Annual Examination 2016

Subject : Math's (E.M.)

Class : VII

Time : 3 hrs MM : 100

Q.1 Choose the correct answer - **(5)**

(i) Diameter of a circle is-

(a) Minar arc (b) Major arc

(c) Chord (d) The longest chord of the circle.

(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 times (c) Four times (d) Eight.

(iv) The surface area of a Cuboid is-

(a) $(lb + bh + hl)$

(b) $2(lb + bh + hl)$

(c) 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- **(5)**

(i) Diameter of circle = 2× .....

(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- **(5)**

(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 –

$(a + 2)\quad (a + 2)$

(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?

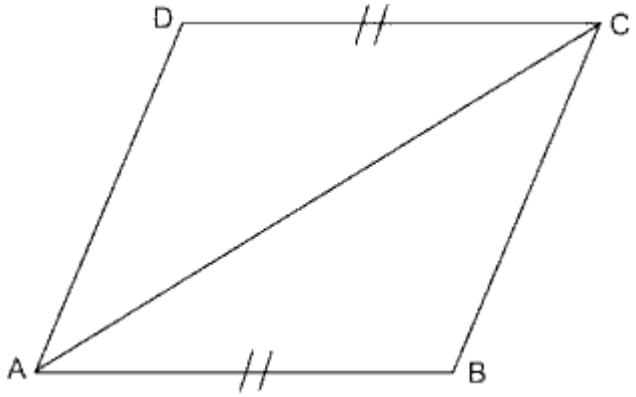
Q.6 (i) In Δ ABC, AB = AC if A = 80^0 then what is measure of $\angle$B?

(ii) Δ ABC is a right angled triangle in which $\angle C = 90^0$ 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 || DC and AB = DC then

1. $\angle BAC = \angle DCA$ (why)
2. $\Delta ABC \cong \Delta CDA$ (why)



(v) Construct a ΔABC in which AB = 7.2 cm BC = 6cm and CA = 5.5cm

(vi) If the measure of three angles of a quadrilateral are 60^0, 75^0, 80^0 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 are = 100m^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.