Annual Examination 2016

Subject : Math's (E.M.)

Class : VII

Time : 3 hrs					MM : 100	
Q.1	Choo	Choose the correct answer -				
	(i)	Diameter of a circle is-				
	(a)	Minar arc (b) Maj	or arc			
	(c)	Chord (d) The	longest chord of the circ	ele.		
	(ii)	The number of axis of symmetry for a square is-				
	(a)	4 (b) 3	(c) 2	(d) 1		
	(iii)	If the side of a cube is doubled its volume will be-				
	(a)	Double (b) Three ti	mes (c) Four times (d) Eight.		
	(iv)	The surface area of a Cuboid is-				
	(a)	(lb + bh + hl)				
	(b)	$2\left(lb+bh+hl\right)$				
	(<i>c</i>)	lhb				
	(d)	$2(l+b) \times h$				
	(v)	Natural no. is-				
	(a)	1 (b) 0	(c) $\frac{1}{2}$	(d) $1\sqrt{2}$		
Q.2	Fill in the blanks-					
	(i)	Diameter of circle = $2 \times$				
	(ii)	Number of edges of a cuboid is				
	(iii)	Angle in a semicircle is				
	(iv)	Number of vertices in a cube is				
	(v)	Volume of a cube is				

Q.3 Match the following-

(i)	Rational no.	Monomial
(ii)	Whole no.	9999
(iii)	Natural no.	p/q
(iv)	Four digit no.	1
(v)	3x	0

Q.4

(i) Define rational numbers. Write two rational numbers which are not fractions?

(ii) Add

(1)
$$\frac{13}{18}$$
 and $\frac{5}{18}$ (2) $\frac{7}{13}$ and $\frac{-2}{13}$

(iii) What is to be added to
$$\frac{5}{6}$$
 to get $\frac{9}{4}$?

(iv) The population of a train increases by 5% annually. If the population at present is 1, 85, 220 what was it a year ago.

(v) Find the numerical coefficients of each term in the following.

(1)
$$3\chi^2 + 5\chi y$$
 (2) $2\chi^2 + 32$

(vi) Find the following products-

(1) $2\chi^2 y$ and $-3\chi y^2$ (2) 2xy and $-y^2$

Q.5 Simplify-

(i) $(5\chi + 6)$ and 3X (ii) $\chi(\chi - y) + y (\chi - y)$

(iii) Find p it-

- (a) $98^2 88^2 = 4p$ (b) $536^2 136^2 = 25p$
- (iv) Find the products by using the identities –

(a + 2) (a + 2)

- (v) The sum of three consecutive number is 123, find the numbers.
- (vi) Gurdeep's father is thricle as old as Gurdeep. if the sum of their ages. is 64 years find the age of Gurdeep?

- **Q.6** (i) In \triangle ABC, AB = AC if A = 80⁰ then what is measure of \angle B?
 - (ii) \triangle ABC is a right angled triangle in which $\angle C = 90^{\circ}$ AC = 12 cm and BC = 9 cm Find the length of AB using pythagoras theorem?
 - (iii) Points A, B,C and D lie on a line segment in the following figure.



- (iv) In the figure if $AB \parallel DC$ and AB = DC then
 - 1. $\angle BAC = \angle DCA$ (why)
 - 2. $\triangle ABC \cong \triangle CDA \text{ (why)}$



- (v) Construct a $\triangle ABC$ in which AB = 7.2 cm BC = 6cm and CA = 5.5cm
- (vi) If the measure of three angles of a quadrilateral are 60° , 75° , 80° find the measure of the fourth angle.
- Q.7 Make a point 0 on paper and draw a circle of radius 3cm. with 0 as centre?
- Q.8 A rectangular ground is 90m long and 54 m wide. Find its perimeter find the area of the ground in are $(1 \text{ are} = 100 \text{ m}^2)$
- Q.9 A rectangular park is 90m long 75 m wide. A path 5 m wind is to be build outside around it. Find the area of the path.
- Q.10 Find the surface area of a cubical wooden block. Whose edge is 12cm.
- Q.11 Find the volume of the choid whose.
 - (a) length = 10cm., breath = 8cm. and height = 3 cm.