



## Course III

I Semester M.Sc. in Clinical Nutrition and Dietetics  
Examination, September 2016  
**RESEARCH METHODS AND BIOSTATISTICS**

Time : 3 Hours

Max. Marks : 80

**Instruction :** Answer the questions from **all** Parts following their **internal** choice.

### PART – A

Answer **any four** of the following :

(4×5 = 20)

1. Explain Qualitative vs Quantitative and Discrete vs Continuous variables.
2. State probability sampling methods and explain.
3. Define Type-I and Type-II errors.
4. Explain in brief on Histogram and Q-Q plot.
5. Write a short note on ANOVA.
6. What is sampling errors ?

### PART – B

Answer **any three** of the following :

(3×10 = 30)

7. Write a note on Chi-Square test for Goodness of fit and independence.
8. Write a note on Student's t-test.
9. Range of movement of 10 frozen shoulder patients were:  
38, 42, 45, 36, 40, 44, 40, 45, 34, 36. Compute Mean, Median and Mode.
10. Discuss about Stratified Random Sampling and Cluster Random Sampling with example.
11. Explain different types of correlation and measures of coefficient of correlation.

P.T.O.



## PART – C

Answer **any two** of the following questions :

(2×15 = 30)

12. Write a flow diagram for writing scientific article and explain the same in detail.
13. Write the steps involved in developing scientific project for conducting specific research on evaluating the nutrition formulation for diabetic patients.
14. Calculate the production moment coefficient of correlation between the following marks (out of 10) in Statistics and Mathematics of 5 students.

Student	1	2	3	4	5
Statistics	4	7	8	3	4
Mathematics	5	8	6	3	5

15. Explain Cluster Random Sampling method and Stratified Random Sampling. Give two merits and demerits.
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