

M.Tech. C.A.D./C.A.M. (C.B.C.S. Pattern) Sem-II
PCDS242 - Elective-II : Product Design & Development

P. Pages : 1

Time : Three Hours



GUG/S/19/10990

Max. Marks : 70

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- Notes :
1. All questions carry equal marks.
 2. Answer **any five** questions.
 3. Due credit will be given to neatness and adequate dimensions.
 4. Assume suitable data wherever necessary.
 5. Illustrate your answers wherever necessary with the help of neat sketches.

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| 1. | a) | Design the importance of product design and development. | 7 |
| | b) | Explain the various phases of product development. | 7 |
| 2. | a) | Discuss the product life cycle in detail. | 7 |
| | b) | Explain the contribution of expert system in PDD. | 7 |
| 3. | | Write short notes on | 14 |
| | a) | Process selection | |
| | b) | Material selection | |
| 4. | | Write short notes on | 14 |
| | a) | DFM | |
| | b) | QFD | |
| 5. | a) | Enlist and Explain various Factors for Decision analysis. | 7 |
| | b) | "Value Engineering is an essential tool for product development". Explain. | 7 |
| 6. | a) | Discuss the top-down and bottom-up approach for assembly modeling. | 7 |
| | b) | What are the various methods of prototyping. Explain any one method in detail. | 7 |
| 7. | | Write short notes on | 14 |
| | a) | FDM | |
| | b) | Life cycle costing | |
| 8. | | Write short notes on | 14 |
| | a) | Time value of money. | |
| | b) | Investment analysis. | |
