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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute)

Affiliated to Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

M.Tech

FIRST YEAR (SEMESTER-II) THEORY EXAMINATION (2020-2021)

(Subjective Type)

Subject Code: AMTME0202 **Max. Mks. : 30**

Subject: Composite Materials **Time : 50 Minutes**

General Instructions:

All questions are compulsory.

Question No. 1 to 15 are subjective type question carrying 3 marks each. Attempt any 10 out of 15 questions.

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Type	Difficulty
1	Mention important characteristics of composite materials.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
2	What are the advantages of composite materials?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
3	Write the various engineering applications of composites.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
4	Why is carbon fiber used in automobiles? Does installing carbon fiber in cars make the cars safer?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
5	What are the different types of composites?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
6	What is difference between FRP and GRP?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
7	What is the current trend in polymer nanocomposites?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
8	What are the things to be taken care of while fabricating a composite?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Type	Difficulty
9	What will be the effect on Calcination temperature if we blend a ceramic with a polymer?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
10	What are the mechanical properties of composite materials?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
11	What are the basic thermal characteristics of composite materials?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
12	Why is a tensile test carried out on composite materials?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
13	How are engineer properties of a laminate predicted from micromechanics?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
14	Write the laminate stress-strain relation in material coordinate.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
15	Define classical laminate theory.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant