MARCH - 2009

[KU 256] **Sub. Code: 2856**

M.Sc (BIOSTATISTICS) DEGREE EXAMINATION

SECOND YEAR

Paper II – EPIDEMIOLOGICAL METHODS

Q.P. Code : 282856

Time : Three hours **Maximum : 100 marks**

Answer All questions.

I. Essays: **(2 X 20=40)**

1. Discuss the implication of Time series analysis with specific examples in epidemiological research.

2. Discuss the variations resulting from biological differences.

II. Write Short Notes on : **(10X 6 = 60)**

1. Measures of mortality and morbility.
2. Interim analysis.
3. ROC curves.
4. Spatial models.
5. Forecasting spectral analysis.
6. Hardyeinburg equilibrium.
7. Spectrum of disease.
8. Predictive values.
9. Observational studies.
10. Auto regression.

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[KZ 1011] **Sub. Code: 2856**

M.Sc NON-MEDICAL DEGREE EXAMINATION
SECOND YEAR
BRANCH II - BIOSTATISTICS

PAPER II – EPIDEMIOLOGICAL METHODS
Q.P. Code : 282856

Time : 3 hours **Maximum : 100 marks**
(180 Min)

Answer ALL questions in the same order.

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Write an essay about the various epidemic models including stochastic branching process and spatial models in detail.	17	40	20
2. Define (i) Incubation period (ii) Spectrum of disease (iii) Cross over trials (iv) Sensitivity and specificity (v) Meta analysis.	17	40	20
II. Write notes on :			
1. Measures of mortality.	4	10	6
2. Prospective studies.	4	10	6
3. Randamization of clinical trials.	4	10	6
4. Multiple and paratid test.	4	10	6
5. Application of time series analysis in epidemiology.	4	10	6
6. Auto correlation.	4	10	6
7. DNA.	4	10	6
8. Pedigree diagram.	4	10	6
9. Randomly mating population.	4	10	6
10. Quantitative traits.	4	10	6

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[LB 1012] **OCTOBER 2012** **Sub. Code: 2856**

M.Sc NON-MEDICAL DEGREE EXAMINATION
SECOND YEAR
BRANCH II - BIOSTATISTICS
PAPER II – EPIDEMIOLOGICAL METHODS
Q.P. Code : 282856

Time : 3 hours **Maximum : 100 marks**
(180 Min)

Answer ALL questions in the same order.

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Write essay about planning, choosing, conducting and evaluating a research project in epidemiology.	17	40	20
2. State and explain Hardy Weinberg Equilibrium and its significance.	17	40	20

II. Write notes on :

1. Explain the steps to determination of cause and effect.	4	10	6
2. What is herd immunity? Explain with example.	4	10	6
3. Distinguish between Randomized control and non randomized concurrent control study in clinical trial.	4	10	6
4. Explain the concept of group sequential trial.	4	10	6
5. Explain the concept of selection ad interpretation of diagnostic test.	4	10	6
6. Write a note about Meta analysis in clinical epidemiology.	4	10	6
7. Describe the concept of detecting seasonal and cyclic variation in epidemiological models.	4	10	6
8. Write a note about the concept of Spatial Model.	4	10	6
9. What is pedigree analysis? Explain its types.	4	10	6
10. Explain the computation of Wright’s confection F.	4	10	6

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