

8E8074

Roll No. _____

[Total No. of Pages : 2]

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B.Tech. VIII Semester (Main/Back) Examination, April/May - 2017
Mechanical Engineering
8ME4.1A Product Development and Launching

Time : 3 Hours

Maximum Marks : 80
Min. Passing Marks : 26

Instructions to the Candidates:

Attempt any **five questions**, selecting **one question** from **each unit**. All questions carry **equal marks**. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitable be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

Unit-I

1. a) What is new product and explain the process of development of a new product? (8)
b) Explain any two : (8)
i) Market pull product
ii) Technology push product
iii) Platform based product
- (OR)
1. a) What is the importance of new product for growth of the enterprise? (8)
b) What are the demands of product development team? (8)

Unit-II

2. a) What is need analysis? How it is completed. (8)
b) Briefly explain the engineering statement of problem. (8)
- (OR)
2. a) Explain the economic existence of need. (8)
b) Point out the location of target specification in concept development process and explain the process of target specification. (8)

Unit-III

3. a) Explain fear of criticism and psychological set in case of a new product. (8)
b) Explain Brain storming process of idea generation. What is inversion process. (8)

(OR)

3. a) Discuss in detail concept generation. (8)
b) How we establish engineering specification of a new product. Explain requirements and specification's role in system design. (8)

Unit-IV

4. a) What is design for manufacturing? Explain preparation of assembly drawing. (8)
b) If you are a design engineer then specify the role of ergonomics and aesthetics while developing a new product. (8)

(OR)

4. a) How can we identify subsystem? Explain subsystem specification. (8)
b) Discuss any two : (8)
i) Simplification in design
ii) Standardization in design
iii) Modular design

Unit-V

5. a) What are the challenges faced in managing the development and launching of a new product? Give example. (8)
b) Discuss new product launch strategy. (8)

(OR)

5. a) Explain the following : (8)
i) Project scheduling
ii) Project task matrix
b) Briefly explain the organization of design team. (8)

