



10MA82

Eighth Semester B.E. Degree Examination, June/July 2019

Product Design and Manufacture

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, selecting at least TWO questions from each part.

PART – A

- 1 a. What are Fits? Explain different types of fits. (10 Marks)
b. Explain steps involved in detailed design. (10 Marks)
- 2 a. How to analyze the product? (10 Marks)
b. With a neat sketch, show the relationships in design, production and marketing. (10 Marks)
- 3 a. What is strength based design? Explain. (10 Marks)
b. With a neat sketch, explain significance of force flow lines in C clamp. (10 Marks)
- 4 a. What is the effect of glass-making oxides on properties and design? (10 Marks)
b. What are dimensional factors and tolerances of different materials? (10 Marks)

PART – B

- 5 a. Explain Siddals classification of design approaches. (10 Marks)
b. What is the standard form of linear programming problem? (10 Marks)
- 6 a. List and explain any four conditional safety standards. (10 Marks)
b. How to design for reliability? (10 Marks)
- 7 a. Explain the standard for industrial thermal compact. (10 Marks)
b. What are the different types of electric lamps used in industries and their uses? (10 Marks)
- 8 a. Explain the functional analysis phase of value engineering. (10 Marks)
b. Explain material selection parameters. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.