

Roll No.

22612

**M. Tech. 2nd Semester (ME)
CBCS Scheme (Elective - II)
Examination – June, 2023**

TOOL & DIE DESIGN

Paper : MTECE22D3

Time : Three Hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting *one* question from each Section. Question No. 1 is *compulsory*. All questions carry equal marks.

1. Write short notes on the following : 4 × 5 = 20
- (a) Influence of rake angle
 - (b) Bolster plate
 - (c) Plastic dies
 - (d) Epoxy plastic tools

SECTION – A

2. Explain the tool geometry of single point cutting tool with its influence on machining. 20
3. Deduce the relationship between temp. and hardness of cutting tool materials. 20

SECTION – B

4. What is strip layout and discuss its calculations ? 20
5. Explain how to calculate the capacities and tonnage requirement of press. 20

SECTION – C

6. Discuss the design and development of progressive dies for blanking operation. 20
7. Discuss the design considerations of forging. 20

22612- (P-3)(Q-9)(23) (2)

SECTION – D

8. Discuss how to calculate the forces for urethane pressure pads. 20
9. Explain the procedure for construction of plastic tooling. 20

22612- (P-3)(Q-9)(23) (3)