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

Course Code	**17MEL38B / 48B**	**CIE**	**40**
Number of Hours/Week	**03 (1 Hour Instruction + 2 Hours Laboratory)**	**SEE Marks**	**60**
Total Hours	**50**	**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
Total 100 Marks