	Reg. No. :					
Question Paper Code: 52P02						
M.E. DEGREE EXAMINATION, DEC 2020						
Second Semester						
CAD / CAM						
15PCD202 - Applied Materials Engineering						
(Regulation 2015)						
Durat	ion: One hour	Maximum: 30 M	[arks			
	PART A - (6 x	1 = 6 Marks)				
(Answer any six of the following questions)						
1.	Designs are periodically modified to		CO1- R			
	(a) improve product performance					
	(b) strive for zero-based rejection and w	aste				
	(c) make products easier and faster to m	anufacture				
	(d) all of the mentioned					
2.	The expected qualities of a product are		CO1- R			
	(a) it satisfies the needs and expectation	s of the customer				
	(b) it has a pleasing appearance and han	dles well				
	(c) it has high reliability and functions safely over its intended life					
	(d) All of the above					
3.	The life cycle of a product includes		CO2- R			
	(a) extraction of natural resources	(b) processing of raw materials				
	(c) manufacturing of products	(d) All of the above				
4.	Life-cycle engineering is also called		CO2- R			
	(a) green design	(b) expensive design				
	(c) easy design	(d) none of the mentioned				

5.	Sustainable manufacturing is required for		CO3- R		
	(a) conserving resources	(b) proper maintenance	ce		
	(c) reuse	(d) all of the mentione	ed		
6.	The mechanical properties of good product material are			CO3- R	
	(a) strength	(b) toughness			
	(c) ductility	(d) all of the mention	ed		
7.	The physical properties of good product material are			CO4- R	
	(a) density	(b) melting point			
	(c) specific heat	(d) all of the mention	ed		
8.	The chemical properties of good product material are				
	(a) oxidation	(b) corrosion			
	(c) surface treatment	(d) all of the mentioned			
9.	9. Properties of workpiece materials are				
	(a) geometric features of the part	(b) production rate and	quantity		
	(c) process selection consideration	(d) All of the above			
10.	Considerations of costing systems are			CO5- R	
	(a) life cycle costs	(b) machine usage			
	(c) cost of purchasing machinery	(d) All of the above			
	PART -	- B (3 x 8= 24 Marks)			
(Answer any three of the following questions)					
11.	Classify the crystal defects based on their dimensions. With suitable illustrations describe their features and significance		(8)		
12.	Write note on low cycle fatique test and its outcome CO2- U		CO2- U	(8)	
13.	Explain in detail about creep failure of steel. CO3- U		(8)		
14.	List the properties and application plastics.	s of any four thermosetting	CO4- U	(8)	
15.	Write note on functionality gradient	materials	CO5- U	(8)	