## Geometrical Constructions

## Sheet No: 1

1. Draw a rectangle having length $=10 \mathrm{~cm}$ and height $=5 \mathrm{~cm}$ and do clockwise hatching at $45^{\circ}$ with 2 mm spacing.
2. Draw a rectangle having length $=10 \mathrm{~cm}$ and height $=5 \mathrm{~cm}$ and do counter clockwise hatching at $45^{\circ}$ with 2 mm spacing.
3. Divide a line segment having 18 cm length into 23 equal parts.
4. Draw polygons with $4,5,6,7$ and 8 sides each in such a way that one of the side, $\mathrm{AB}=3 \mathrm{~cm}$, of polygon is inclined at an angle of $35^{\circ}$ with horizontal.
5. Inscribe an octagon in a circle of radius $=5 \mathrm{~cm}$.
6. Describe a pentagon over a circle of radius $=4 \mathrm{~cm}$.
7. Inscribe a circle in a heptagon of side $=4 \mathrm{~cm}$.
8. Describe a circle over a hexagon of side $=5 \mathrm{~cm}$.
9. Draw a curve of radius 5 cm touching two lines which are inclined at $75^{\circ}$ with each other.
10. Bisect the given line $(A B=6.3 \mathrm{~cm})$, angle $\left(\emptyset=63^{\circ}\right)$ and $\operatorname{arc}(1=10 \mathrm{~cm})$.
