

**NPTEL course offered by IIT Madras**  
**Risk and Reliability of Offshore structures**  
**Tutorial 9: Fatigue Reliability**

**Answer all questions**

**Total marks: 25**

1. Explain the basis for fatigue damage assessment?
2. Explain the significance of two-segment S-N curve and Endurance limit
3. List a few factors that make S-N curve conservative
4. State the limitations of fatigue assessment of offshore structures
5. List the important factors that are considered in fatigue assessment of tubular joints
6. Discuss various design S-N curves recommended by classical societies and their discrepancies
7. Explain S-H approach for fatigue assessment
8. Explain Short-term fatigue damage
9. What are the major concerns of failure assessment of tubular joints?
10. Explain SCF

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