Extra

National Education Society's High School
Bhandup (w) Mumbai – 400 078
III & IV Unit Test

Std: X /Div: Sub–Mathematics-II Marks:20
Roll No: No of Pgs-2 Time: 45 mins.
Date: 28/08/2018

Q 1 A) Solve the following : **(2)**

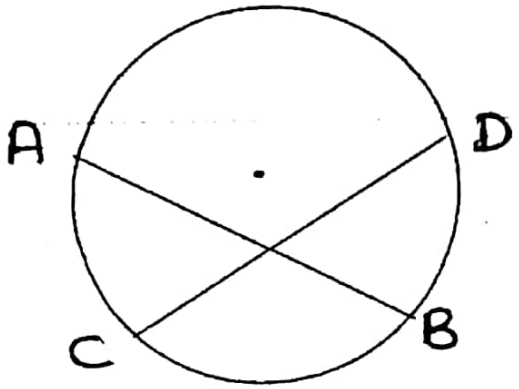
1) What is the measure of the angle subtended by the diameter on the circle?
2) Two circles touch each other externally one circle has the radius 5.5. cm & other has the radius 4.4 cm. Find the distance between their centres.

B) Solve the following :- **(2)**

1)Prove that any rectangle is a cyclic quadrilateral.

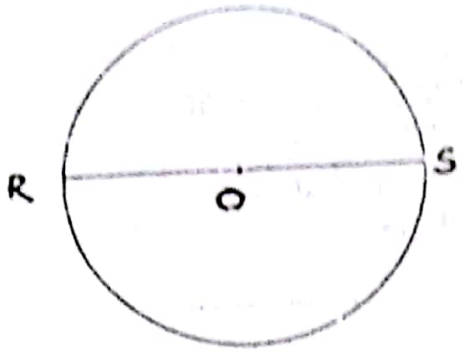
Q II) A) Solve the following :- **(4)**

3) □MRPN is cyclic .$\angle R = (5x-13)^0$, $\angle N = (4x+4)^0$. Find the measures of $\angle R$ and $\angle N$.
4) In the figure,
Chord AB ≅ Chord CD . Prove that arc AC ≅ arc BD.



B) Solve the following :- **(6)**

1)In the fig, Seg RS is a diameter of the circle with Centre O. Point T lies in the exterior of the circle. Prove that $\angle RTS$ is an acute angle.



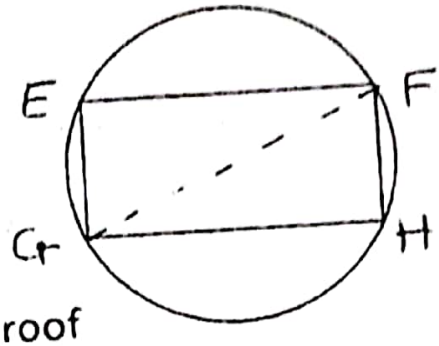
2)Δ XYZ ~ ΔDEF. In Δ XYZ, XY =5.1cm YZ = 3.9cm, XZ=6cm
XY : DE = 3:2
Construct Δ XYZ and Δ DEF.

Q III)A) Δ AMT & Δ AHE are similar triangles. In Δ AMT, (4)
AM = 6.3cm . $\angle$TAM =50^0 .AT = 5.6cm

$$\frac{AM}{AH} = \frac{7}{5}$$

Construct the triangles.

B) Solve the following : (2)



In the figure
Chord EF ||Chord GH
Prove that,
Chord EG ≅ Chord FH
Fill in the blank and write the proof

Proof:- Draw Seg GF.

$\angle$EFG = $\angle$FGH ——————— [ ] (1)

$\therefore$ $\angle$EFG = [ ] Incribed angle theorem (2)

$\therefore$ $\angle$EGH = [ ] Inscribed angle theorem (3)

$\therefore$ m(arc EG) = [ ]

From 1 , 2 & 3

Chord EG ≅Chord FH

------- Corresponding Chords of Congruent arcs.