

Roll No.

Total No. of Pages : 01

Total No. of Questions : 09

B.Tech (Ind. Engg. & Mgt.) (Spl. in TQM) (Sem.-6)
PRODUCT PLANNING, DESIGN AND DEVELOPMENT

Subject Code : IEM-601

Paper ID : [70997]

Time : 3 Hrs.

Max. Marks : 40

INSTRUCTIONS TO CANDIDATES :

1. Attempt All EIGHT questions from SECTION-A carrying TWO marks each.
2. Attempt any SIX out of EIGHT questions from SECTION-B carrying FOUR marks each.

SECTION-A**Q1 Answer briefly :**

- a. Explain various steps involved in planning of a new product.
- b. Explain the role of appearance and aesthetics in design considerations of the product.
- c. Discuss in brief DFX and give its applications.
- d. Explain the concept of design for robustness.
- e. Discuss the concept of reverse Engineering.
- f. Discuss in brief FME and give its limitations.
- g. Discuss various factors driving remanufacturing.
- h. Write in brief about Intellectual property rights.

SECTION-B

- Q2 Discuss the role of Fits, Tolerance and Process Capability in basic design considerations of a product.
- Q3 Explain the concept of QFD and discuss What-How matrix relationship?
- Q4 Discuss the basic guidelines for design for people and safety concept.
- Q5 Discuss in brief the types and pitfalls of Benchmarking.
- Q6 What is Concurrent Engineering? And discuss various roadblocks to it.
- Q7 Discuss various trends and basic guidelines for Improving design to remanufacture.
- Q8 Write a short note on Rapid Prototyping.
- Q9 Discuss the differences between a Prototype and a Production Design.