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First Semester M.Tech. Degree Examination, December 2011
Concurrent Engineering for Manufacturing

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions.

- 1
 - a. Summarises the changing pattern in manufacturing, with time. What are the five notable reaches that give corporations significant competitive advantages? (10 Marks)
 - b. Discuss the different performance indicators that explain the enterprise competitiveness. (10 Marks)

- 2
 - a. Compare and comment on the distribution of product development effort by British and Japanese companies. (06 Marks)
 - b. With reference to life cycle management, discuss the advantages of early introduction of a product to the market. (08 Marks)
 - c. How does a company decide which is the best time to introduce a new technology into an existing product? (06 Marks)

- 3
 - a. Explain the major steps to be followed for creating a process map and improvement. (10 Marks)
 - b. Explain briefly the steps involved in Pugh methodology. (10 Marks)

- 4
 - a. Mention any three concurrent engineering definitions. (06 Marks)
 - b. Discuss the basic principles of concurrent engineering. (10 Marks)
 - c. Discuss the benefits of C.E. (04 Marks)

- 5
 - a. Write a brief note on type of sharing and collaboration in concurrent engineering. (10 Marks)
 - b. Explain the interactive steps to be followed during cognitive model generation. (10 Marks)

- 6
 - a. Discuss the various methods of representing objects during information modeling. (10 Marks)
 - b. Briefly explain the components of process model class. (10 Marks)

- 7
 - a. The characterization and representation of mechanical product and systems for C.E can be grouped in to five model classes – discuss each model. (10 Marks)
 - b. Describe the emerging trends in the market place, with suitable graphs. (10 Marks)

- 8
 - a. Over the past decade, the Japanese have not only made big gain in the share of markets, but they have impressed with their ability to introduce models, with high technology specification – discuss the key reasons for this success in the context of C.E. (15 Marks)
 - b. Discuss the advantages of system engineering approach to concurrent problem solving. (05 Marks)

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