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## MMIE/MMPD - 201 M.E./M.Tech., II Semester

Examination, December 2015

## Product Design And Lifecycle Management

Time: Three Hours

Maximum Marks: 70

Note: Attempt any five questions. All questions carry equal marks.

- a) How does design by evolution differ from 'design by innovation'? Explain with suitable examples.
  - b) What is meant by activity analysis? What is the role of activity analysis in the development of specification and standards of performance.
- 2. a) What is concurrent engineering and how it differ from traditional product development process?
  - b) What are the main function of product life cycle management? Explain each one of them in brief.
- a) How product life cycle engineering is different from product life cycle management? What are the benefits of product life management.
  - b) How the product design changes when product passes through various phases of life cycle? Explain.
- a) What is the approach to reliability based design? What is the difference between reliability and factor of safety.
  - b) What are the benefits of modular design? What type of product is suitable for modular design and how is it achieved?

- 5. a) Write and explain the important consideration you will make in product design when you are designing for environment?
  - b) What is life cycle assessment? What are the common LCA method? Explain in brief.
- 6. a) What are the various steps of Value Analysis (VA) Job Plan? Describe the following steps of VA Plan:
  - i) Information step
  - ii) Analysis step
  - iii) Certainty steps
  - iv) Evaluation
  - b) How Renard number are used in concept of standardization?
- 7. a) How customer behavior affect the sales of product? What are the managerial tool available to study the consumer behavior?
  - Explain difference between pricing and promotion strategies used by marketing manager.
- 8. Write short notes on any three:
  - a) Pre requisites of PLM
  - Taguchi method
  - c) Planning of sales
  - d) IPR

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