

Model Question Paper-1 with effect from 2019-20 (CBCS Scheme)

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Fourth Semester B.E. Degree Examination Composite Materials

TIME: 03 Hours

Max. Marks: 100

- Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.
02.
03.

Module -1			*Bloom's Taxonomy Level	Marks
Q.01	a	Define composites, classify them accordance with the materials and reinforcement types.	L2	10
	b	Explain the role of matrix and fibers in laminated composites.	L2	10
OR				
Q.02	a	Highlight the mechanical properties of fibrous composite.	L2	10
	b	Explain Stir casting Techniques with neat sketch	L2	10
Module-2				
Q. 03	a	Discuss the Layup and Vacuum bag moulding technique of preparing laminated composites.	L2	15
	b	Write short notes of post curing process.	L2	5
OR				
Q.04	a	Write neat sketch explain the following processes i) filament winding ii) blow moulding	L2	10
	b	Explain the application of composites in missiles and marine applications	L2	10
Module-3				
Q. 05	a	Explain the two basic approaches of Micromechanical Composite (1) Mechanics of Materials (2) Elasticity	L2	20
	OR			
Q. 06	a	Explain the stress-strain relations of anisotropic materials	L2	10
	b	Explain the Material with one Plane of Elastic Symmetry	L2	10
Module-4				
Q. 07	a	Explain details on Non-Interactive failure criteria and its types	L2	10
	b	Explain the Interactive Failure Criteria with its types	L2	10
OR				
Q. 08	a	Write short notes on Tsai-Hill Theory and Tsai-Wu Theory	L2	10
	b	Explain details on Direct- Mode Determining Theories	L2	10
Module-5				
Q. 09	a	Write short notes on composites and the Application of Non-Destructive Testing	L2	10
	b	Explain the Ultrasonic inspection technique with neat sketch	L2	10
OR				
Q. 10	a	List out the application of composites in Automobile and Aircrafts.	L2	10
	b	Write the Advantages of Future potential of composites.	L2	10

*Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the COs and POs to be attained by every bit of questions.