College Name: _____

Student Name: _____   Father's Name: _____

Copy No: _____

KARACHI UNIVERSITY BUSINESS SCHOOL
UNIVERSITY OF KARACHI
FINAL EXAMINATION JUNE 2017; AFFILIATED COLLEGES
STATISTICAL INFERENCE; BA (H)–432 (PART B)
BBA – IV

Date: June 12, 2017   Max. Time: 1.5 Hrs
                                                       Max. Marks: 30

INSTRUCTIONS:
1.   **Attempt all questions. Do not write anything on the question paper, <u>EXCEPT</u> the initials mentioned above.**
2.   **TABLES ARE NOT REQUIRED.**
3.   **Mobile phones 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)   Define the following:
       i)   Method of using normal approximation to the binomial probability distribution.
       ii) Critical region of Chi square goodness of fit.
       iii) Role of variance in Consistency property of good estimator
       iv) Coding of time series data
       v)   Degree of freedom in case of test of hypothesis of difference of population mean

Q2 a) In a year, the average sale (in thousand Kg) of a certain brand of ice cream per day in four seasons are summer=120, winter=80, autumn=90 and spring=110. Is there any evidence that the sale of ice cream is uniform in four seasons at 5% level of significance?
                                                              [Table value=7.815]

   b) Following is a contingency table showing cross classification of educational attainment and diabetic state for a sample of 1273 people.

Diabetic state Education	Diabetes	No Diabetes
Less than Matriculation	33	218
Matriculation	25	389
Intermediate	20	393
Graduate	17	178

       At the 1% significance level, do the data provide sufficient evidence to conclude that an association exists between educational level and diabetic state? **[Table value=11.345]**

Q3)   A cold drink supplier wanted to compare the sale of brand A and brand B cold drink. He noted the sale for 10 days and found that: **[Table value=2.101]**
       Brand A   Mean= $ 25000/-   Standard deviation = $ 1200
       Brand B   Mean= $ 22000/-   Standard deviation = $ 700
       i)   Construct 95% confidence interval for difference of means.
       ii) By looking at the confidence interval comment on the significance of difference of population mean.

END OF SUBJECTIVE PAPER