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Total No. of Pages : 01

Total No. of Questions : 08

M.Tech. (PE) (Sem.-3)

PRODUCT DESIGN & DEVELOPMENT

Subject Code : PE-524

M.Code : 39022

Time : 3 Hrs.

Max. Marks : 100

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

- Q1. a) What are the key attributes of successful product development?
b) List and explain the factors that are essential in good product design.
- Q2. Explain how ergonomics is a combination of human sciences and engineering sciences?
How a suitable workplace layout can be designed from ergonomic considerations?
- Q3. a) What is the importance of product graphics in product design?
b) What are the main concepts of unity principle that are applicable to visual design?
Explain in detail.
- Q4. a) On what factors color detection is dependent? Explain the role of each factor with the help of example.
b) Discuss briefly the effect of material considerations in product design.
- Q5. a) Discuss in detail the steps considered in packaging design for product design.
b) List out various packaging materials and their characteristics according to their applications.
- Q6. What are various value engineering techniques? What are their applications? Give examples. How analysis of functions of the product is done?
- Q7. a) What is cost-worth approach to value analysis?
b) What is creativity? How does design by creative routes differ from Engineering design?
- Q8. Write short notes on :
a) Physical realizability.
b) Value control.
c) Multiple Packaging.
d) Aesthetic Design.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.