REG.NO.:

VIT

Vellore Institute of Technology

SCHOOL OF MECHANICAL ENGINEERING
CONTINUOUS ASSESSMENT TEST -I
FALL SEMESTER 2024-2025

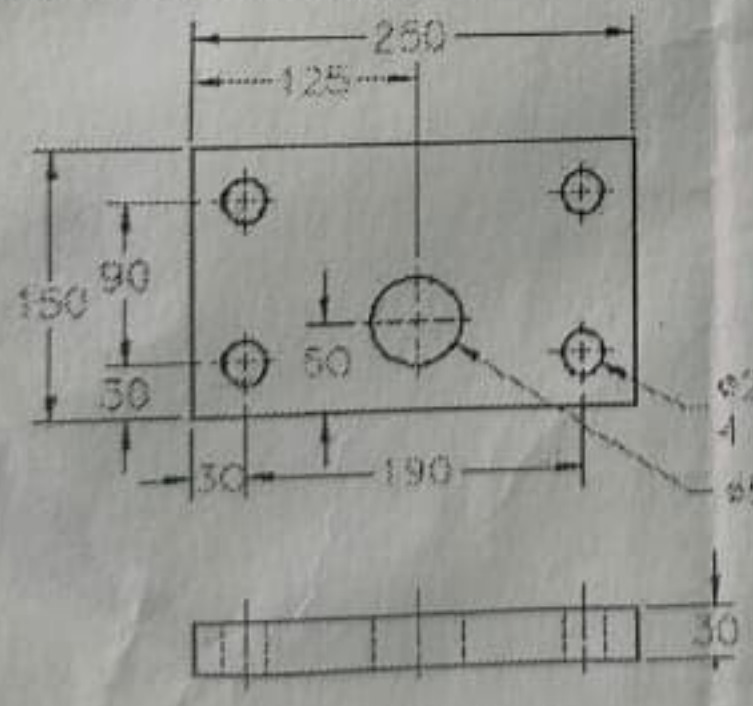
SLOT: G2+TG2

Programme Name & Branch	: B.Tech, Mechanical
Course Code	: BMEE401L
Course Name	: Computer Integrated Manufacturing
Faculty Name(s)	: B.MURALIDHARAN, S. VENKATESAN, P.SUYA PREM ANAND, S. DEVENDHIRAN
Class Number(s)	: VL2024250103882, VL2024250103885, VL2024250103883, VL2024250103884
Date of the Exam	: 31/08/24
Exam Duration	: 90 minutes

Maximum Marks: 50

General instruction(s):

Answer all the questions

Q. No	Question	Marks
1.	Outline the basic elements of an automated system in manufacturing operations	10
2.	Identify the levels of automation in a production plant and explain the application for the processing industries and discrete manufacturing industries.	10
3.	Discuss adaptive control machining, in which changes in process variables such as cutting force, power, and vibration are used to effect control over process parameters such as cutting speed and feed rate.	10
4.	Detail the CNC system with the necessary components. Explain the function of the important components.	10
5.	Develop the NC part program for the following part geometry:  Figure 1	10

All dimensions are in mm