

College Name: \_\_\_\_\_

Student Name: \_\_\_\_\_ Seat No: \_\_\_\_\_

Copy No: \_\_\_\_\_

**KARACHI UNIVERSITY BUSINESS SCHOOL**  
**UNIVERSITY OF KARACHI**  
**FINAL EXAMINATION DECEMBER 2016; AFFILIATED COLLEGES**  
**ADVANCE BUSINESS STATISTICS: BA (M) – 601**  
**MBA – III**

**Date: January 12, 2017**

**Max Time: 2 Hrs**

**Max Marks: 30**

**INSTRUCTIONS**

- 1. Attempt all Questions. Do not write anything on the question paper EXCEPT Initials Mentioned Above.**
- 2. Mobile Phone(s) or any other communicating device will not be allowed in the examination room. Students will have to remove the batteries of these devices before entering the examination hall.**

Q1 Differentiate between the following:

1. Efficiency and Consistency property of good estimate.
2. The standard error and standard deviation.
3. Type I error and type II errors.
4. Test of Significant and Test of Hypothesis.
5. Cyclic Variations and Seasonal variations in a time series data.

Q2 Given that  $P(Z < 1) = 0.8413$  &  $P(Z < 2) = 0.9772$ , by using the symmetric property of normal curve calculate

- a) What proportion of a normal distribution lies within one standard deviation of the mean?
- b) What proportion is more than 2.0 standard deviations from the mean?
- c) The temperature (in degree C) follows normal distribution with mean = 1 and variance=1. Calculate the probability that temperature is positive.

Q3 a) A university constructing a hall for deciding about the height of the main gate, a random sample of 250 students were taken and their height( in cm) were recorded, following results were obtained.

$\Sigma x = 43205$       $\Sigma x^2 = 7469107$ . Construct 99% confidence interval of the mean height of students and decide about the height of the main gate. (Table value  $\pm 3.29$ )

- b) By using the confidence interval test the hypothesis that  $\mu = 185$  cm.

**END OF SUBJECTIVE PAPER**