E

Reg. No. : | | | | | | | | | | |

1. (a) (i) What are the classifications of sensors? Explain it in detail   CO1- U   (12)

     (ii) Give some applications of sensors.   CO1- U   (4)

     (iii) What is sensor fusion?   CO1- U   (4)

Or

(b) What is flexible fixturing. Explain its types in detail   CO1- U   (20)

2. (a) Explain the single batch scheduling and N batch scheduling in detail.   CO2- U   (20)

Or

(b) Explain the N product scheduling and apply the concept with suitable example.   CO2- U   (20)

3. (a) Describe the CAD/CAM consideration for designing a FMS.   CO3-U   (20)

Or

(b) (i) Elaborate the various types of FMS software modules.   C03-U   (12)

     (ii) Discuss the importance of palletizing.   C03-U   (8)

4.   (a)   Explain the TPM process and its stages in detail.   CO4- U   (20)

<div align="center">Or</div>

     (b)   (i) Explain the importance of lean production.   CO4- U   (4)

           (ii) Explain the basic image of lean production.   CO4- U   (4)

           (iii) What is muda ? Explain its various types.   CO4- U   (12)

5.   (a)   (i) What is the basic principal of JIT.   CO5- U   (4)

           (ii) Explain the components of JIT.   CO5- U   (4)

           (iii) Explain the kanban system in detail.   CO5- U   (12)

<div align="center">Or</div>

     (b)   Explain the preventive maintenance technique in a production   CO5- U   (20)
           system.

<div align="center">————————————</div>

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