

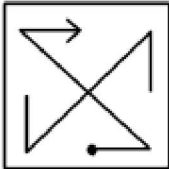
Jawahar Navodaya Vidhyalaya (2024)

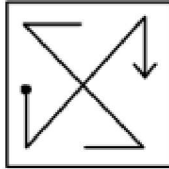
Entrance Exam Class-VI (Solved Questions)

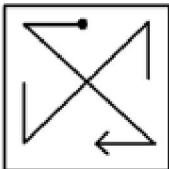
Section-I: Mental Ability Test

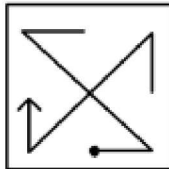
PART-1

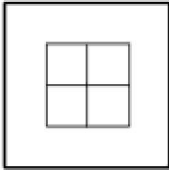
DIRECTIONS : In Question Nos. 1 to 4, four figures (a), (b), (c) and (d) have been given in each question. Of these four figures, three figures are similar in some way and one figure is different. Select the figure which is different. Darken the circle for the answer in the OMR Answer Sheet against the number corresponding to the question.

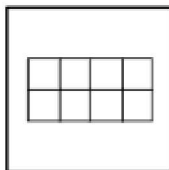
1. (a) 

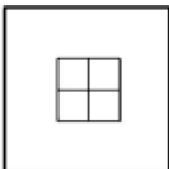
(b) 

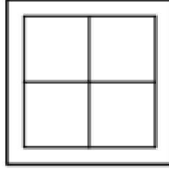
(c) 

(d) 

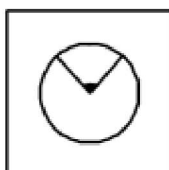
2. (a) 

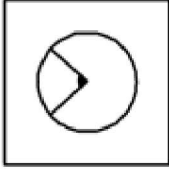
(b) 

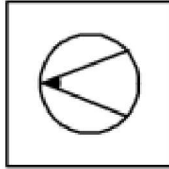
(c) 

(d) 

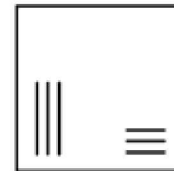
3. (a) 

(b) 

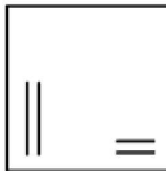
(c) 

(d) 

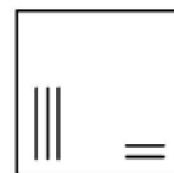
4. (a)



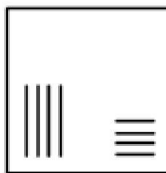
(b)



(c)



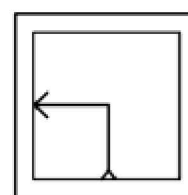
(d)



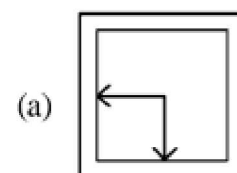
PART-2

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.

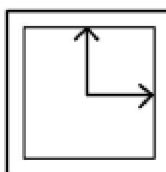
5. Question Figure



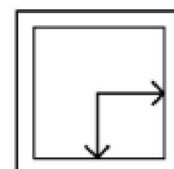
Answer Figures



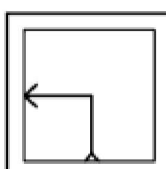
(b)



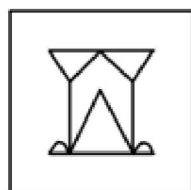
(c)



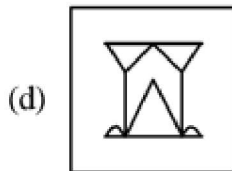
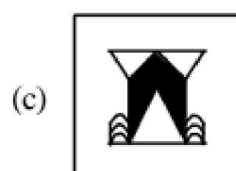
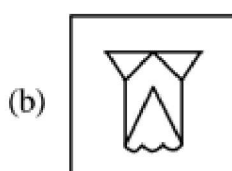
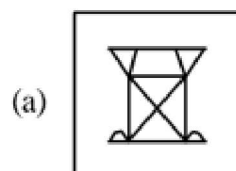
(d)



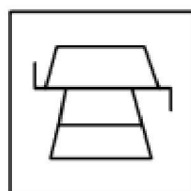
6. Question Figure



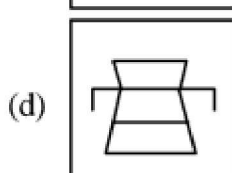
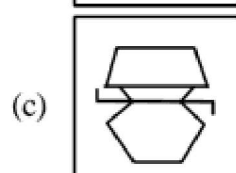
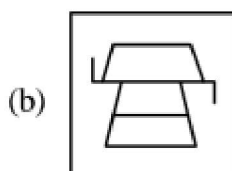
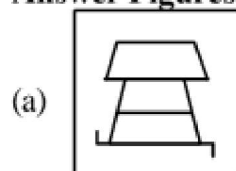
Answer Figures



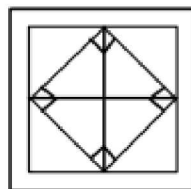
7. Question Figure



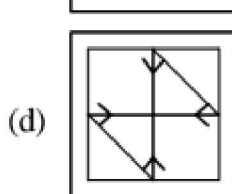
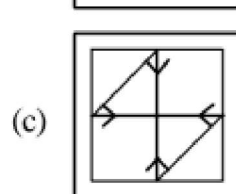
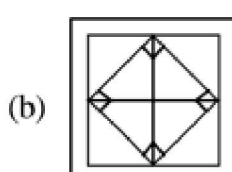
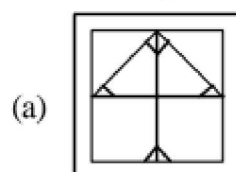
Answer Figures



8. Question Figure



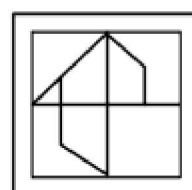
Answer Figures



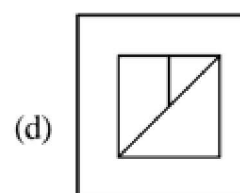
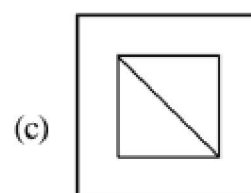
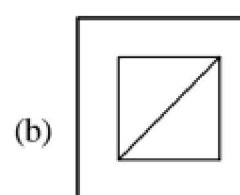
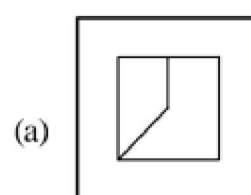
PART-3

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 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.

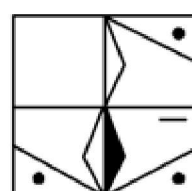
9. Question Figure



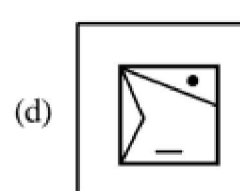
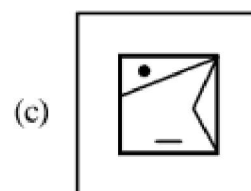
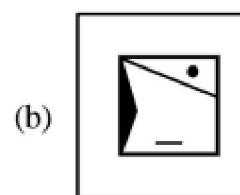
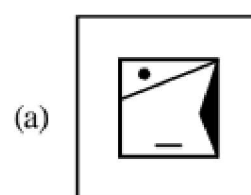
Answer Figures



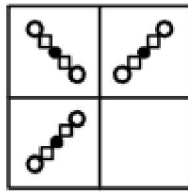
10. Question Figure



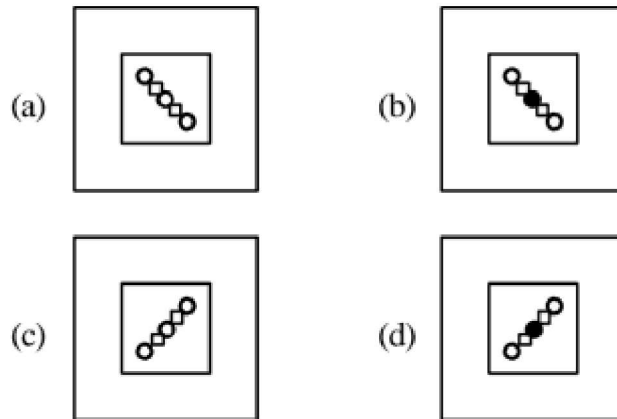
Answer Figures



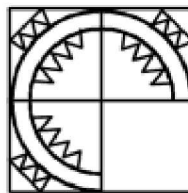
11. Question Figure



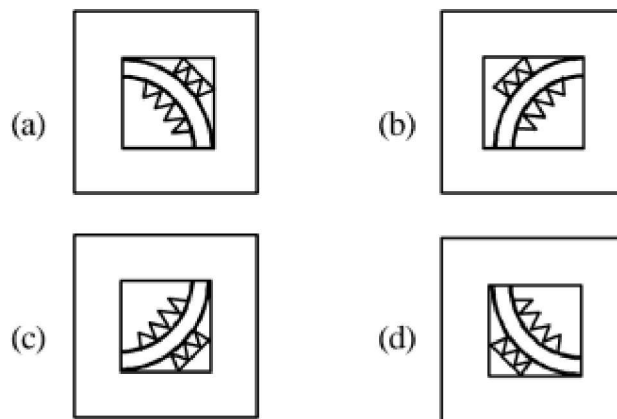
Answer Figures



12. Question Figure



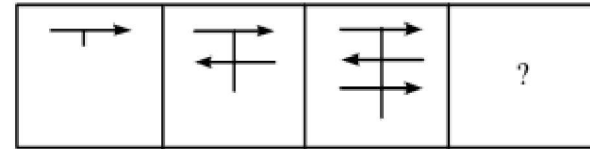
Answer Figures



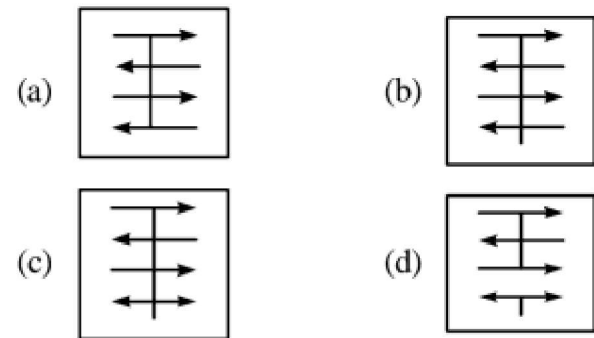
PART-4

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.

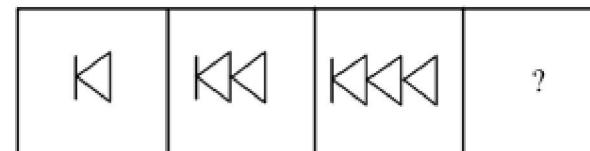
13. Question Figures



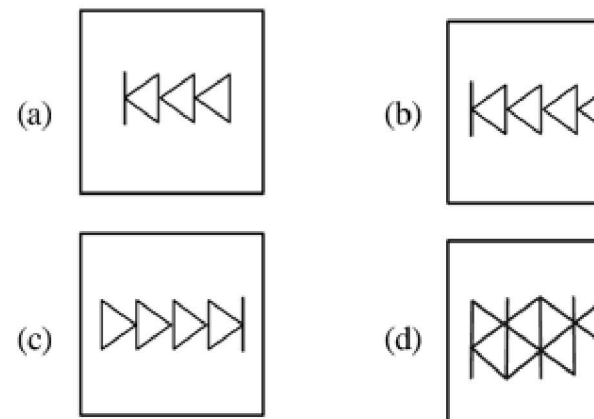
Answer Figures



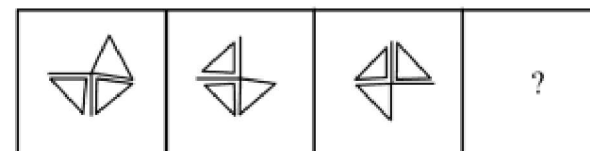
14. Question Figures



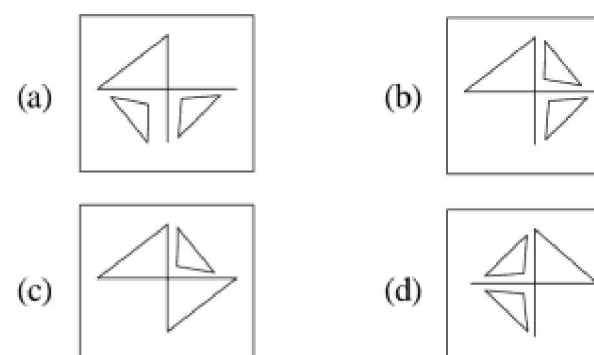
Answer Figures



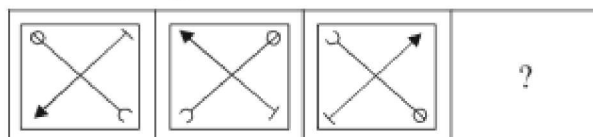
15. Question Figures



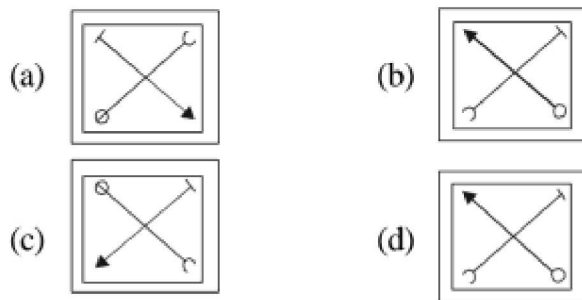
Answer Figures



16. Question Figures



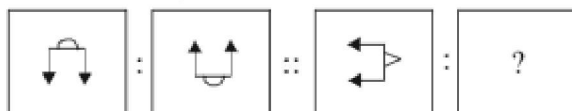
Answer Figures



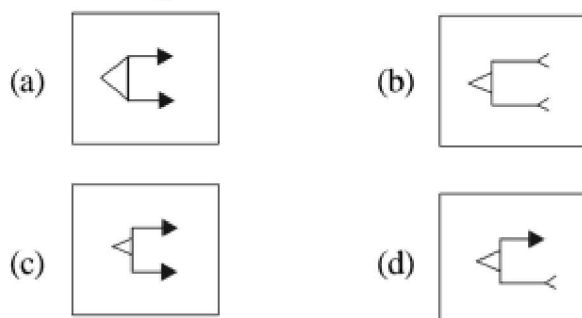
PART-5

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 replace the mark of interrogation. Darken the circle in the OMR Answer Sheet against the number corresponding to the question.

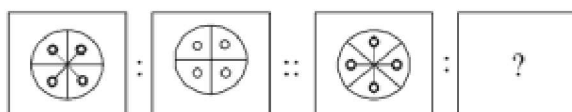
17. Question Figures



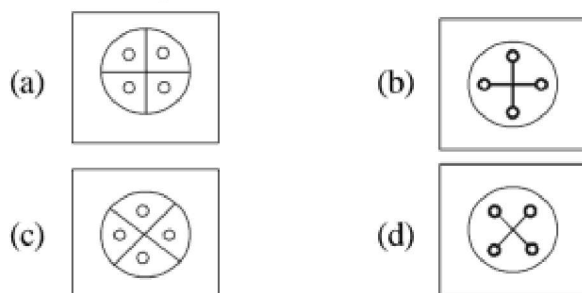
Answer Figures



18. Question Figures



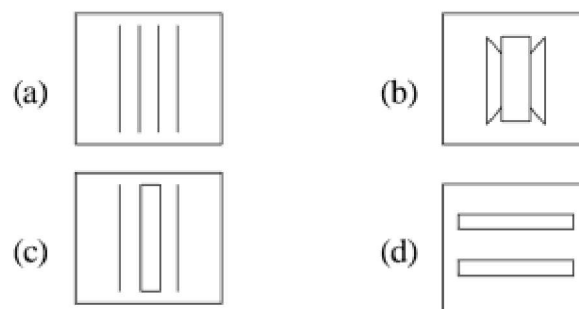
Answer Figures



19. Question Figures



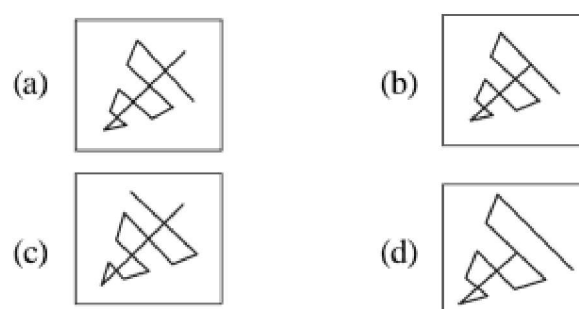
Answer Figures



20. Question Figures



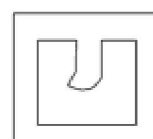
Answer Figures



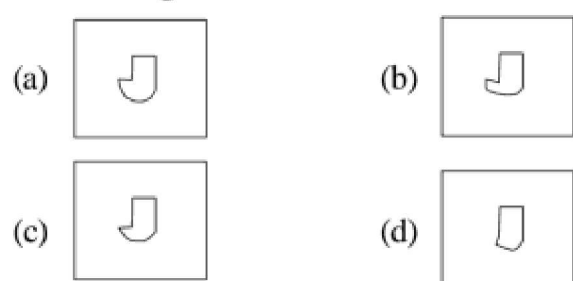
PART-6

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 on the right side. Find the figure on the right side which completes the geometrical figure and darken the circle in the OMR Answer Sheet against the number corresponding to the question.

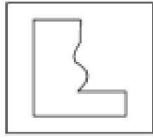
21. Question Figure



Answer Figures



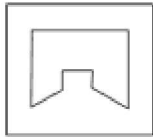
22. Question Figure



Answer Figures

- | | |
|-----|-----|
| (a) | (b) |
| (c) | (d) |

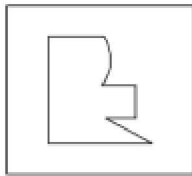
23. Question Figure



Answer Figures

- | | |
|-----|-----|
| (a) | (b) |
| (c) | (d) |

24. Question Figure



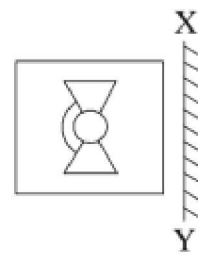
Answer Figures

- | | |
|-----|-----|
| (a) | (b) |
| (c) | (d) |

PART-7

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.

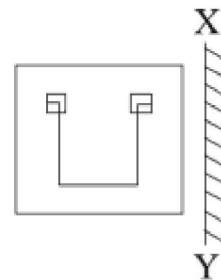
25. Question Figure



Answer Figures

- | | |
|-----|-----|
| (a) | (b) |
| (c) | (d) |

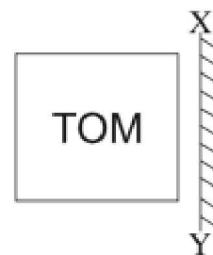
26. Question Figure



Answer Figures

- | | |
|-----|-----|
| (a) | (b) |
| (c) | (d) |

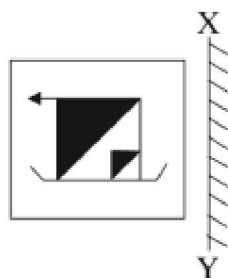
27. Question Figure



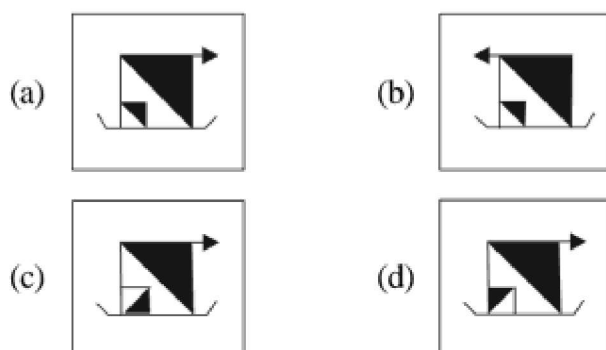
Answer Figures

- | | |
|-----|-----|
| (a) | (b) |
| (c) | (d) |

28. Question Figure



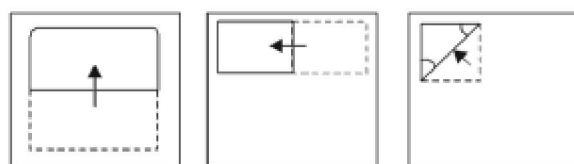
Answer Figures



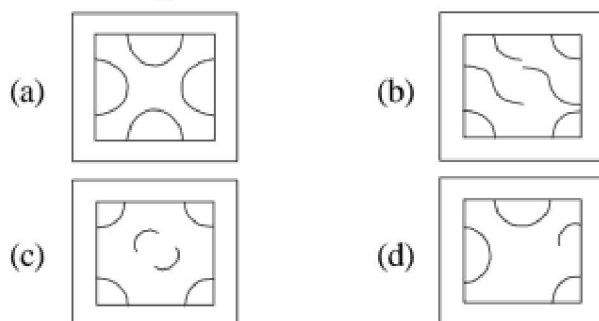
PART-8

DIRECTIONS : In Question Nos. 29 to 32, a piece of paper is folded and punched as shown in the 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.

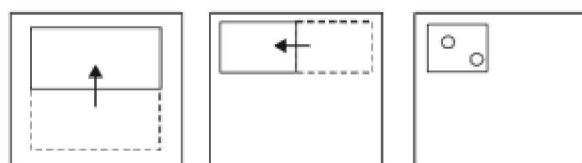
29. Question Figures



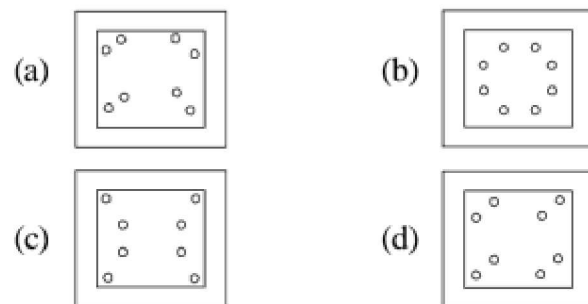
Answer Figures



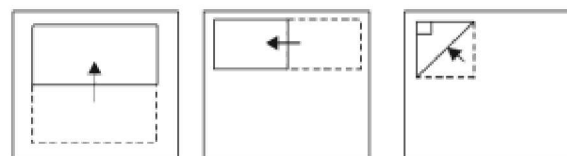
30. Question Figures



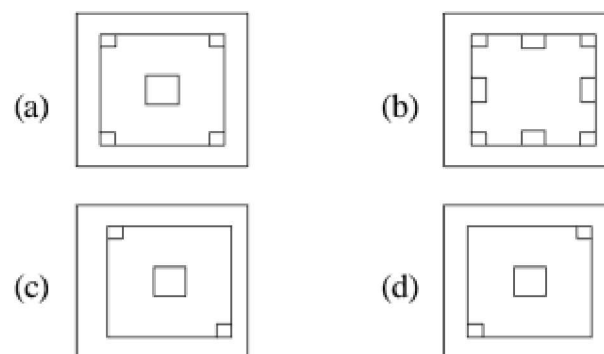
Answer Figures



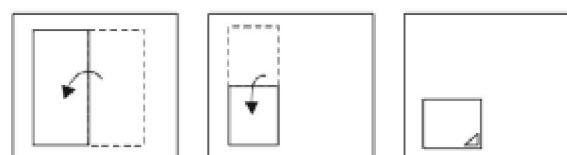
31. Question Figures



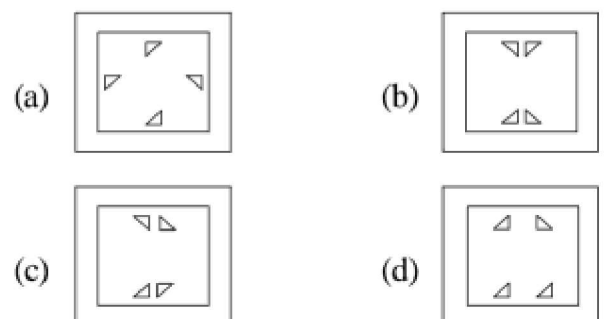
Answer Figures



32. Question Figures



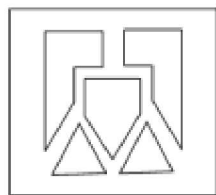
Answer Figures



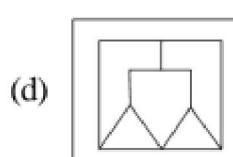
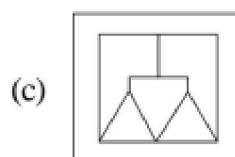
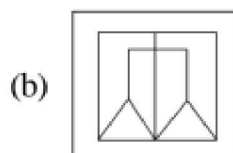
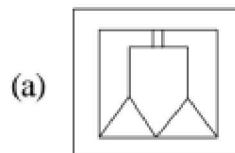
PART-9

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.

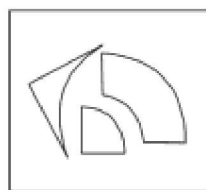
33. Question Figure



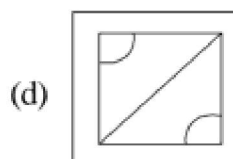
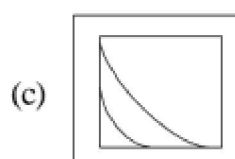
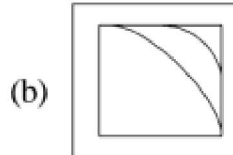
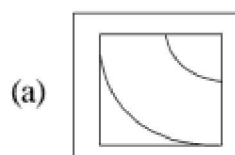
Answer Figures



34. Question Figure



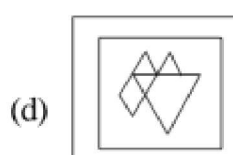
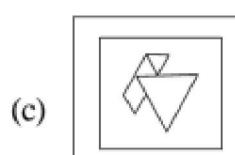
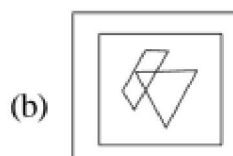
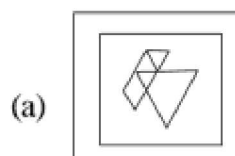
Answer Figures



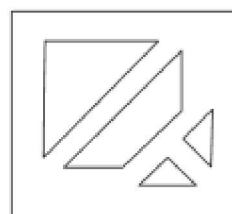
35. Question Figure



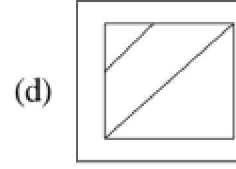
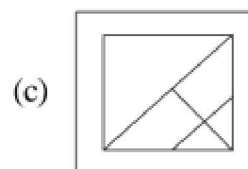
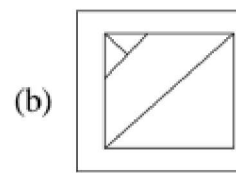
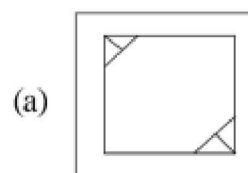
Answer Figures



36. Question Figure



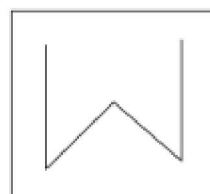
Answer Figures



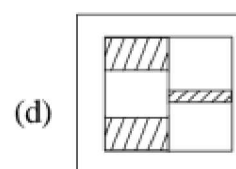
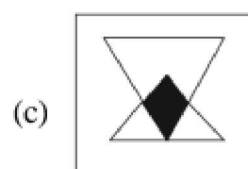
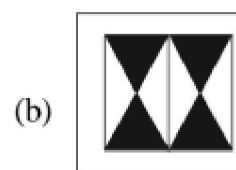
PART-10

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.

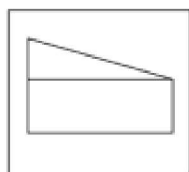
37. Question Figure



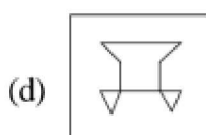
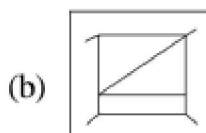
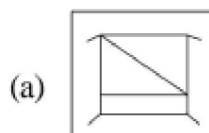
Answer Figures



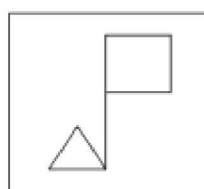
38. Question Figure



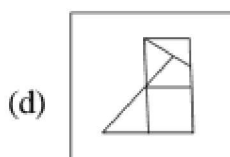
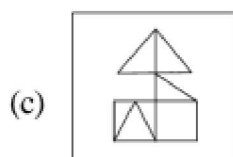
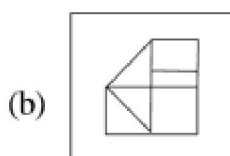
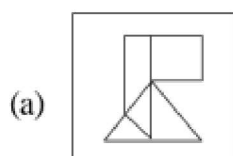
Answer Figures



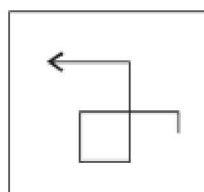
39. Question Figure



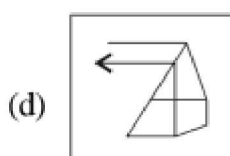
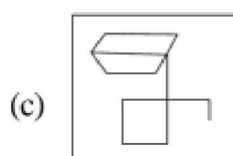
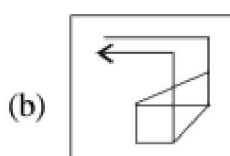
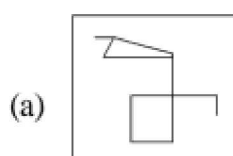
Answer Figures



40. Question Figure



Answer Figures



Section-II: Arithmetic Test

DIRECTIONS : For every question, **four** probable answers (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. The number of packets of sweets weighing $\frac{1}{2}$ kg each, that can be made from 30 kg of sweets is :
 (a) 20 (b) 30
 (c) 40 (d) 45
42. A fraction remains the same or equivalent if
 (a) the same number is added to the numerator and the denominator.
 (b) the same number is subtracted from numerator and the denominator.
 (c) the numerator and the denominator are multiplied by the same number other than zero.
 (d) it is multiplied by its reciprocal.
43. The profit earned in selling an article for ₹ 25 is equal to the loss incurred in selling at ₹ 18. The cost price of the article is :
 (a) ₹ 2095 (b) ₹ 2195
 (c) ₹ 2010 (d) ₹ 2020
44. If $\frac{a}{b}$ is a fraction, where $a = b - 3$ and $b = 11$, then $\frac{a}{b}$ is :
 (a) $\frac{8}{11}$ (b) $\frac{2}{5}$
 (c) $\frac{4}{7}$ (d) $\frac{5}{8}$
45. If each side of a square is decreased to one-third of itself, then the area of the square will be decreased to :
 (a) one-seventh (b) one-third
 (c) one-eighth (d) one-ninth
46. Conversion of $31\frac{7}{16}$ into decimal is :
 (a) 314.375 (b) 3.14375
 (c) 31.4375 (d) 31.475

47. The perimeter of a square is equal to the perimeter of a rectangle of length 17 m and breadth 11 m. The area of square (in m^2) is :

(a) 196 (b) 14
(c) 187 (d) 121

48. If $4392 \div 3.66 = 1200$, then $439.2 \div 36.6 =$

(a) 12 (b) 0.12
(c) 1.02 (d) 1.2

49. The area of a rectangular plot is 616 sq.m. and its breadth is 22 m. The cost of fencing the plot at the rate of ₹ 7.50 per metre is :

(a) ₹ 1500 (b) ₹ 375
(c) ₹ 4620 (d) ₹ 750

50. The product of the greatest 3-digit number and the least number of 3-digits which can be formed using digits 9, 6 and 0 is :

(a) 66240 (b) 999000
(c) 584640 (d) 869760

51. If we write all the numbers from 1 to 100, the number of times the digit 9 occurs is :

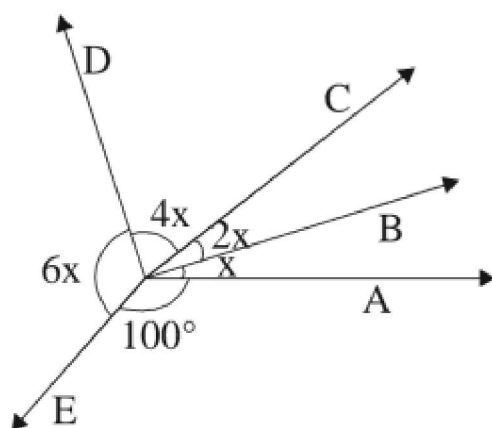
(a) 19 (b) 20
(c) 21 (d) 23

52. The simplification of

$$5\frac{3}{8} \times 8\frac{1}{8} - 3\frac{1}{8} \times 5\frac{5}{8} \text{ gives approximately :}$$

(a) 25 (b) 26
(c) 27 (d) 30

53. In the figure, the measures of $\angle AOB$, $\angle BOC$, $\angle COD$ and $\angle DOE$ respectively are :



(a) $20^\circ, 40^\circ, 80^\circ, 120^\circ$
(b) $30^\circ, 30^\circ, 70^\circ, 130^\circ$
(c) $40^\circ, 30^\circ, 120^\circ, 70^\circ$
(d) $50^\circ, 20^\circ, 80^\circ, 110^\circ$

54. 30009 is same as :

(a) 30 ten thousands and 9 tens
(b) 30 thousands and 9 hundreds
(c) 3 ten thousands and 9 ones
(d) 3 ten thousands and 9 tens

55. The sum of the digits of a number is subtracted from the number. The resulting number is always divisible by :

(a) 2 (b) 7
(c) 5 (d) 9

56. If the sum of two angles is an obtuse angle, which of the following is not possible?

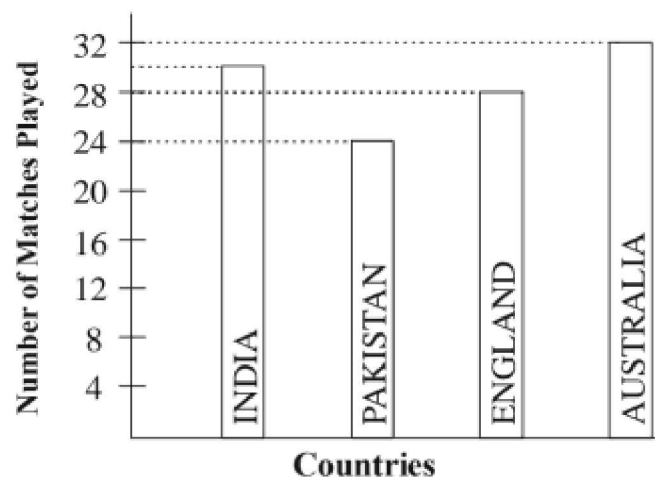
(a) one right angle and one acute angle
(b) one obtuse angle and one acute angle
(c) two acute angles
(d) two right angles

57. Sumit weighs 107 kg and Sanjay weighs 85 kg. The difference of their weight if the weight of each is rounded off to the nearest tens is :

(a) 30 kg (b) 100 kg
(c) 40 kg (d) 20 kg

58. The given bar chart shows the number of matches played by cricket teams of different countries in a year.

How many more matches were played by Australia than Pakistan?



(a) 8 (b) 2
(c) 4 (d) 6

59. The cost price of a book is ₹ 100. A shopkeeper sells 3 such books for ₹ 275. What is his profit or loss?

(a) Profit of ₹ 175
(b) Profit of ₹ 25
(c) Loss of ₹ 175
(d) Loss of ₹ 25

60. A machine can print 12 pages in a minute. How long will the machine take to print 5760 pages?

- (a) 7 hours (b) 8 hours
(c) $8\frac{1}{2}$ hours (d) 9 hours

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

Scientists and doctors warn us about the dangerous effects of TV on various systems and organs of our body. Everyone on an average watches TV for three to four hours daily, which weakens the eyesight. Children are the most affected because they watch TV from a close range, which is more harmful. This has also resulted in a general complaint of headache. Watching TV for long hours is harmful for our physical health and mental growth. The high-pitched sound of dance, music and fights presented in various programmes may result in deafness. Watching TV continuously in one posture also causes joint pain, backache and muscle pain. Eating while watching TV makes our digestive system sluggish and causes obesity. Scenes of horror and violence cause psychological problems among the youth.

61. Watching TV continuously for long hours does not affect out _____.

- (a) mental health (b) height
(c) digestion (d) weight

62. 'Scenes of horror and violence cause psychological problems among the youth. The 'psychological problems' refer to the problems connected with _____.

- (a) mind (b) heart
(c) digestive system (d) hearing ability

63. Watching TV mostly affects the eyesight of children because _____.

- (a) they have sluggish digestive system
(b) they sit in wrong postures while watching
(c) they watch TV from close
(d) they eat while watching TV

64. The synonym of the word 'sluggish' _____.

- (a) energetic (b) busy
(c) slow (d) brisk

65. The antonym of the word 'harmful' as used in the passage is _____.

- (a) injurious (b) hopeless
(c) useful (d) dangerous

Passage – 2

Expressing gratitude is a great virtue which every human being should possess. It is a feeling where we express our thanks to someone. We can express our gratitude in various forms. We can be grateful for our thoughts, words, and actions. When we say 'Thank you' it means we are grateful. We should be grateful to everyone who is helpful to us. We should be grateful to God because 'He' has blessed us with many good things. We should say thanks to Him from the bottom of our heart.

66. 'Thank you' means that we are _____.

- (a) superior (b) sad
(c) miserable (d) grateful

67. What is a great virtue?

- (a) Expressing cruelty
(b) Expressing gratitude
(c) Expressing sorrow
(d) Expressing misery

68. One can be grateful in one's _____ also.

- (a) virtues (b) duties
(c) thoughts (d) earnings

69. 'Helpful' is a/an _____.

- (a) Noun (b) Pronoun
(c) Verb (d) Adjective

70. 'Virtue' means _____.

- (a) quality (b) heroism
(c) evil (d) peace

Passage – 3

Humility is a great virtue. It means being humble, meek and modest. It is the opposite of being proud. It is the quality of keeping oneself under control. Such a person is not stubborn. He is open to the advice of others and learns from their experience. He is the master of himself. He does not become annoyed easily. A humble person admits his mistakes and shortcomings with a smile. He is thoughtful because he is not self-centred.

71. Humility is a great _____.
 (a) quality (b) evil
 (c) sin (d) fault
72. Humility means _____.
 (a) being arrogant
 (b) being humble
 (c) being cruel
 (d) being unkind
73. A humble person learns from _____.
 (a) others' experience
 (b) his own experience
 (c) teachers' experience
 (d) parents' experience
74. 'Proud' is the synonym of _____.
 (a) humble (b) meek
 (c) modest (d) arrogant
75. 'Stubborn' is the antonym of _____.
 (a) adamant (b) hard
 (c) agreeable (d) wilful

Passage – 4

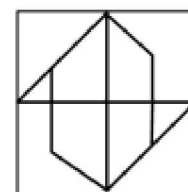
You might have heard about this great environmentalist and social worker, Sunderlal Bahuguna. He was born in a small village in Uttarakhand. His village was situated in the upland hills surrounded by green forests. The forests were covered with precious trees. Many sports goods manufacturing companies started cutting trees for making goods. It resulted in devastating floods in the adjoining areas. People faced many problems due to floods. They understood the importance of forests for their lives.

76. Sunderlal Bahuguna was a great _____.
 (a) environmentalist (b) scientist
 (c) teacher (d) doctor
77. His village was surrounded by _____.
 (a) dark forests (b) brown forests
 (c) green forests (d) dry forests
78. Cutting forests resulted in _____.
 (a) devastating floods (b) flood-gates
 (c) droughts (d) flood-lights
79. 'Sunderlal Bahuguna' is a/an _____ noun.
 (a) common (b) collective
 (c) abstract (d) proper
80. 'Precious' is the synonym of _____.
 (a) hateful (b) loathsome
 (c) priceless (d) useless

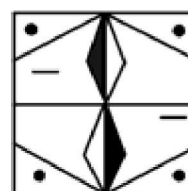
HINTS AND SOLUTIONS

1. (d) Arrow and dot are at 180° apart.
2. (b) clear from the visual
3. (d) In other figure angle made at the center of the circle, while in fig. (d), angle is at perimeter.
4. (c) Number of horizontal and vertical lines are equal in fig. given in option (a, b, and d) but it is not equal in fig (c).
5. (d) 6. (d) 7. (b) 8. (b)

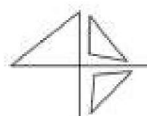
9. (d)



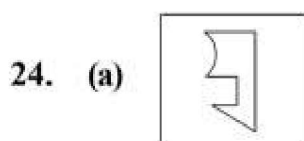
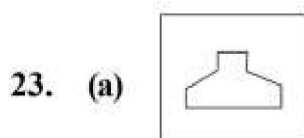
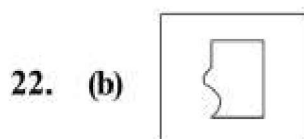
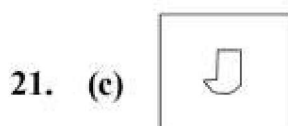
10. (a)



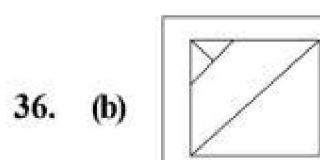
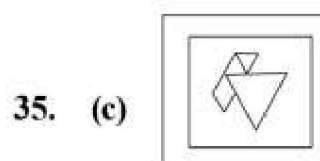
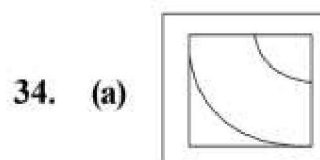
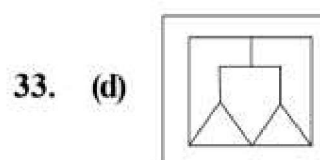
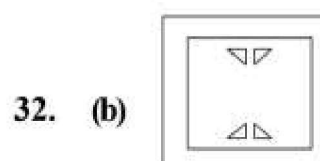
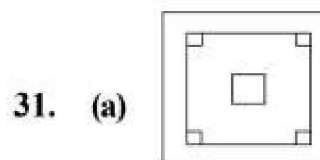
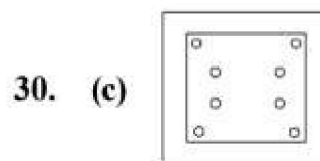
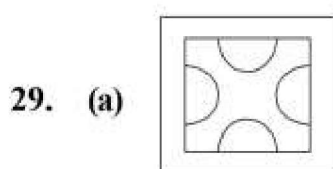
11. (b)
 12. (c)
 13. (b) One new arrow is added in reverse direction in every next figure.
 14. (b) Number of triangle increases by +1 in every next fig.
 15. (b) Next figure is



16. (a) whole figure is rotating in clockwise direction by 90° .
 17. (c) First figure is rotated by 180° (Mirror image) to give second figure, like that third figure is rotated by 180° to give fourth fig.
 18. (c) Dot connecting line is erased in next figure.
 19. (c) Two middle lines are connected at their end points in second figure and so in the fourth fig.
 20. (b) First figure is rotated by 180° to give second fig. like that third fig. is rotated by 180° to give fourth fig.



25. (a) 26. (c) 27. (a) 28. (a)



37. (a) Question fig. is embedded into fig. given in option (a).
 38. (c) Question fig. is embedded in solution figure given in option (c).
 39. (a) Question fig. is embedded in solution figure given in option (a).
 40. (c) Question fig. is embedded in solution figure given in option (c).

$$41. \text{ (d) Numbers of packets} = \frac{30}{\frac{2}{3}} = \frac{30 \times 3}{2} = 45$$

$$42. \text{ (c) Let fraction is } \frac{a}{b}$$

$$\text{Now, } \frac{a \times k}{b \times k} = \frac{ak}{bk} = \frac{a}{b}$$

Thus, fraction is same if it is multiplied by same number in numerator and denominator.

$$\begin{aligned} 43. \text{ (b) Let Cost price of the article} &= x \\ \text{then, Profit} &= \text{Selling Price} - \text{Cost Price.} \\ \text{Loss} &= \text{Cost Price} - \text{Selling Price.} \\ \text{Here, profit} &= \text{loss} \\ 2540 - x &= x - 1850 \\ 2x &= 2540 + 1850 \\ x &= 2195 \end{aligned}$$

$$\therefore \text{Cost price} = ₹2195.$$

$$44. \text{ (c) } a = b - 3 \text{ — (i)}$$

$$\text{then, } \frac{a+10}{b} - \frac{a}{b} = \frac{10}{7}$$

$$\frac{a+10-a}{b} = \frac{10}{7}$$

$$\frac{10}{b} = \frac{10}{7} \Rightarrow b = \frac{10 \times 7}{10} = 7$$

Putting $b = 7$ into equation (i), we get
 $a = 7 - 3 = 4.$

$$\therefore \text{Fraction } \frac{a}{b} = \frac{4}{7}.$$

$$45. \text{ (d) Area of square} = \text{side} \times \text{side} = 5 \times 5 = (5)^2$$

when side decreased to one - third.

$$\therefore \text{New side} = \frac{5}{3}$$

$$\text{New Area} = \frac{5}{3} \times \frac{5}{3} = \frac{5^2}{9}$$

$$= \frac{\text{Area of square}}{9}$$

$$\begin{aligned} 46. \text{ (c) } 31\frac{7}{16} &= \frac{31 \times 16 + 7}{16} = \frac{503}{16} = \frac{503 \times 25}{16 \times 25} \\ &= \frac{12575}{400} = 31.4375 \end{aligned}$$

$$\begin{aligned} 47. \text{ (a) Perimeter of rectangle} &= 2 \times (\text{length} + \text{breadth}) \\ &= 2 \times (17 + 11) = 56 \text{ m.} \\ \text{Perimeter of square} &= \text{Perimeter of rectangles} = 56 \\ \therefore 4 \times \text{side of square} &= 56 \end{aligned}$$

$$\text{Side of square} = \frac{56}{4} = 14 \text{ m}$$

$$\text{Area of square} = (\text{side})^2 = (14)^2 = 196 \text{ m}^2$$

$$48. \text{ (a) } \frac{4392}{3.66} = 1200$$

$$\Rightarrow \frac{4392 \times 100}{366} = 1200 \Rightarrow \frac{4392}{366}$$

$$\frac{1200}{100} = 12$$

$$\text{Now, } \frac{439.2}{36.6} = \frac{4392 \times 100}{10 \times 366} = \frac{4392}{366} = 12$$

$$\therefore \frac{439.2}{36.6} = 12.$$

$$\begin{aligned} 49. \text{ (d) The area of a rectangular plot} &= 616 \text{ sq m} \\ \text{Breadth of a rectangular plot} &= 22 \text{ m} \\ \text{Area of a rectangular plot} &= \text{Length} \times \text{Breadth} \\ 616 &= \text{length} \times 22 \end{aligned}$$

$$\boxed{\text{Length} = 28 \text{ m}}$$

$$\begin{aligned} \text{The perimeter of a rectangular plot is} &= 2(l + b) \\ &= 2(28 + 22) = 2 \times 50 \\ &= 100 \text{ m} \end{aligned}$$

$$\begin{aligned} \text{The cost of fencing the plot at the rate of} & ₹7.50 \\ \text{per metre} &= 100 \times 7.50 = ₹750 \end{aligned}$$

50. (c) The greatest 3 digit number = 960
The least 3 digit number = 609
The product of the greatest 3 digit number and the least 3 digit number is = 960×609
= 584640

51. (b) The number of times the digit 9 occurs when all the numbers are written from 1 to 100.

9, 19, 29, 39, 49, 59, 69, 79, 89, 90

91, 92, 93, 94, 95, 96, 97, 98, 99

The answer is '20'.

52. (b) $5\frac{3}{8} \times 8\frac{1}{8} - 3\frac{1}{8} \times 5\frac{5}{8}$
 $= \frac{43}{8} \times \frac{65}{8} - \frac{25}{8} \times \frac{45}{8}$

$$= \frac{2795}{64} - \frac{1125}{64}$$

$$= \frac{1670}{64} \Rightarrow 26$$

53. (a) The sum of all angles = 360°
 $\angle EOD + \angle DOC + \angle COB + \angle BOA + 100$
 $= 360^\circ$

$$6x + 4x + 2x + x = 260^\circ$$

$$13x = 260^\circ$$

$$\boxed{x = 20^\circ}$$

$$\angle AOB = x = 20^\circ$$

$$\angle BOC = 2x = 20 \times 2 = 40^\circ$$

$$\angle COD = 4x = 20 \times 4 = 80^\circ$$

$$\angle DOE = 6x = 20 \times 6 = 120^\circ$$

54. (c) 30009 is same as:-

$$3 \times 10000 + 9 \times 1$$

3 ten thousands and 9 ones

55. (d) Let the ones digit of the number = x
the tens digit of the number = y
The number is = $10x + y$
The sum of the digits = $x + y$

According to question

$$= 10x + y - (x + y)$$

$$= 10x + y - x - y$$

$$= 9x$$

so, the resulting number is always divisible by '9'.

56. (c) The sum of two angles is an obtuse angle means the sum is greater than 90° .

So, The sum of two acute angles can never always be an obtuse angle.

for example:

One angle is = 40° (acute angle)

Second angle is = 40° (acute angle)

The Sum of angles = $40^\circ + 40^\circ = 80^\circ$

' 80° ' is not an obtuse angle

57. (a) Sumit's weight to the nearest tens is = 110 kg

Sanjay's weight to the nearest tens is = 80 kg

The required difference = $110 - 80 = 30$

58. (a) The matches played by Australia = 32
The matches played by Pakistan = 24
Australia played more matches than Pakistan by
 $= 32 - 24 = 8$

59. (d) The Cost price of a book is = ₹100

The Cost price of 3 books is = ₹100 $\times$ 3
= 300

The Selling price of 3 books is = ₹275

$$\text{Loss} = 300 - 275$$

$$\text{Loss} = ₹25$$

60. (b) A machine can print 12 pages in 1 minute

Time taken to print 5760 pages

$$= \frac{5760}{12} \text{ minutes}$$

$$= 480 \text{ minutes}$$

$$= \frac{480}{60} \text{ hours}$$

= 8 hours

61. (*) The options do not justify the question's response. The correct response is: "Watching TV continuously affects children's hearing ability, physical health, mental growth, aids in digestion problems, posture issues such as joint pains, backache and muscle pains, etc."

62. (a) When children indulge in a lot of TV viewing, psychological issues arise among them due to excessive horror and violence seen by them.

63. (c) Children are most affected when they watch TV from a close range, thus spoiling their eyesight, which has symptoms of headache and painful eyes.

64. (c) The word, sluggish refers to slow movement, flow or growth. The appropriate synonym for sluggish will be slow.

The meanings of the remaining words are as follows:

Energetic: full of energy and enthusiasm

Busy: having a lot of tasks to complete/ not free

Brisk: quick or using a lot of energy

65. (c) The word, harmful refers to meaning a capability of causing harm. Its antonym is useful.

The meanings of the remaining words are as follows:

Hopeless: someone bad at doing something

Injurious: harmful or likely to cause damage

Dangerous: likely to cause injury or damage

66. (d) From the passage, this sentence is pro "When we say 'Thank you', it means are grateful."

67. (b) From the passage, we can read through the first sentence: "Expressing gratitude is a great virtue which every human being should possess."

68. (c) From the passage, it can be seen: "We be grateful in our thoughts, words, and actions."

69. (d) Helpful, meaning to have an ability to improve a particular situation, by lending support, is an adjective.

70. (a) Virtue is the quality of being morally good. So, quality is the right option to fit in the sentence here.

71. (a) Humility is a great quality. As mentioned in the first sentence of the passage, 'Humility is a great virtue', the meaning of virtue is quality.

72. (b) As mentioned in the second sentence of the passage, "It means being humble, meek and modest."

73. (a) As mentioned in the passage, "Such a person is not stubborn. He is open to the advice of others and learns from their experience."

74. (d) The synonym of 'proud' is arrogant. 'Proud' means feeling pleased and satisfied about something that one owns or has done. Arrogant, in similar sense, means thinking that one is better and more important than other people. The meanings of the remaining words are:

Humble/Modest: not proud or arrogant

Meek: quiet, gentle, not willing to argue or express one's opinions in a forceful way

75. (c) The meaning of stubborn is not wanting to do what other people want you to do. Therefore, agreeable is an antonym of stubborn. The meanings of the remaining words are:

Adamant: refusing to change one's mind

Hard: someone not feeling or showing kindness or pity

Wilful: done intentionally or determined to do exactly as one wants

76. (a) Sunderlal Bahuguna was a great environmentalist and social worker.
77. (c) As mentioned in the passage, "His village was situated in the upper hills surrounded by green forests."
78. (a) When sports goods manufacturing industries started cutting down trees, it resulted in devastating floods in the adjoining areas.

79. (d) Proper nouns are names for specific people, places, or things. They are always capitalized in English. On the other hand, common nouns are generic names for a person, place or thing in a group. A collective noun is any noun that is used to name a group of something (people, animals, things, etc.). An abstract noun refers to an idea or a general quality, not any physical object.

80. (c) The synonym for precious is priceless. The meaning of the other words are as follows:

Hateful: extremely unpleasant

Loathsome: disgusting or distasteful

Useless: something that does not work well