Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY BE SEM-VI Examination-Nov/Dec-2011

Subject code: 161907 Date: 05/12/2011 **Subject Name: Industrial Engineering** Time: 10.30 am -1.00 pm **Total marks: 70 Instructions:** 1. Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. **Q.1** Discuss the factors to be considered for the selection of the site for 07 (a) Thermal Power Plant. **07 (b)** Discuss the types of Plant Layout. 07 **Q.2** (a) Discuss the different sources for industrial finance. **(b)** Incentives are necessary for smooth and the efficient running of the 07 manufacturing organization. – Discuss giving suitable example. 07 **(b)** What is industrial dispute? Discuss the process of resolving the industrial disputes through the Industrial Dispute Act. 07 Q.3 (a) The sale of drilling machines during the last six years is as under. Forecast the sales in the year 2012 using suitable method. 006 2008 2009 2010 2011 Year 2007 Units Sol 19 22 24 25 Explain be role of PPC in engineering industry. 07 **(b)** OR Q.3 Which factors should be considered by the design engineer in the design **07** (a) and development of the product? Effective production planning and control guarantees better utilization of 07 **(b)** the available resources. – Discuss giving suitable example. **Q.4** What is Productivity? Discuss the factors affecting the productivity of the 07 (a) manufacturing organization. **07 (b)** Discuss the following: (i) Ineffective time within the control of the worker. (ii) Ineffective time due to shortcomings on the part of management. OR 07 **Q.4** (a) Discuss the following: (i) Work Study and Management. (ii) Work Study and the Worker. Define Method Study. Discuss the objectives of method study. 07 **(b)** 07 **Q.5** (a) State the important objectives of Quality Control. Which duties are generally assigned to the Quality Control Department?

(b) What is the purpose of control charts? Explain how this purpose is achieved in manufacturing?

OR

- Q.5 (a) What is an OC curve? Explain the step-by-step procedure for the or construction of an OC curve.
 - (b) The following data shows the number of defects found in the inspection of 10 wooden chairs.

Sample No. 1 2 3 4 5 6 7 8 9 10 No. of Defects 8 6 7 7 8 6 9 8 4 7

Plot a suitable control chart with control limits.
