SAMPLE PAPER, 2017-18

MATHEMATICS

CLASS - VII

General Instructions-
1. This paper is divided into four sections A, B, C and D.
2. Section A comprises of 6 questions of 1 mark each. All are compulsory.
3. Section B comprises of 6 questions of 2 marks each. All are compulsory.
4. Section C comprises of 12 questions of 3 marks each. Attempt any 10.
5. Section D comprises of 9 questions of 4 marks each. Attempt any 8.
6. Draw neat diagrams wherever necessary.
7. Show the required calculations in fair.

SECTION-A (All are compulsory)

Q.1   The number _____ is neither a positive nor a negative rational number.

Q.2   Formula for perimeter of a semicircle is _____.

Q.3   Terms with same algebraic factors are called _____ terms.

Q.4 $(2^0+3^0)X4^0$ = _____.

Q.5   The letter N has rotational symmetry of order _____.

Q.6   A _____ is a point where at least three faces of a solid meet.

SECTION-B (All are compulsory)

Q.7   Find the range for the following data:-24, 36, 45,16,18,65,25,35,99.

Q.8   Find the whole quantity if 12% of it is Rs. 1080.

Q.9   Represent -5/3 on number line.

Q.10   Subtract 2a-3b+4c from 4a-6b-c.

Q.11   Express 432 as a product of powers of their prime factors.

Q.12   Write down the number of faces and edges in each of the following figures.
   a) Cuboid
   b) Triangular Pyramid

SECTION-C (Attempt any 10)

Q.13   Following are the ages (in years) of 10 students in a school.
42,28,32,40,33,27,54,23,34,37.
Find mean of this data.

Q.14 Development of villages is done in many ways eg. opening of new schools, construction of new roads, improving sanitary conditions etc. One Sarpanch of a village has 3600m^2 of land and out of it he donated 30% to build a hospital.
 a) How much land did he donate?
 b) What lesson (value) do you learn from it?

Q.15 A shopkeeper bought a chair for Rs. 375 and sold it for Rs. 400. Find the gain percentage.

Q.16 List four rational numbers between $\dfrac{-3}{5}$ and $\dfrac{-2}{3}$.

Q.17 Construct an equilateral triangle of side 5.5 cm.

Q.18 Construct $\triangle$ABC with BC=7.5cm, AC=5cm and m$\angle$C = 60°.

Q.19 The two sides CD and DA of the parallelogram ABCD are 6cm and 4cm respectively. The height corresponding to the base CD is 3cm. Find the
 i) Area of the parallelogram
 ii) The height corresponding to the base AD.
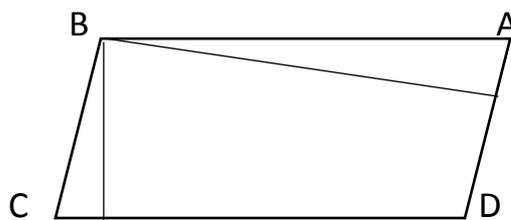
Q.20 A wire is circular in shape of radius 56cm. If it is bent in the form of a square then find the side of the square.

Q.21 Simplify: - 3a-2b-ab-(a-b+ab) +4ab+b-a.

Q.22 Express the following in standard form.
 a) 259000
 b) 39087.8

Q.23 State the number of lines of symmetry for the following figures.
 a) A parallelogram
 b) A rhombus
 c) An isosceles triangle

Q.24 Draw the net of the following figures:
 a) Square Pyramid
 b) Cube
 c) Cylinder

SECTION-D (Attempt any 8)

Q.25 Marks obtained by four students of class VII in quarterly and half yearly examination 2017 in Mathematics (out of 50) are given below. Represent the data by means of double bar graph.

Student	Savita	Rajesh	Neeta	Sartaj
Quarterly Exam	40	15	25	48
Half-yearly exam	42	28	48	32

Q.26   Convert each part of ratio 1:3:4 to percentage.

Q.27   Simplify :
   a) $\dfrac{-7}{15} + \dfrac{3}{5}$
   b) $\dfrac{3}{13} \div \dfrac{-4}{65}$
   c) $\dfrac{3}{18} X \dfrac{-8}{3}$
   d) $\dfrac{3}{4} - \dfrac{1}{2}$

Q.28   Construct an isosceles right angled triangle ABC where $\angle$ACB=90° and AC=6cm.

Q.29   A field is 75m long and 32m wide. Two 3m wide roads are constructed in the centre of the field one parallel to its length and the other parallel to its breadth. Find
   a) Area of cross roads
   b) The cost of levelling the roads at Rs.2 per square metre.
   c) Area of remaining field.

Q.30   Find the value of
   a) $2x^2-1+x$ when x= -2.
   b) x^2-y^2 when x=1, y= -1.

Q.31   Write the following into algebraic language:
   a) The sum of squares of x and y.
   b) The product of p and q subtracted from 5.
   c) Number 7 added to three times the product of numbers m and n.
   d) Half of product of numbers x and y.

Q.32   Simplify
$$\frac{5^8 X\ 10^3\ X\ 2^6}{8\ X\ 5^9\ X\ 4}$$

Q.33   Complete the following table

Shape	Order of Rotation	Angle of Rotation
Rectangle		
Equilateral Triangle		
Rhombus		
Regular Hexagon		

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