

**WEEK: 10**

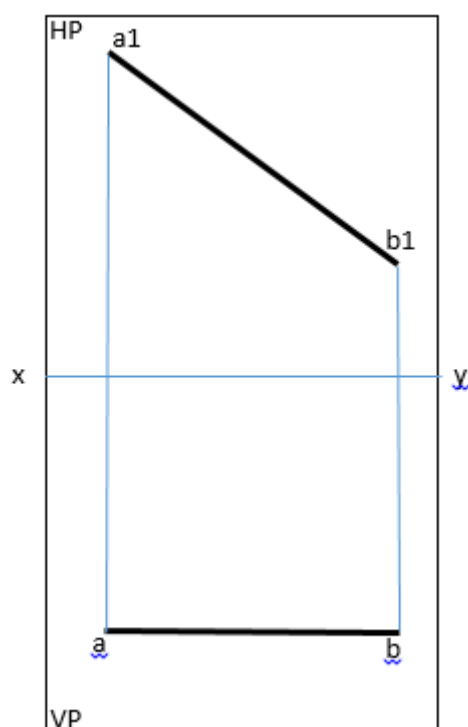
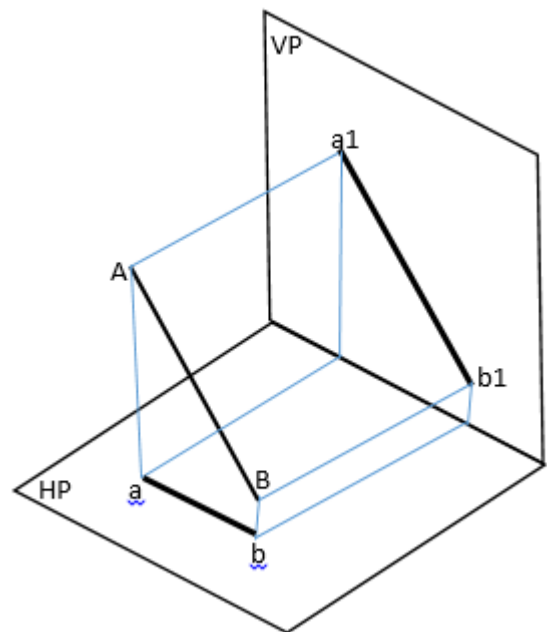
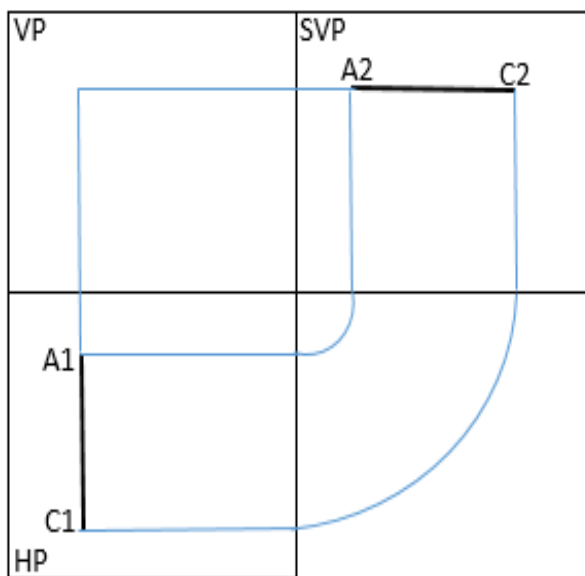
**CLASS: SS 1**

**DATE:**

**TOPIC: TRUE LENGTH AND SURFACE DEVELOPMENT**

### **TRUE LENGTH AND SURFACE DEVELOPMENT**

A straight line parallel to two principal planes. Here AC is parallel to VP and HP; therefore the projection on any of these planes is called the true length.



## **SURFACE DEVELOPMENT**

This is the process of preparing a pattern on the surface of a sheet metal which is folded or bent to obtain the true shape of a required geometrical profile.

### **Methods of surface development**

There are basically three (3) methods of surface development;

- a. Parallel line method
- b. Radial line method
- c. Triangulation method

#### **The parallel line method**

This is mainly used to obtain the developed surface when all the lines are transferred from the elevation or plan to each of the generators in parallel lines. It is applicable to objects such as cylinders and prisms.

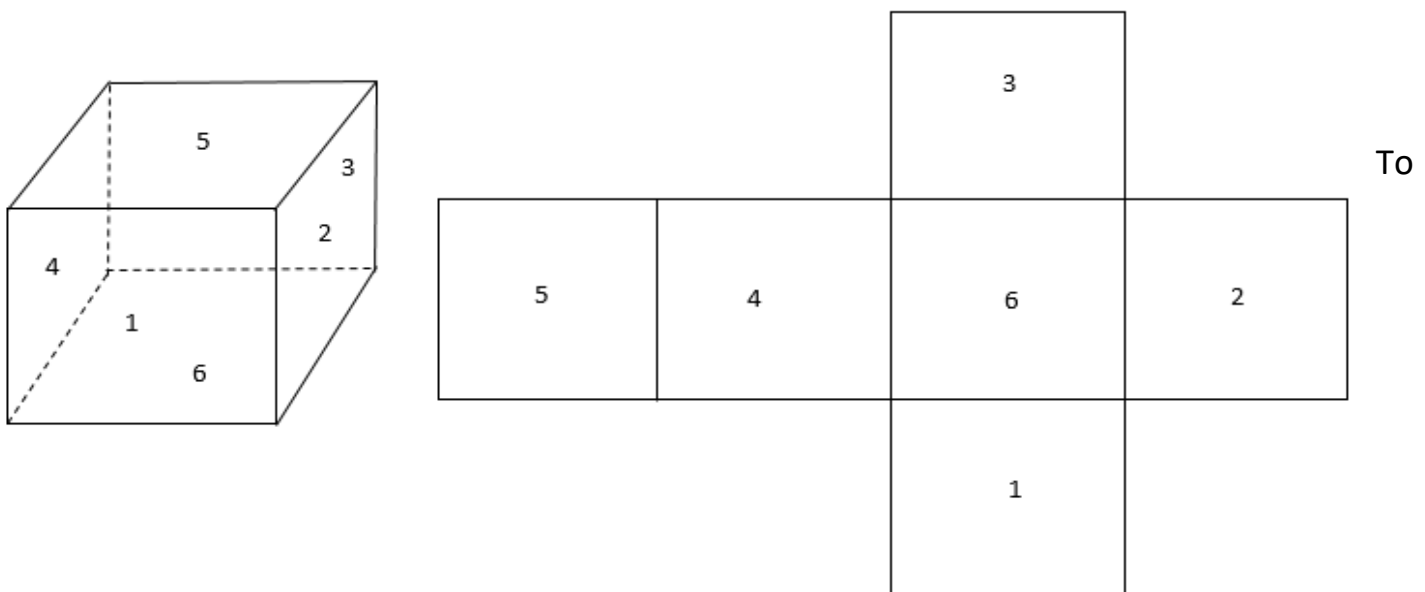
#### **The radial line method**

This is preferable when radiating lines from the generator to the apex, mainly from the elevation or plan to the developed surface. The pattern to be developed is always from the apex to the base such as pyramids and cones.

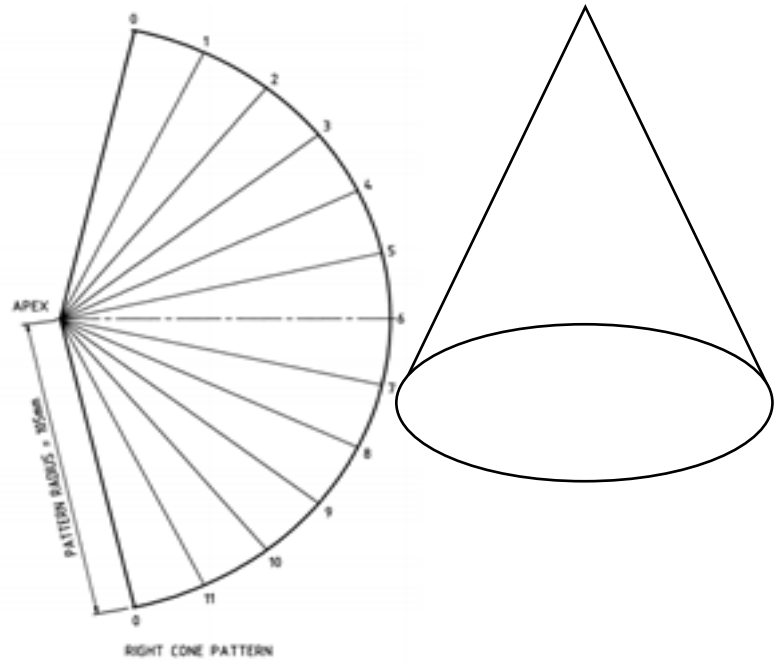
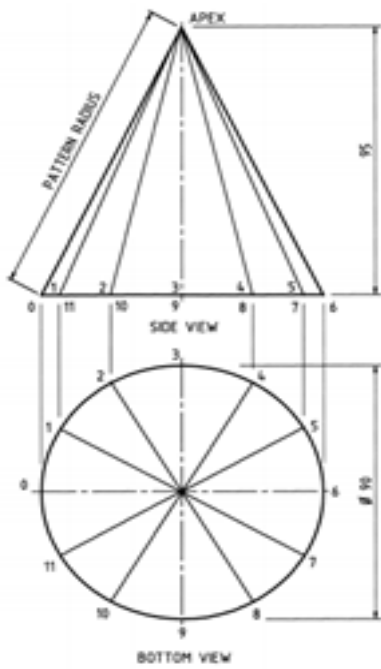
#### **Triangulation method**

This is applicable in the development of triangular objects.

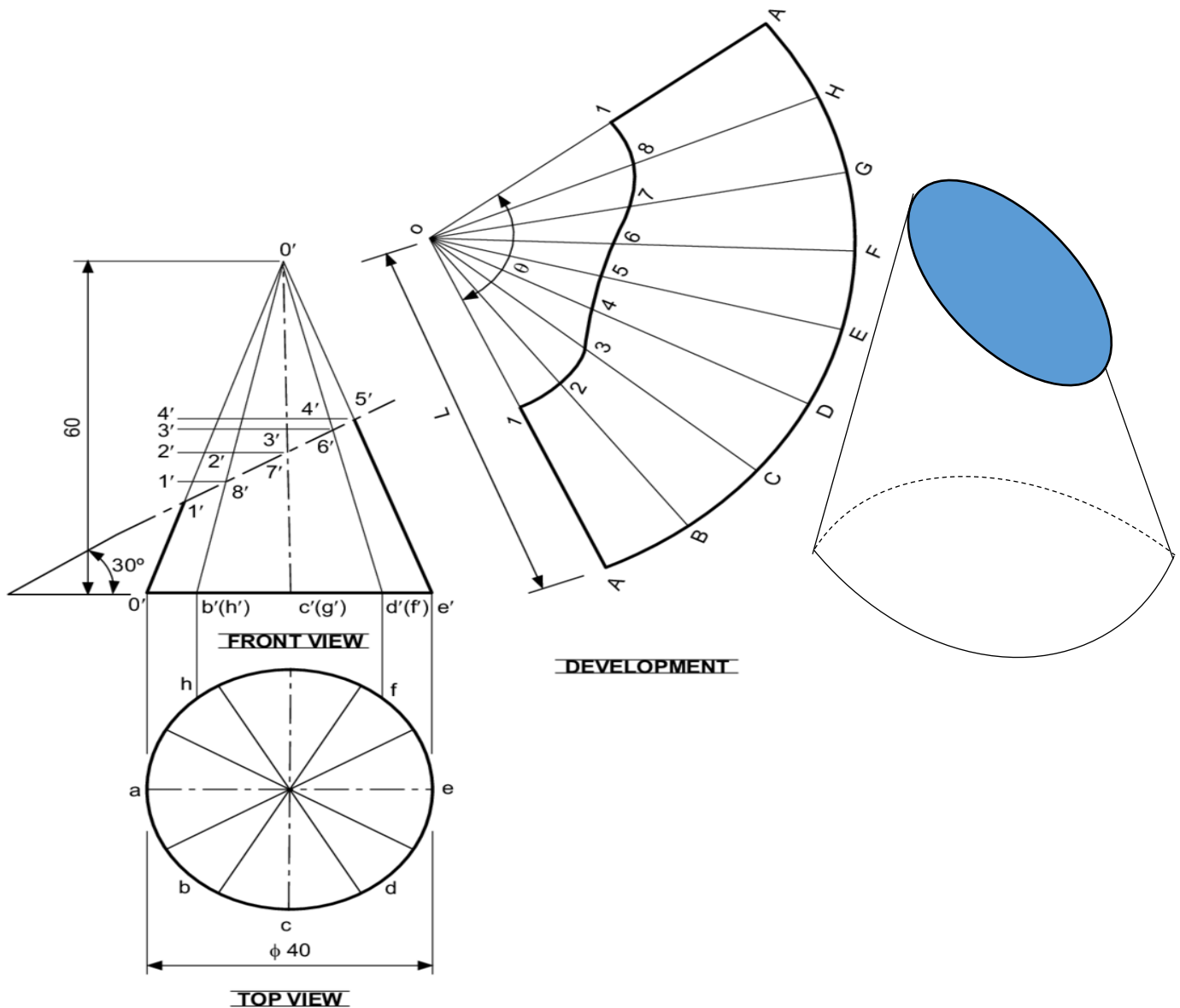
#### **To develop the surface of a cuboid**



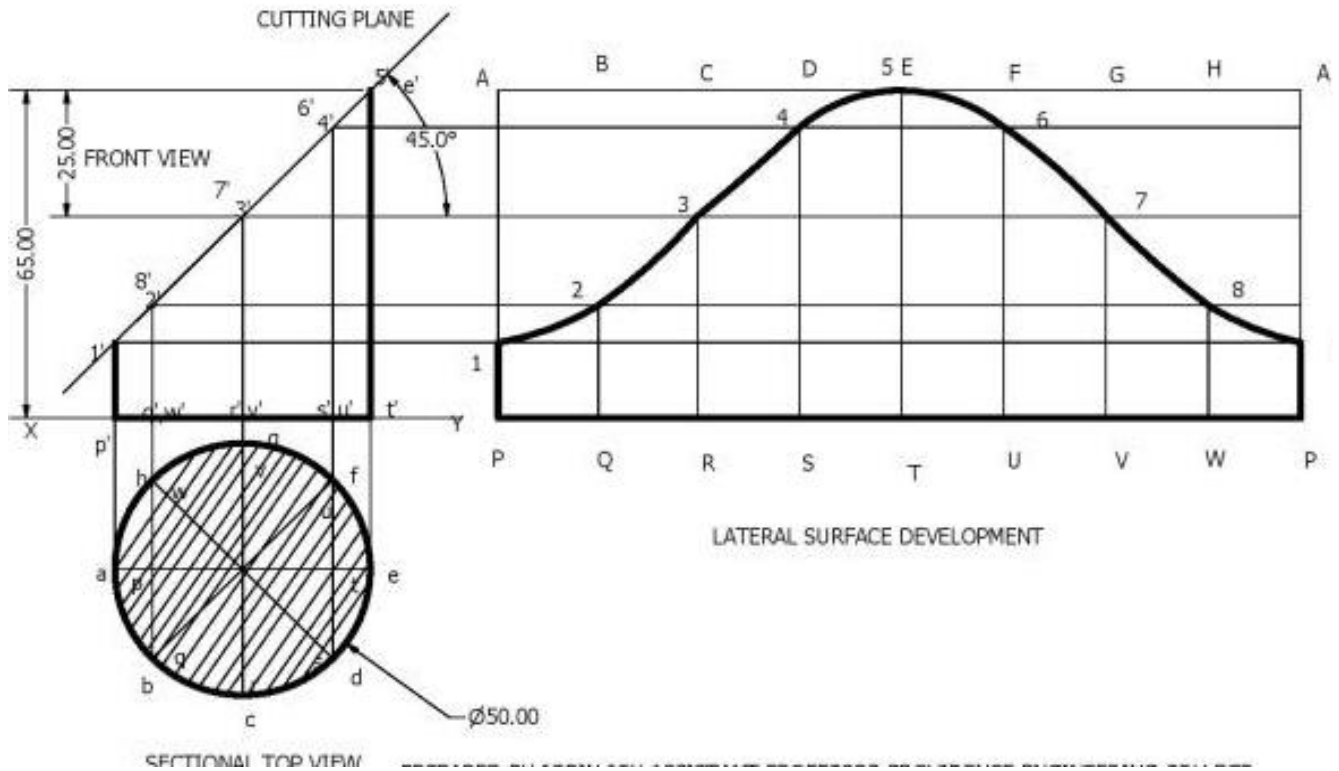
## Construct the developed surface of a cone



## To develop the surface of a truncated cone.



To develop the surface of a truncated cylinder.



## ASSINGMENT

1. What is dimensioning?
2. List and explain any five (5) types of dimensioning.