

SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, APRIL 2014

(2009 Scheme)

ME/AM 09 L03—INDUSTRIAL MAINTENANCE

(Regular/Supplementary/Improvement)

Time: Three Hours

Maximum: 70 Marks

Part A

Answer all questions.
Each question carries 2 marks.

- 1. Write two functions of maintenance?
- 2. Define spectral analysis.
- 3. What is meant by unbalance in vibration?
- 4. Define liquid penetrant testing.
- 5. Define infant morality.

 $(5 \times 2 = 10 \text{ marks})$

Part B

Answer any four questions. Each question carries 5 marks.

- 6. Describe the basic concepts and purpose of maintenance.
- 7. Discuss the most common forms of misalignment.
- 8. Explain the frequency analysis.
- 9. Describe non destructive testing.
- 10. Write the spectral oil analysis procedure.
- 11. Discuss about failure rate determination.

 $(4 \times 5 = 20 \text{ marks})$

Part C

Answer all questions.
Each question carries 10 marks.

12. (a) Describe the importance of transducers for vibration measurement.

Or

- (b) Explain the principles of condition monitoring in detail.
- 13. (a) Explain the sequential and parallel frequency analyzers.

Or

- (b) Discuss in detail the classification of vibration severity criteria.
- 14. (a) Explain the acoustic emission corrosion monitoring.

Or

- (b) Describe the radio graphic inspection method in detail.
- 15. (a) Explain the Weibull exponential probability distribution.

Or

(b) Describe in detail the series and parallel system reliability.

 $(4 \times 10 = 40 \text{ marks})$