



# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad -500 043

## MECHANICAL ENGINEERING ASSIGNMENT QUESTIONS

PART-A			
1	Explain the principle of liquid penetrant testing with neat sketch. Also bring out the advantages and limitations of the liquid penetrant testing.	Remember	AME526.04
2	Explain the principle of magnetic particle testing with its advantages and disadvantages.	Remember	AME526.05
3	Explain the need for angle beam inspection is carried out and also state the advantages and disadvantages of pulse echo method?	Understand	AME526.07
4	Explain the principle of time of flight diffraction (TOFD) techniques of ultrasonic testing?	Understand	AME526.07
5	Explain about time flight diffraction (TOFD) Technique principle and steps involved in TOFD and its advantages.	Understand	AME526.09
PART-B			
1	Explain with sketch, the working principle of X-ray radiography and state its advantages, Limitations and applications.	Understand	AME526.10
2	Explain advantages, limitations and applications of x-ray radiography testing.	Understand	AME526.11
3	Explain the working principle of Computed Tomography with a neat sketch and list out its advantages.	Remember	AME526.19
4	Explain the working principle of leak Testing with a neat sketch and list out its advantages.	Understand	AME526.18
5	Discuss basic principle of acoustic emission test in Non – Destructive testing.	Understand	AME526.18