

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI EXAMINATION – SUMMER 2025

Subject Code: 3161916

Date: 28-05-2025

Subject Name: Product Development and Entrepreneurship

Time: 10:30 AM TO 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.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) What are the objectives of Intellectual property rights?	03
	(b) Differentiate the managerial and entrepreneurial approaches.	04
	(c) Explain the different phases of the generic product development process.	07
Q.2	(a) What is a Function Family Tree (FFT)? Explain it.	03
	(b) Enlist the advantages of 3D printing .	04
	(c) Explain the articulated use methods for interviewing the customers, by taking suitable examples.	07
	OR	
	(c) Explain the stepwise procedure of the product planning process.	07
Q.3	(a) Explain the types of functions of any product.	03
	(b) Explain different types of customer needs.	04
	(c) Explain the different phases of the product life cycle with appropriate examples.	07
	OR	
Q.3	(a) Enlist the different types of maintenance operations in the industry.	03
	(b) Explain the challenges of product development.	04
	(c) Explain the General Guideline for optimizing the number of parts in the design.	07
Q.4	(a) Enlist the various characteristics of the successful entrepreneur.	03
	(b) Explain the Entrepreneurship Process.	04
	(c) Why feasibility study is required? Explain different types of feasibility studies in brief.	07
	OR	
Q.4	(a) What are the contents of the business plan?	03
	(b) Explain the Five competitive force models for industry analysis.	04
	(C) Explain the role of entrepreneurship in economic development.	07
Q.5	(a) Why marketing research is required for the new venture?	03
	(b) What is additive manufacturing? Explain it briefly	04
	(c) Explain briefly 1) Trademark 2) Copyright and 3) Patent	07

Q.5	(a)	Explain Break Even Analysis.	03
	(b)	Differentiate between licensing and franchising	04
	(c)	What is product modularity? Explain various types of product modularity.	07

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