

IES COLLEGE OF TECHNOLOGY, BHOPAL

M. TECH. (3RD SEM) Assignment -1

Fatigue Fracture Analysis

MMMD – 301 (A) (UNIT 1 TO 2.5)

Note: 1.Question should be written in plain A-4 Size Paper.

2. Minimum 300 Word Limit for each Question.

3. Assignment will submit in stick file.

DATE OF ASSIGN: 17/10/2014

DATE OF SUBMISSION: 7/11/2014

Q.1	Define Concepts of fatigue failure, statistical methods. Endurance limit, S.N.diagram. (RGPV2009,10)
Q.2	Effect of frequency of the cyclic stress, effect of temperature, size, form, surface condition, surface protection, residual stresses environment (corrosion fatigue) (RGPV2008,10)
Q.3	Explain Mechanisms of creep, Transient creep? (RGPV2012)
Q.4	Define viscous creep. creep fractures, Analysis of creep curves, stress relaxation, creep tests. (RGPV2010)
Q.5	Explain effect of temperature, size, form, surface condition, surface protection, residual stresses environment on fatigue? (RGPV2012,13)

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M. TECH. (3RD SEM) Assignment -1

Fluid Film Lubrication

MMMD – 302 (UNIT 1 TO 2.5)

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DATE OF ASSIGN: 17/10/2014

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Q.1	Classification of Bearings along with figures. (RGPV2009,10)
Q.2	Explain theory of hydrodynamic lubrication. Derivation of generalized Reynolds equations from continuity and momentum equation. (RGPV2008,10)
Q.3	Derive Infinitely long full journal bearing boundary conditions-Full Sommerfeld conditions (RGPV2012)
Q.4	Thermal Equilibrium Extent of fluid film. (RGPV2010)
Q.5	Write Theoretical Analysis, Boundary conditions, Static performance characteristics Load of hydrostatic Journal Bearings (RGPV2012,13)