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| **IMS ENGINEERING COLLEGE** | IMSEC/QF/48 |
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| **Tutorials/ Assignments/ Quizzes** | Issue Date: 1 May 2010 |

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| **Subject Name:** Machine Design | **Subject Code: NME-501** | **Max Marks:** 10 |

1. A rotating bar is made of steel 45C8 is subjected to a completely reversed bending stress. The corrected endurance limit of the bar is 315 MPa. Calculate the fatigue strength of the bar for life of 90000 cycles.
2. A forged steel bar 50mm in diameter is subjected to a reversed bending stress of 300 MPa. the bar is made of 40 C8. Calculate the life of the bar for a reliability of 90%.
3. What are the various factors that reduce Fatigue strength of materials? What factors should be considered while designing against Fatigue? **2010-11**
4. With neat diagrams explain various failure modes of rivets.**2010-11**