

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – II • EXAMINATION – WINTER • 2013****Subject code: 1725003****Date: 31-12-2013****Subject Name: Product Development and Innovation****Time: 10.30 am – 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Discuss the Generic development process with its all phases. **07**
(b) Explain the characteristics of successful product development. **07**
- Q.2** (a) Define specification and discuss the process for establishing target specification. **07**
(b) Write in detail about different types of product development projects. **07**
- OR**
- (b) Explain-how raw data are collected from the customer to know about customer's need. **07**
- Q.3** (a) Discuss the process for setting final specification in product development. **07**
(b) Explain the different forms of concept generation. **07**
- OR**
- Q.3** (a) What is importance of industrial design to a product. **07**
(b) Write the concept generation process in detail. **07**
- Q.4** (a) What do you mean by TRIZ ? Explain briefly. Also give the different application of TRIZ. **07**
(b) Discuss the concept selection process with screening and scoring stages. **07**
- OR**
- Q.4** (a) Give and explain the different survey formats in concept testing process for product development. **07**
(b) What is inventive problem ? Explain the five levels of solution. **07**
- Q.5** (a) "QFD – A house of quality " prove this statement with suitable example. **07**
(b) Explain the benchmarking process in detail with its approaches. **07**
- OR**
- Q.5** (a) Explain (i) Utility patent and (ii) Trade mark. **07**
(b) What do you mean by patent. Write its overview and give a sample of patent. **07**
