

Total No. of Questions : 8]

SEAT No. :

PD4447

[Total No. of Pages : 2

[6403] 252

T.E. (Robotics & Automation)

FLEXIBLE MANUFACTURING SYSTEMS

(2019 Pattern) (Semester - VI) (311510(A))

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

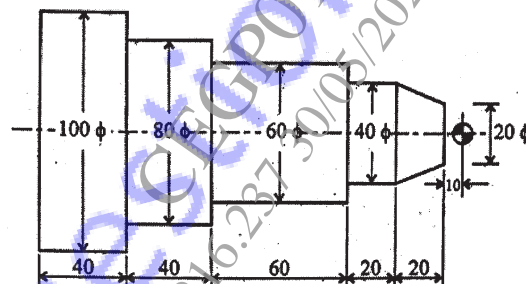
- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right side indicate full marks.
- 4) Assume Suitable data if necessary.
- 5) Use of Logarithmic Table, Slide rule or Electronic pocket calculator is allowed.

Q1) a) Sketch and explain the DNC setup. [9]

b) Describe various G and M codes used in CNC machines. [9]

OR

Q2) a) Prepare part programming of following component. [9]



All dimensions in mm.

b) Explain the salient features of any two CAM software that are being currently used in the industry. What factors may influence the selection of particular software? [9]

Q3) a) Briefly explain Extended Enterprises? [9]

b) What is computer aided inspection (CAI) and how can we control quality with the help of CAI? [8]

OR

Q4) a) Explain with block diagram the main elements of CIM system. [9]

b) What is a material requirement planning? Explain the various inputs to the MRP system? [8]

P.T.O.

- Q5)** a) What are the types of inventory? [9]  
b) Briefly explain types of Bucket Elevators. [9]

OR

- Q6)** a) What are the different types of materials handling equipment? [9]  
b) What are different types of AGV explain with their principle of working. [9]

- Q7)** a) Explain the term Tool Monitoring and fault Detection. [9]  
b) Write note on Mass Exchange, Tool Sharing and Tool Migration. Give suitable example to each. [8]

OR

- Q8)** a) What are the different types of tool strategies? Explain Each. [9]  
b) Draw and explain block diagram offered detection in vibration. [8]

