	Reg No				
	K.g. 100.				
Question Paper Code12722					
M.E. / M.Tech DEGREE EXAMINATIONS, APRIL / MAY 2024					
Second Semester					
M.E CAD / CAM					
20PCDPC203 - INTEGRATED PRODUCT DESIGN AND PROCESS DEVELOPMENT Regulations - 2020					
Duration: 3 Hours Max Marks: 100					
PART - A $(10 \times 2 = 20 \text{ Marks})$				$Marks \frac{K}{K} = -CO$	
Answer ALL Questions				2	Level CO
 Interpret the life cycle of a product. What is sumplier assessment? 				2	$K_2 COI$
2. What is supplier assessment? 3. Define concept selection				2	KI CO2
 Explain the clarification of problems. 				2	K2 CO2
5. Define Manufacturability.				2	KI CO3
6. List out the need for component standardization.				2	KI CO3
7. Explain briefly the need for industrial design.				2	K2 CO4
8. Define customer satisfaction.				2	K1 CO4
9. Define fixed cost.				2	K1 CO5
10. List the steps involved in reducing assembly cost.				2	K1 CO5
PART - B $(5 \times 13 = 65 \text{ Marks})$ Answer ALL Questions					
11. a) Explain briefly	y about organizations and it	s types.		13	K2 CO1
	OR				
b) Discuss about	strategies for competitor ar	nalysis.		13	K2 CO1
12. a) Explain about	the customers feedback dat	a collection m	ethods.	13	K2 CO3
	OR				
b) What is Pugh'	s method of concept selecti	on? Explain i	n detail.	13	K2 CO3
13. a) Explain what i	s clustered product archited	cture.		13	K2 CO3
OR					
b) Explain modu	ılar design with an example	÷.		13	K2 CO3
14. a) What are the p	rinciples of developing pro	totypes? Disc	cuss in deta	ail. 13	K2 CO4
K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Creat				te	12722

OR

- b) What are the metrics used in cost reduction? Explain any two of them. 13 K2 CO4
- 15. a) Briefly explain the steps in industrial design. 13 K2 CO5

OR

b) Explain briefly about value engineering or cost reduction with ¹³ K2 CO5 Assembly of flanged coupling.

PART - C $(1 \times 15 = 15 \text{ Marks})$

16. a) Explain (i) Economic analysis, and (ii) Project execution, for a simple 15 K2 CO3 industrial product of your choice.

OR

b) Explain why process management is important for an industrial ¹⁵ K2 CO5 product.