Reg. No. :

Question Paper Code: 37704

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020.

Seventh Semester

Mechanical Engineering

01UME704 - COMPUTER INTEGRATED MANUFACTURING

(Regulation 2013)

Duration: One hour   Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. Scaling objects makes them

    (a) Bigger   (b) Smaller   (c) It only stretches them   (d) Both Bigger and Smaller

2. The basic geometric building blocks provided in a CAD/CAM package are

    (a) Points, lines, and circles   (b) Rectangles and squares

    (c) Semi circles and squares   (d) Rectangles and semi circles

3. This process recognizes the inherent interrelationships between design and manufacturing

    (a) Design for manufacture   (b) Design for manufacture and assembly

    (c) Design for concurrent engineering   (d) Design for assembly

4. In ring network communication the individual stations are connected in a

    (a) Discontinuous ring   (b) Copper ring

    (c) Continuous ring   (d) Polymer ring

5. Which one does not relate to designing process layouts?

 (a) Minimizing transportation costs   (b) Minimizing distance traveled

 (c) Focusing on closeness ratings   (d) Equalizing times of work stations

6. CAPP integrates and optimizes system performance into

 (a) The inter-organizational flow   (b) The work flow

 (c) The process flow   (d) The inter-material flow

7. The systems that accomplish the production planning, development of master schedule, capacity planning and materials requirement planning is called

 (a) Material flow control   (b) Shop floor control

 (c) Control of process flow   (d) Machine control

8. Technology that is peripheral to the actual creation of goods and services is sometimes called

 (a) Indirect process technology   (b) Direct process technology

 (c) Focused process technology   (d) Complementary process technology

9. Cost of product failure, error prevention and appraisals can be classified under

 (a) stocking costs   (b) stock-out costs

 (c) costs of quality   (d) shrinkage costs

10. Lean manufacturing is a (n):

 (a) Fad   (b) Method for reducing labour

 (c) Way to improve customer value   (d) Efficiency improvement technique

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Explain 2D geometric transformation matrix for translation and rotation with a simple example. (8)

12. Sketch and explain CASA/SME's model of CIM. (8)

13. Demonstrate in brief of the following part classification and coding techniques. (8)

14. Describe the benefits of FMS. (8)

15. Explain the different strategies of process control. (8)

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