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Roll No

MMIE/MMCM/MMPD-201

M.E./M.Tech., II Semester

Examination, June 2016

Product Design and Life Cycle Management

Time : Three Hours

Maximum Marks : 70

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

1. a) What factors a design engineer should consider while designing a product? 7
b) Explain in detail the concept of Concurrent Engineering. 7
2. a) What is the purpose of standardization within a plant? Explain. 7
b) Discuss why it is necessary to record all the processes before simplification. 7
3. a) Explain Taguchi methods of Robust design. 7
b) Explain briefly the concept of Intellectual property rights. 7

4. a) Define PLM. Enlist its benefits to organization. 7
b) What is Product Life Cycle Engineering? Explain. 7
5. a) Discuss how six sigma is different from other quality interventions. 7
b) Explain the basic principal of Quality Function Deployment (QFD). http://www.rgpvonline.com 7
6. a) Describe the five step road map for implementing six sigma. 7
b) Briefly explain the concept of design for maintainability. 7
7. a) Explain the basic concept of Design For Environment (DFE). Why it is needed today? 7
b) Discuss the basic steps of life cycle assessment. 7
8. Explain briefly (any two) 14
 - a) Patents and copyright
 - b) Human factors and design for safety
 - c) Reliability based design
