

Seat No.: _____

Enrolment No. _____

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

Subject code: 162501

Date: 21/11/2011

Subject Name: Statistical Methods and Quality control

Time: 10.30 am -1.00 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) Explain chi-square distribution with suitable example **09**
(b) Describe joint probability distribution with an example **05**
- Q.2** (a) Explain methods of data representation with their suitability **07**
(b) Describe F-distribution with an application **07**
- OR**
- (b) What do you mean by student's t-distribution? Explain with an example **07**
- Q.3** (a) Describe types of errors in testing of hypothesis in detail **07**
(b) What do you mean by kurtosis? Explain different types of kurtic curve with interpretations **07**
- OR**
- Q.3** (a) Explain various types of mean with their applications **07**
(b) Describe baye's theorem with an example **07**
- Q.4** (a) Describe auto-correlation in detail **07**
(b) Describe LTPD, AQL with their significance **07**
- OR**
- Q.4** (a) What is the importance of regression? Explain various cases where regression can be applied. **07**
(b) Explain ANOVA with suitable application **07**
- Q.5** (a) Describe double sampling plan with an example **07**
(b) What is C Chart? Describe with an example **07**
- OR**
- Q.5** (a) Explain X-R chart with suitable example **07**
(b) Describe properties of binomial and poison's distribution **07**
