VASAVI COLLEGE OF ENGINEERING *(Autonomous)*, HYDERABAD
M.E. I Year (Mech.) I-Semester (Make Up) Examinations, March-2016
(Advanced Design & Manufacturing)

Computer Integrated Design and Manufacture

Time: **3 hours**   Max. Marks: **70**

Note: Answer ALL questions in Part-A and any FIVE questions from Part-B

Part-A (10 X 2=20 Marks)

1. What is a geometric modeling? Explain

2. List out assembly constraints.

3. Explain agile manufacturing.

4. Explain design drafting interface.

5. Write rapid tooling.

6. Explain requirements for automated inspection.

7. Explain production planning.

8. Discuss material handling requirements.

9. Define MAN, WAN, LAN.

10. Describe the CIM models.

Part-B (5 X 10=50 Marks)
(All bits carry equal marks)

11. a) Draw and explain product life cycle.

    b) Explain wireframe, surface and solid modeling techniques with examples.

12. a) What are NURBS? Explain Bezier and B. Spline curves and their continuity?

    b) Define optimization. Explain it with CAE approach.

13. a) Sketch Adoptive control machining and explain.

    b) What is DNC? Explain the methods of DNC Systems.

14. a) What is lean manufacturing? Explain in detail.

    b) Explain any one method of rapid prototyping technique with a neat sketch

15. a) Discuss with an example Reverse Engineering Approach.

    b) Describe Top down and Bottom up Assembly.

16. a) Explain in detail material requirement planning.

    b) Explain CIM and enumerate the elements, advantages and limitations of CIM.

17. a) What are the databases and networks used in CIM?

    b) What is AC? Explain various controls used in CNC and DNC?

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