

Seat No.: _____
No. _____

Enrolment

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Engineering - SEMESTER-III • EXAMINATION – SUMMER • 2015

Subject Code: 3335502

Date: 02-05-2015

Subject Name: Mechanical Technology

Time: 02:30 pm - 05:00 pm

Total Marks: 70

Instructions:

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Each question carry equal marks (14 marks)

- Q.1 (a) Explain need of attitude, knowledge & skill required for shop floor Supervisor in machine tools industries. 07
(b) Draw neat sketch of centre lathe and label its parts. 07
- Q.2 (a) List different lathe operation & Explain any five with neat sketch. 07
(b) A Work piece 1200mm long has a taper 5 in 100 for a length of 450mm. The maximum dia.=70mm. calculate 07
(1) the minimum diameter (2) the amount of set over
OR
- (b) Calculate metal removal rate with following given data 07
Dia of a job = 50 mm
RPM = 100
Feed Rate = 0.015mm/Rev
Depth of cut = 0.5 mm
Length of Job = 200 mm
- Q.3 (a) Explain radial drilling machine with neat sketch 07
(b) Draw block diagram of a shaper machine & label its parts. 07
OR
- Q.3 (a) Draw neat sketch of horizontal milling machine and label its parts. 07
(b) Explain marking system of grinding wheel in chart form 07
- Q.4 (a) Explain different steps involved in making a casting 07
(b) Explain different pattern allowances 07
OR
- Q.4 (a) Draw neat sketch of mold and label its parts. List different types of mold 07
(b) List different defects observed in casting and explain any five defects and its causes with neat sketch. 07
- Q.5 (a) Explain the spinning process with neat sketch. Write applications of spinning process. 07
(b) List different forging defects and explain any five with neat sketch. 07
OR
- Q.5 (a) Explain concept of rolling with neat sketch 07
(b) List different methods of extrusion process and explain any one with neat sketch 07
