01/06/2017

Q.P. Code : 813200

Sem VII /CB SGS/ Auto/ PDD/ m-J-17

(3 Hours) [Total Marks : 80]

Note : (1) Question number 1 is compulsory
   (2) Attempt any three out of remaining five questions
   (3) Figures to right indicate full marks
   (4) Illustrate your answers with sketches wherever necessary.

1. Answer **four** of the following: 20
   (a) Explain product mix with an example.
   (b) Explain the basic concept of design of experiments.
   (c) Explain design for environment.
   (d) Explain the advantages of concurrent engineering.
   (e) Explain the steps in value engineering.

2. (a) Explain ergonomic and aesthetic considerations in product design. 10
   (b) Explain concept testing in detail. 10

3. (a) Explain in detail design for manufacturing and assembly. 10
   (b) Explain how needs of customer are established in product design. 10

4. (a) Explain any one type of modern product development process. 10
   (b) Explain failure mode effect analysis with an example. 10

5. (a) Explain in detail the steps for quality function deployment. 10
   (b) Explain the different types of product architecture with an example. 10

6. (a) Explain different types of cost associated with product design and development. 10
   (b) Explain the role of rapid prototyping in product design and development. 10

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