

Roll No.

22604

M. Tech. 1st Semester (ME) CBCS Scheme

Examination – February, 2022

MACHINE TOOL DESIGN

Paper : MTME21C4

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 any five questions. All questions carry equal marks.

1. Discuss the hydraulic and mechanical Transmission used in machine tool. 20
2. Explain the general requirements of machine tool design and layout of machine tools with suitable example. 20
3. What are the various cross-sectional shapes used for machine tool structures ? Discuss. 20

4. Explain the steps used in Finite Element Method in the design of machine tool. 20
 5. Discuss the various design considerations & procedure used for slide ways manufacturing. 20
 6. Explain the design of power screws. 20
 7. Discuss the various criteria used in the selection of machine tools. 20
 8. Explain the various important parameters on the basis of which bearings selection is done. 20
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