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**Question Paper Code: 52P01**

M.E. DEGREE EXAMINATION, DEC 2020

Second Semester

CAD / CAM

15PCD201 - DESIGN FOR MANUFACTURE, ASSEMBLY AND ENVIRONMENTS

(Regulation 2015)

Duration: One hour

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

**(Answer any six of the following questions)**

1. The following is the preliminary stage of Production planning CO1- R
  - (a) Capacity planning
  - (b) Material requirements planning
  - (c) Scheduling
  - (d) Product development and design
2. The following is the source(s) for developing new or improved product CO1- R
  - (a) Research and Development department of the enterprise
  - (b) Consumer suggestions and Complaints
  - (c) Other competitive products in the market
  - (d) All of the above
3. Product cost can be reduced by considering the following aspect(s) at the design stage CO2- R
  - (a) Minimum number of operations
  - (b) Unnecessary tight tolerance should not be provided
  - (c) Design should consist of standard parts
  - (d) All of the above
4. The ultimate objective of the product is CO2- R
  - (a) To provide a new look
  - (b) Utilizing existing manpower
  - (c) To monopolize the market
  - (d) All of the above

5. Based on their field of application, manufactured goods can be classified as CO3- R
- (a) Primary, Secondary and Tertiary (b) Consumer, Capital and Defense  
(c) Essential, Market and Standard (d) Primary, Luxury and Consumer
6. The following aspect of product is concerned with the ease and efficiency of the product performance CO3- R
- (a) Functional aspect (b) Operational aspect  
(c) Durability aspect (d) Aesthetic aspect
7. The “simplicity to operate and easy to understand” of product is concerned with its following aspect CO4- R
- (a) Functional aspect (b) Operational aspect  
(c) Durability aspect (d) Aesthetic aspect
8. \_\_\_\_\_ helps in establishing the interchangeability of products CO4- R
- (a) Standardization (b) Simplification  
(c) Diversification (d) Specialization
9. In which of the following type the manufacturing cost may go up CO5- R
- (a) Standardization (b) Simplification  
(c) Diversification (d) All of the above
10. 10-Product \_\_\_\_\_ is the ultimate objective of variety reduction CO5- R
- (a) Simplification (b) Standardization  
(c) Specialization (d) All of the above

PART – B (3 x 8= 24 Marks)

**(Answer any three of the following questions)**

11. Briefly explain about design principles which used in manufacturability. CO1- U (8)
12. Explain in detail about the suitable sketch of form design of casting member. CO2- U (8)
13. Explain in detail about the design for assembly. CO3- U (8)
14. Explain in detail about minimizing the core requirements CO4- U (8)
15. Explain in detail with suitable sketch of Remanufacturing. CO5- U (8)

