## M.Tech 2nd Semester (MAE) CBCS Scheme Examination, May-2017

## DIAGNOSTIC MAINTENANCE AND MONITORING

## Paper-MTMA 22 C2

Time allowed: 3 hours] [Maximum marks: 100 Note: Attempt five questions in all, selecting one question from each section. All questions carry equal marks. Question no. 1 is compulsory. 1. (a) Define Maintainability.  $4 \times 5 = 20$ (b) Define Ferrography (c) Define development and scope of total productive maintenance. (d) Define failure mode and effect analysis. Section-A 2. Explain the concept of maintenance, maintenance services and relevance of maintenance. 20 3. Explain the following: 20 (a) Objectives of maintenance Quality and quality circle in maintenance. (b)

## Section-B

| 4.        | Explain Defect generation and what are the different  |  |     |
|-----------|---|--|-----|
|           | _   | s of failures.                           | 20  |
| 5.        | Explain the following:                                |  | 20  |
|           | (a)   | Fault tree analysis                      |     |
|           | (b)   | Planned and unplanned maintenance        |     |
| Section-C |   |  |     |
| <b>6.</b> | Expl  | lain the following:                      | 20  |
|           | (a)   | Visual and temperature monitoring        |     |
|           | (b)   | Vibration monitoring                     |     |
| 7.        | Exp   | lain the following:                      | 20  |
|           | (a)   | Noise monitoring                         |     |
|           | (b)   | Sound and smell monitoring               |     |
|           |   | Section-D                                |     |
| 8.        | Explain total preventive maintenance and also explain |  |     |
|           | basic   | systems of total preventive maintenance. | 20  |
| 9.        | Explain the following: 20                             |  |     |
|           | (a)   | Procedure and steps of total prevent     | ive |
|           |   | maintenance                              |     |
|           | (b)   | Explain productivity circle.             |     |