

# MACHINE SHOP

**B.E, III Semester, Mechanical Engineering**  
**[As per Choice Based Credit System (CBCS) scheme]**

Course Code	17MEL38B / 48B	CIE Marks	40
Number of Lecture Hours/Week	03 (1 Hour Instruction + 2 Hours Laboratory)	SEE Marks	60
RBT Levels	L1, L2, L3	Exam Hours	03

Credits – 02

## Course Objectives:

- To provide an insight to different machine tools, accessories and attachments
- To train students into machining operations to enrich their practical skills
- To inculcate team qualities and expose students to shop floor activities
- To educate students about ethical , environmental and safety standards

## PART-A

Preparation of three models on lathe involving  
 Plain turning, Taper turning, Step turning, Thread cutting, Facing, Knurling, Drilling, Boring, Internal Thread cutting and Eccentric turning.

## PART-B

Cutting of V Groove/ dovetail / Rectangular groove using a shaper  
 Cutting of Gear Teeth using Milling Machine

## PART C

### For demonstration

Demonstration of formation of cutting parameters of single point cutting tool using bench grinder / tool & cutter grinder. Demonstration of surface milling / slot milling

### Course outcomes:

- Perform turning , facing , knurling , thread cutting, tapering , eccentric turning and allied operations, keyways / slots , grooves etc using shaper
- Perform gear tooth cutting using milling machine
- Understand the formation of cutting tool parameters of single point cutting tool using bench grinder / tool and cutter grinder, Surface Milling/Slot Milling
- Demonstrate precautions and safety norms followed in Machine Shop
- Exhibit interpersonal skills towards working in a team

**Scheme of Examination:**

One Model from Part – A	50 Marks
One Model from Part – B	30 Marks
Viva Voce	20 Marks
<b>Total 100 Marks</b>	

  
**H.O.D.**

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