

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI • EXAMINATION – SUMMER 2014****Subject Code: 161505****Date: 26-05-2014****Subject Name: Maintenance & safety engineering****Time: 10.30 am - 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 (a) Discuss importance of Maintenance function as applied to automobile industries. **07**

(b) Discuss principle functions of Maintenance department in typical armed forces of a nation. **07**

Q.2 (a) Discuss Total Productive Maintenance program, and how it is implemented in a heavy engineering industry.. **07**

(b) Discuss impact of wear and service life of equipment in case of a bearing. **07**

OR

(b) Discuss assembly of splined joints. **07**

Q.3 (a) Discuss maintenance and repair of shafts. **07**

(b) Discuss Recovery and strengthening of machine elements, and various methods of Recovery. **07**

OR

Q.3 (a) Discuss method of maintenance and repair of couplings. **07**

(b) Discuss Testing of the restored machines. **07**

Q.4 (a) Discuss method of maintenance and repair of clutches. **07**

(b) Discuss accident causation in case of foundry types of industry. **07**

OR

Q.4 (a) Discuss factors involved in effective planning of maintenance work. **07**

(b) Discuss VAIN analysis with example. **07**

Q.5 (a) Discuss safety considerations in design of equipment. Take an example of Material Handling Equipment. **07**

(b) Discuss various maintenance cost and replacement economics involved. **07**

OR

Q.5 (a) Discuss industrial hazards, especially in a glass manufacturing industry. **07**

(b) Discuss concept and economics of Maintainability. **07**
