Printed Pages : 3

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*1 9 9 8 5 3 *   **EOE083**

(Following Paper ID and Roll No. to be filled in your Answer Book)
PAPER ID : 199853
Roll No.

B.Tech
(SEM. VIII) THEORY EXAMINATION 2014-15
PRODUCT DEVELOPMENT

Time : **3** Hours]   [Total Marks : **100**

1   Attempt any **four** questions in following part.   **5x4=20**

   (a)   Explain in brief the following, in relation to product development:

      (i)   Core benefit

      (ii)   generic product, and

      (iii)   Augmented product

   (b)   Explain the evaluation of centrifugal pump.

   (c)   Explain Need - Base Development and Technology Base Development.

   (d)   "The development of communication system in the present era is technology- based development." Explain giving examples.

199853]   **1**   **[Contd...**

(e) Describe the typical product life cycle. Explain the various phases of the cycle.

(f) Discuss the differences between old and new design methods.

2   Attempt any **two** questions in following part.   **10x2=20**

(a) Explain what is meant by design morphology? Discuss all the three phases of product design.

(b) What are the essential factors consider in the analysis of need?

(c) Explain the comparison checklist method of ideation. Also explain, with a suitable example, how analogy helps in getting new ideas.

3   Attempt any **two** questions in following part.   **10x2=20**

(a) What is decision making? Explain its importance. Describe the steps in the decision making process.

(b) Give an account of break even analysis.

(c) Explain the utility concept. Also discuss the law of diminishing marginal utility.

4   Attempt any **two** questions in following part.   **10x2=20**

(a) What is the Bath Tub curve? Draw and explain the various feature of a bath tub curve of a product.

(b) Explain Reliability of system in series with an example.

(c)   What is Anthropometric Data? Explain the need of anthropometric data in design.

5   Attempt any **two** questions in following part.   **10x2=20**

(a)   Explain the plotting of each Quality control Chart in detail.

(b)   What is the technology forecasting? Describe its characteristics, history and importance.

(c)   Describe the Judgment-Based Technological forecasting Technique.

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