

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VIII • EXAMINATION – SUMMER 2013

Subject Code: 181905**Date: 09/05/2013****Subject Name: Industrial safety and Maintenance engineering****Time: 10:30 am TO 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 various outcome in terms of improved productivity achieved through better safety conditions in industrial plant **07**
- (b)** Discuss various activities involved during safety analysis of a product **07**
- Q.2 (a)** Discuss causes of accidents in industrial plant **07**
- (b)** Discuss classification of hazardous conditions in industrial plant **07**
- OR
- (b)** List the personal protective equipments for following human body parts with IS standards **07**
 (i) Head, (ii) Ear, (iii) Face, (iv) Eye, (v) Overall body, (vi) Foot and leg, (vii) fingers and hands
- Q.3 (a)** Discuss major welfare factors in Factory Act, 1948 **07**
- (b)** Discuss major benefits covered in ESI Act, 1948 **07**
- OR
- Q.3 (a)** Discuss various steps involved in Industrial Hygiene. **07**
- (b)** What do you mean by occupational diseases? Discuss occupational diseases caused due to physical condition and respiration in dusty environment. **07**
- Q.4 (a)** Discuss objectives and advantages of ergonomics **07**
- (b)** Discuss objectives and advantages of planned maintenance. **07**
- OR
- Q.4 (a)** Discuss reliability and machine availability **07**
- (b)** Discuss major causes of equipment breakdown **07**
- Q.5 (a)** Discuss types of costs associated in maintenance **07**
- (b)** What is mean by unplanned maintenance? Discuss in details. **07**
- OR
- Q.5 (a)** Discuss fault tree analysis **07**
- (b)** Discuss in brief condition checking and trend monitoring with respect to condition monitoring. **07**
