

Roll No.

Total No. of Pages : 02

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

Subject Code : IEM-601

M.Code : 70997

Date of Examination : 12-07-22

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

1. Answer briefly :

- a) Explain the concept of design for robustness.
- b) Discuss the various factors driving remanufacturing.
- c) What is Quality Function Deployment?
- d) Explain various steps involved in planning of a new product.
- e) Explain the role of appearance and aesthetics in design considerations of the product.
- f) What do you mean by House of Quality?
- g) Give differences between patent and copyright.
- h) How concurrent engineering is helpful in production?

SECTION-B

2. Write a short note on Rapid Prototyping.
3. Explain the concept of QFD and discuss What-How matrix relationship?

4. Discuss the role of Fits, Tolerance and Process Capability in basic design considerations of a product.
5. Discuss various trends and basic guidelines for improving design to remanufacture.
6. What is Concurrent Engineering? And discuss various roadblocks to it.
7. What is Benchmarking? What is its need? Explain the process of benchmarking.
8. What is reverse engineering? Explain its process and benefits.
9. Can a small negligence in product designing be responsible for a major loss to a company? If yes, explain with an example.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.