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Total No. of Pages : 01

Total No. of Questions : 08

M.Tech.(CAD/CAM) (E-V) (Sem.-3)
PRODUCT DESIGN & DEVELOPMENT

Subject Code : ME-521

M.Code : 23518

Time : 3 Hrs.

Max. Marks : 100

INSTRUCTION TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
 2. Each question carries TWENTY marks.
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1. Explain the production consumption cycle. Also explain how value in production consumption cycle is attained.
 2. a) What are basic design considerations in product design? Explain.
b) Explain the role of aesthetics in product design.
 3. a) What do you understand by the concept of design for manufacturing (DFM)? Also explain the design considerations for powder metallurgy parts.
b) Explain the producibility requirements in the design of machine elements.
 4. a) How safety considerations are accounted in the product design? Explain.
b) Explain economic analysis, profit and competitiveness in the product design.
 5. a) Explain value analysis job plan.
b) Explain value engineering idea generation checklist.
 6. Explain the concept of quality function deployment (QFD) with the help of a suitable example. Also explain the house of quality.
 7. a) Explain selective laser sintering process and its applications.
b) What is the process of data transfer to RPT? Explain.
 8. Write short notes on **Any Two** of the following :
 - a) Value engineering data generation
 - b) Laminated object manufacturing
 - c) Primary design phases and flowcharting

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.

