S.3 TECHNICAL DRAWING TIME: 2 HOURS

INSTRUCTIONS

- This paper consists of two sections. Attempt any four questions at least one from each section
- All questions should be done on the paper provided
- Neatness is **MUST**

SECTION A

1. The figure below shows a view of a right circular cylinder which rolls along

the surface ABC without slipping. Plot the locus of point P on the circumference of the cylinder when the cylinder makes one revolution.



2. Without the use of a protractor, construct the plane figure shown below and transform it into a square of equal area.



3. Details of a spanner for a hexagonal nut are shown in the figure below. Draw this out line to full size showing clearly all constructions and points of contact.



SECTION B

4. The front and plan views of a bracket are given in the figure below. Draw full size, the isometric projection of the bracket having corner **M** as the lowest point.



PLAN

- The figure below shows an elevation of a hexagonal pyramid cut as shown.
 Draw the:
 - (a) Elevation.
 - (b) Complete plan.
 - (c) True shape of section X X.

