

FACULTY OF ENGINEERING

B.E. 4/4 (M/P) II-Semester (Main) Examination, April / May 2013

**Subject : Product Design and Process Planning
(Elective-III)**

Time : 3 Hours

Max. Marks: 75

Note: Answer all questions of Part - A and answer any five questions from Part-B.

PART – A (25 Marks)

1. Write about Design by evolution and Design by innovation.
2. Discuss about the need for creativity and innovation.
3. What is risk factor in a project?
4. Define Ergonomics and explain man-machine information exchange.
5. Write various factors which can be attributed for success or failure of a product.
6. Define patents and write the importance of taking a patent.
7. Write about various parameters to be considered in selecting a right manufacturing technique.
8. Write the various steps to be followed for releasing a new product.
9. Differentiate between cost control and cost reduction.
10. Define value of appearance and state the laws of appearance.

PART – B (50 Marks)

11. What is product design and explain various phases in product design? (10)
12. What is project and explain life cycle of the project? (10)
13. What is product life cycle and explain various stages of product life cycle? (10)
14. Explain the steps to be followed to introduce a new product and what are the methods of launching a new product. (10)
15. Differentiate between cost reduction and cost control, and explain how manufacturing cost is estimated. (10)
- 16.(a) What are the inventions / designs that cannot be patented? (5)
(b) Define and explain process planning. (5)
17. Write short notes on the following: (5+5)
(a) Intellectual Property Right
(b) Concurrent engineering
