

Section - I : MENTAL ABILITY

❖ *Q.No. 1 to Q.No. 25 Single correct answer type: In this type there is only one correct answer. Choose only one option for an answer : (Correct Answer : +3, Wrong Answer : -1, Unattempted: 0)*

1. Which of the figures shows correct fraction for $\frac{1}{3}$?

- (A) $\times \times \times \times$ (one circled) (B) $\div \div \div \div$ (one circled) (C) $\circ \circ \circ \circ$ (two circled) (D) $\circ \circ \circ \circ$ (three circled)

2. $5\frac{3}{4} = 5 + (\square + \square + \square)$. Here, \square stands for _____.

- (A) $\frac{3}{4}$ (B) $\frac{1}{4}$ (C) 3 (D) 4

3. Library is to book as is to _____.

- (A) Page (B) Copy (C) Binding (D) Cover

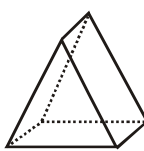
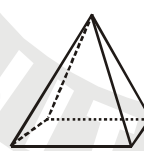

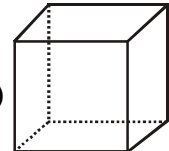
4. If the day before yesterday is two days after Monday then what day is it today?

- (A) Monday (B) Tuesday (C) Wednesday (D) Saturday

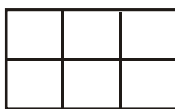
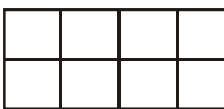
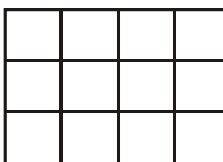

5. Which of the following shows a reflection (flip) of the shaded shape across the dotted line?

- (A)  (B)  (C)  (D) 

6. Which of the following has exactly 6 vertices?

- (A)  (B)  (C)  (D) 

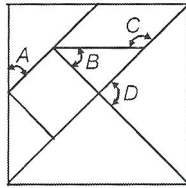
7. Which figure has an area of 8 sq. units and a perimeter of 12 units? (Each square block is of side 1 unit).

- (A)  (B) 
 (C)  (D) 

8. Tom left home at 7 : 15 a.m. to go to work. He returned home at 4 : 45 p.m. What is the total amount of time Tom was away from home?

- (A) 7 hours 30 minutes (B) 9 hours 30 minutes (C) 3 hours 30 minutes (D) 8 hours 30 minutes

9. A rule was used to make the pattern shown below.
51, 45, 39, 33, 27, 21
Which could be the rule used to make the pattern?
(A) Devide by 7 (B) Devide by 6 (C) Subtract 7 (D) Subtract 6
10. Simon and Julie need 72 paper flowers to complete a bulleting board. They have 19 paper flowers so far. Which operation should be used in the box below to find how many more paper flowers they need?
 $72 \boxed{?} 19 =$
(A) Addition (B) Division (C) Multiplication (D) Subtraction
11. A tangram is an ancient Chinese puzzle. It is made of seven pieces that fit together to make a square. Which of the angles marked in the tangram puzzle given is an obtuse angle?



- (A) Angle A (B) Angle B (C) Angle C (D) Angle D
12. The following table shows the distance around four difference planets.

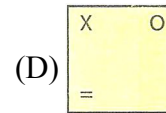
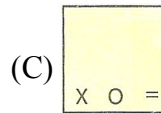
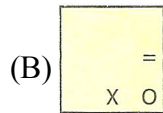
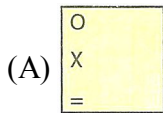
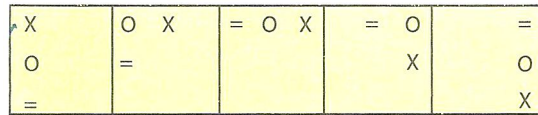
DISTANCE AROUND

Planet	Distance Around (in miles)
Jupiter	88,732
Mars	4,213
Mercury	3,032
Neptune	30,603

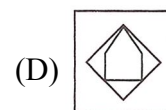
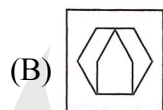
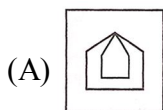
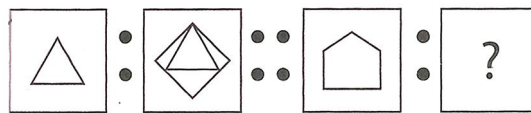
- Which planet's distance has the numeral 3 in the ten-thousands place?
(A) Jupiter (B) Mars (C) Mercury (D) Neptune
13. Choose the odd one out.
(A) Build (B) Separate (C) Construct (D) None of these
14. Find the missing term 7, 9, 13, 21 ?
(A) 30 (B) 32 (C) 35 (D) 37
15. UNCOMMANDED
(A) MACRON (B) AMEND (C) DEAD (D) COMMAND
16. If A and B are two sons of a farmer C. C has daughter D. How is D related to A?
(A) Sister (B) Daughter (C) Sister-in-law (D) Daughter-in-law
17. Three years ago Raju was 8 years younger than sanju. What will be difference between their ages after 5 years
(A) 8 years (B) 7 years (C) 12 years (D) 15 years
18. A class of boys stand in a long line. One boy is 9th in order from both ends. How many boys are there in the class?
(A) 17 (B) 18 (C) 20 (D) 37
19. Which letter comes half way between G and S in the alphabet
(A) M (B) N (C) O (D) P

20. Harry had 500 coins in a jar. He sorted the coins into 25 different stacks. Each stack had the same number of coins. How many coins were in each stack?
 (A) 20 (B) 45 (C) 25 (D) 12

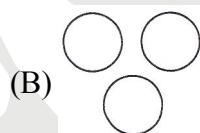
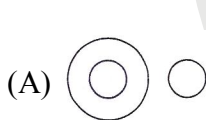
21. Following of the question, there is a series of five figures. In order to continue the series, choose a figure from the options that could be the next term of the series.



22. There is a certain relationship between the pair of figures on the either side of ::. Identify the relationship and finding the missing figure.



23. Which of the following diagram indicates the best relation amongst the following?
 Page, Chapter, and Book



24. The figure X is to be folded along the dotted line. Choose the correct figure from the option that resembles the folded form of figure X.

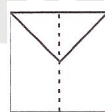
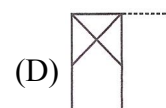
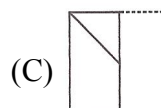
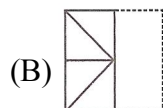
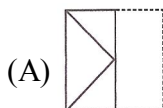
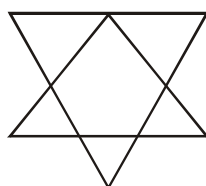


Fig. (X)



25. What is the minimum number of straight lines in the given figure?



(A) 10

(B) 7

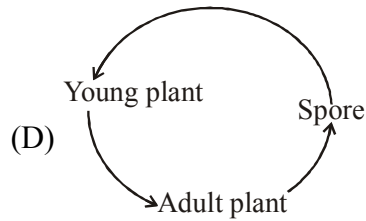
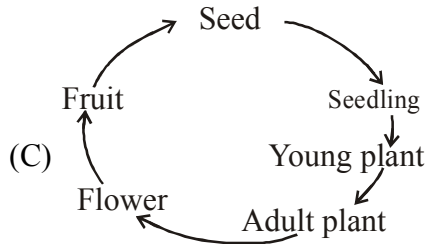
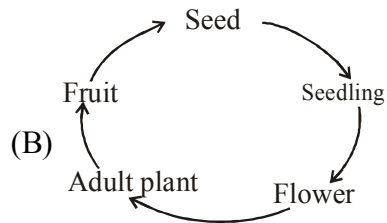
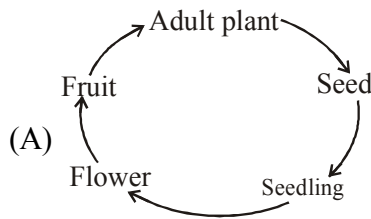
(C) 5

(D) 8

Section - II : SCIENCE

❖ *Q.No. 26 to Q.No.35 Single correct answer type: In this type there is only one correct answer. Choose only one option for an answer : (Correct Answer : +3, Wrong Answer : -1, Unattempted: 0)*

26. Which of the following best describes the life cycle of a flowering plant?



27. The symptoms of a disease caused due to deficiency of a vitamin are given in the box.

- Bleeding of gums
- Swelling of joints
- Wounds that do not heal

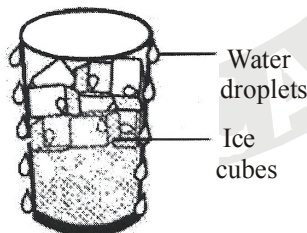
Identify the Vitamin.

- (A) Vitamin A (B) Vitamin B (C) Vitamin C (D) Vitamin D

28. Which of the following moves by curving and straightening its body?

- (A) Insects (B) Turtles (C) Crocodiles (D) Snakes

29. A glass with ice cubes is shown here.



The formation of water droplets on the outer surface of the glass due to

- (A) evaporation (B) transpiration (C) condensation (D) sublimation

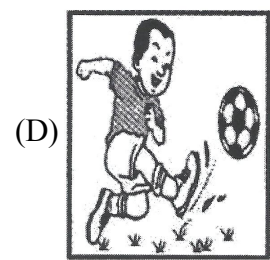
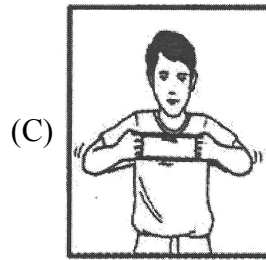
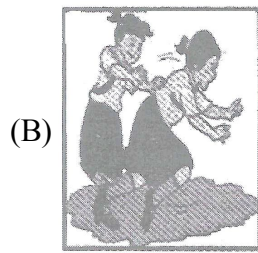
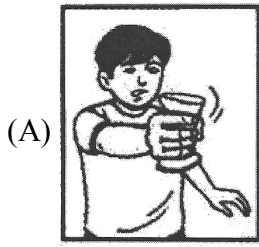
30. Observe the given figure.



Which of the following helps the girl in sipping the drink from the bottle using a straw?

- (A) Bottle pressure (B) Air pressure (C) Liquid pressure (D) Chemical energy

31. Which of the following is a pull?



32. Which of these is a sedimentary rock?

- (A) Granite (B) Pumice (C) Conglomerates (D) Basalt

33. Which of the following gases is in fizzy drinks to get tingling taste?

- (A) Oxygen (B) Nitrogen (C) Carbon dioxide (D) Hydrogen

34. Sometimes, we find coconut trees on a desert island.

Which of these agents helped the coconut trees to grow there?

- (A) Wind (B) Water (C) Animals (D) Explosion

35. Which vitamin is present in amla?

- (A) Vitamin B (B) Vitamin C (C) Vitamin A (D) Vitamin B₁₂

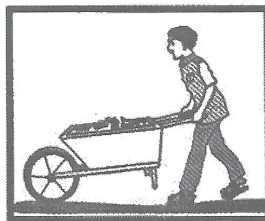
❖ ***Q.No. 36 to Q.No.40 Multiple correct answer type: In this type there are one or more than one correct answer. Marks will be awarded only if all the correct options are marked.***

(Correct Answer : +4, Wrong Answer : 0)

36. Which of these given are uses of satellites?

- (A) In weather for forecasting (B) In telecommunication
(C) In data processing (D) None of these

37. Which of the following tools are in the same class as the simple machine shown below?



- (A) Ice tongs (B) Paper cutters
(C) Bottle openers (D) All of them

38. Which of the following contain carbohydrates?

- (A) Potato (B) Wheat (C) Oils (D) Rice

39. Which of the following statements are true about lotus plant?
- (A) Spongy and swollen leaf stalks. (B) Needle like leaves
(C) Stomata on the upper surface of leaves (D) Leaves coated with wax.
40. Which of the following best represents heterotroph?
- (A) Plant eating animals (B) Animals eating flesh of other animals
(C) Both plant and animal eating (D) Organisms preparing their own food

❖ **Q.No.41 Matrix Match Type: In this type statements are given in 2 columns which have to be matched. The statements in Column – I are labeled with choices A, B, C and D, while the statements in Column- II are labeled with choices p,q,r,s and t. For each option in column-I, there is only one correct option available in column-II :**

(Correct Answer : + 1.25 marks for each correct match, Wrong Answer : 0)

41. Match the following:

Column I	Column II
(A) Force	(p) Chemical Energy
(B) Battery	(q) A push on a pull
(C) Energy	(r) Energy in standing water
(D) Dam	(s) Capacity of doing work

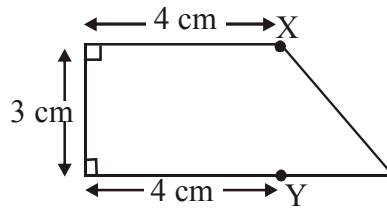
❖ **Q.No. 42 to Q.No.46 Integer type: The answer to each question is an integer ranging from 0 to 9 :**
(Correct Answer : +4, Wrong Answer : 0)

42. Formula of Carbandioxide is CO_x . What is x ?
43. In an activity, 2g of salt is dissolved into ml of pure water. The water is then heated on a hot plate. When water evaporates completely, how much salt will be left? (in gram)
44. x% oxygen is present in air. What is the value of $\frac{x}{2}$.
45. How many atoms are there in one water molecule?
46. At what temperature (in degree celcius) does water freeze?

Section - III : MATHEMATICS

- ❖ *Q.No. 47 to Q.No.56 Single correct answer type: In this type there is only one correct answer. Choose only one option for an answer : (Correct Answer : +3, Wrong Answer : -1, Unattempted: 0)*

47. Rohit will cut the paper shape shown below in a straight line from point X to point Y.

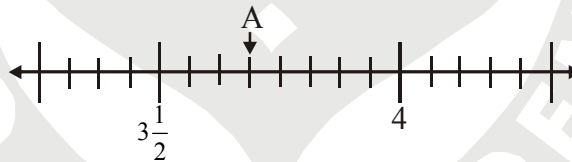


What two shapes will Rohit after he cuts the paper?

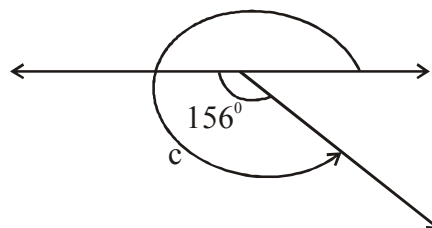
- (A) A square and a triangle
 (B) A square and a trapezium
 (C) A rectangle and a triangle
 (D) A rectangle and a parallelogram
48. Which pair of operations will make the equation below true when inserted into the blank spaces in the order shown?

$$2\frac{3}{10} _ 1.5 _ 2 = 1.8$$

- (A) - and + (B) × and + (C) + and - (D) × and -
49. The value of digit '3' in 239766 is how many times as much as the value of digit 6 in 45655?
- (A) 10 (B) 50 (C) 500 (D) 1000
50. What is the number representing the point A?

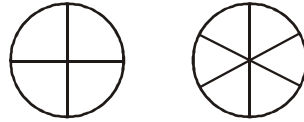


- (A) $3\frac{3}{8}$ (B) $3\frac{11}{16}$ (C) $3\frac{7}{8}$ (D) $4\frac{5}{8}$
51. I am greater than 50 but smaller than 75. I am a multiple of 6. When I am divided by 9, the remainder is 3. Which number am I?
- (A) 60 (B) 72 (C) 68 (D) 66
52. Arrange the digits 3,5,9,7,2 and 6 to form the smallest possible 6-digit number. In which place is the digit 6?
- (A) Hundreds (B) Thousands (C) The thousands (D) Hundred thousands
53. Identify the measure of the angle 'c' in the figure given?

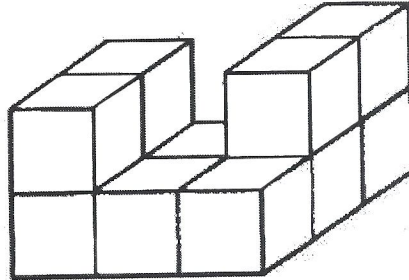


- (A) $360^\circ - 25^\circ$ (B) $180^\circ + 156^\circ$ (C) $360^\circ + 156^\circ$ (D) $180^\circ - 156^\circ$

54. Mom bought two identical pizzas and cut each pizza into a different numbers of equal pieces as shown in the figure. She gave David one piece from each pizza. What fraction of the pizza did David receive?



- (A) $\frac{1}{5}$ (B) $\frac{1}{10}$ (C) $\frac{5}{12}$ (D) $\frac{5}{24}$
55. The solid in the given figure is made up of 2 cm cubes.



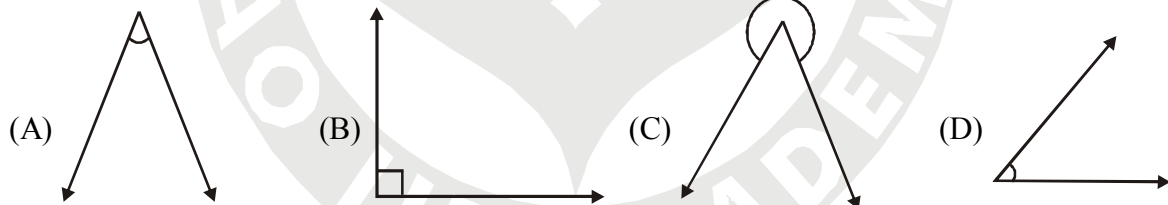
What is the volume of the solid?

- (A) 22 cm³ (B) 72 cm³ (C) 80 cm³ (D) 88 cm³
56. John ran a total of 7 km 70 m in 2 weeks. What was the average distance he ran in 1 day?
- (A) 5 m (B) 50 m (C) 55 m (D) 505 m

❖ **Q.No. 57 to Q.No.61 Multiple correct answer type: In this type there are one or more than one correct answer. Marks will be awarded only if all the correct options are marked.**

(Correct Answer : +4, Wrong Answer : 0)

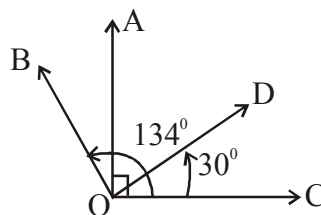
57. Which of the following is/are a cute angle?



58. Which of the following is/are equal to $\frac{\frac{1}{2} + \frac{1}{3}}{\frac{1}{4} + \frac{1}{5}}$?

- (A) $\frac{1}{17}$ (B) $1\frac{11}{19}$ (C) $\frac{50}{39}$ (D) $\frac{22}{29}$

59. Choose the correct option for the following figure.



- (A) $\angle BOC = 134^\circ$ (B) $\angle BOD = 104^\circ$ (C) $\angle AOD = 60^\circ$ (D) $\angle AOC = 90^\circ$

60. What number should be added to 73420 to get 91369.
 (A) 17949 (B) 35898×0.5 (C) 27949 (D) 27949×0.5
61. If reciprocal of a number is $1\frac{4}{7}$, then what is that number.
 (A) $1\frac{7}{4}$ (B) $\frac{17}{4}$ (C) $\frac{14}{22}$ (D) $\frac{7}{11}$

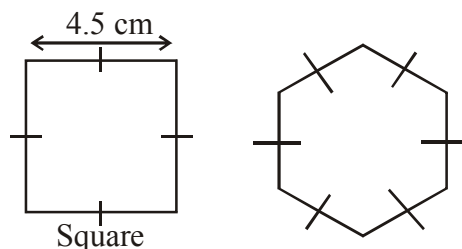
❖ **Q.No.62 Matrix Match Type:** In this type statements are given in 2 columns which have to be matched. The statements in Column – I are labeled with choices A, B, C and D, while the statements in Column- II are labeled with choices p,q,r,s and t. For each option in column-I, there is only one correct option available in column-II :

(Correct Answer : + 1.25 marks for each correct match, Wrong Answer : 0)

- | 62. Column I | Column II |
|---|----------------------|
| (A) $\frac{2012 + 2012 + 2012 + 2012 + 2012 + 2012}{2012 + 2012 + 2012 + 2012} =$ | (p) 11 |
| (B) $\frac{0.7}{0.07} + \frac{0.07}{0.7} =$ | (q) 15 |
| (C) $3 + 7 \times (5 + 1) \div 3 - 2 =$ | (r) $1\frac{1}{2}$ |
| (D) H.C.F of 242, 484, and 363 = | (s) 11^2 |
| | (t) $10\frac{1}{10}$ |

❖ **Q.No. 63 to Q.No.67 Integer type:** The answer to each question is an integer ranging from 0 to 9 :
 (Correct Answer : +4, Wrong Answer : 0)

63. $93.528 = 90 + 3 + \frac{5}{10} + \frac{1}{50} + \frac{a}{125}$. find a
64. How many pair (s) of parallel line does a rectangle have?
65. By how many times is the circumference of a circle always more than its diameter?
66. Mangesh is making a paper mobile. He draw and cuts out a square and hexagon with the same Daimater



How long (in cm) is each side of the regular hexagon?

67. What is the average of first five even numbers?

ANSWER KEY

MENTAL ABILITY

- | | | | | |
|---------|---------|---------|---------|---------|
| 1. (A) | 2. (B) | 3. (A) | 4. (A) | 5. (C) |
| 6. (A) | 7. (B) | 8. (B) | 9. (D) | 10. (D) |
| 11. (C) | 12. (D) | 13. (B) | 14. (D) | 15. (A) |
| 16. (A) | 17. (A) | 18. (A) | 19. (A) | 20. (A) |
| 21. (B) | 22. (C) | 23. (D) | 24. (C) | 25. (B) |

SCIENCE

- | | | | | |
|--------------------------|----------|-----------|-----------|-----------|
| 26. (C) | 27. (C) | 28. (D) | 29. (C) | 30. (B) |
| 31. (C) | 32. (C) | 33. (C) | 34. (B) | 35. (B) |
| 36. (AB) | 37. (BC) | 38. (ABD) | 39. (ACD) | 40. (ABC) |
| 41. (A-q; B-p; C-s; D-r) | | | 42. (2) | 43. (2) |
| 44. (8) | 45. (3) | 46. (0) | | |

MATHEMATICS

- | | | | | |
|-----------------------------|---------|------------|----------|----------|
| 47. (C) | 48. (C) | 49. (B) | 50. (B) | 51. (D) |
| 52. (A) | 53. (B) | 54. (C) | 55. (D) | 56. (D) |
| 57. (AD) | 58. (C) | 59. (ABCD) | 60. (AB) | 61. (CD) |
| 62. (A -r; B-t; C-q ; D-s) | | 63. (1) | 64. (2) | 65. (3) |
| 66. (3) | 67. (6) | | | |