**Q1.** Convert the point P(1,3,5) from Cartesian to Cylindrical and Spherical polar coordinates

**Given:- X= 1; Y= 3; Z=5**

**Formula:-** Cylindrical- Cartesian ;;

Spherical-Cartesian;

;

**Solution:-**

In cylindrical polar coordinates, (r,

Z = 5

In Spherical polar coordinates (r,

r=5.916

**Ans:- Coordinates of P in cylindrical coordinates are (3.162, 71.57ͦ, 5) and in spherical polar coordinates are (5.916, 71.57ͦ, 32.3ͦ)**