STRUCTURAL HEALTH MONITORING

TUTORIAL 1

Answer all the questions (Total marks: 20)

PART –A (5X1=5)

1. _____ is required to understand the response behaviour of the offshore structures under loading conditions.

2. _____ deals with the assessment of actual conditions and load carrying capacity of the structural systems.

3. _____ is required to process the strain variation caused by the damages in local scale detected on the sensor coatings.

4. In imaging ultrasonic sensors, _____ generates signal that pass through the material.

5. If the system functionality is lost, it is called _____

PART –B (5X3=15)

1. Why Structural Health Monitoring (SHM) is vital for offshore structures?

2. How SHM can be useful in detecting early risks?

3. What are the commonly used tools of SHM for aviation industry?

4. Differentiate active and passive SHM.

5. Classify damages that can occur to a system with respect to the scale of damage