[6009]-419

T.E. (Robotics & Automation) (Insem)
FLEXIBLE MANUFACTURING SYSTEMS
(2019 Pattern) (Semester - II) (311510(A))

Time : 1 Hour]   *[Max. Marks : 30*

Instructions to the candidates:

1) *Solve Q.1 or Q.2, Q.3 or Q.4.*
2) *Figure to the right indicates full marks.*
3) *Neat diagrams must be drawn wherever necessary.*
4) *Assume suitable data, if necessary.*
5) *Use of Logarithmic Table, Slide rule is Electronic pocket calculator is allowed.*

Q1) a) Discuss the importance of material handling devices used in an FMS. **[7]**

     b) What is Flexibility? Discuss various flexibilities associated with manufacturing. **[8]**

OR

Q2) a) What are the major elements of FMS? State the applications of FMS. **[7]**

     b) Discuss the need for flexibility in manufacturing in the present manufacturing scenario. **[8]**

Q3) a) What are part families? Describe the process of forming part families with suitable example. **[7]**

     b) Explain the role of group technology in FMS? **[8]**

OR

Q4) a) Why production flow analysis is required in implementation of GT? Explain data collection and sortation of process routing steps in product flow analysis. **[7]**

     b) What is the method used for forming cells in group technology? Explain with an example? **[8]**

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