

Sainik School

Entrance Exam (Class 6)

Solved Paper 2020

Time : 2 Hr 30 Minutes

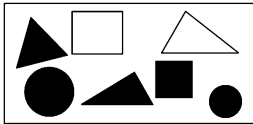
Marks : 300

Instructions

1. This question paper contains 125 questions, which is divided into following four sections.
Section A Mathematics (50 Questions); **Section B** General Knowledge (25 Questions);
Section C English (25 Questions) and **Section D** Intelligence Test (25 Questions).
2. Section A carries 150 Marks, Section B carries 50 Marks and Section C carries 50 Marks and Section D carries 50 Marks.
3. The candidate is expected to attempt all questions.

Paper 1

Section A Mathematics

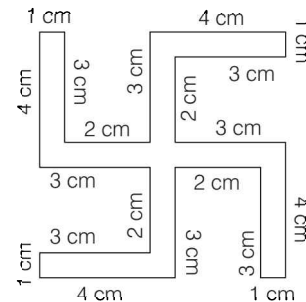
1. Find the difference between the greatest and the least number that can be written using the digits 6, 2, 7, 4, 3 each only once.
(a) 52965 (b) 53966 (c) 52956 (d) 52659
2. Estimate the product 5980×428 by rounding off each number to the nearest hundreds.
(a) 236000 (b) 240000
(c) 2400000 (d) 3000000
3. Three numbers are in the ratio of 3 : 4 : 5 and their LCM is 2400. Their HCF is
(a) 120 (b) 60 (c) 80 (d) 40
4. Leela reads 25 pages of a book containing 100 pages. Lalita read $\frac{2}{5}$ of the same book. Who read less and by how much?
(a) Leela, 15 pages (b) Lalita, 15 pages
(c) Leela, 20 pages (d) Lalita, 20 pages
5. $\left(\frac{\sqrt{625}}{11} \times \frac{14}{\sqrt{25}} \times \frac{11}{\sqrt{196}}\right)$ is equal to
(a) 5 (b) 6 (c) 8 (d) 11
6. Naveen bought 3 m 20 cm cloth for his shirt and 2 m 5 cm cloth for his trousers. Find the total length of cloth bought by him
(a) 5.7 m (b) 5.25 m
(c) 4.25 m (d) 5.00 m
7. The least common multiple of 3, 4 and 9 is
(a) 36 (b) 12 (c) 27 (d) 45
8. An aeroplane covers a certain distance at a speed of 240 km/h in 5 h. To cover the same distance in $1\frac{2}{3}$ h, it must travel at a speed of ?
(a) 300 km/h (b) 360 km/h
(c) 600 km/h (d) 720 km/h
9. A can lay railway track between two given stations in 16 days and B can do the same job in 12 days. With the help of C they did the job in 4 days only. Then, C alone can do the job in how many days?
(a) $9\frac{1}{5}$ days (b) $9\frac{2}{5}$ days (c) $9\frac{3}{5}$ days (d) $9\frac{4}{5}$ days
10. In the figure, find the ratio of number of triangles to the number of circles inside the rectangle and number of squares to all the figures inside the rectangle.

(a) $\frac{3}{2}, \frac{2}{7}$ (b) $\frac{3}{7}, \frac{2}{7}$ (c) $\frac{2}{7}, \frac{2}{7}$ (d) 3, 2

11. Ram, Rahul and Rohit shared a bag of marbles. The bag contained 272 marbles. How many marbles were left over after the friends shared them equally?
(a) 90 (b) 91 (c) 6 (d) 2
12. Cost of 4 dozens of bananas is ₹ 60. How many bananas can be purchased for ₹ 12.50?
(a) 10 (b) 15 (c) 12 (d) 18
13. The average weight of 16 boys in a class is 50.25 kg and that of the remaining 8 boys is 45.15 kg. Find the average weight of all the boys in the class.
(a) 47.55 kg (b) 48 kg
(c) 48.55 kg (d) 49.25 kg
14. Manju runs around a rectangular park of length 35 m and breadth 20 m. Meenu runs around a square park of side 30 m. Who covers less distance and by how much, if Meenu takes 4 rounds and Manju takes 3 rounds completely.
(a) Meenu, 150 m (b) Manju, 120 m
(c) Manju, 150 m (d) Meenu, 120 m
15. A photo frame is in the shape of a quadrilateral with one diagonal longer than the other. Which of the following is the possible shape of the photo frame?
(a) Square (b) Rectangle
(c) Rhombus (d) None of these
16. The product of a non-zero whole number and its successor is always
(a) divisible by 3 (b) an odd number
(c) a prime number (d) an even number
17. A sum fetched a total simple interest of ₹ 4016.25 at the rate of 9% in 5 yr. What is the sum?
(a) ₹ 4462 (b) ₹ 8032
(c) ₹ 8900 (d) ₹ 8925
18. Find the angle measure between the hands of the clock when time shows 6 pm.
(a) 90° (b) 45°
(c) 180° (d) 270°
19. Find the volume of a cube of side 6 cm.
(a) 216 cm³ (b) 36 cm³
(c) 72 cm³ (d) 108 cm³
20. Write Roman numeral CDXXXIX in Arabic numeral.
(a) 439 (b) 449
(c) 529 (d) 539
21. The product of two numbers is 1296. If one number is 16 times the other, find the smaller number.
(a) 12 (b) 16
(c) 4 (d) 9

22. The measure of an angle is $\frac{3}{4}$ of 60°. What is the measure of its complementary angle?
(a) 30° (b) 60°
(c) 45° (d) 20°

23. Subtract the difference of 8.382 and 7.942 from the sum of 5.675 and 1.327
(a) 6.562 (b) 4.348
(c) 3.982 (d) 4.384

24. Find the perimeter of the figure.



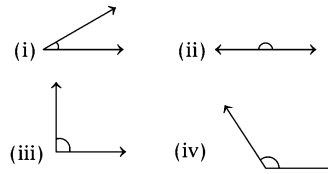
- (a) 51 cm (b) 52 cm
(c) 53 cm (d) 54 cm
25. How much time will it take for an amount of ₹ 450 to yield ₹ 81 as interest at 4.5% per annum of simple interest ?
(a) 3 yr (b) 4 yr
(c) 6 yr (d) 5 yr
26. In a triangle, if the second angle is 2 times the first angle and the third angle is 3 times the first angle, find the angles of the triangle
(a) 30°, 60°, 90° (b) 15°, 30°, 45°
(c) 45°, 45°, 90° (d) 20°, 40°, 120°
27. The area of a circle is 616 cm². Find its diameter. $\left(\pi = \frac{22}{7}\right)$
(a) 28 cm (b) 14 cm (c) 56 cm (d) 32 cm
28. Find the quotient, when 53.016 is divided by 24.
(a) 2.29 (b) 2.209 (c) 2.292 (d) 2.028
29. A rectangular path of 60 m length and 3m width is covered by square tiles of side 25 cm. Find the number of tiles used to make this path?
(a) 2250 (b) 1440 (c) 2880 (d) 1200
30. What is the value of A in $475 \div 64\% \text{ of } 950 = 900 + A$?
(a) 183 (b) 233
(c) 1983 (d) None of the above
31. What will be HCF of 216, 288 and 720 ?
(a) 12 (b) 24 (c) 84 (d) 72

32. Solve $\{106 \times 106 - 94 \times 94\} = ?$
 (a) 2400 (b) 2000
 (c) 1904 (d) 1906
33. If $\frac{2}{3}$ of 70% of 600, when subtracted from a number is 320, what is the number ?
 (a) 300 (b) 600
 (c) 720 (d) 500
34. A mobile phone is sold for ₹ 1650 after purchasing it for ₹ 1500. What is the percentage of profit?
 (a) 10 (b) 15
 (c) 20 (d) 16
35. In the first test of mathematics a student gets 18 marks out of 25. In the second test of same weightage he got 22 marks. What percentage of marks did he get more in the second test ?
 (a) 4% (b) 8%
 (c) 16% (d) None of these
36. Average of 20 results is 18. If 3 is subtracted from each result, then what will be the new average?
 (a) 21 (b) 15
 (c) 16 (d) 17

37. Solve $\frac{7}{3} \times \frac{2}{3} \div \frac{3}{5}$
 $2 + 1\frac{2}{3}$
 (a) $\frac{99}{76}$ (b) $\frac{70}{99}$ (c) $\frac{33}{30}$ (d) $\frac{70}{27}$

38. If 90.0675 is divided by 15, then quotient is
 (a) 6.0045 (b) 6.0450
 (c) 60.0450 (d) 0.6045
39. How many seconds are there in 24 h?
 (a) 30 (b) 60
 (c) 3600 (d) 86400
40. $\sqrt{1089 \div 121}$ value is
 (a) 3 (b) 13
 (c) 33 (d) 53
41. If angles A, B and C in a triangle ABC are $3x$, $5x$ and $8x + 4$ respectively. Then find all the three angles.
 (a) 33, 55, 92 (b) 70, 75, 35
 (c) 90, 75, 15 (d) 90, 95, 100
42. What are Prime factors of 37800 ?
 (a) $2 \times 2 \times 3 \times 3 \times 5 \times 5 \times 7 \times 7$
 (b) $2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 5 \times 5 \times 7$
 (c) $8 \times 27 \times 25 \times 7$
 (d) $2 \times 4 \times 25 \times 27 \times 7$
43. 10% of 3.75 + 15% of 7.25 convert into decimal
 (a) 1.4625 (b) 14.625
 (c) 1.4652 (d) 14.652

44. Which sequence correctly matches these angles with their measures ?



- (a) (i), (iii), (iv), (ii) (b) (i), (ii), (iii), (iv)
 (c) (iv), (iii), (ii), (i) (d) (i), (iv), (iii), (ii)
45. I am a prime number. If you subtract 2 from me. I become divisible by 7
 (a) 29 (b) 19
 (c) 31 (d) 23

For questions from 46 to 50 the following table has to be consulted.

Name of the city	Temperature at 3 AM (°C)	Temperature at 3 PM (°C)
Chennai	21.1	29.9
Mumbai	19.0	35.1
Thiruvananthapuram	21.6	33.5
Kolkata	13.1	26.6
Bhopal	9.8	25.9
Srinagar	1.3	8.1
Guwahati	12.8	24.8
Jaipur	10.2	23.2

46. Which place had the highest temperature at 3 AM?
 (a) Chennai (b) Thiruvananthapuram
 (c) Srinagar (d) Jaipur
47. Which place is the coolest at 3 PM?
 (a) Kolkata (b) Srinagar
 (c) Mumbai (d) Bhopal
48. How much higher is the temperature in Mumbai from that of Srinagar at 3 PM ?
 (a) 8.1 (b) 35.1
 (c) 27 (d) 29
49. How many degrees will the temperature at 3AM need to rise for it to reach 40 degree celsius in Thiruvananthapuram
 (a) 6.5 (b) 18.4
 (c) 21.6 (d) 33.5
50. How much lower is the temperature of Kolkata from that in Chennai at both times (3AM and 3 PM)?
 (a) 8° and 3.3° (b) 3° and 8°
 (c) 8° and 8° (d) 3.3° and 3.3°

Section B General Knowledge

51. Black soil is also known as
(a) Regur soil (b) Red soil
(c) Laterite soil (d) Mountain soil
52. PV Sindhu is associated with which sports?
(a) Badminton (b) Cricket
(c) Football (d) Hockey
53. The Space Programme of Government of India is looked after by
(a) ISBT (b) NTRO
(c) NABARD (d) ISRO
54. Bhakranangal Project is built on the river?
(a) Sutlej (b) Mahanadi
(c) Godavari (d) Cauvery
55. Who is known as 'Iron Man' of India?
(a) Jawaharlal Nehru
(b) Mahatma Gandhi
(c) Sardar Vallabhbhai Patel
(d) Subhash Chandra Bose
56. The longest river in South India is
(a) Mahanadi (b) Indus
(c) Saraswati (d) Godavari
57. Which planet is known as a morning star as well as evening star?
(a) Mars (b) Venus
(c) Mercury (d) Earth
58. Which Article of constitution provides Indian Citizen 'Right to Equality'?
(a) Article 12 (b) Article 13
(c) Article 17 (d) Article 14
59. 'Narora' nuclear power plant is located in the state of?
(a) Maharashtra (b) Tamil Nadu
(c) Uttar Pradesh (d) West Bengal
60. Which of the following diseases spreads through contaminated food and water?
(a) Malaria (b) Cholera
(c) Dengue (d) Filariasis
61. Which is biggest desert in World?
(a) Kalahari desert (b) Atacama desert
(c) Sahara desert (d) Gobi desert
62. Manas national park is located in the state of?
(a) Assam
(b) Arunachal Pradesh
(c) Himachal Pradesh
(d) Andhra Pradesh
63. Which of these grows from the roots?
(a) Potato (b) Ginger
(c) Carrot (d) Sweet Potato
64. Sahyadris is also known as
(a) Aravali (b) Western Ghats
(c) Himadri (d) Eastern Ghats
65. The gas filled in a weather balloons is
(a) Neon (b) Helium
(c) Argon (d) Oxygen
66. Growing children need more of
(a) Carbohydrates (b) Vitamins
(c) Proteins (d) Fats
67. Which gas is dissolved under pressure in soft drinks?
(a) Oxygen (b) Carbon dioxide
(c) Nitrogen (d) Hydrogen
68. Who is the lowest ranked Air Force Officer among these?
(a) Wing Commander (b) Group Captain
(c) Flying Officer (d) Flight Lieutenant
69. Which of the following is a national festival?
(a) Baisakhi (b) Republic Day
(c) Pongal (d) Chhath Puja
70. Dr. Amartya Sen won Nobel Prize in which field?
(a) Economics (b) Peace
(c) Chemistry (d) Literature
71. The imaginary line drawn half way between North Pole and South Pole is called
(a) Tropic of Cancer (b) Equator
(c) Arctic Circle (d) Antarctic Circle
72. The largest Island in the world is
(a) Australia (b) New Zealand
(c) Greenland (d) Mozambique
73. The coldest place in world, lying in the south frigid zone is
(a) Greenland (b) Antarctica
(c) Australia (d) New Zealand
74. Who invented telephone in 1876?
(a) Alexander Graham Bell (b) James Hickey
(c) Guglielmo Macroni (d) Logie Baird
75. 'Ghoomar' is a popular folk dance of which of the following states?
(a) Rajasthan (b) Madhya Pradesh
(c) Odisha (d) Uttar Pradesh

Section C English

Directions (Q. Nos. 76-80) *Read the following passage and answer the given questions.*

Midas, the king was a greedy person. He loved gold more than anything in the world. He had lots of wealth but he was never really a happy person.

One day God Bacchus came to Midas. Midas had once helped god Bacchus and in return Bacchus offered him a gift "What shall I give you to make you happy," God asked him. Midas thought for a while and then said, "Please give me the power to turn everything I touch into gold." Bacchus laughed and said, "Your wish is granted. As soon as the Sun rises tomorrow, you will have the golden touch."

The next morning Midas woke up and he had his golden touch. He touched his bed, the chairs, doors, windows and all became gold.

Suddenly, he felt very hungry. He sat at the table but as soon as the food touched his lips, it turned into gold. So did the water. It seemed he could no longer eat or drink. After some time, his daughter came to him. When he put his hand on her, she became a gold statue. In the end, Midas became very sad and prayed God Bacchus to take away the golden touch from him.

- 76.** What kind of man was Midas?
(a) A greedy person (b) A great miser
(c) A brave man (d) Wise man
- 77.** Who came to Midas one day?
(a) God Jesus (b) God Bacchus
(c) God Zeus (d) God
- 78.** Why did Bacchus offer him a gift?
(a) Because he had helped God once
(b) Because he had pleased Bacchus
(c) Because he had annoyed Bacchus
(d) Because he cared for Bacchus
- 79.** What was Midas' wish?
(a) To become rich
(b) To turn anything he touched into gold
(c) To turn his daughter a golden doll
(d) To become powerful
- 80.** Who turned into gold statue when Midas touched?
(a) Daughter (b) Son
(c) Uncle (d) Aunt

Directions (Q.Nos. 81-83) *Rearrange the following words/phrases to make meaningful sentences. Choose the correct sequence.*

- 81.** if (a)/ life is (b)/what we (c)/make (d)
(a) abcd (b) cdab
(c) dabc (d) bcda
- 82.** gold(a)/ is not (b)/glitters (c)/all that (d)
(a) abcd (b) cdab
(c) dabc (d) dcba
- 83.** playing (a)/in the (b)/park (c)/children are (d)
(a) abcd (b) bcda
(c) dabc (d) cdab

Directions (Q.Nos. 84-87) *Fill in the blanks with the appropriate option.*

- 84.** Either work hard give up studies.
(a) nor (b) or
(c) and (d) but
- 85.** He is afraid..... the dog.
(a) on (b) of
(c) in (d) by
- 86.** He..... tea every morning.
(a) drinks (b) is drinking
(c) drank (d) drunk
- 87.** The child has been missing yesterday.
(a) for (b) of
(c) by (d) since

Directions (Q.Nos 88-90) *Choose the appropriate option of the given questions as directed in brackets.*

- 88.** John is my brother (Find out the correct adjective)
(a) elder (b) bigger
(c) old (d) young
- 89.** French is easy languages. (Select the correct article)
(a) a (b) an
(c) the (d) none
- 90.** Ashok him yesterday. (Write the correct form of the verb)
(a) meet (b) met
(c) will meet (d) is meeting

Directions (Q.Nos. 91-93) *Choose the most appropriate option.*

- 91.** Which word means nearly the same as 'sufficient'?
(a) infinite (b) adequate
(c) merry (d) surplus

92. Which word is the opposite of 'simple'?

- (a) complex (b) easy
(c) obey (d) show

93. A list of books in a library

- (a) monologue (b) dialogue
(c) catalogue (d) diary

94. Find the feminine gender of 'horse'.

- (a) mare (b) doe
(c) ewe (d) ram

95. Choose the word which means the opposite of 'RISE'.

- (a) fall (b) smooth
(c) pride (d) rash

96. Choose the word which means same as 'GRIEF'.

- (a) cheerful (b) sorrow
(c) happy (d) injury

97. One who does not believe in existence of God.

- (a) theist (b) pacifist
(c) ascetic (d) atheist

98. The match has been postponed it has been raining outside. (Supply Conjunction)

- (a) so (b) because
(c) therefore (d) and

99. This is the boy parents have died. (Supply correct Pronoun)

- (a) whose (b) who
(c) whom (d) his

100. He doesn't help the poor,? (Use Question Tag)

- (a) did he
(b) does he
(c) doesn't he
(d) do he

Paper 2

Section D Intelligence Test

101. If CATTLE is related to HERD then SHEEP is related to

CATTLE : HERD :: SHEEP : ?

- (a) FLOCK (b) SWARM
(c) SHOAL (d) MOB

102. Choose the alternative that has the same relationship to 09 as 07 has with 56.

07 : 56 :: 09 : ?

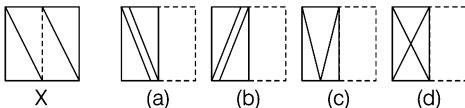
- (a) 54 (b) 81
(c) 72 (d) 99

103. Choose the alternative that will continue the number series below

5, 11, 17, 23, ?

- (a) 31
(b) 29
(c) 28
(d) 35

104. If you fold the transparent paper along the dotted line in Figure 'X' which alternative figure from a, b, c and d would you get ?



X

(a)

(b)

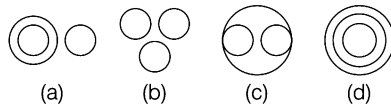
(c)

(d)

105. Choose the word which is least like the other words in the group.

- (a) BAKE (b) PEEL
(c) FRY (d) ROAST

106. Which of the following diagram indicate the best relation between India, Haryana and World?



(a)

(b)

(c)

(d)

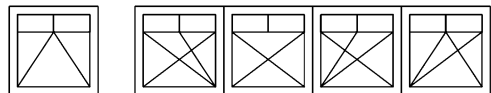
107. Choose the word which is least like the other words in the group.

- (a) VIRGO (b) PISCES
(c) CANCER (d) ORION

108. If STATEMENT is coded as TNEMETATS, then POLITICAL will be coded as

- (a) LACITLOP (b) LCATILIOIP
(c) OPILITACL (d) LACITIPOL

109. Figure 'X' embedded in any one of the four alternative figures a, b, c or d. Find the alternative which contains figure X as its part.



X

(a)

(b)

(c)

(d)

110. If 'A' means add, 'B' means subtract, 'C' means multiply and 'D' means divide, then what would be the answer of the equation?

$$15 \text{ D } 5 \text{ C } 2 \text{ A } 3 =$$

- (a) 13 (b) 11 (c) 03 (d) 09

- 111.** Five men A, B, C, D and E read a newspaper. The one who reads first gives it to C. The one who reads last had taken from A, E was not the first or last to read. There were two readers between B and A. Who read the newspaper last?

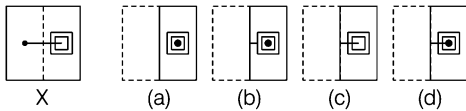
(a) A (b) B
(c) C (d) D

- 112.** Choose the alternative that has the same relationship to 16 as 12 has with 168.

12 : 168 :: 16 : ?

(a) 232 (b) 256
(c) 224 (d) 208

- 113.** If you fold the transparent paper along the dotted line in figure 'X' which alternative figure would you get ?



- 114.** If in a certain code DEAF is written as 3587 and FILE is written as 7465, then IDEAL will be written as ?

(a) 43568 (b) 43586
(c) 63548 (d) 48536

- 115.** Choose the word which is least like the other words in the group.

(a) PLASTIC (b) WOOL
(c) PAPER (d) WOOD

- 116.** If we arrange the given words in alphabetical order, which word would come at last place, choose the correct alternative?

(a) ROBBER (b) RANDOM
(c) RESTRICT (d) RESTAURANT

- 117.** Choose the alternative that will continue the number series below.

11, 13, 17, 19, 23, 25, ?

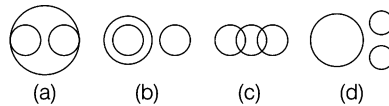
(a) 27 (b) 29
(c) 31 (d) 33

- 118.** Choose the correct alternative that has the same relation to BMJ as HSY is to EPV.

BMJ : ? :: EPV : HSY

(a) DRM (b) YJG
(c) EPM (d) EON

- 119.** Which of the following diagrams indicates the best relation between flower, Lotus and Rose?



- 120.** Choose the alternative that has the same relationship to 11 as 49 has with 07.

07 : 49 :: 11 : ?

(a) 111 (b) 90
(c) 81 (d) 121

- 121.** Choose the word which is least like the other words in the group.

(a) GREEN (b) PINK
(c) INDIGO (d) VIOLET

- 122.** If X is the brother of the son of Y's son, how is X related to Y ?

(a) Son (b) Brother
(c) Grandson (d) Cousin

- 123.** Area of rectangle is 48m^2 . If the length is 6m, then breadth =

(a) 13 m (b) 6 m
(c) 10 m (d) 8 m

- 124.** The priest told the devotee. "The temple bell is rung at regular intervals of 45 minutes. The last bell was rung 5 minutes ago. The next bell is due to be rung at 7: 45 AM." At what time did the priest give this information to the devotee?

(a) 7 : 00 AM (b) 7 : 05 AM
(c) 6 : 55 AM (d) 7 : 40 AM

- 125.** If in a certain code MBS is coded as ODU, then BRL will be coded as ?

(a) DTN (b) DUN
(c) CSM (d) CTN

Answers

1 (a)	2 (c)	3 (d)	4 (a)	5 (a)	6 (b)	7 (a)	8 (d)	9 (c)	10 (a)
11 (d)	12 (a)	13 (c)	14 (c)	15 (c)	16 (d)	17 (d)	18 (c)	19 (a)	20 (a)
21 (d)	22 (c)	23 (a)	24 (b)	25 (b)	26 (a)	27 (a)	28 (b)	29 (c)	30 (a)
31 (d)	32 (a)	33 (b)	34 (a)	35 (c)	36 (b)	37 (b)	38 (a)	39 (d)	40 (a)
41 (a)	42 (b)	43 (a)	44 (a)	45 (d)	46 (b)	47 (b)	48 (c)	49 (b)	50 (a)
51 (a)	52 (a)	53 (d)	54 (a)	55 (c)	56 (d)	57 (b)	58 (d)	59 (c)	60 (b)
61 (c)	62 (a)	63 (c)	64 (b)	65 (b)	66 (c)	67 (b)	68 (c)	69 (b)	70 (a)
71 (b)	72 (c)	73 (b)	74 (a)	75 (a)	76 (a)	77 (b)	78 (a)	79 (b)	80 (a)
81 (d)	82 (d)	83 (c)	84 (b)	85 (b)	86 (a)	87 (d)	88 (a)	89 (b)	90 (b)
91 (b)	92 (a)	93 (c)	94 (a)	95 (a)	96 (b)	97 (d)	98 (b)	99 (a)	100 (b)
101 (a)	102 (c)	103 (b)	104 (d)	105 (b)	106 (d)	107 (d)	108 (a)	109 (d)	110 (d)
111 (d)	112 (c)	113 (d)	114 (b)	115 (a)	116 (a)	117 (b)	118 (c)	119 (a)	120 (d)
121 (b)	122 (c)	123 (d)	124 (b)	125 (a)					

Hints & Solutions

1. To formed by digits 6, 2, 7, 4, 3.

The greatest number = 76432

The least number = 23467

$$\therefore \text{Required difference} = 76432 - 23467 \\ = 52965$$

2. Given product number = 5980×428

$$= 6000 \times 400$$

[to write in the nearest hundreds]

$$= 2400000$$

3. Let three numbers be $3x$, $4x$ and $5x$.

$$\therefore \text{LCM of the numbers} = 3 \times 4 \times 5 \times x = 60x$$

According to the question,

$$\text{LCM of the numbers} = 2400$$

$$\Rightarrow 60x = 2400$$

$$\Rightarrow x = \frac{2400}{60} = 40$$

Now, HCF of the numbers = $x = 40$

4. Total pages in a book = 100

The number of pages to read by Leela = 25

and the number of pages to read by Lalita

$$= \frac{2}{5} \times 100 = 40$$

Hence, Leela reads less pages

$$\therefore \text{Number of less pages} = 40 - 25 = 15$$

$$\begin{aligned} 5. \quad & \frac{\sqrt{625}}{11} \times \frac{14}{\sqrt{25}} \times \frac{11}{\sqrt{196}} \\ &= \frac{\sqrt{25 \times 25}}{11} \times \frac{14}{\sqrt{5 \times 5}} \times \frac{11}{\sqrt{14 \times 14}} \\ &= \frac{25}{11} \times \frac{14}{5} \times \frac{11}{14} = 5 \end{aligned}$$

6. Cloth for shirt = 3 m 20 cm

Cloth for trousers = 2 m 5 cm

$$\therefore \text{Total cloth} = 3 \text{ m } 20 \text{ cm} + 2 \text{ m } 5 \text{ cm}$$

$$= 5 \text{ m } 25 \text{ cm}$$

$$= 5 \text{ m} + \frac{25}{100} \text{ m} \quad [\because 1 \text{ cm} = \frac{1}{100} \text{ m}]$$

$$= 5 \text{ m} + 0.25 \text{ m} = 5.25 \text{ m}$$

7. Prime factors of 3, 4 and 9,

$$3 = 1 \times 3$$

$$4 = 1 \times 2 \times 2$$

$$9 = 1 \times 3 \times 3$$

$$\text{LCM of 3, 4 and 9} = 1 \times 2 \times 2 \times 3 \times 3 = 36$$

8. Given, Time = 5 h

$$\text{Speed} = 240 \text{ km/h}$$

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

$$= 240 \times 5 = 1200 \text{ km}$$

$$\text{Now, new time} = 1\frac{2}{3} \text{ h} = \frac{5}{3} \text{ h}$$

$$\begin{aligned}\therefore \text{Speed} &= \frac{\text{Distance}}{\text{Time}} \\ &= \frac{1200}{\frac{5}{3}} = \frac{1200 \times 3}{5} \\ &= 240 \times 3 = 720 \text{ km/h}\end{aligned}$$

9. 1 day's work of A = $\frac{1}{16}$

1 day's work of B = $\frac{1}{12}$

1 day's work of A, B and C = $\frac{1}{4}$

$\therefore$ 1 day's work of C = 1 day's work of A, B and C
- 1 day's work of A and B

$$\begin{aligned}&= \frac{1}{4} - \left(\frac{1}{16} + \frac{1}{12} \right) \\ &= \frac{12 - 3 - 4}{48} = \frac{5}{48}\end{aligned}$$

$\therefore$ C alone can be complete the work

$$= \frac{1}{\frac{5}{48}} = \frac{48}{5} = 9\frac{3}{5} \text{ days}$$

10. Number of triangles in rectangle = 3

Number of circles in rectangle = 2

$\therefore$ Required ratio = $\frac{\text{Number of triangles}}{\text{Number of circles}} = \frac{3}{2}$

Number of squares in rectangle = 2

Number of all figures in rectangle = 7

$\therefore$ Required ratio = $\frac{\text{Number of squares}}{\text{Number of all figures}} = \frac{2}{7}$

11. Total number of marbles in bag = 272

Ram, Rahul and Rohit shared equally a bag of marbles, then each of them obtained of marbles

= Quotient, to get by $\frac{272}{3} = 90$

$\therefore$ Left marbles = Remainder to get by $\frac{272}{3} = 2$

12. Number of bananas to bought for ₹ 60 = 4

dozens = 4×12 [$\because$ 1 dozens = 12 items]
= 48

$\therefore$ Number of bananas to bought for ₹ 1 = $\frac{48}{60}$

$\therefore$ Number of bananas to bought for

₹ 12.50 = $\frac{48 \times 12.50}{60}$

$$= \frac{4}{5} \times 12.50 = 4 \times 2.50$$

= 10

13. Average weight of 16 boys = 50.25 kg

Total weight of 16 boys = Average $\times$ Total boys
= $16 \times 50.25 = 804$ kg

Average weight of 8 boys = 45.15 kg

Total weight of 8 boys = $8 \times 45.15 = 361.20$ kg

Total number of boys in class

= $16 + 8 = 24$

Total weight of all 24 boys of class

= $804 + 361.20$

= 1165.20 kg

$\therefore$ Average weight of all boys

= $\frac{\text{Total weight of all boys}}{\text{Number of all boys}}$

= $\frac{1165.20}{24} = 48.55$ kg

14. For Manju,

Length of rectangular park = 35 m,
breadth = 20 m

$\therefore$ Cover distance in 3 rounds by manju

= $3 \times \text{perimeter of rectangle}$

= $3 \times 2 (\text{length} + \text{breadth})$

= $6(35 + 20) = 6 \times 55$

= 330 m

For Meenu,

Side of square park = 30 m

$\therefore$ Cover distance in 4 rounds by Meenu

= $4 \times \text{perimeter of square}$

= $4 \times (4 \times \text{side})$

= $16 \times \text{side} = 16 \times 30$

= 480 m

Hence, Manju cover less distance = $480 - 330$
= 150 m

15. A photo frame is in the shape of quadrilateral i.e. it can be any one of square, rectangle and rhomous, but the diagonals of square and rectangle be equal.

According to the question, one diagonal is longer than the other diagonal. Hence, photo frame is the shape of rhombus.

16. A non-zero whole number and its successor is always an even and odd number.

$\therefore$ Its product will be an even number because the product of an even number and odd number be always an even number.

Example $2 \times (2 + 1) = 2 \times 3 = 6$ (even)

Here, 2 is a non-zero whole number and 3 is its successor number.

17. Time (T) = 5 yr, Rate (R) = 9%

$$SI = ₹ 4016.25$$

Let principal be P.

$$\therefore SI = \frac{P \times R \times T}{100}$$

$$\Rightarrow 4016.25 = \frac{P \times 9 \times 5}{100}$$

$$\therefore P = \frac{4016.25 \times 100}{9 \times 5} = ₹ 8925$$

18. At 6 PM, the hands of the clock be in opposite direction of each-other i.e. formed a straight line.

Hence, angle between them at 6 pm = 180°

19. Side of cube = 6 cm

$$\therefore \text{Volume of cube} = (\text{side})^3 = (6)^3 = 216 \text{ cm}^3$$

20. Roman numeral CDXXXIX is equal of Arabic numeral

$$= 500 - 100 + 10 + 10 + 10 + 9$$

$$(\because c = 100, d = 500, x = 10)$$

$$= 439$$

21. Let, smaller number = x

$$\therefore \text{Greater number} = 16x$$

According to the question,

$$\text{Product of both numbers} = 1296$$

$$\Rightarrow 16x \times x = 1296$$

$$\Rightarrow x^2 = \frac{1296}{16} = 81 \Rightarrow x = \sqrt{81} = 9$$

Hence, the smaller number is 9.

22. The measure of an angle = $\frac{3}{4}$ of 60°

$$= 60^\circ \times \frac{3}{4} = 45^\circ$$

$$\therefore \text{The measure of complementary angle of angle} \\ = 90^\circ - 45^\circ$$

$$[\because \text{sum of complementary angles be } 90^\circ] \\ = 45^\circ$$

23. Sum of 5.675 and 1.327 = $5.675 + 1.327$

$$= 7.002$$

$$\text{Difference of 8.382 and 7.942} = 8.382 - 7.942$$

$$= 0.440$$

$$\therefore \text{Required difference} = 7.002 - 0.440 = 6.562$$

24. The perimeter of any one side of given figure

$$= 1 + 3 + 2 + 3 + 4 = 13 \text{ cm}$$

$$\therefore \text{Perimeter of figure} = 4 \times 13 = 52 \text{ cm}$$

25. Principal = ₹ 450

Simple Interest rate = 4.5% per annum

$$\text{Simple Interest} = ₹ 81$$

$$\text{Simple Interest} = \frac{\text{Principal} \times \text{Rate} \times \text{Time}}{100}$$

$$\Rightarrow 81 = \frac{450 \times 4.5 \times \text{Time}}{100}$$

$$\therefore \text{Time} = \frac{81 \times 100}{450 \times 4.5} = 4 \text{ yr}$$

26. Let first angle of triangle = x

$$\therefore \text{Second angle} = 2x$$

and third angle $3x$

$$\therefore \text{Sum of three angles of triangles} = 180^\circ$$

$$\Rightarrow x + 2x + 3x = 180^\circ \Rightarrow 6x = 180^\circ$$

$$x = \frac{180^\circ}{6} = 30^\circ$$

Hence, angles of triangle are 30° , 60° and 90° .

27. Area of circle = 616 cm^2

Let diameter of circle be d.

$$\therefore \text{Radius of circle, } r = \frac{\text{Diameter}}{2} = \frac{d}{2}$$

$$\therefore \text{Area of circle} = \pi r^2$$

$$\Rightarrow 616 = \frac{22}{7} \times r^2$$

$$\Rightarrow r^2 = \frac{616 \times 7}{22} = 28 \times 7$$

$$\Rightarrow r^2 = 196$$

$$\Rightarrow r = \sqrt{196} = 14 \text{ cm}$$

$$\therefore \text{Diameter of circle} = 2r = 2 \times 14 = 28 \text{ cm}$$

28. (b) According to the question,

$$24) 53.016 (2.209$$

$$\underline{48}$$

$$\underline{50}$$

$$\underline{48}$$

$$\underline{216}$$

$$\underline{216}$$

$$\times$$

Hence, quotient = 2.209

29. Length of rectangular path = 60 m

$$= 60 \times 100 \text{ cm}$$

$$\text{Breadth} = 3 \text{ m} = 3 \times 100 \text{ cm}$$

$$\therefore \text{Area of rectangular path} = \text{Length} \times \text{Breadth}$$

$$= 60 \times 100 \times 3 \times 100$$

$$= 1800000 \text{ cm}^2$$

$$\text{Side of square tile} = 25 \text{ cm}$$

$$\text{Area of 1 tile} = (\text{side})^2 = (25)^2 = 625 \text{ cm}^2$$

$$\therefore \text{Number of tiels} = \frac{\text{Area of path}}{\text{Area of 1 tile}}$$

$$= \frac{1800000}{625} = 2880$$

30. $475 + 64\% \text{ of } 950 = 900 + A$

$$\Rightarrow 475 + \left(950 \times \frac{64}{100}\right) = 900 + A$$

$$\Rightarrow 475 + 608 = 900 + A$$

$$\Rightarrow 1083 = 900 + A$$

$$\Rightarrow A = 1083 - 900 = 183$$

31. The prime factors of given numbers 216, 288 and 720.

$$216 = (2) \times (2) \times (2) \times (3) \times (3) \times 3$$

$$288 = (2) \times (2) \times (2) \times 2 \times 2 \times (3) \times (3)$$

$$720 = (2) \times (2) \times (2) \times 2 \times (3) \times (3) \times 5$$

$$\therefore \text{HCF of 216, 288 and 720} = 2 \times 2 \times 2 \times 3 \times 3 = 72$$

32. $? = 106 \times 106 - 94 \times 94 = (106)^2 - (94)^2$

$$= (106 + 94)(106 - 94)$$

$$[\because a^2 - b^2 = (a + b)(a - b)]$$

$$= 200 \times 12 = 2400$$

33. Let the number be x.

According to the question,

$$\Rightarrow x - (70\% \text{ of } 600 \text{ of } \frac{2}{3}) = 320$$

$$\Rightarrow x - \left(600 \times \frac{70}{100} \times \frac{2}{3}\right) = 320$$

$$\Rightarrow x - 280 = 320$$

$$\therefore x = 320 + 280 = 600$$

34. Cost price of mobile phone = ₹ 1500

Selling price of mobile phone = ₹ 1650

$$\therefore \text{Profit per cent} = \frac{\text{SP} - \text{CP}}{\text{CP}} \times 100\%$$

$$= \frac{1650 - 1500}{1500} \times 100\%$$

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

35. Total marks for each test = 25

To get marks in first test = 18

$\therefore$ To get per cent marks in first test

$$= \frac{\text{Get marks}}{\text{Total marks}} \times 100$$

$$= \frac{18}{25} \times 100 = 72\%$$

To get marks in second test = 22

$\therefore$ To get per cent marks in second test

$$= \frac{22}{25} \times 100 = 88\%$$

$\therefore$ Required to get more per cent marks

$$= 88 - 72 = 16\%$$

36. Average of 20 results = 18

Sum of 20 result = Average $\times$ Total results

$$= 20 \times 18 = 360$$

Subtracting 3 from each result the effect on whole result = $20 \times 3 = 60$

$$\therefore \text{New sum} = 360 - 60 = 300$$

$$\text{New average} = \frac{\text{New Sum}}{20} = \frac{300}{20} = 15$$

Short method If $\bar{x}$ is the average of some numbers. If any number a subtract from each number, then new average be $\bar{x} - a$.

Hence, new average = $\bar{x} - a$

$$= 18 - 3 = 15$$

37. Given expression = $\frac{\frac{7}{3} \times \frac{2}{3} + \frac{5}{3}}{2 + 1\frac{2}{3}}$

$$= \frac{\frac{7}{3} \times \frac{2}{3} \times \frac{5}{3}}{2 + \frac{5}{3}} = \frac{\frac{70}{27}}{\frac{6+5}{3}} = \frac{70 \times 3}{27 \times 11} = \frac{70}{99}$$

38. According to the question,

$$15) 90.0675 \text{ (6.0045)}$$

$$\begin{array}{r} 90 \\ 0.67 \\ 60 \\ 75 \\ 75 \\ \times \end{array}$$

Hence, quotient = 6.0045

39. 1 hour = 60 min

$$= 60 \times 60 \text{ s}$$

[1 min = 60 s]

$$\therefore 24 \text{ hours} = 24 \times 60 \times 60 \text{ s}$$

$$= 86400 \text{ s}$$

40. $\sqrt{1089 \div 121} = \sqrt{9}$

[$\because 1089 \div 121 = 9$]

$$= \sqrt{3 \times 3}$$

$$= 3$$

41. Given, angles of $\triangle ABC$,

$$\angle A = 3x, \angle B = 5x, \angle C = 8x + 4$$

$\therefore$ Sum of three angles of a triangle = 180°

$$\therefore \angle A + \angle B + \angle C = 180^\circ$$

$$\Rightarrow 3x + 5x + 8x + 4 = 180^\circ$$

$$\Rightarrow 16x = 180 - 4$$

$$\Rightarrow x = \frac{176}{16} = 11$$

Hence, angle of a triangle are $\angle A = 33^\circ$,

$$\angle B = 55^\circ, \angle C = 88 + 4 = 92^\circ$$

42. According to the question,

2	37800
2	18900
2	9450
3	4725
3	1575
3	525
5	175
5	35
7	7
	1

∴ Prime factors of 37800

$$= 2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 5 \times 5 \times 7$$

43. Given expression = 10% of 3.75 + 15% of 7.25

$$= 3.75 \times \frac{10}{100} + 7.25 \times \frac{15}{100}$$

$$= 0.375 + 1.0875 = 1.4625$$

44. According to the question,

Angle in figure (i) → Acute angle

Angle in figure (ii) → Straight angle

Angle in figure (iii) → Right angle

Angle in figure (iv) → Obtuse angle

Correct order of angles be, Acute angle < Right angle < Obtuse angle < Straight angle.

∴ Correct order will be (i), (iii), (iv), (ii).

Hence, option (a) is correct answer.

45. Let prime number be x.

According to the question, $(x - 2)$ is divisible by

7 i.e. to get remainder by $\frac{x-2}{7} = 0$

The greatest number in given option = 31

Divisible number by 7 smaller than

$$31 = 7, 14, 21, 28$$

Here, $7 + 2 = 9$, it is composite number i.e. not prime number.

$14 + 2 = 16$, it is composite number i.e. not prime number.

$21 + 2 = 23$, it is prime number and $23 - 2 = 21$ is divisible by 7.

$28 + 2 = 30$, it is composite number i.e. not prime number.

Hence, required number is 23.

46. From table, the highest temperature at 3 AM is 21.6, it is the temperature of Thiruvananthapuram city.

47. From table, the least temperature at 3 pm is 8.1°C, it is the temperature of Srinagar city. Hence, Srinagar is the coolest place.

48. From table,

Temperature of Mumbai at 3 PM = 35.1°C

and temperature of Srinagar at 3 PM = 8.1°C

∴ More temperature of Mumbai

$$= 35.1 - 8.1 = 27^\circ \text{C}$$

49. From table,

Temperature in Thiruvananthapuram at 3 AM

$$= 21.6^\circ \text{C}$$

Increasing in temperature for 40°C

$$= 40^\circ \text{C} - 21.6^\circ \text{C} = 18.4^\circ \text{C}$$

50. From table,

Temperature of Chennai at 3 AM = 21.1°C

and temperature of Kolkata at 3 AM = 13.1°C

∴ Less in temperature at 3 AM

$$= 21.1 - 13.1 = 8^\circ \text{C}$$

Again from table,

Temperature of Chennai at 3 PM = 29.9°C

and temperature of Kolkata at 3 PM = 26.6°C

∴ Less in temperature at 3 PM

$$= 29.9 - 26.6 = 3.3^\circ \text{C}$$

51. Black soil is also known as Regur soil. It is ideal for growing cotton and typically found in Deccan trap region spread over North-West Deccan plateau.

52. PV Sindhu is an Indian professional badminton player. She has won silver medal in 2016 Summer Olympics and gold in World Championship held in 2019.

53. The Space Programme of Government of India is looked after by Indian Space Research Organisation (ISRO). Its headquarters in the city of Bengaluru. ISRO was founded in 1969 by Vikram Sarabhai.

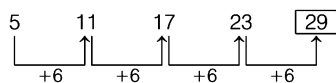
54. Bhakra-Nag project is built on Sutlej river in the state of Himachal Pradesh. It is one of the earliest river development project undertaken by India after independence.

55. Sardar Vallabhbhai Patel is known as 'Iron Man' of India. He served as the first Deputy Prime Minister and Home Minister of India from August 1947 to December 1950.

56. Godavari (1465 km) is the longest river in South India. Its source is in Triambakeshwar (Maharashtra) and flows through Maharashtra, Telangana, Andhra Pradesh, Chhattisgarh and Odisha. It drains into Bay of Bengal.

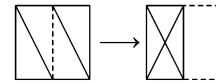
57. 'Venus' is known as morning star as well as evening star. Venus is called evening star because it can be seen shining in the evening sky right after the sun set. It is also called morning star when it appear bright in the morning rather than in evening.
58. Article 14 of Indian Constitution provides Indian citizen. 'Right to Equality.' According to this article all citizens will be equal.
59. 'Narora' Nuclear Power Plant is located in Bulandshahar district of Uttar Pradesh. The plant houses two reactors, each capable of producing 200 MW of electricity.
60. Cholera is an infectious disease that spreads through contaminated food and water. The bacteria responsible for this disease '*Vibrio cholerae*.' Its symptoms include water diarrhea that leads to severe dehydration.
61. The Sahara desert is the world's biggest desert located in Northern Africa. It measures approximately 3000 miles from East to West and between 800 and 1200 miles from North to South. It covers an area of 9,200,000 km².
62. Manas National Park is located in the state of Assam. The park is known for Assam roofed turtle and golden langur. It is a UNESCO natural world heritage site, a project tiger reserve, an elephant reserve and a biosphere reserve. Its covers an area of 950 km².
63. The carrot is a root vegetable. Roots vegetables grow underground at the base of a plant. Some other example of root vegetables are beet, onion, potato, turnip etc.
64. Western Ghats are also known as Sahyadris. It runs parallel to the Western coast of India through the states of Kerala, Tamil Nadu, Karnataka, Goa, Maharashtra and Gujarat.
65. Helium gas is filled in the weather ballons. It is filled because helium is less dense than air. It is also non-inflammable unlike hydrogen that is flammable.
66. Growing children need more of protein because protein help them build and repair cells and tissues.
67. Carbon-dioxide gas is dissolved under pressure in soft drinks. Carbon dioxide is a colourless gas that dissolves in water under pressure.
68. Lowest ranked Air Force officer is Flying Officer. It is a commissioned rank which is held by officers who fly an aircraft and also by ground duty officers.
69. Republic Day is a national festival. On this day constitution was adopted and is celebrated by the whole country. Rest of these are regional festivals celebrated by a particular region only.
70. Dr. Amartya Sen, born on 3rd November, 1933 was awarded the Nobel Prize in Economics in the year 1998 for his contributions to welfare economics.
71. The imaginary line drawn half way between North Pole and South Pole is Equator. The Equator divides the Earth into Northern and Southern hemisphere.
72. The largest Island is greenland even though the land area of Australia is more but it is considered as a continent. So largest Island in the world is Greenland. It is located between the Arctic and Antarctic oceans East of the continent Arctic Archipelago. Total area of Island is 2166.086 km².
73. The coldest place in the world, lying in the South frigid zone is Antarctica. It is extremely cold throughout the year as it remains under permanent cover of snow and ice.
74. Telephone was invented in 1876 by Alexander Graham Bell. He was a Scottish born American inventor, scientist and engineer.
75. 'Ghoomar' is a very popular traditional folk dance of Rajasthan. This dance is performed on special occasions like weddings, festivals and religious ceremonies.
76. According to passage, Midas was a greedy person.
77. God Bacchus came to Midas one day.
78. Bacchus offered him a gift because he had helped god once.
79. Midas' wish was the power to turn everything into gold by touch.
80. His daughter turned gold statue, when Midas touched her.
81. The correct sequence of the given phrase is bcda and the sentence formed is 'Life is what we make it.'
82. The correct sequence of the given phrase is dcba and the sentence formed is 'All that glitters is not gold.'
83. The correct sequence of the given phrase is 'dabc' and the sentence formed is 'children are playing in the park.'
84. The correct word for the given blank is option (b) 'or' as 'either' is used with 'or' (either... or is a conjunction)

85. Here, preposition 'of' should be used as 'afraid' is followed by preposition 'of'.
86. 'Drinks' is the suitable word for the given blank. For habitual actions, Present Indefinite tense ($v_1 + es$) should be used.
87. 'Since' is the correct word for the given blank, because since is used for point of time (yesterday).
88. Adjective 'elder' is used only before a noun especially when talking about relationships within a family. So, option (a) is its correct answer.
89. 'An' is used before the 'easy' because easy starts with a vowel and its initial sound is also a vowel.
90. The given sentence is in past tense. So, second form of verb (met) should be used in the blank.
91. The word 'sufficient' means enough for a particular purpose. So 'adequate' is its similar meaning word as Adequate also means enough.
92. The opposite of 'simple' is 'complex'.
93. A list of books in a library called Catalogue.
94. The feminine gender of 'horse' is 'mare'.
95. 'Rise' means increasing so, 'fall' is its correct opposite meaning word as fall means decreasing.
96. 'Grief' means very great sadness. Hence, 'sorrow' is its correct answer.
97. One who does not believe in existence of god is called Atheist.
98. The sentence shows cause and effect relationship, so 'because' is the correct conjunction to fill the given blank.
99. 'Whose' is the correct pronoun to fill the given blank. It is used to find out which person something belongs to.
100. 'Does he' is the correct question tag for the given blank. Usually, if the main clause is negative the question tag is positive.
101. As a group of cattle is known as Herd. Similarly, a group of sheep is known as flock.
102. As $07 : 56 \rightarrow 07 \times 8 = 56$
similarly, $09 : ?$
 $\rightarrow 09 \times 8 = 72$
103. The pattern of the series is as follows.

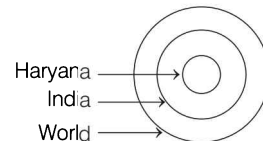


$\therefore ? = 29$

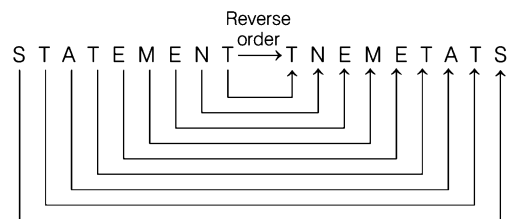
104. On folding the transparents sheet along the dotted line, we get answer figure (d).



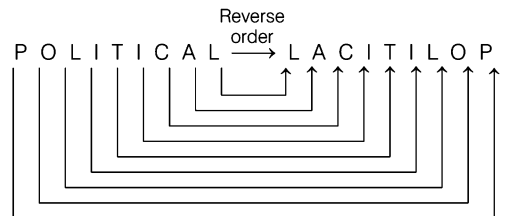
105. Except peel, all others are different methods of cooking.
106. Haryana is a state of India and India is a country in the world.



107. Except Orion, all others are zodiac signs. While orion is a constellation.
108. Here, the letters of the given word are written in reverse order to obtain the code.
As,



Similarly,



109. Figure (X) is embedded in answer figure (d).



110. Given ,

$$15 \text{ D } 5 \text{ C } 2 \text{ A } 3 = ?$$

$$\downarrow \quad \downarrow \quad \downarrow$$

$$15 \div 5 \times 2 + 3 = ?$$

$$3 \times 2 + 3 = ?$$

$$6 + 3 = ?$$

$$? = 9$$

111. The sequence is as follows

$B \rightarrow C \rightarrow E \rightarrow A \rightarrow D$

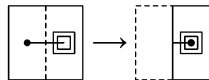
Clearly, D reads the newspaper last.

112. As, $12 : 168$

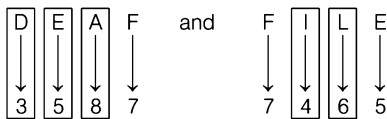
$$\rightarrow 12 \times 14 = 168$$

$$\text{Similarly, } 16 : ? \rightarrow 16 \times 14 = \boxed{224}$$

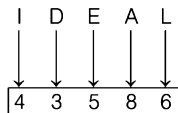
113. On folding the transparent paper along the dotted line we get answer figure(d).



114. Given,



So,



115. All except plastic are biodegradable materials.

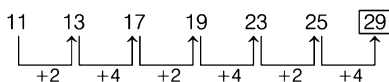
116. The alphabetical order of the given words is as follows—

RANDOM $\rightarrow$ RESTAURANT

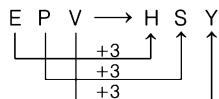
$\rightarrow$ RESTRICT $\rightarrow$ ROBBER

$\therefore$ Word ROBBER comes at last place.

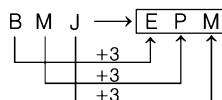
117. The pattern of the series is as follows—



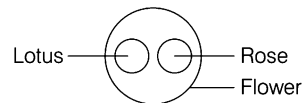
118. As,



Similarly,



119. Lotus and Rose are different flowers.

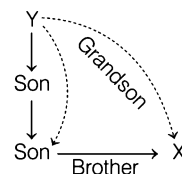


120. As, $07 : 49 \Rightarrow (07)^2 = 49$

$$\text{Similarly, } 11 : ? \Rightarrow (11)^2 = \boxed{121}$$

121. All except pink are different colours of Rainbow. The colours of Rainbow are Violet, Indigo, Blue, Green, Yellow, Orange and Red.

122. The relationship diagram is as follows



Clearly, X is the grandson of Y.

123. Given, area of rectangle = 48 m^2

Length = 6 m

Let the breadth = x m

We know that, area of rectangle
= length $\times$ breadth

$$\therefore 48 = 6 \times x$$

$$\therefore x = 8 \text{ m}$$

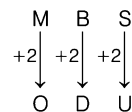
124. Given, the next bell is due to be rung as
= 7 : 45 AM

$\therefore$ The last bell was rung at = 7 : 45 – 00 : 45
= 7 : 00 AM

It is also given that the last bell was rung 5 min ago.

$\therefore$ The time at which the priest give the information to devotee = 7 : 00 + 00.05
= 7 : 05 AM

125. As,



Similarly,

