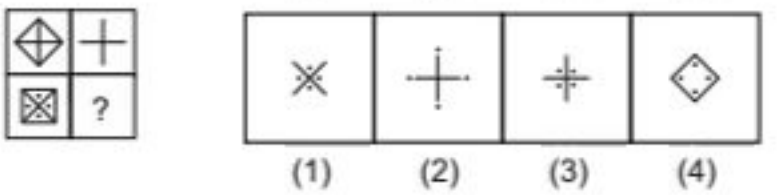
28. **Prob. Fig.** **Answer Figures**



29.



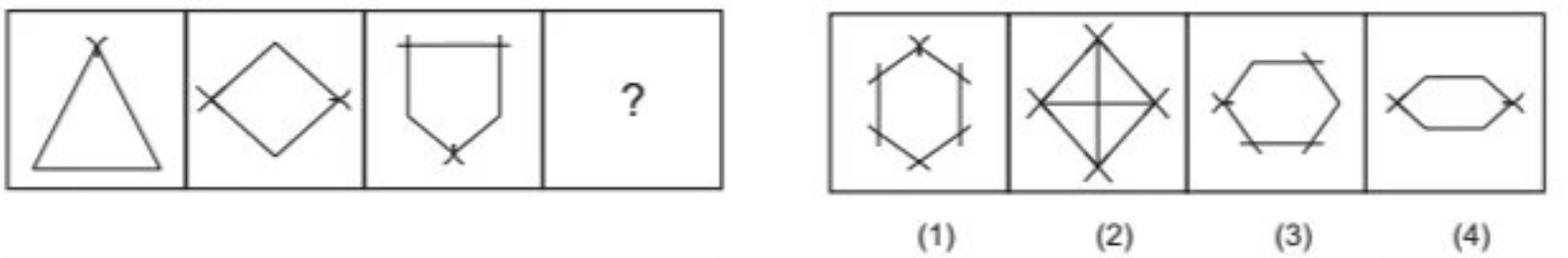
30.



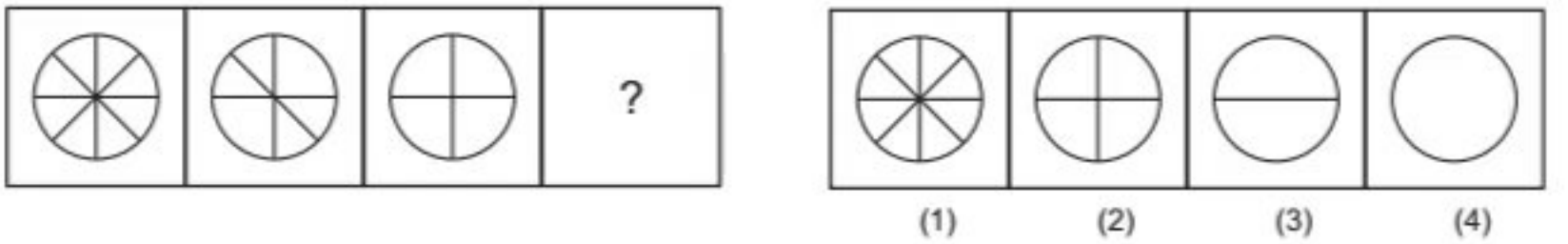
Part IV

Directions (Q. Nos.31-40) *In the following questions, there are three problem figures and the space for the fourth figure is left blank. The problem figures are in series. Pick one figure from among the answer figures given on which occupies the blank space for the fourth figure and which completes the series. Indicate your answer.*

31. **Problem Figures** **Answer Figures**



32.



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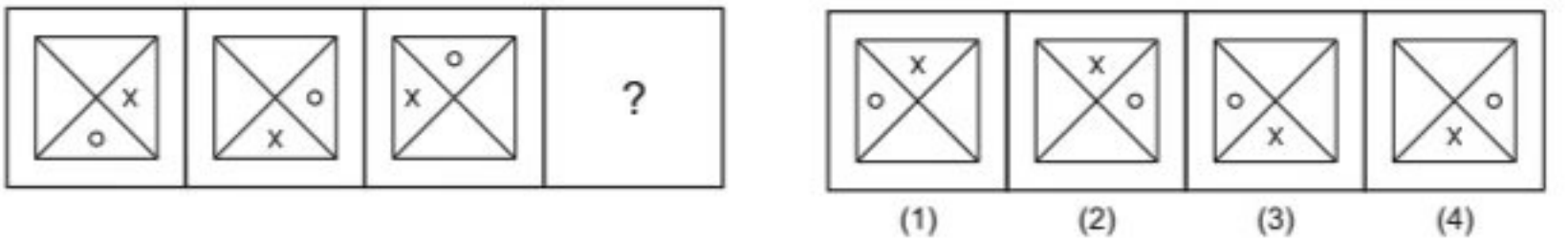

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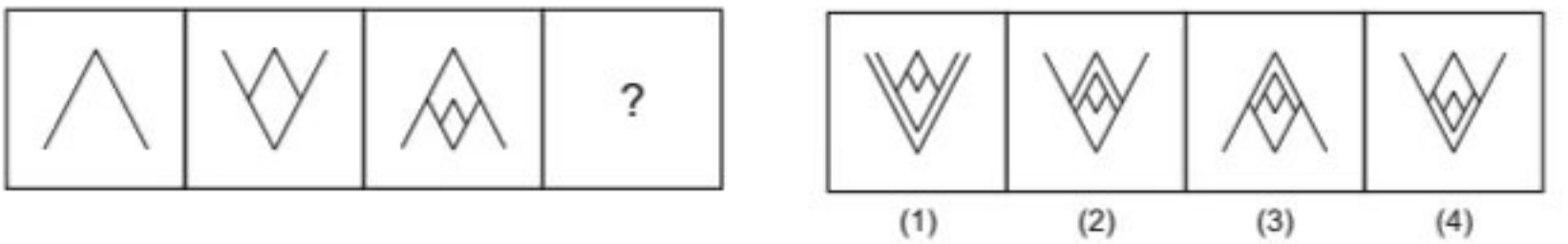
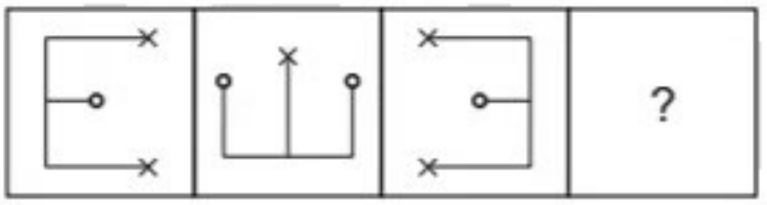
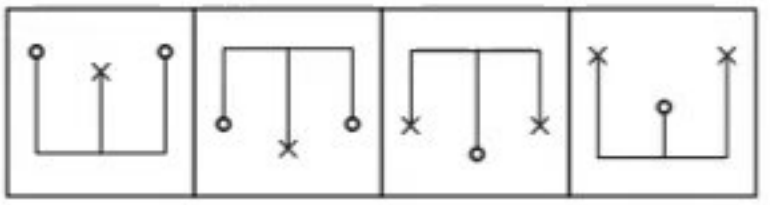


35. **Problem Figures**

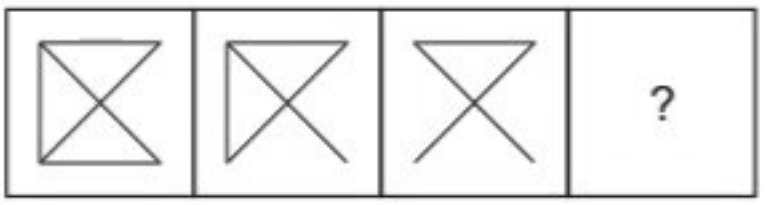


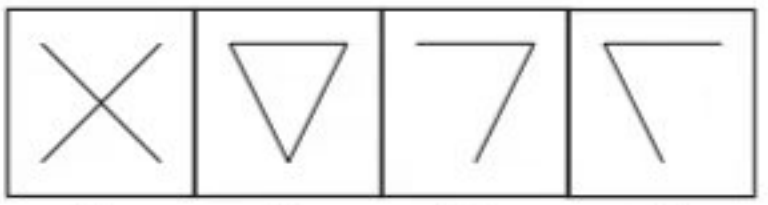
Answer Figures



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

36.





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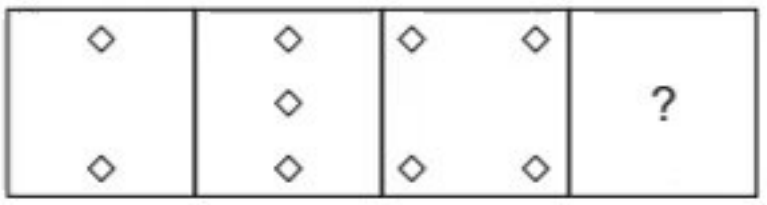

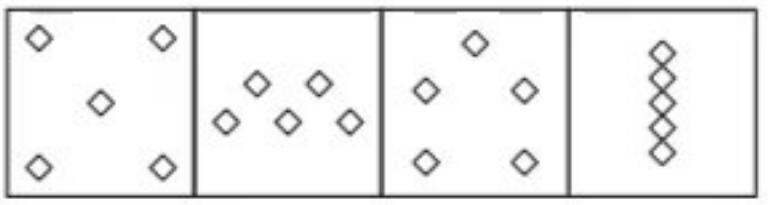

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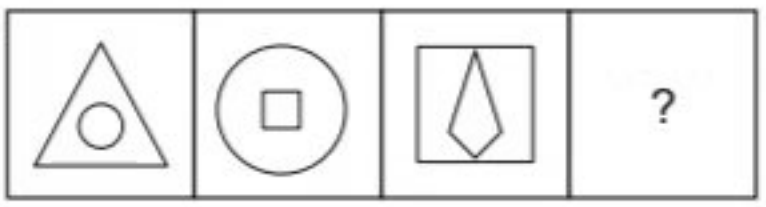

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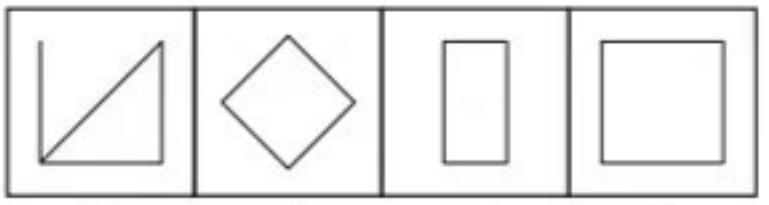

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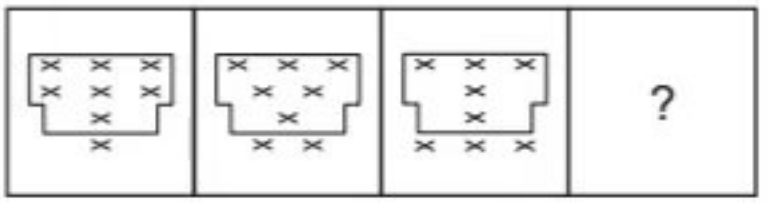
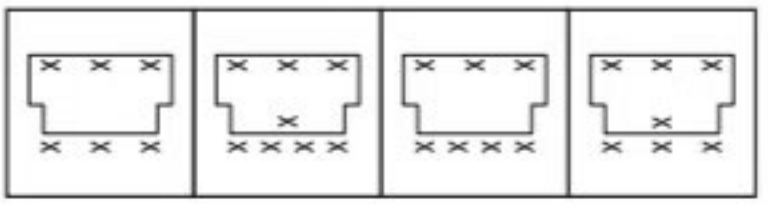




(1) (2) (3) (4)

Part V

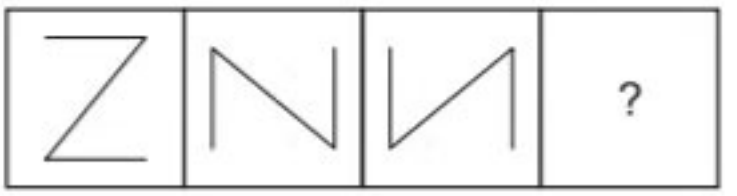
Directions (Q. Nos. 41-50) *In the following questions, three problem figures are given on the left side. There is some relationship between the first and second figure. Same relationship should exist between the third and fouth figure. Fourth space is left blank. Select the figure from the answer figures, which fits suitably in the fourth space. That will be your answer.*

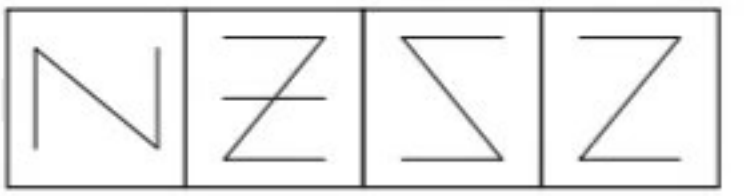
41. Problem Figures

Answer Figures

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

42.





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

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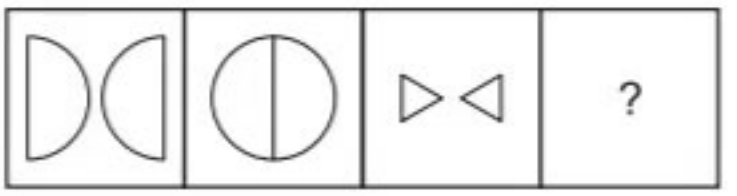

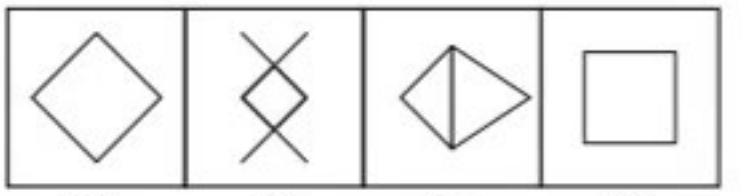

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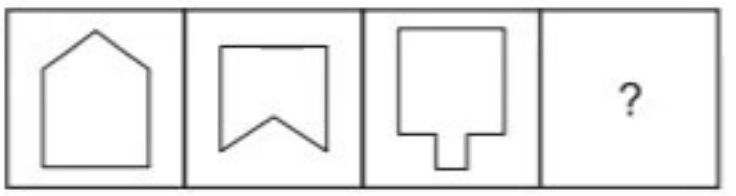

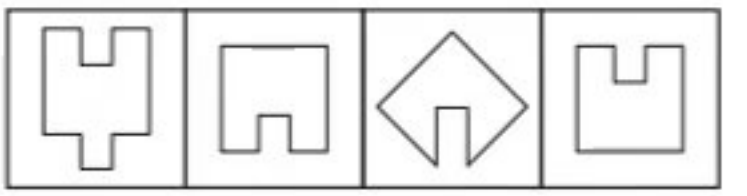

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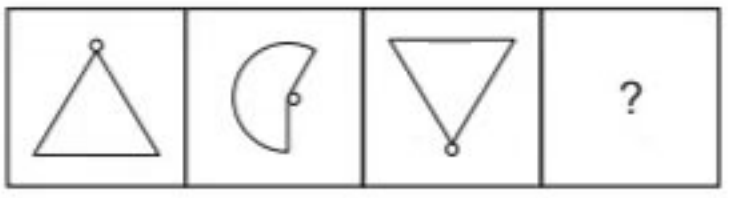

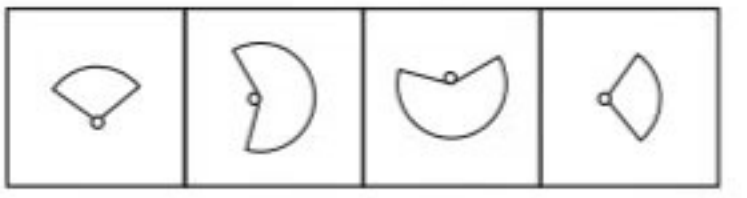

(1) (2) (3) (4)

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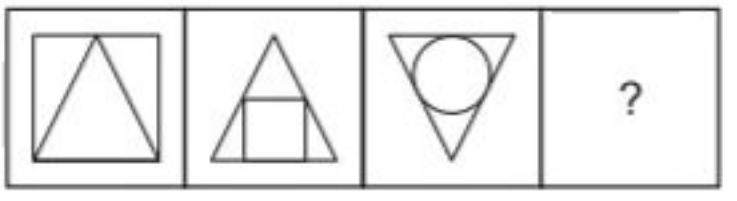

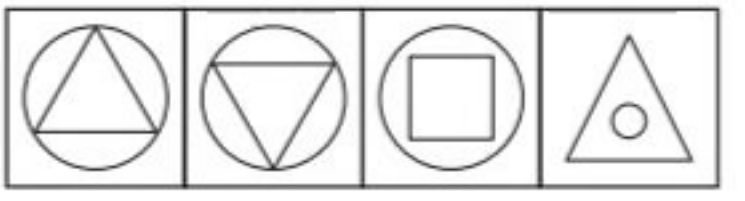

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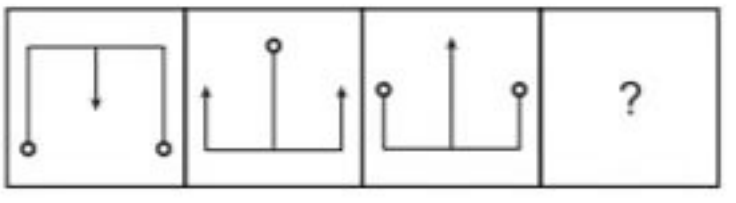
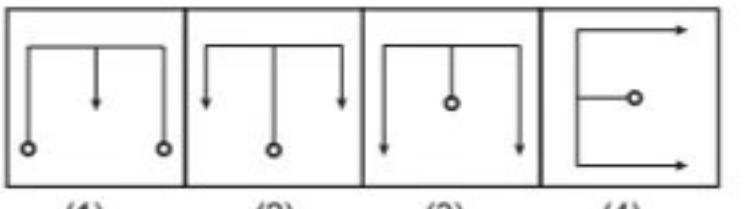
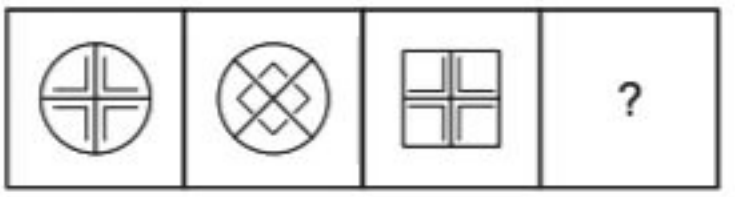


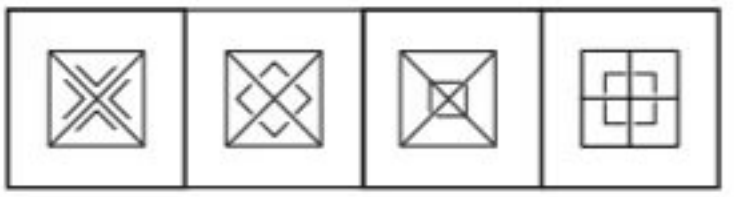


(1) (2) (3) (4)

48. Problem Figures

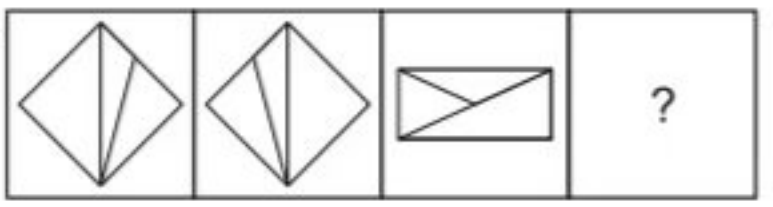


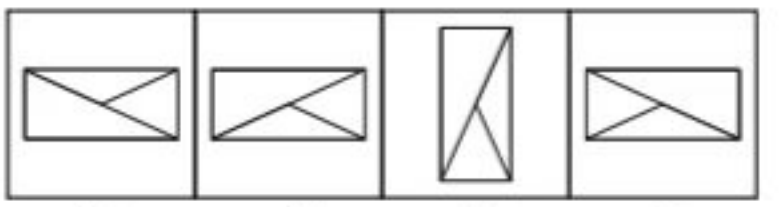
Answer Figures



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

49.





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

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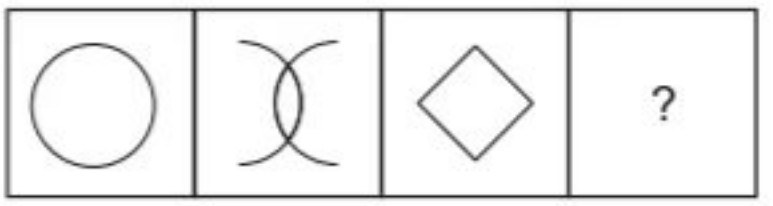
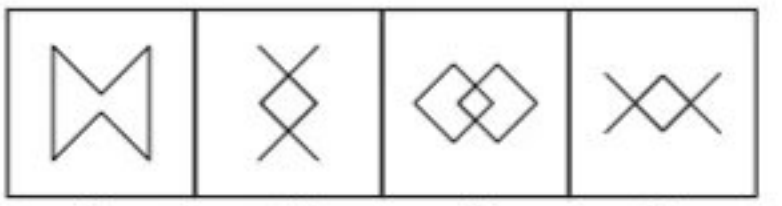




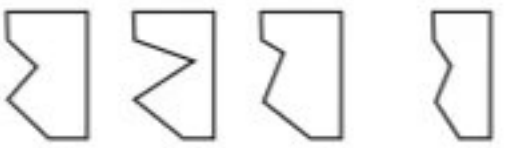
(1) (2) (3) (4)

Part VI

Directions (Q. Nos. 51-60) *In the following questions, one part of a square is given on the left hand side and the other one is among the four figures* (1), (2), (3) *and* (4) *on the right hand side. Find the figure on the right hand side that complete the square.*

51. Prob. Fig.

Answer Figures

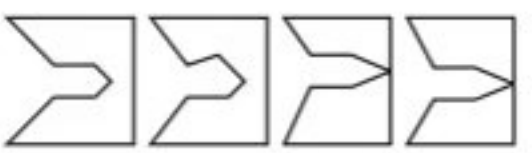


(1) (2) (3) (4)

52.

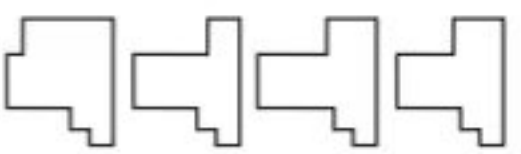
(1) (2) (3) (4)

53.



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

54.



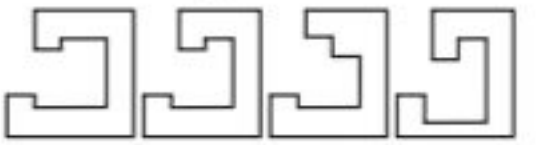
(1) (2) (3) (4)

55.

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

56. Prob. Fig.

Answer Figures



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

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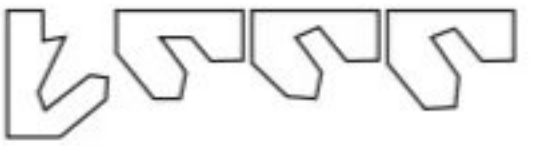

(1) (2) (3) (4)

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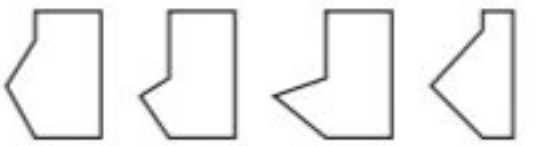
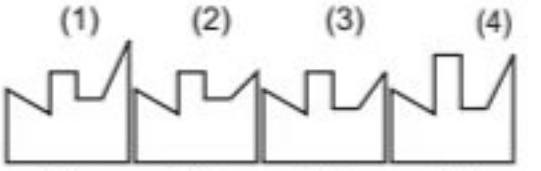


(1) (2) (3) (4)

59.



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

60.

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

Section II Arithmetic Test

Directions (Q.Nos. 61-80) *For every question, four probable answers bearing letters* (1), (2), (3) *and* (4) *are given. Only one out of these is correct. You have to choose the correct answer.*

61. Which of the following numbers is the smallest?
70707, 70077, 70770, 70070
(1) 70707 (2) 70077
(3) 70770 (4) 70070

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

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

64. The number 13013 is divisible by 13. The smallest 5 digit number beginning with 14 and exactly divisible by 13 is
(1) 14040 (2) 14001
(3) 14014 (4) 14027

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

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

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

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

69. 5.125 when changed into fraction, becomes
(1) $5\frac{1}{125}$ (2) $5\frac{1}{25}$ (3) $5\frac{1}{8}$ (4) $51\frac{1}{4}$

70. 10 m is what per cent of 10 km?
(1) 0.1% (2) 1.0%
(3) 10.0% (4) 40.0%

71. The next row of numbers is

25	50	53
26	52	55
27	54	57
?	?	?

(1) 28, 54, 57 (2) 28, 56, 59
(3) 28, 56, 60 (4) 30, 60, 63

72. A man buys a radio for ₹ 900 and sells it for ₹ 1200. Find his gain per cent.
(1) 20 (2) 25
(3) 30 (4) $33\frac{1}{3}$

73. When 20.2 is multiplied by 18.01, the result rounded to complete numbers without decimals is
(1) 360 (2) 362
(3) 364 (4) 365

74. Three bells start ringing together at 8 : 30 am. If they ring after 4 min, 5 min and 6 min respectively each time, the next time they will ring together at
(1) 8 : 45 am (2) 9 : 30 am
(3) 9 : 45 am (4) 10 : 15 am

75. In how many years will ₹ 500 amount to ₹ 600 at the rate of 5% per annum at simple interest?
(1) 3 (2) 4
(3) 5 (4) 6

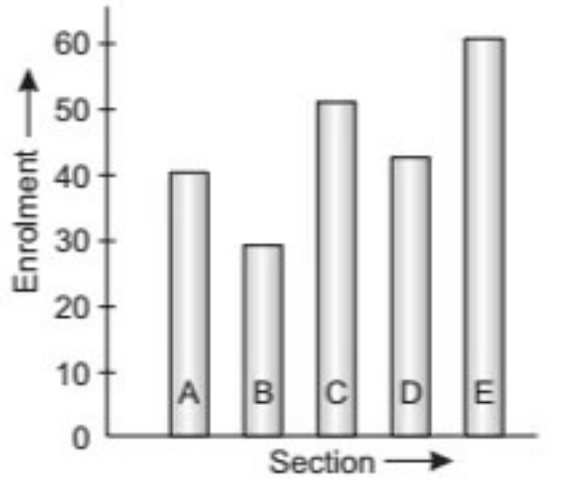
76. How many rectangular plots of dimensions 40 m by 60 m can be made from a rectangular field of dimensions 120 m by 160 m?
(1) 2 (2) 3
(3) 4 (4) 8

77. A boy slept at 9 : 45 pm and woke up the next morning at 5 : 30 am. He slept for
(1) 4 h 15 min (2) 7 h 15 min
(3) 7 h 45 min (4) 8 h 15 min

78. The average of four numbers is 30. If the sum of first three numbers is 85, the fourth number is
(1) 30 (2) 35
(3) 45 (4) 55

79. On 1st April of a year, it is Monday. What day will it be on 18th April in the same year?
(1) Thursday
(2) Friday
(3) Saturday
(4) Wednesday

80. From the graph, identify a section which has half the enrollment of another section



(1) A (2) B (3) C (4) D

Section III Language Test (English)

Directions (Q. Nos. 81-100) *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 letters* (1), (2), (3) *and* (4) *are given. Only one out of these is correct. You have to choose the correct answer.*

Passage I

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

He then started singing the piece correctly the mood came upon him and enveloped him, and he forgot himself in the music which filled the earth and heaven and Akbar and Tensen themselves in the sheer melody and charm of the music.

It was a unique experience. When the music stopped, Akbar turnd to Tansen and said, 'You say you learnt music from this saint and yet you seem to have missed the living charm of it all. Yours seems to be chaff beside this soul stirring music'.

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

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

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

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

85. "Tansen, ... should commit such a gross blunder'. Here 'gross' means
(1) twelve dozen (2) serious
(3) chocking (4) melody

Passage II

Once upon a time, there lived a Rajput king at Malwa. His kingdom was small, quiet and peaceful. There were no major battles or political problems. So his one aim in life was to make his people happy.

One year there was a severe drought. The fields were dry and cracked, and the trees were bare. There were no flowers and fruits in the land, or crops of any kind. The king was worried. How was he to save the people from famine?

He walked to the river Narmada, knelt down and prayed, 'O Sacred Narmada, bless us with rain. Save my people from famine and I shall offer you my first-born child'.

Before long, the sky was overcast with clouds and it rained heavily. The wet earth was ploughed, seeds were sown and a few months later a bumper crop was harvested. The people rejoiced.

86. What was the king's problem?
(1) Wars (2) Politics
(3) Famine (4) Flood

87. Which statement shows that the Rajput king loved his people?
(1) The king offered his first-born child to river Narmada
(2) He opened the gates of the state granary for his people
(3) He forced his neighbouring states to contribute food
(4) He set up relief camps to feed the hungry

88. When there is drought
(1) there is lot of rain
(2) the earth is dry and cracked
(3) people are very happy
(4) people sow the seeds

89. The king prayed Narmada for
(1) grains (2) famine
(3) a child (4) rain

90. 'Before long' means
(1) a long time ago (2) for a long time
(3) very soon (4) in the past

Passage III

Two friends were in the forest, when they saw a bear coming towards them. Frightened, the older boy, quickly climbed a tree, forgetting his friend. The younger boy, who couldn't climb well, threw himself down on the ground and pretended to be dead. The bear came and circled around the body. He put his face close to that of the boy. He sniffed and stared and at last left.

The older boy came down the tree, ran to his friend and asked, 'Are you all right? What was the bear doing? He was near you for a long time.

'He was talking to me' replied his friend. 'He gave me some good advice'. He said, 'Don't trust a friend who doesn't help you in the time of danger'.

91. The older boy climbed a tree because
(1) he was all alone in the forest
(2) he wanted to save himself from the bear
(3) he could climb a tree easily
(4) he thought he could shoot the bear easily

92. 'Pretended to be dead' means
(1) posing to be in a state of death
(2) looked frightened
(3) flat on the ground
(4) nearly lifeless

93. The bear did not harm the younger boy because
(1) he didn't climb the tree
(2) he was scared of the boy
(3) he was moved to pity
(4) he thought the boy was dead

94. Who proved to be clever in the story?
(1) The bear
(2) The older boy
(3) The oder boy and the bear
(4) The younger boy

95. The moral of the story is
(1) one who does not desert you in your time of need is a true friend
(2) one who guards his own interest is a true friend
(3) one who is always sweet to you is a true friend
(4) one who is with you only in the days of happiness is a true friend

Passage IV

Once upon a time there were six blind men. These blind men had never seen an elephant but they wanted to know what the elephant looked like. So they went near an elephant to find out.

The first blind man fell against the broad side of the elephant. He immediately said, 'The elephant must be like a wall'. The second blind man got hold of the elephant's tusk. He cried out, 'I'm sure the elephant is like a spear'. The third blind man happened to take the elephant's trunk in his hand. He said confidently, 'The elephant is surely like a snake'. The fourth one stretched out his hand and felt the elephant's leg. 'It's clear's, he said. ''The elephant is like a tree trunk'. The fifth by chance touched the elephant's ear. 'I am confident elephant's is like a fan. The sixth and the last of the blind man felt tail. 'I tell you', he cried, The elephant is like a rope'.

And so these blind men and argued. Each one said he was right. But actually all were wrong.

96. Six blind men went near an elephant to find out
(1) What the elephant looked like
(2) What was the size of the trunk of the elephant
(3) What was the colour of the elephant
(4) What the elephant's tail looked like

97. To the first blind man the elephant looked like
(1) a pear (2) a tree trunk
(3) a wall (4) a fan

98. The third blind man said, ''The elephant is like a snake''. He said to because he had touched the elephant's
(1) leg (2) ear (3) tusk (4) trunk

99. All the six blind men were worng to say how the elephant looked like because
(1) each one of them had touched only one part of the elephant
(2) each one of them said without confidence
(3) they argued on their views again and again
(4) they had decided to appose each other

100. The fifth, by chance touched the elephant's ears. Here 'by chance' mean
(1) purposely
(2) accidently
(3) on being asked
(4) matter of choice

Answers

1. (1)	**2.** (1)	**3.** (4)	**4.** (3)	**5.** (4)	**6.** (4)	**7.** (1)	**8.** (3)	**9.** (1)	**10.** (1)
11. (1)	**12.** (3)	**13.** (1)	**14.** (4)	**15.** (1)	**16.** (3)	**17.** (2)	**18.** (4)	**19.** (3)	**20.** (3)
21. (2)	**22.** (3)	**23.** (2)	**24.** (4)	**25.** (2)	**26.** (1)	**27.** (1)	**28.** (1)	**29.** (3)	**30.** (1)
31. (3)	**32.** (3)	**33.** (1)	**34.** (4)	**35.** (2)	**36.** (1)	**37.** (1)	**38.** (4)	**39.** (4)	**40.** (2)
41. (1)	**42.** (3)	**43.** (3)	**44.** (4)	**45.** (2)	**46.** (2)	**47.** (3)	**48.** (2)	**49.** (1)	**50.** (2)
51. (3)	**52.** (4)	**53.** (1)	**54.** (4)	**55.** (1)	**56.** (2)	**57.** (3)	**58.** (1)	**59.** (2)	**60.** (3)
61. (4)	**62.** (2)	**63.** (1)	**64.** (2)	**65.** (3)	**66.** (4)	**67.** (3)	**68.** (1)	**69.** (3)	**70.** (1)
71. (2)	**72.** (4)	**73.** (3)	**74.** (2)	**75.** (2)	**76.** (4)	**77.** (3)	**78.** (2)	**79.** (1)	**80.** (2)
81. (3)	**82.** (4)	**83.** (2)	**84.** (3)	**85.** (3)	**86.** (3)	**87.** (1)	**88.** (2)	**89.** (4)	**90.** (3)
91. (2)	**92.** (1)	**93.** (4)	**94.** (4)	**95.** (1)	**96.** (1)	**97.** (3)	**98.** (4)	**99.** (1)	**100.** (2)

Hints and Solutions

1. In all others, the inner design and the outer design are same and outer line is omitted.

2. All others are made by lines.

3. In all others, the inner design in the figure is same.

4. In all others, the number of the inner black circles is less than the outer black circle.

5. In all others, the straight lines are one less than the inclined lines.

6. In all others, two same designs are in different pose.

7. In all others, the inner design is the reverse design of the outer design.

8. In all others, two designs are same.

9. In all others, the inner and outer designs are different.

31. The design is moving 90° in clockwise direction and the design is formed by one line adding.

32. In the following figure, one diameter on line is lessing.

33. In the design, the sign 'o' is moving 90° in anti-clockwise direction and the sign '×' is moving 90° in clockwise direction.

34. Problem figure 3 is same as problem figure 1. Thus, the answer figure will be the same as problem figure 2.

35. The figure is moving 180°.

36. In the following figure, one line is eliminated.

37. In the following figure, one design is increasing.

38. Inner design is coming on outer and in this, a new design is forming.

39. In the following figure, one line is increasing.

40. In the following figure, one '×' sign is decreasing from the midst. One '×' sign is increasing and coming outside of the design.

41. The following figure is forming by rotating 180°.

42. The following figure is forming by rotate 90°.

43. The design is moving 180° in anti-clockwise direction and joined.

44. The figure is moving 180° and the outside line comes inside.

45. The design is moving 180° in clockwise direction.

46. The inner designs come outside and the outer design comes inside.

47. The design is moving 180° in clockwise direction and the middle part becomes short and short design becomes tall.

48. The inner design remains same and the circle change in rectangle.

49. The inner design is moving 180° in anti-clockwise direction.

50. Problem figure 3 is same as problem figure 1. Thus, the answer figure will be same as problem figure 2.

61. 70070

62. 1032

63. The sum of two numbers = 11009

One number = 9999

∴Other number = 11009 – 9999 = 1010

64. 14001

65. $6 \div 6 + 6 \times 6 - 6 = 1 + 6 \times 6 - 6$

$= 1 + 36 - 6$

$= 37 - 6 = 31$

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

$= \frac{24 + 10 + 6}{18}$

$= \frac{40}{18} = \frac{20}{9}$

67.

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

LCM $= 2 \times 2 \times 3 \times 2 \times 5 \times 3 = 360$

68. 1

69. $5.125 = \frac{5125}{1000} = \frac{4.1}{8} = 5\frac{1}{8}$

70. ∵ 10 km = 10 × 1000 m = 10000 m

Let x% of 10 km = 10 m

$\therefore \quad \frac{x}{100} \times 10000 \text{ m} = 10 \text{ m}$

$x = \frac{10 \times 100}{10000} = \frac{1}{10}$ or 0.1%

71. 28, 56, 59 (In each row of numbers, first number is doubled and then 3 is added to it and the first number of the next row is 1 more than the first number of the preceeding row)

72. ∵ CP of radio = ₹ 900

SP of radio = ₹ 1200

∴ Profit = 1200 – 900 = ₹ 300

Hence, the profit $= \frac{\text{Profit} \times 100}{\text{CP}}$

$= \frac{300 \times 100}{900} = \frac{100}{3} = 33\frac{1}{3}\%$

73. $\because 20.2 \times 18.01 = \frac{202}{10} \times \frac{1801}{100}$

$= \frac{363802}{1000} = 363.802$

∴ The complete number without decimal is

= 364

74. The LCM of 4, 5 and 6 = 60

Hence, after 60 min *i.e.*, after 1 h.

They will ring together *i.e.*, at 9 : 30 am

75. Given, P = ₹ 500; A = ₹ 600; r = 5%

SI = Amount – Principal

= ₹ (600 – 500) = ₹ 100

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

$= \frac{100 \times 100}{500 \times 5} = 4$ yr

76. The area of rectangular field = 120 × 160

= 19200 sq m

The area of one rectangular plot

= 40 × 60 = 2400 sq m

∴ Number of rectangular plots $= \frac{19200}{2400} = 8$

77. The boy slept at = 4 : 45 pm

The boy woke up at = 5 : 30 am (next morning)

Time taken in sleeping from 9 : 45 to 2 : 00 (midnight)

= 2 h 15 min

Time taken in sleeping from 12 : 00 to 5 : 30

= 5 h 30 min

Total time he slept for

= 2 h 15 min + 5 h 30 min

= 7 h 45 min

78. ∵ The average of four numbers = 30

∴ Total of our numbers = 30 × 4 = 120

Sum of first three numbers = 85

∴ Fourth number = (120 – 85) = 35

79. ∵ Monday is on 1st April

Monday will be on 8 April and 15 April

∴ On 16th April it is Tuesday

On 17th April it is Wednesday and 18th April it will be Thursday.

80. ∵ Section B (30 enrolments) has half the enrolment of Section E (60 enrolments).