A   Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code: 59724

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2022

Elective

Mechanical Engineering

15UME924 - Computer Integrated Manufacturing

(Regulation 2015)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Computer Integrated Manufacturing is___..   CO1- U

   (a) Extension of CAM   (b) Management philosophy

   (c) A type of automation   (d) Link between CAD and CAM

2. CAD prepares models with computer which are   CO1- U

   (a) Dynamic patterns   (b) Static patterns   (c) Geometric patterns   (d) None

3. In OSI model accounting, addressing and routing   CO2- R
   functions of the systemare provided by:

   (a) application layer   (b) network layer

   (c) transport layer   (d) physical layer

4. _____ is the technology that connects the machines and   CO2- R
   people within a site in a small area.

   (a) LAN   (b) MAN   (c) WAN   (d) None of the above

5. Computer aided process planning is .   CO3- U

   (a) Extension of CAM   (b) first step in design before CAD

   (c) a type of automation   (d) link between CAD and CAM

6. Material Requirements Planning DOES NOT include   CO3- U

   (a) material price   (b) bill of material

   (c) inventory level   (d) production schedule

7. Which of the following is phases of shop floor control   CO4- U

   (a) Order release   (b) Order scheduling

   (c) Order progress   (d) All of the above

8. Which is not a component of FMS system   CO4- U

   (a) Work stations   (b) Material handling

   (c) Computer control system   (d) process planning

9. What are all the effect of production planning and control   CO5- U

   (a) Material factors   (b) Human factors   (c) Both A and B   (d) Either A or B

10. LOB stands for   CO5- U

   (a) Line of benefit   (b) Line of balance

   (c) Law of balance   (d) None of the above

<div align="center">PART – B (5 x 2= 10 Marks)</div>

11. List the available CAD packages   CO1- U

12. Explain the types of communication system   CO2- U

13. Explain the group technology concept   CO3- U

14. Explain about SFC   CO4- U

15. State the Concept of material Requirement Planning   CO5- U

<div align="center">PART – C (5 x 16= 80 Marks)</div>

16. (a) Explain the various geometric features of a CAD package   CO1- U   (16)

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

   (b) Explain the 2D geometric transformation with example   CO1- U   (16)

17. (a) Explain the Seven layers of OSI Model in detail   CO2- U   (16)

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

   (b) Explain the different types of communication system in CIM   CO2-U   (16)

18. (a) What is Part Families Classification and Coding?   CO3- U   (16)

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

   (b) Explain facility design using G.T and its benefits of GT.   CO3- U   (16)

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19. (a) Explain the Barcode Technology in automatic data collection   CO4- U   (16)
       system?

                                    Or

    (b) Explain the material handling and data storage system   CO4- U   (16)

20. (a) Briefly explain the effect of production planning and control   CO5- U   (16)
       system

                                    Or

    (b) Explain computer integrated production management system   CO5- U   (16)

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