



NPTEL ONLINE COURSE
STRUCTURAL HEALTH MONITORING

TUTORIAL 6

Answer all the questions (Total marks: 20)

PART -A (5X1=5)

1. _____ are guided waves that travel in layered material.
2. PWAS is an active sensor. State True or False.
3. In flat plates, ultrasonic guided waves travel as _____ and _____.
4. In pitch-catch method, flaws are detected by _____ and _____ due to damage.
5. Cracks are generally initiated in composites by _____ and _____.

PART -B (5X3=15)

1. List the drawbacks (if any) of deploying ultrasonic method?
2. Explain passive SHM.
3. List the advantages of PWAS?
4. Discuss the applications of embedded NDE, using pitch-catch method
5. Express the relationship used to determine probability of crack detection by pitch-catch method