



Class – VII

School Accelerated Program

ENTRANCE TEST CUM SCHOLARSHIP TEST (Sample Paper-1)

[Time: 1 Hour 50 Min]

[Max Marks: 400]

A. General:

1. This booklet is a Question Paper containing 100 questions.
2. **Blank Papers, Clipboards, Log Tables, slide rules, calculators, cellular phones, pagers and electronic gadgets** in any form are not allowed to be carried inside the examination hall.
3. The answer sheet, a machine-readable optical mark recognition sheet (OMR Sheet), is provided separately.
4. **DO NOT TAMPER WITH THE OMR OR THE BOOKLET.**
5. Please fill your roll number correctly in the OMR sheet (answer sheet).
6. Both Question Paper and OMR Answer Sheet will be submitted after completion of this examination.

B. Question Paper Format and marking scheme:

1. The Question Paper consists of five parts (Part I: MAT, Part II: Physics, Part III: Chemistry, Part IV: Biology, Part V: Mathematics).
2. **Each Question carries +4 marks for correct answer and -1 mark for incorrect answer.**

MAT

1. In the series given below, how many 8s are there each of which is exactly divisible by its immediate preceding as well as succeeding numbers?

2 8 3 8 2 4 8 2 4 8 6 8 2 8 2 4 8 3 8 2 8 6

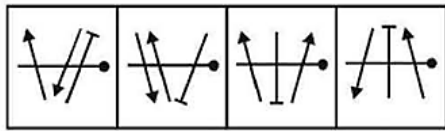
- (a) One (b) Two (c) Three (d) Four
2. How many 7s are there in the following number series which are preceded by 9 and also followed by 6?

7 8 9 7 6 5 3 4 2 8 9 7 2 4 5 9 2 9 7 6 4 7

- (a) Two (b) Three (c) Four (d) Five
3. Which of the following diagrams correctly represents the relationship among smokers, bidi smokers, cancer patients.



4. Choose the figure which is different from the others.



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

- (a) (1) (b) (2) (c) (3) (d) (4)

Direction : (Questions 5 & 6). In each of the questions given below, find the next term to fill the blank space.

5. 3,5,10,12,24,26,___.

(a) 52 (b) 30 (c) 28 (d) 48

6. 3,6,5,20,7,42,9,___.

(a) 60 (b) 54 (c) 72 (d) 66

7. Lalit walks 8 km east, turns south-west and walks another 8 km . He again takes a turn towards north-west and walks another 8 km. In which direction from his starting point is he standing now?

(a) North-East (b) South-East (c) West (d) East

8. Which of the following number does not fit in the sequence?

3,7,9,11,13,17,19

(a) 3 (b) 7 (c) 17 (d) 9

9. *L, M, N* and *O* are brothers. *L* is darker than *O*, *N* is the fairest of all. *M* is fairer than *O*. Who is the darkest of all ?

(a) N (b) O (c) L (d) M

10. Anjali says, "He is the only son of the father of my sister's brother." How is that person related to Anjali?

(a) Uncle (b) Cousin (c) Brother (d) Father

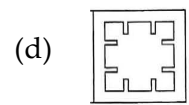
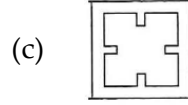
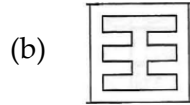
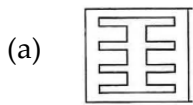
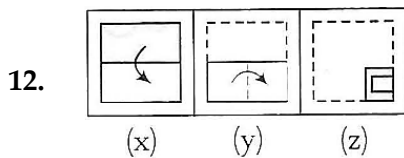
Direction (Questions 11 & 12) : In the following questions, select the answer figure from the given alternatives which is closest to the unfolded paper.

11. Problem Figures



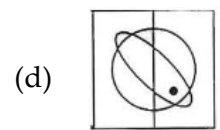
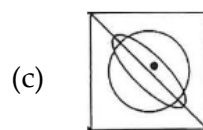
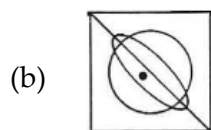
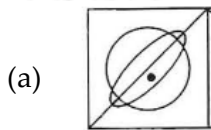
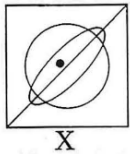
(x) (y) (z)



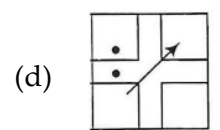
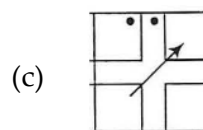
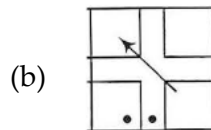
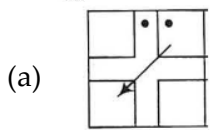
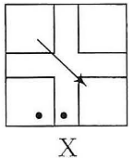


Direction (Questions 13 & 14) : In the following questions, choose the correct water image from amongst the four alternatives *a, b, c* and *d* given along with it.

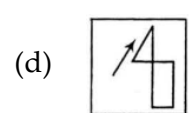
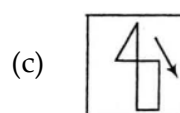
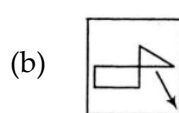
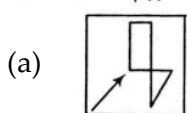
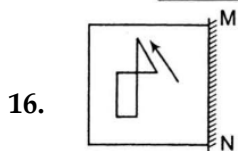
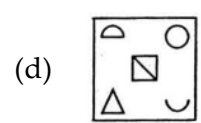
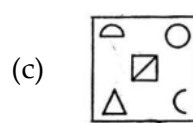
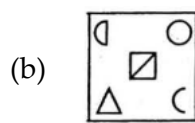
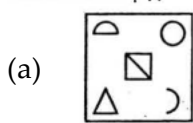
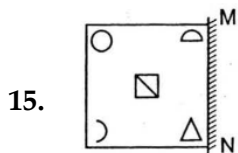
13. Problem Figure



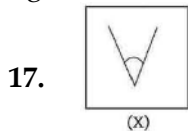
14. Problem Figure

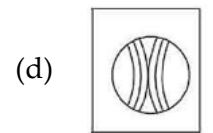
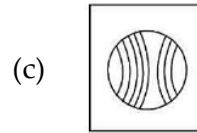
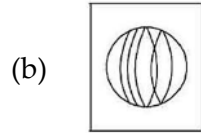
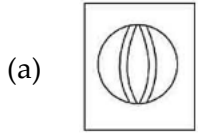
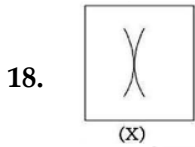
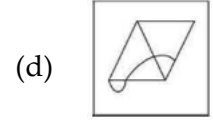
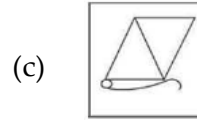
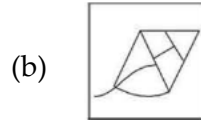


Direction (Questions 15 to 16) : In the following questions, choose the correct mirror image from amongst the four alternatives *a, b, c* and *d* given along with it.



Direction (Questions 17-18): In each of the following questions, you are given a figure (X) followed by four alternative figures (a), (b), (c) and (d) such that fig. (X) is embedded in one of them. Trace out the alternative figure which contains fig. (X) as its part.





19. Find the odd word/ letters out from the given alternatives.

- (a) VWY (b) QRT (c) LMO (d) JKL

Direction (Questions 20): Read the information given below carefully and answer the question.

$x + y$ means x is the sister of y .

$x - y$ means x is the son of y .

$x \times y$ means x is the mother of y

$x \neq y$ means x is the father of y

20. Which of the following alternative means 'F is father of J'?

- (a) $F + G \neq H \times I - J$ (b) $J = I + H \neq G + F$
(c) $F + G - H \times I - J$ (d) $J + I - H \times G - F$

21. If in a code language PARENT is written as BDFGJK and CHILDREN is written as MOXQUFGJ, how is REPRINT written in that code?

- (a) FGBFXGD (b) BGBFXJK (c) FGBUXJK (d) FGBFXJK

22. If the letters in PRABA are coded as 27595 and THILAK are coded as 368451, how can BHARATI be coded?

- (a) 9657538 (b) 9567538 (c) 9675538 (d) 9567568

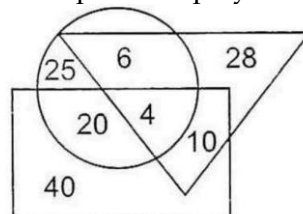
23. Jaya's position from the left in a row of students is 12th and Rekha's position from the right is 20th. After interchanging their positions Jaya becomes 22nd from the left. How many students are there in the row?

- (a) 30 (b) 31 (c) 41 (d) 34

24. Manish ranked sixteenth from the top and twenty-ninth from the bottom among those who has passed an examination. Six boys did not participate in the examination and five failed in it. How many boys were there in the class?

- (a) 40 (b) 44 (c) 50 (d) 55

Directions (Questions 25 & 26) : On the basis of the following Venn-diagram, answer the questions given below. The rectangle represents artists, the circle represents player and the triangle represents doctors,



25. How many artists are players but not doctors?

- (a) 25 (b) 20 (c) 10 (d) 30

26. How many artists are neither player nor doctor?

- (a) 40 (b) 10 (c) 30 (d) 25

27. In the following question, three statements are given followed by four conclusions numbered I, II, III & IV. You have to take the given statements to be true even if they seem to be at variance from the commonly known facts & then decide which of the following conclusions logically follows from the given statements disregarding commonly known facts.

Statements:

Some Cats are Rats.

All bats are tables.

All Rats are Bats.

Conclusion:

I. Some Cats are bats

II. All bats are rats

III. All tables are cats

IV. All bats are cats

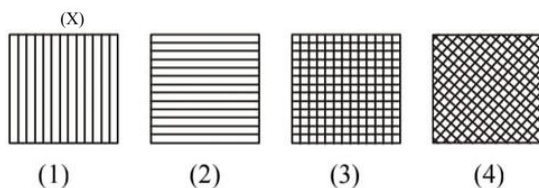
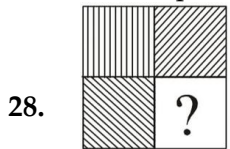
(a) Only I & II follow

(b) Only II follows

(c) Only I & IV follow

(d) None of these

Direction (Questions 28 & 29): In each of the following questions, select a figure from the four alternatives, which when placed in the space where the question mark is shown in figure (X) would complete the figure.

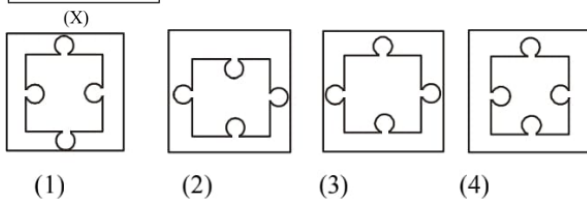
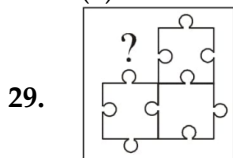


(a) 1

(b) 2

(c) 3

(d) 4



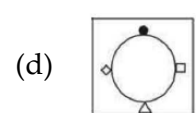
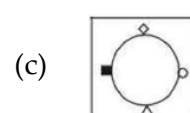
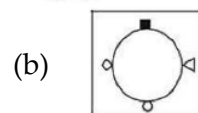
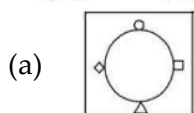
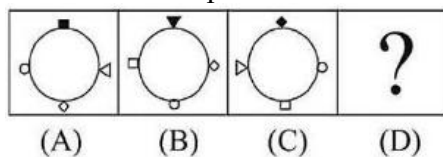
(a) 1

(b) 2

(c) 3

(d) 4

30. In the following question, a figure series is given out of which the last figure is missing, Find which one would complete the series.



PHYSICS

31. A person is seated in a train under motion. With reference to which of the following surroundings is he at rest?

(a) Person watching him from the front seat

(b) Person watching him from the ground

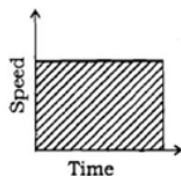
(c) Trees on the ground

(d) A car moving in the opposite direction to the train

32. In a 100 m race Revanth and Rohan ran at an average speed of 8.4 m s^{-1} and 12.2 m s^{-1} respectively. If 12 seconds is the time taken in school records for 100 metre race, then which of the following can be true?
- (a) Revanth broke the record. (b) Rohan broke the record.
(c) Both Revanth and Rohan broke the record. (d) Neither Revanth nor Rohan broke the record.

33. Identify a correct statement:
- (a) Every oscillatory motion is periodic in nature.
(b) The motion of a pendulum bob is periodic in nature
(c) Every periodic motion is oscillatory in nature.
(d) Both (a) and (b)

34. A graph is show below:



What does the area of the shaded portion in the graph represent?

- (a) Distance (b) Speed (c) Time (d) None of these
35. Study the data given below.

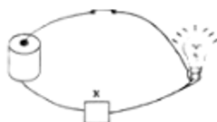
Duration (in hour)	0 – 6	6 – 8
Distance covered (in km)	?	240

If the average speed of the journey is 80 km h^{-1} , what is the distance travelled during the first 6 hours?

- (a) 640 km (b) 40 km (c) 400 km (d) 480 km
36. The time taken for a pendulum to swing from rest position P to Q is 0.2 s . What is the time taken for the pendulum to make 1 complete oscillation? (Assuming P and Q are two extreme positions of pendulum)



- (a) 0.1 s (b) 0.2 s (c) 0.3 s (d) 0.4 s
37. Pranati has set up a circuit as shown below.



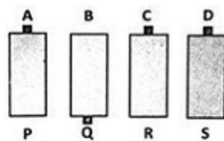
Which of the following should she put in the blank box marked ' X ' to make the bulb glow more brightly?

- (a) Bulb (b) Cell (c) Key (d) Wire
38. Manu connected three bulbs to a cell as shown in figure. She found that filament of bulb Q is broken. Which of the following statements is correct?



- (a) Only bulb R will glow (b) Only bulb P will glow
(c) Both bulbs P and R will glow (d) None of the bulbs will glow
39. What is an 'element' in an electrical appliance essentially made up of?
- (a) A coil of wire (b) An electromagnet
(c) An insulating material (d) A safety device such as a fuse

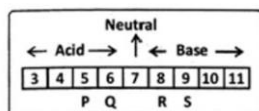
40. Identify the energy changes that take place in a complete circuit to enable the bulb to glow.
- (a) Electrical $\rightarrow$ light $\rightarrow$ heat (b) Chemical $\rightarrow$ electrical $\rightarrow$ heat $\rightarrow$ light
(c) Chemical $\rightarrow$ electrical (d) Electrical $\rightarrow$ heat $\rightarrow$ light
41. Cells are fixed on a board as shown. Connect the terminals with wires to make a battery of four cells.



- (a) A-Q, C-D, D-P (b) P-B, R-S, Q-C (c) A-B, Q-R, C-S (d) A-B, Q-R, C-D
42. Land Breeze : Blows during the Night :: Sea Breeze : Blows during the _____
- (a) Early Morning exclusively (b) Day time
(c) Late Evening only (d) Polar Equinox phase
43. Why do hot air balloons rise gracefully up into the atmosphere when the internal propane gas burner is ignited?
- (a) The burner heats the air inside the balloon, reducing its density compared to the cooler surrounding air, creating an upward buoyant force.
(b) The burner converts air into hydrogen gas.
(c) The flame generates a strong magnetic repulsion field against the ground.
(d) The fabric of the balloon contracts to become weightless.
44. A student handles a warm cup of tea. Their hand is warmed through _____; the warmth traveling up through the liquid tea itself is distributed via _____.
- (a) Radiation, Conduction (b) Convection, Radiation
(c) Conduction, Convection (d) Sublimation, Galvanisation
45. Which of the following materials would serve as the most effective lining material for designing an insulating ice box to prevent ice cubes from melting quickly?
- (a) Solid aluminium sheeting
(b) Thermocol or Expanded Polystyrene containing trapped air pockets
(c) Polished iron matrix plates
(d) Wet dense clay layer

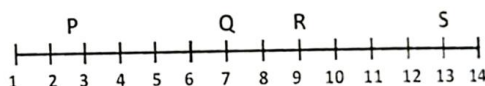
CHEMISTRY

46. Which of the following chemicals are used to neutralise the basic nature of soil?
- (a) Quick lime (b) Organic matter (c) Slaked lime (d) Baking soda
47. A pH scale is given below.



Which combination of two substances will produce a neutral solution?

- (a) P, Q (b) P, R (c) R, S (d) All of these
48. The given figure shows the pH scale. Which of the values P, Q, R or S is the pH value of pure water with a few drops of dilute hydrochloric acid added?



- (a) 3 (b) 7 (c) 13 (d) 9
49. The salt potassium nitrate is formed when potassium hydroxide reacts with _____
- (a) Carbonic acid. (b) Hydrochloric acid. (c) Nitric acid. (d) Sulphuric acid.
50. Juice prepared from lemon is taken in a glass tumbler and water is added to it. Then a red litmus paper and a blue litmus paper were dipped into it. What changes were observed?
- (a) Red litmus paper turns blue. (b) Blue litmus paper turns red.
(c) Red litmus paper becomes white. (d) Blue litmus paper becomes white.

51. Which of the following statements are correct?
- The tangy taste of cola drinks is due to carbonic acid which is an organic acid.
 - Inorganic acids are prepared artificially in the industries and are generally corrosive.
 - Hydrochloric acid reacts with metals to varying degrees therefore, it is stored in glass bottles.
 - Organic acids are weak acids and therefore are generally used as food supplements.
- (a) I, II and III only (b) I and IV only (c) II and IV only (d) All of these
52. Which of the following is an example of olfactory indicator?
- (a) Turmeric (b) Rose extract (c) Onion (d) Red cabbage
53. A student understands that litmus solution has purple colour in distilled water. What colour is likely to be observed when it is placed in an acidic solution?
- (a) Blue (b) Green (c) Purple (d) Red
54. Why is the rusting of iron grouped under a chemical change?
- (a) It changes its size (b) It becomes powdery
(c) A new substance is formed (d) It changes its shape.
55. Which metal is used for galvanising iron articles to prevent them from rusting?
- (a) Nickel (b) Chromium (c) Copper (d) Zinc
56. Which of the following will be true of 'ash' that is obtained by burning wood in air?
- (a) Some properties of ash will not be similar to wood.
(b) The properties of ash will be similar to wood.
(c) The properties of ash will be different from both wood and air.
(d) The properties of ash will be similar to both wood and air.
57. When an iron bar of length 12 cm is magnetised, its length was found to have increased. What happens to its mass?
- (a) It increases. (b) It decreases.
(c) It remains the same. (d) It cannot be explained.
58. Cow or buffalo's dung is put in a digester to produce biogas by process P. The obtained biogas is used as a fuel for cooking by process Q. Which statement is correct about processes P and Q?
- (a) Process P is a physical change (b) Process Q is a physical change
(c) Both P and Q are chemical changes (d) Both (a) and (b)
59. Which of these can happen in physical change
- (a) Change in shape and size (b) Change in chemical formula
(c) Formation of precipitate (d) Formation of new substance
60. A chemical change may involve
- (a) Change in colour only (b) Change in temperature only
(c) Evolution of gas only (d) All of the above

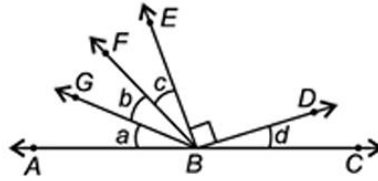
BIOLOGY

61. Early inventors studied bird wings to design aircraft. In advanced engineering, mimicking structural systems found in nature to solve complex human challenges is known as:
- (a) Geotropism (b) Biomimicry (c) Metamorphosis (d) Epigenetics
62. Which of the following is the branch of science
- (a) Biology (b) Mathematics (c) Drawing (d) Dancing
63. The branch of science which deals with matter and energy is called
- (a) Biology (b) Chemistry (c) Geology (d) Physics
64. What powers an electric clock
- (a) Battery or electricity (b) Water
(c) Solar heat (d) Wind
65. Which phenomena is caused by earth rotation
- (a) Day and night (b) Moon phase (c) Seasons (d) Tides

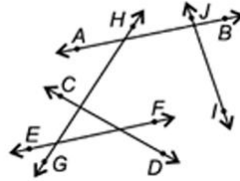
66. The biological termination of natural menstruation in a woman's life usually occurs between the ages of 45 and 55. This event marks the end of her natural reproductive capability and is conceptually linked to:
- (a) Menarche
 - (b) Puberty onset
 - (c) The cessation of the menstrual cycle
 - (d) Secondary sexual characteristic reversal
67. The text refutes prevalent societal taboos, such as the physical isolation of menstruating girls, by explicitly stating that:
- (a) Isolation is mandatory to preserve academic focus.
 - (b) Menstruation is a disease requiring absolute containment.
 - (c) Menstruation is a completely natural biological process, and such myths have no scientific basis.
 - (d) These taboos are supported by modern molecular biology.
68. All chemical and physical alterations that take place inside the body during the transition of adolescence are primarily regulated and controlled by chemical messengers called:
- (a) Enzymes
 - (b) Nutrients
 - (c) Hormones
 - (d) Pheromones
69. Hormones are synthesized in specialized parts of the body and are released into action at specific times in direct response to signals originating from the:
- (a) Heart
 - (b) Stomach
 - (c) Brain
 - (d) Lungs
70. Adolescence is marked by distinct behavioral shifts due to stronger emotions compared to childhood. Which of the following is highlighted as a positive manifestation of these intense emotions?
- (a) Total isolation from peers and teachers
 - (b) Joining social initiatives to support the needy and disadvantaged
 - (c) Careless dependency on online gaming
 - (d) Complete rejection of structural authority and parental guidance
71. Why is a nutrient-dense, balanced diet of paramount importance specifically during the adolescent phase of life?
- (a) Because it is a rapid period of physical growth and structural development
 - (b) To prevent the onset of natural physical changes
 - (c) To ensure the individual completely bypasses emotional mood swings
 - (d) To minimize the child's standard metabolic rate to infancy levels
72. Foods such as milk, millets, curd, cheese, and paneer supply essential Calcium, proteins, and fats. What is their primary function in adolescent growth?
- (a) Blood formation
 - (b) Optimal bone growth
 - (c) Voice clarity enhancement
 - (d) Preventing oily secretions from acne pores
73. Adolescents, especially young girls, may frequently suffer from a blood-related deficiency condition caused by inadequate intake of Iron or Vitamin B12. This nutritional condition is generally known as:
- (a) Scurvy
 - (b) Rickets
 - (c) Anaemia
 - (d) Goitre
74. Identify the primary physiological function of nutritional Iron as specified in the Grade 7 Science text text-table
- (a) Accelerating the linear height of long skeletal bones
 - (b) Assisting significantly in the formation of blood
 - (c) Lubricating cutaneous surfaces to avoid pimples
 - (d) Suppressing the direct neural signals from the brain
75. Dorothy Hodgkin was awarded the Nobel Prize in Chemistry in 1964 for her foundational research tracking the complex structural framework of which vital organic compound?
- (a) Iron Pyrophosphate
 - (b) Calcium Carbonate
 - (c) Growth Hormone Matrix
 - (d) Vitamin B12

MATHEMATICS

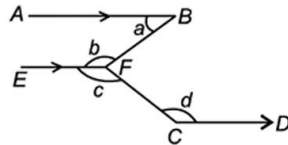
76. In the figure (not drawn to scale), ABC is a straight line, $\angle DBE$ is a right angle and $\angle a = \angle b = \angle c = \angle d$. Find $\angle a$.



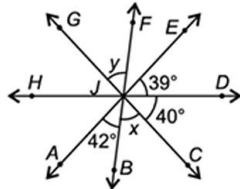
- (a) 22.5° (b) 30° (c) 45° (d) 60°
77. Which line is parallel to AB ?



- (a) CD (b) EF (c) GH (d) IJ
78. In the figure, $AB \parallel CD \parallel EF$. Which of the following statements is true?

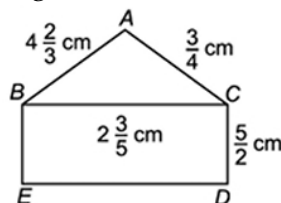


- (a) $a + b = 180^\circ$ (b) $b + c = 180^\circ$
 (c) $c + d = 180^\circ$ (d) $a + b + c = 360^\circ$
79. In the figure (not drawn to scale), AJE , BJF , CJG and DJH are straight lines.



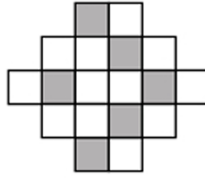
Find $\angle x$ and $\angle y$ respectively.

- (a) $50^\circ, 49^\circ$ (b) $59^\circ, 40^\circ$ (c) $59^\circ, 59^\circ$ (d) $49^\circ, 48^\circ$
80. The quotient when 0.00639 is divided by 0.213 is _____.
- (a) 0.3 (b) 0.03 (c) 0.003 (d) 3
81. If $63.9805 = 6A + \frac{3}{B} + 9C + \frac{8}{D} + 5E$, then what is the value of $4A + 7B + 6C + D + 3E$?
- (a) 47.603 (b) 4.7603 (c) 147.6003 (d) 47.6003
82. What is the value of $25\frac{7}{10} + 15\frac{3}{10}$?
- (a) $40\frac{10}{10}$ (b) $41\frac{1}{10}$ (c) $10\frac{5}{10}$ (d) $25\frac{9}{10}$
83. Which of the following represents twenty three and seven one hundredths?
- (a) $\frac{23}{100}$ (b) $23\frac{7}{100}$ (c) $23\frac{7}{10}$ (d) $237\frac{1}{10}$
84. Find the perimeter of:
- (i) $\triangle ABC$ (ii) Rectangle $BCDE$



- | | | |
|-----|--------------------|--------------------|
| | (i) | (ii) |
| (a) | $8\frac{1}{60}$ cm | 5 cm |
| (b) | 5 cm | $10\frac{1}{6}$ cm |
| (c) | $8\frac{1}{60}$ cm | $10\frac{1}{5}$ cm |
| (d) | 8 cm | 23 cm |

85. How many more unit squares in the figure must be shaded so that the fraction of shaded squares is $\frac{7}{9}$?



- (a) 1 (b) 3 (c) 6 (d) 8
86. Which of the following options represents $\frac{3}{4}$ of 8 parts shaded?
- (a) (b) (c) (d) None of these

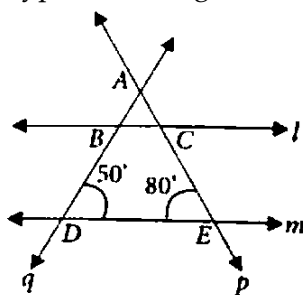
87. Which of the following will make the given expression TRUE?
- $$\left[\frac{7}{3} - \frac{2}{6}\right] - \frac{1}{2} + \left[\frac{4}{5} \div \frac{6}{8}\right] + \frac{3}{4} \square \frac{4}{5} \div \left[\frac{6}{8} + \frac{3}{4}\right] - \left[\frac{3}{4} + \frac{5}{6}\right] + 3\frac{1}{3}$$
- (a) > (b) <
(c) = (d) can't be determined

88. Match the column

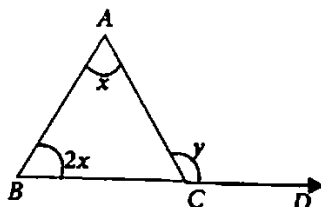
Column-I (Expression)		Column-II (Value)	
I.	$5 + 3 \times 4$	p.	16
II.	$(5 + 3) \times 4$	q.	18
III.	$20 - 8 \div 4$	r.	32
IV.	$16 \div 4 + 2 \times 6$	s.	17

- (a) I-p, II-q, III-r, IV-s (b) I-r, II-s, III-q, IV-p
(c) I-s, II-r, III-q, IV-p (d) I-s, II-r, III-p, IV-q
89. If the value $((144 \div 12) \times 3) + (45 - 15 \div 5)$ is equal to A, then what is the value of A?
(a) 78 (b) 39 (c) 42 (d) 51
90. Find the missing number: $100 - 25 \div 5 + 6 \times 3 = ?$
(a) 109 (b) 103 (c) 113 (d) 118
91. Compare the values of the following expressions:
Expression A: $(12 - 4 \times 2) + 18 / 3 \times 2$
Expression B: $12 - (4 \times 2 + 18/3 \times 2)$
Which is true?
(a) Expression A > Expression B (b) Expression A < Expression B
(c) Expression A = Expression B (d) Cannot be determined
92. Priya's monthly salary is ₹ 12,000. She gives ₹ 500 to her sister Neha, ₹ 2y to her mother and ₹ 120 to each of her three kids. She spends ₹ 3y on shopping and saves the rest. How much does Priya save in the month?
Express your answer in terms of y.
(a) ₹ (12650 + 5y) (b) ₹ (11140 - 5y)
(c) ₹ (11615 - 5y) (d) ₹ (11200 + 5y)

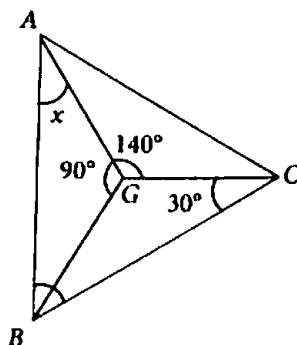
93. If $P = (-9) + 4 - (-10) + 3$ and $Q = (-8) + (-5) + (-3) - (-14)$, then what will be the value of $P * Q$, if $a * b = a + 2b$.
- (a) 6 (b) 4 (c) -4 (d) 10
94. Simplify: $2x + 3y - (4x - 2y + 5)$
- (a) $-2x + 5y + 5$ (b) $-2x + 5y - 5$
(c) $-2x + 5y$ (d) $2x - 4x + 3y - 2y + 5$
95. Which of the following expressions represents "twice the sum of x and y , minus 3"?
- (a) $2x + y - 3$ (b) $2(x + y) - 3$ (c) $2x + 2y + 3$ (d) $x + y - 3$
96. The length of a side of a triangle is x cm. If the other two sides are 3 cm longer and 2 cm shorter than the first side respectively, form an expression for the perimeter of the triangle.
- (a) $x + x + 3 + x + 2$ (b) $3x - 1$
(c) $x + (x + 3) + (x - 2)$ (d) $x + 3x + 2$
97. Which of the following is not Pythagorean triplets?
- (a) 7, 24, 25 (b) 3, 4, 5 (c) 8, 15, 17 (d) 13, 26, 29
98. In the below figure, if $l \parallel m$, then what type of a triangle is ABC ?



- (a) Isosceles triangle (b) Equilateral triangle
(c) Scalene triangle (d) None of these
99. In the adjoining figure, $AB = AC$ and BC is extended to the point D . Find $y - x$.



- (a) 72° (b) 75° (c) 80° (d) 92°
100. In the given figure, $\angle ABC = 60^\circ$. Find the value of x .



- (a) 70° (b) 55° (c) 50° (d) 60°