PVP 17

Code: **17MEMD1T6B**

I M.Tech - I Semester – Regular/Supplementary Examinations
December 2018

MECHANICS OF COMPOSITE MATERIALS
(MACHINE DESIGN)

Duration: 3 hours Max. Marks: 60

Answer the following questions.

1. Define a composite material and explain the classification of composite with neat sketches. 15 M

(OR)

2. Explain with a neat sketch, the autoclave bag molding process and mention the advantages and its application. 15 M

3. Determine the modulus of elasticity of a FRP on the fibre direction (E1) and in the transverse direction (E2), with proper representative sketches (use MOM approach). 15 M

(OR)

4. State and explain Tsai-Hill theory of failure of a Lamina. 15 M

5. What is meant by symmetric and balanced laminate and write the A, B and D matrix for each laminate. 15 M

(OR)

6. Explain the force and moment resultants of a laminate. 15 M

7. Enumerate the inter laminar stresses highlighting their influence on the service performance. 15 M

(OR)

8. How to determine the life of composite materials? 15 M