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Name.....

Reg. No.....

**EIGHTH SEMESTER B.Tech. (ENGINEERING) DEGREE EXAMINATION  
JUNE 2010**

**ME 04 804 (B) - MAINTENANCE ENGINEERING**

(2004 Admissions)

Time : Three Hours

Maximum : 100 Marks

**Part A**

*Answer all questions.*

1. (a) What are the advantages and the disadvantages of breakdown maintenance?
- (b) What are the advantages of condition based maintenance?
- (c) Explain vibration severity charts.
- (d) Briefly describe vibration isolation.
- (e) Explain corrosion monitoring.
- (f) Write short notes on acoustic monitoring.
- (g) Explain Mean Time Between Failures.
- (h) Write short notes on reliability and failure rate.



(8 × 5 = 40 marks)

**Part B**

2. (a) Explain the purpose and the functions of maintenance.  
*Or*  
(b) Explain the principles and the methods of condition monitoring.
3. (a) Explain vibration signature analysis with a suitable example.  
*Or*  
(b) Explain various types of transducers used in vibration monitoring.
4. (a) Explain thickness monitoring and crack monitoring.  
*Or*  
(b) Explain various techniques used for contaminant monitoring.
5. (a) What is system reliability? Derive the equation for system reliability of both series and parallel systems with an example.  
*Or*  
(b) Explain reliability maintainability and availability with suitable example.

(4 × 15 = 60 marks)