## C.A.D./C.A.M. M.Tech. First Semester (Old-CBS Pattern)

## 903 - Product Design and Development

P. Pages: 1 Time: Three Hours			GUG/W/18/1871 Max. Marks : 70
	Note	<ol> <li>All questions carry equal marks.</li> <li>Answer any five questions.</li> <li>Illustrate your answers wherever necessary with the help of neat sketches.</li> </ol>	
1.	a)	What is the role and need of computer Database in PDD.	7
	b)	Explain 'Quality Function Deployment'.	7
2.	a)	What is 'Assembly modelling'? How does it help a designer and developer?	7
	b)	What is 'Rapid prototyping'. Explain the utility of RP in PDD.	7
3.	a)	Explain the contribution of expert system in PDD.	7
	b)	Explain with an example 'Design for Assembly'.	7
4.	a)	What are the different phases in 'Product development'? Explain flow chart	and example. 7
	b)	State and explain in brief the types of Design.	7
5.		Write short notes on <b>any three.</b> a) Expert system in PDD. b) Process selection. c) Concept of DFX. d) Stereolithography.	14
6.	a)	What is concurrent Engineering? State its importance.	7
	b)	Explain importance of prototyping in PDD.	7
7.	a)	Enlist and explain various factors for Decision analysis.	7
	b)	"Value Engineering is an essential tool for product development" Explain.	7
8.		Write short notes on any three.	14
		a) Investment Analysis.	
		b) Generation of Assembly sequences.	
		c) Product lifecycle management.	
		d) Time value of money.	