

KENDRIYA VIDYALAYA SANGATHAN, LUCKNOW REGION

SESSION ENDING RE-EXAMINATION 2023-24

SUBJECT –MATHEMATICS CLASS - VII

TIME: 2 Hrs & 30 min.

Max. Marks :60 marks

General Instructions:

- 1.All questions are compulsory.
- 2.Section A consist of 15 questions ;1 mark each, Section B consist of 5 questions ;2 marks each, Section C consist of 5 questions ;3 mark each, Section D consist of 5 questions ;4 mark each.
- 3.Internal choice is given in 2 questions of each section B , C and D.

SECTION A(1 mark × 15 =15 marks)

- (1)The improper fraction $\frac{35}{8}$ in the form of a mixed fraction is.
- (a) $4\frac{3}{4}$
 - (b) $4\frac{3}{8}$
 - (c) $3\frac{7}{4}$
 - (d) $4\frac{7}{8}$
- (2)To divide a decimal number by 1000, shift the decimal point to the left by
- (a) one place
 - (b) 2 places
 - (c) 3 places
 - (d) 4 places
- (3)Manish worked for $\frac{1}{2}$ of an hour. Yash worked for $\frac{1}{4}$ of an hour. For how much time did both work together?
- (a) 1 hour
 - (b) $\frac{3}{4}$
 - (c) $\frac{5}{4}$
 - (d) $\frac{3}{2}$
- (4)Two parallel lines intersect at:
- a) One point
 - b) Two points
 - c) Three points
 - d) Null
- (5)A rational number is a number that can be put in the form $\frac{p}{q}$, where p and q are:
- (a) natural numbers and $q \neq 0$
 - (b) whole numbers and $q \neq 0$
 - (c) non-negative integers and $q \neq 0$
 - (d) integers and $q \neq 0$

(6) The standard form of $-\frac{55}{99}$ is

- (a) $\frac{5}{9}$
- (b) $-\frac{5}{9}$
- (c) $-\frac{55}{99}$
- (d) $-\frac{99}{55}$

(7) Perimeter of a semi circle is

- (a) $12\pi r^2$
- (b) $\pi r + d$
- (c) πr
- (d) $3\pi r^2$

(8) The area of a square plot is 1600 m^2 . The side of the plot is

- (a) 40 m
- (b) 80 m
- (c) 120 m
- (d) 160 m

(9) What are the coefficients of x in the expression $8 - x + y$?

- (a) 1
- (b) -1
- (c) 8
- (d) none of these

(10) The value of $(-1)^{55}$ is

- (a) -1
- (b) 1
- (c) 0
- (d) none of these

(11) The exponent in the expression 3^7 is _____.

- (a) 1
- (b) 7
- (c) 0
- (d) 3

(12) Which of the followings has both horizontal as well as vertical line of symmetry

- (a) S
- (b) A
- (c) U
- (d) H

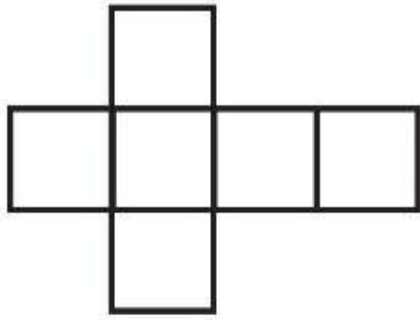
(13) How many lines of symmetries are there in a square?

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

(14) The number of triangular faces of a triangular prism is _____.

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

(15) Name of the solid whose net diagram is given in below left figure.



- (a) Pyramid
- (b) Cone
- (c) Cube
- (d) Cuboid

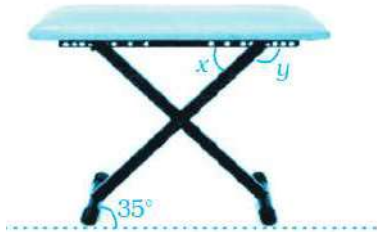
SECTION B (2 marks \times 5 = 10 marks)

(16) $\frac{1}{8}$ of a number is 3000. Find $\frac{1}{3}$ of the amount.

OR

Add $1\frac{1}{4}$ and $6\frac{1}{2}$

(17) The legs of a stool make an angle of 35° with the floor as shown in the figure given below. Find the angles x and y .



(18) Which one is greater 2^3 or 3^2 ?

(19) Subtract $a + 2b$ from sum of $(a - b)$ and $(2a + b)$

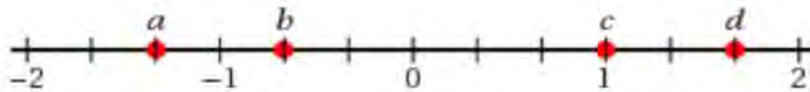
OR

What must be added to $3x + y$ to get $2x + 3y$

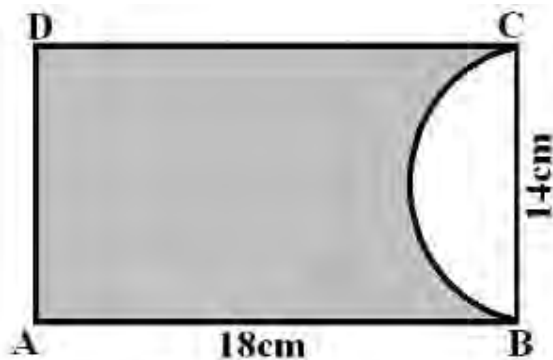
(20) If two cubes of dimensions 2cm by 2cm by 2cm are placed side by side, what would the dimensions of the resulting cuboid be?

SECTION C (3 marks \times 5 = 15 marks)

(21) In the figure given below, if $c = 1$ then identify the rational numbers labelled as a , b and d .

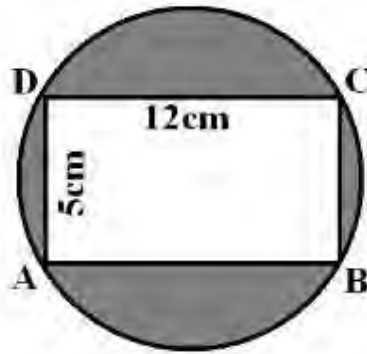


(22) A paper is in the form of a rectangle ABCD in which $AB = 18\text{cm}$ and $BC = 14\text{cm}$. A semi-circular portion with BC as diameter is cut off. Find the area of the remaining paper.



OR

Find the area of the shaded region in the figure given below. Take $\pi = 3.14$



(23)(i) What cross-sections do you get when you give a vertical cut to solid cylinder ?

(ii) What cross-sections do you get when you give a horizontal cut to cricket ball?

(iii) What cross-sections do you get when you give a horizontal cut to the brick?

(24) Draw any three English alphabets having both horizontal and vertical line of symmetry.

OR

State the number of lines of symmetry for the following figures

(i) An equilateral triangle

(ii) A circle

(iii) A regular hexagon

(25) CELLS OF BLOOD

When a person gets infected or becomes sick, Doctor advises him for a blood test.

Pathologists find the number of cells per cubic millimeter of blood. His blood report shows the following values -

Red blood cells count (RBC) -: 4.45×10^6 per mm^3

White blood cells count (WBC) -: 8.9×10^3 per mm^3

(Leucocytes)

Platelets count -: 3.02×10^5 per mm^3

Haemoglobin -: 12.8 GM%

Question (1)- The ratio between RBCs and WBCs is

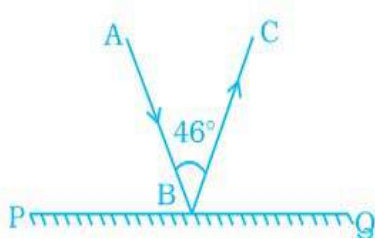
(a) 500 : 1 (b) 1 : 500 (c) 550 : 1 (d) 1 : 100

Question (2) - What is the total number of RBCs and Platelets?

Question (3) - In the sample, which are more WBCs or Platelets?

SECTION D(4 marks \times 5 = 20 marks)

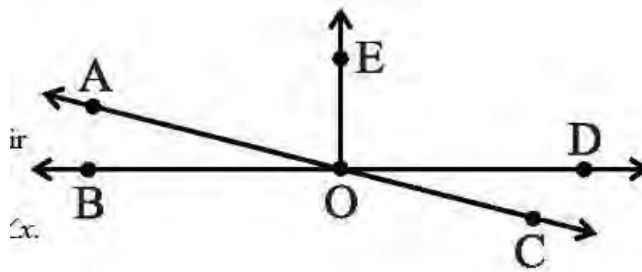
(26) In the figure given below, PQ is a mirror, AB is the incident ray and BC is the reflected ray. If $\angle ABC = 46^\circ$, then find $\angle ABP$.



OR

In the adjoining figure, name the following pairs of angles.

- (i) Obtuse vertically opposite angles
- (ii) Adjacent complementary angles
- (iii) Equal supplementary angles
- (iv) Adjacent angles that do not form a linear pair

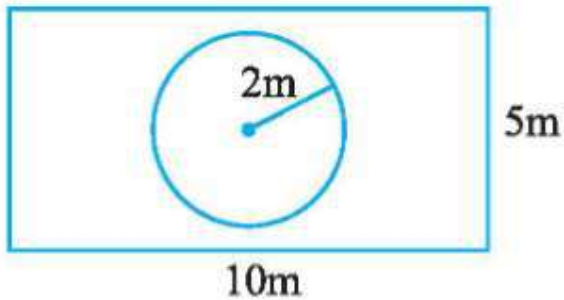


(27) The figure given below represents a rectangular lawn with a circular flower bed in the middle. Find:

- (i) the area of the whole land
- (ii) the area of the flower bed . Take $\pi = 3.14$

(iii) the area of the lawn excluding the area of the flower bed

(iv) the circumference of the flower bed. Take $\pi = 3.14$



(28)(i) Find three rational numbers between $\frac{1}{4}$ and $\frac{1}{2}$

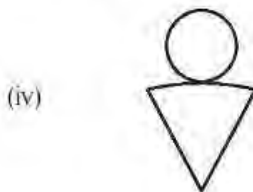
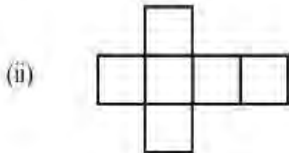
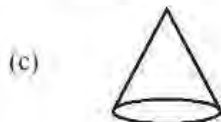
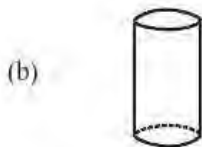
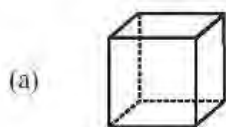
(ii) Find the value of $\frac{-3}{8} - \frac{7}{11}$

OR

(i) What number should be added to $\frac{7}{12}$ to get $\frac{4}{15}$?

(ii) Find the Product of $\frac{-3}{8}$ to the reciprocal of $\frac{15}{8}$

(29) Match the nets with appropriate solids



(30) **MARBLE GAME**

Sarita ,Ameena and Appu are friends. One day they planned to play marbles. At an instance of the game it was found that Ameena had 10 more marbles than that of Sarita has. Appu says that he has 3 more marbles than that of Sarita and Ameena together have. Based on the above data answer the following?

- (i) Write an algebraic expression for number of marbles Ameena has, if Sarita has 'x' marbles.
- (ii) Write an algebraic expression for number of marbles Appu has, if Sarita has 'x' marbles.
- (iii) If Sarita has **8** marbles how many marbles Ameena and Appu have individually?
- (iv) If Appu has **39** marbles how many marbles do all the three have together?