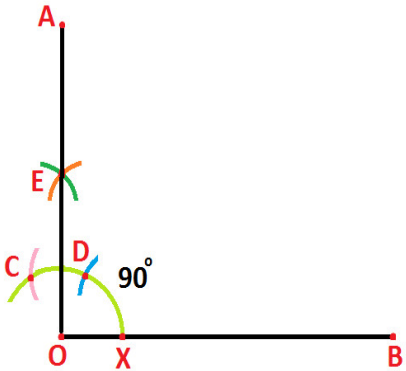


## ATOMIC ENERGY CENTRAL SCHOOL

### CLASS – 6 PRACTICAL GEOMETRY MODULE – 7 HAND OUT

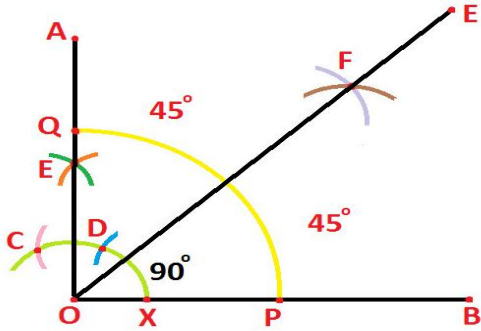
#### Constructing a $90^{\circ}$ angle

- Use ruler and draw a Line segment OB of any convenient length.
- Now use compass and open it to any convenient radius. And with O as center , draw an arc which cuts line segment OB at X.
- Again use compass and opened to the same radius (as of step 2). And with X as center , draw an arc which cuts first arc at D .
- Again use compass and opened to the same radius (as of step 2). And with D as center , draw another arc which cuts first arc at C .
- Again use compass and opened to the same radius (as of step 2). And With C & D as center , draw two arc which cuts each other at E .
- Join OE and extent it to A . $\angle AOB$  is  $90^{\circ}$



#### Constructing a $45^{\circ}$ angle

- To construct  $45^{\circ}$  angle, first we draw  $90^{\circ}$  angle.
- Now, to construct at  $45^{\circ}$  angle, we will construct the angle bisector of above  $\angle AOB$ .
- Use compass and open it to any convenient radius. And with O as center , draw an arc which cuts line segment OB at P and OA at Q .
- Again use compass and opened to with the same radius .And with P & Q as center and, draw two arcs which cuts each other at point F.
- Join OF.  $\angle EOP = 45^{\circ}$



### Constructing a $135^\circ$ angle

- To construct  $135^\circ$  angle we first construct  $90^\circ$  angle.
- Extend BO to Z
- Since ZB is a straight line, so formed  $\angle AOZ = 90^\circ$  (angle sum property)
- With O as center , draw an arc which cuts line segment OB at P and OA at Q
- Again use compass and opened to same radius .And with P & Q as center and, draw two arcs which cuts each other at point F.
- Join OF and extend to E. EO is the bisector of  $\angle AOB$ . Angle ZOE =  $135^\circ$

