School of Engineering
B.TECH Mechanical Engineering
Mid Term Examination - Nov 2023

Duration : 90 Minutes
Max Marks : 50

Sem V - G3UB506T - Cam and Automation

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	Define lean manufacturing.	K2 (2)
2)	sketch that illustrates the components of an automated system?	K1 (3)
3)	Explain the fundamental reasons for implementing a CAD system	K2 (4)
4)	Demonstrate the principles of lean production systems.	K2 (6)
5)	Analyze and explain the various categories of plant layouts.	K3 (6)
6)	Identify the how will pixel count affect the memory requirement for a raster display monitor?	K3 (9)
7)	Analyze and explain the principles of the following input devices used in CAD (Computer-Aided Design): (i) Keyboards, (ii) Digitizers, and (iii) Scanners? Explore their functionalities, mechanisms, and applications in the CAD environment, highlighting their unique features, advantages, and limitations.	K4 (8)
8)	Analyze the concept of computer graphics and its general applications. Evaluate the essential elements encompassed in a typical CAD/CAM software.	K4 (12)

OR

	Analyze and describe the various subsystems found in a modern CNC controller unit. Discuss the roles and functionalities of each subsystem, such as the motion control, feedback system, operator interface, and communication interfaces.	K4 (12)