

Register Number.....

**M.E. DEGREE EXAMINATIONS: NOVEMBER 2009**

Third Semester

**CAD / CAM**

P07CCE17: Design for Manufacture, Assembly and Environments

**Time: Three Hours**

**Maximum Marks: 100**

**Answer ALL the Questions:-**

**PART A (10 x 2 = 20 Marks)**

1. Explain run out.
2. What are the types of tolerances?
3. State any four factors affecting the form design.
4. What are the different types of welding process?
5. State two general design rules
6. List out the criteria for design for assembly.
7. How do you classify the coding systems?
8. State the four techniques to reduce environmental impact
9. Write the major classification of material properties
10. What is a global issue, give examples?

**PART B (5 x 16 = 80 Marks)**

11. (a) Explain the basic principle for manufacturability.

**(OR)**

- (b) Explain in detail: The general design rules.

12. (a) Discuss the choice of materials selection and explain how this selection influences the form design?

**(OR)**

- (b) Discuss the design guideline for form design of forging with examples.

13. (a) Explain the design clampability and doweling.

**(OR)**

- (b) Discuss simplification by separation and amalgamation.

14. (a) Explain opitz classification System.

**(OR)**

(b) Explain the redesign of casting based on parting line consideration.

15. (a) Explain Environmental impact assessment with suitable case study.

**(OR)**

(b) Explain the concept of Sustainable development and 3R principles.

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