Total No. of Questions : 8]

SEAT No. :

P7744

[Total No. of Pages : 2

[6180]-273

T.E. (Robotics & Automation)

FLEXIBLE MANUFACTURING SYSTEM

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

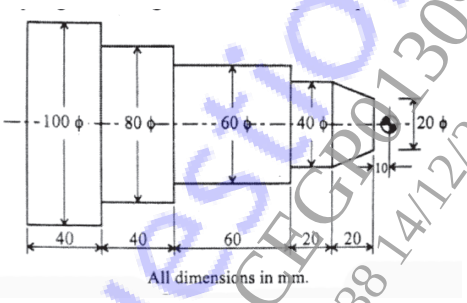
Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Figures to the right indicate full marks.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Assume suitable data if necessary.***
4) ***Use of Logarithmic table, slide rule is Electronic pocket calculator is allowed.***
5) ***Answer Q.1 or Q.2, Q3 or Q4, Q5 or Q6, Q7 or Q8.***

Q1) a) What are the basic components of the NC system and explain the function of each component? **[9]**

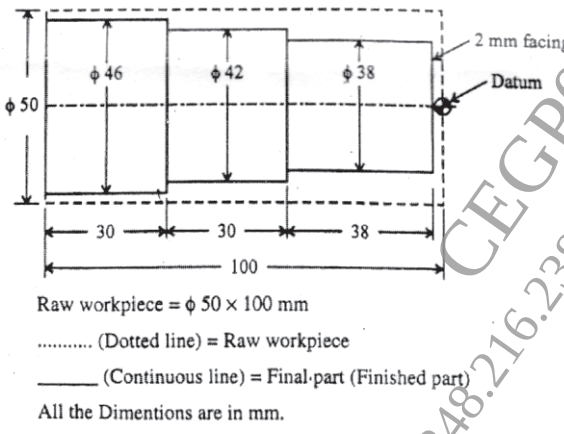
b) Prepare part programming of following component. **[9]**



OR

Q2) a) Describe various G and M codes used in CNC machines. **[9]**

b) Prepare part programming of following component. **[9]**



P.T.O.

Q3) a) Explain with block diagram the main elements of CIM system. **[9]**

b) Explain the concept of ERP? **[8]**

OR

Q4) a) What is a material requirement planning? Explain the various inputs to the MRP system? **[9]**

b) Explain about computer aided process planning (CAPP). **[8]**

Q5) a) What are the different types of material handling equipment? **[9]**

b) What are the components of the AS/RS system? **[9]**

OR

Q6) a) Explain the working principle of a robot with the help of a neat sketch. Also describe the components. **[9]**

b) What are different types of AGV explain with their principle of working. **[9]**

Q7) a) What do you know about tool Management? Write note on tool Room Service and Tool Allocation. **[9]**

b) Draw and explain block diagram offered detection in vibration. **[8]**

OR

Q8) a) Explain the term Tool Monitoring and fault detection. **[9]**

b) What are the different types of tool strategies? Explain each. **[8]**

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