E **Reg. No. :** | | | | | | | | | | |

Question Paper Code: 52P02

M.E. DEGREE EXAMINATION, MAY 2018

Second Semester

CAD / CAM

15PCD202 - Applied Materials Engineering

(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1.	(a)	Classify the materials based on stress-strain behaviour. With suitable stress-strain diagrams and examples describe the various types in detail.	CO1- Ana	(20)
		Or		
	(b)	Classify the composites based on matrix – second phase relationship and give suitable examples for each category.	CO1- Ana	(20)
2.	(a)	State the Griffiths theory of brittle fracture and drive an expression for fracture stress.	CO2-U	(20)
		Or		
	(b)	Write note on fracture of non metallic materials.	CO2- U	(20)
3.	(a)	Explain the fracture of non metallic materials.	CO3- U	(20)
		Or		
	(b)	Explain the situations necessitate in selection of materials.	CO3-U	(20)
4.	(a)	List the properties and applications of any four thermo plastics.	CO4- U	(20)
		Or		
	(b)	Write note on Nano particles and Polymer Nano composites.	CO4- U	(20)

5. (a) Explain in detail about CVD and PVD in modern materials coating . CO5-U (20)

Or

(b) Explain the various defects of forging CO5-U (20)