Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(ME) (2011 Onwards E-II) (Sem.–7,8)
PRODUCT DESIGN & DEVELOPMENT
Subject Code : DE/PE-3.0
Paper ID : [A3084]

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTION TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

Q1 Answer briefly :

a) What do you mean by *'Product Design'*?

b) What are characteristics of successful product development?

c) Differentiate between temporary and permanent joints.

d) Discuss significance of forms in design.

e) Briefly describe product promotion.

f) Describe *'color as an element of design'*.

g) Differentiate between design by evolution and design by innovation.

h) Discuss characteristics of forms in design.

i) What is the role of ergonomics in product design?

j) Describe interrelation of colors.

SECTION-B

Q2 Discuss different elementary forms, their characteristics and significance in design.

Q3 Describe *'From transition'*. Explain *'form'* in relation to *'ergonomics'*, *'material and manufacturing processes'*.

Q4 What do you mean by *'Visual Communication aspects of product graphics'*? Describe *'basic principles of graphic design'*.

Q5 Explain in detail various producibility requirements for plastic products.

Q6 What do you understand from *'Psychological use of color form and material'*?

SECTION-C

Q7 What are various manufacturing and economic aspects of product development? How it plays a part in product promotion?

Q8 What role does a designer play in product development? Explain aesthetics and ergonomics with reference to product design and development.

Q9 Explain manufacturing and economic aspects of product development. What is Functional Design Practice?