Jawahar Navodaya Vidyalaya

Class 6

Entrance Exam

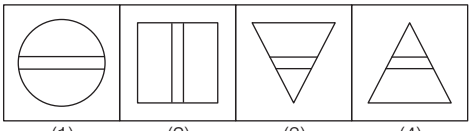
Model Solved Paper 2017

Section I Mental Ability Test

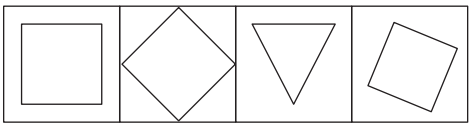
Part I

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.*

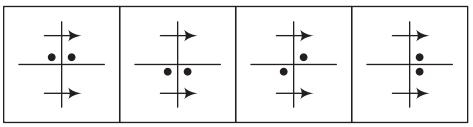
1.



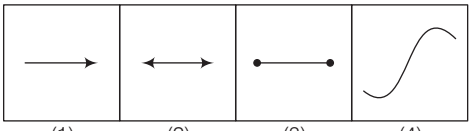
2.



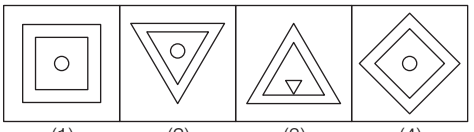
3.



4.



5.

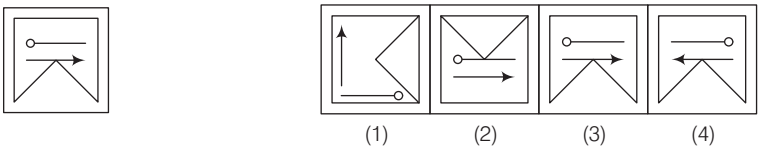


Part II

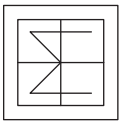
Directions (Q. Nos. 6-10) *In the following questions, a problem figure is given on the left hand side and four answer figures* (1), (2) (3) *and* (4) *are given on the right hand side. Select the answer figure which is exactly the same as the problem figure and indicate the letter below the correct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

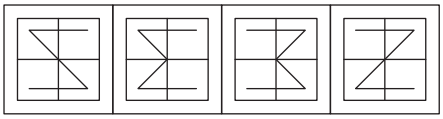
Problem Figure **Answer Figures**

6.



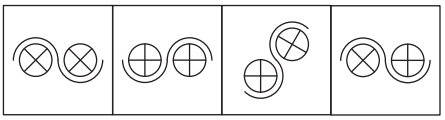
Problem Figure **Answer Figures**

7. 

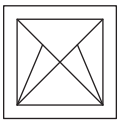


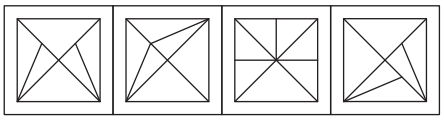
(1) (2) (3) (4)

8. 



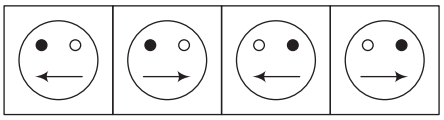
(1) (2) (3) (4)

9. 



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

10. 

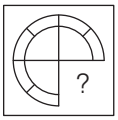


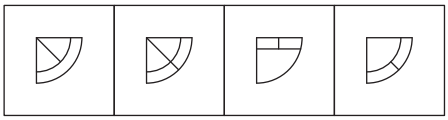
(1) (2) (3) (4)

Part III

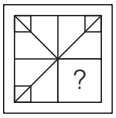
Directions (Q. Nos. 11-15) *In the following questions, there is a problem figure on the left hand side, a part of which is missing. Observe the answer figures* (1), (2), (3) *and* (4) *on the right hand side and find out the answer figure which without changing the direction, fits in the missing part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

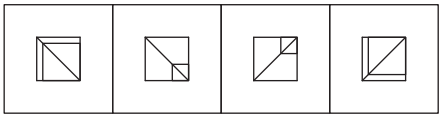
Problem Figure **Answer Figures**

11. 

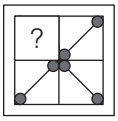


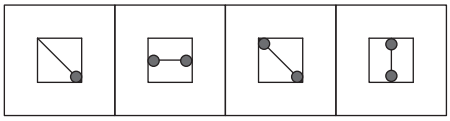
(1) (2) (3) (4)

12. 



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

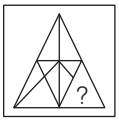
13. 

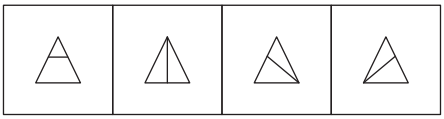


(1) (2) (3) (4)

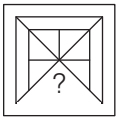
Problem Figure **Answer Figures**

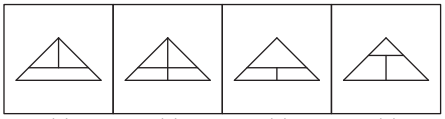
14.





15.



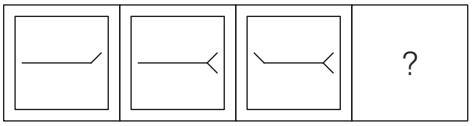


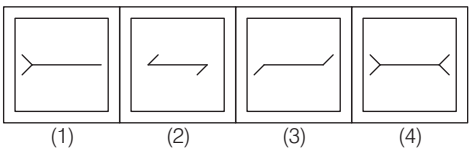
Part IV

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.*

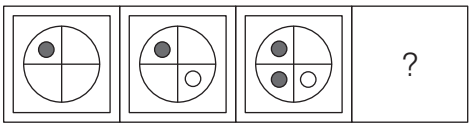
Problem Figures **Answer Figures**

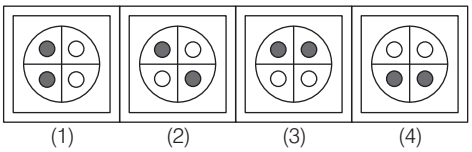
16.



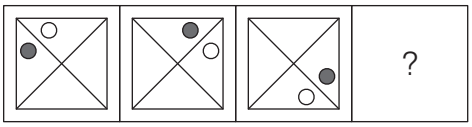


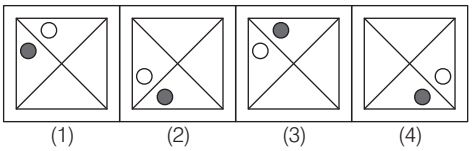
17.



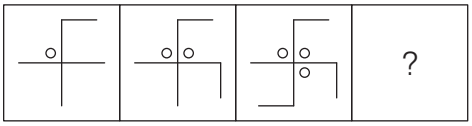


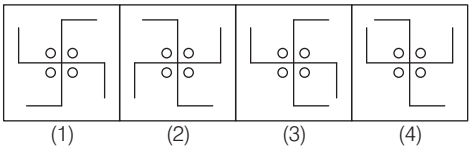
18.



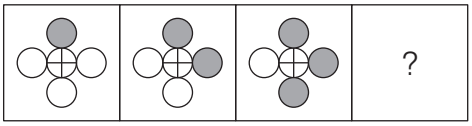


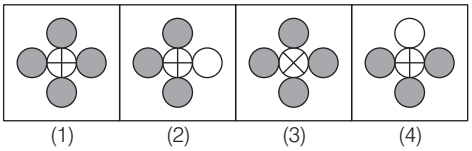
19.





20.

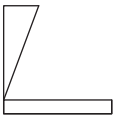


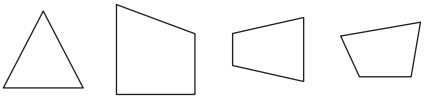


Part V

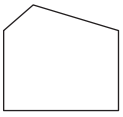
Directions (Q. Nos. 21-25) *In the following questions, one part of a square is given on the left hand side and the other one is among the four figures* (1), (2), (3) *and* (4) *given on the right hand side. Find the figure on the right hand side that completes the square.*

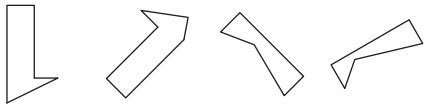
Problem Figure **Answer Figures**

21. 

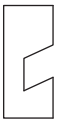


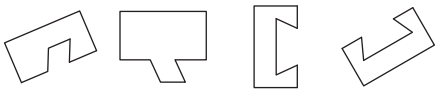
(1) (2) (3) (4)

22. 



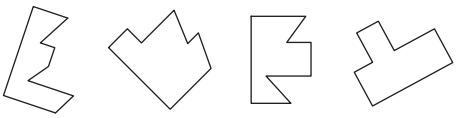
(1) (2) (3) (4)

23. 

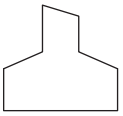


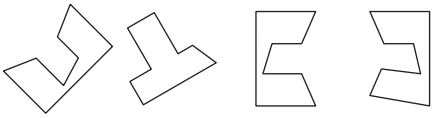
(1) (2) (3) (4)

24. 



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

25. 

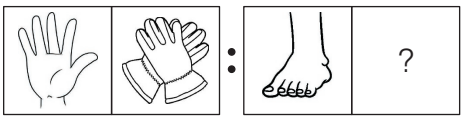


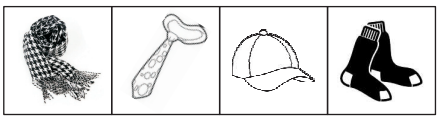
(1) (2) (3) (4)

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**

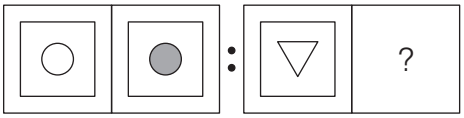
26. 

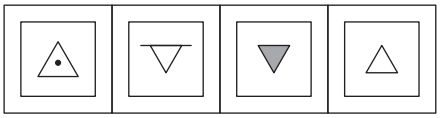


(a) (b) (c) (d)

Problem Figures **Answer Figures**

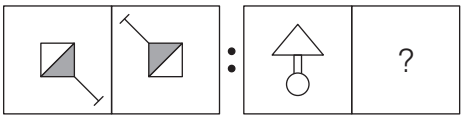
27.

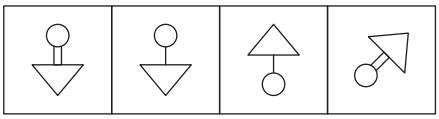




(1) (2) (3) (4)

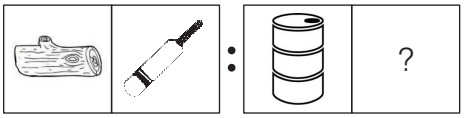
28.

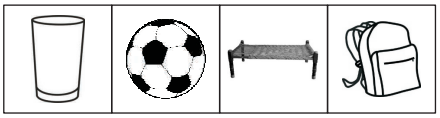




(1) (2) (3) (4)

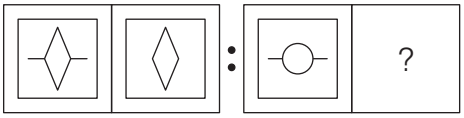
29.

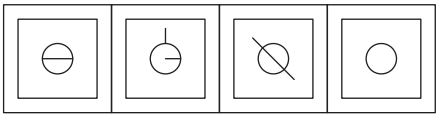




(a) (b) (c) (d)

30.





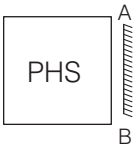
(1) (2) (3) (4)

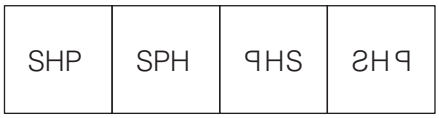
Part VII

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**

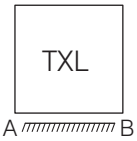
31.

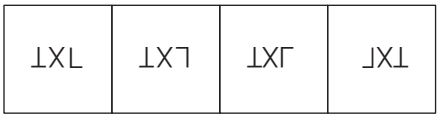




(1) (2) (3) (4)

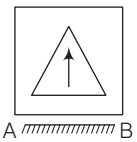
32.

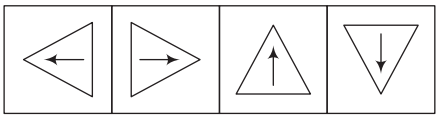




(1) (2) (3) (4)

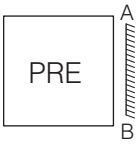
33.





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

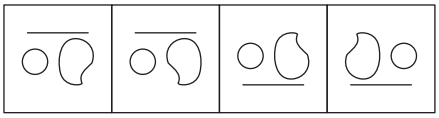
34.



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

Problem Figure **Answer Figures**

35. A B



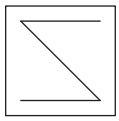
(1) (2) (3) (4)

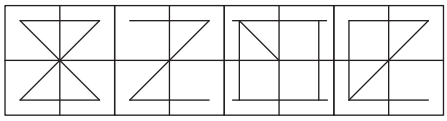
Part VIII

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**

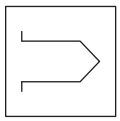
36.

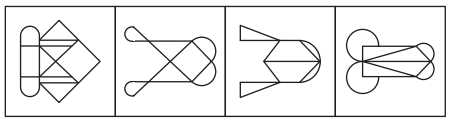




(1) (2) (3) (4)

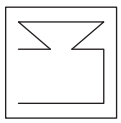
37.

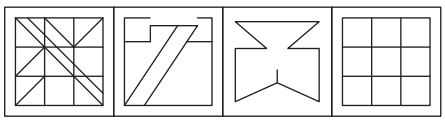




(1) (2) (3) (4)

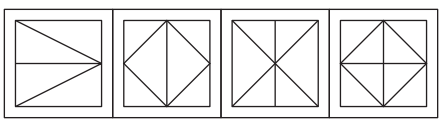
38.





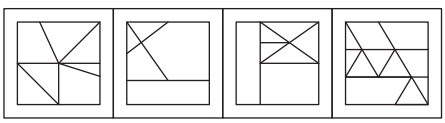
(1) (2) (3) (4)

39.



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

40.



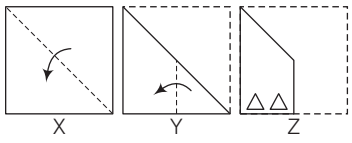
(1) (2) (3) (4)

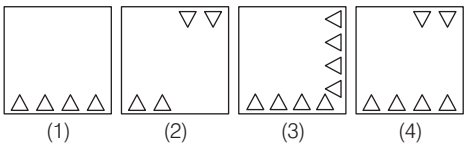
Part IX

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.*

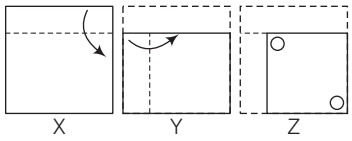
Problem Figures **Answer Figures**

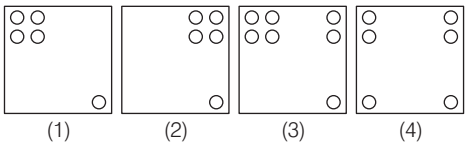
41.



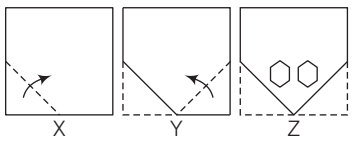


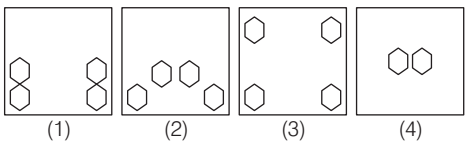
42.



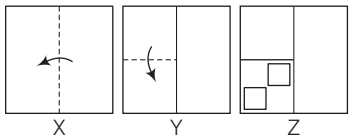


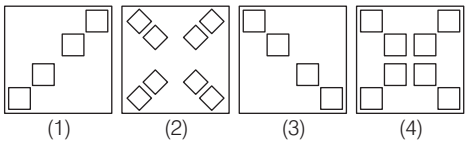
43.



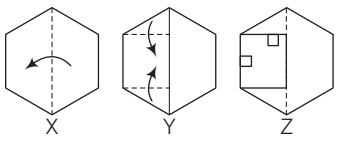


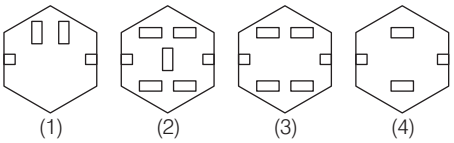
44.





45.



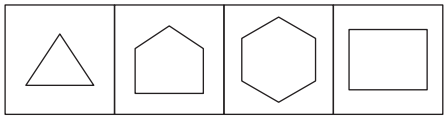


Part X

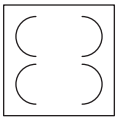
Directions (Q. Nos. 46-50) *In the given questions, there is a problem figures, observe the answer figures* (1), (2), (3) *and* (4) *and find out the answer figure which can be formed from the cut pieces of problem figures?*

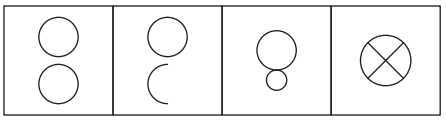
Problem Figure **Answer Figures**

46.



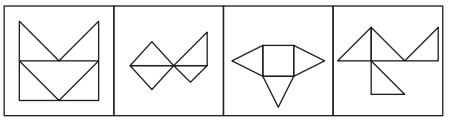
Problem Figure **Answer Figures**

47. 

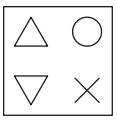


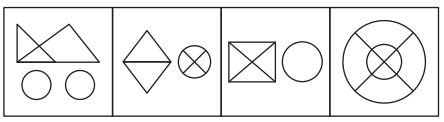
(1) (2) (3) (4)

48. 



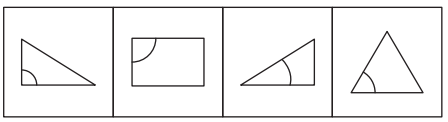
(1) (2) (3) (4)

49. 



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

50. 



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

Section II Arithmetic Test

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

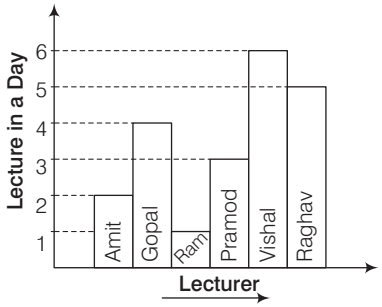
Months	Sold Bananas
March	⊠ ⊠ ⊠ ⊠ ⊠ ⊠
April	⊠ ⊠ ⊠
May	⊠ ⊠ ⊠ ⊠ ⊠
June	⊠ ⊠
July	⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠

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

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

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

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

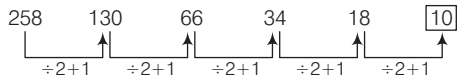
$$= 270 + 27 = 297$$

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

69.



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 $= \frac{500}{725} \times 100 = 68.9 \approx 70$

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

$$\therefore \quad \text{New } x = 1300 - 27 = 1273$$

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