M.Sc. EPIDEMIOLOGY DEGREE EXAMINATION

Part I

Paper I - PRINCIPLES OF EPIDEMIOLOGY AND BIOSTATISTICS

Time: Three hours   Max.marks:100

Answer All Questions

1. Write briefly on:

   (a) Standard error versus standard deviation

   (b) Confidence interval versus 'p value'

   (c) Berkson's bias

   (d) Effect modification.   (30)

2. Define likelihood ratios in relation to diagnostic tests.
   What are the advantages of likelihood ratio over
   sensitivity and specificity in defining test characteristics?
   Illustrate their use in multiple tests.   (20)

3. Write briefly on:

   (a) Manfel-Hanzel statistic

   (b) 'Healthy worker' effect

   (c) Age and sex adjusted rates

   (d) Conditional probability.   (30)

4. What are the strengths and weakness of case control
   studies?
                                                (20)

1997

1. Write briefly on:

   (a) Regression to the mean

   (b) Comparison of means between groups of unequal variance

   (c) β error in hypothesis tests

   (d) Odds ratio in case control study : Implications for relative risk.

   (30)

2. Discuss the utility of receiver-operator characteristics curves in the evaluation of a diagnostic test. Outline the considerations involved in the choice of a cut-off Point.

   (20)

3. Write briefly on:

   (a) Incidence density

   (b) Population attributable risk

   (c) Misclassification bias

   (d) Cluster sampling: Strengths & Weaknesses

   (30)

4. Discuss the strategies to control 'Confounding' in a study at various stages.

   (20)

APRIL 1998

M.Sc. EPIDEMIOLOGY DEGREE EXAMINATION

Part I

Paper I - PRINCIPLES OF EPIDEMIOLOGY AND BIOSTATISTIC

Time: Three hours   Max. marks:100

Answer All Questions

1. List the characteristics of the stochastic model and describe some of its applications.   (20

2. Write briefly on:

   (a) Relative risk versus attributable risk

   (b) Adjusted Odd's ratio

   (c) Secondary attack rate

   (d) Advantages of cluster sampling method.   (30

3. Describe with examples the scope of quasi experimental studies in public health.
                                                       (20

4. Write briefly on:

   (a) ANOVA test

   (b) Sources of mortality data for India

   (c) Sample size determination in cohort studies

   (d) Life table method of analysis.   (30

M.Sc. (Epidemiology) DEGREE EXAMINATION.

Part I

Paper I — PRINCIPLES OF EPIDEMIOLOGY AND
BIOSTATISTICS

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

1.   What are the tests of significance? Describe the different tests for different types of data.   (20)

2.   Write briefly on :   (30)

   (a)   Evaluation of screening test.

   (b)   Standardized mortality ratio.

   (c)   Appropriate sample size.

   (d)   Time trends in disease occurrence.

3.   What is Causal association in Epidemiology? Illustrate your answer with examples.   (20)

4.   Write briefly on :   (30)

   (a)   Applications of Life table

   (b)   Proportional mortality rates

   (c)   Epidemiological case sheet

   (d)   Concurrent parallel study design of controlled trials.

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M.Sc. (Epidemiology) DEGREE EXAMINATION.

Part I

Paper I — PRINCIPLES OF EPIDEMIOLOGY AND BIOSTATISTICS

Time : Three hours　　　　　Maximum : 100 marks

Answer ALL questions.

1. Write briefly on :

　(a) Standard deviation versus coefficient of variation

　(b) Confidence intervals of odds ratio

　(c) Blinding in Randomised Controlled Trials

　(d) Ethical considerations in experimental studies involving human beings.　(30)

2. Illustrate with examples the uses and misuses of Chi–square test (χ^2).　(20)

3. Write briefly on :　(30)

　(a) Addition law and multiplication law of probability

　(b) Receiver operator characteristic curve

　(c) Decision tree

　(d) F–test.

4. What are the strengths and weaknesses of cohort studies?　(20)

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APRIL 2000

[KB 234]

M.Sc. (Epidemiology) DEGREE EXAMINATION.

Part I

Paper I — PRINCIPLES OF EPIDEMIOLOGY AND BIOSTATISTICS

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

1. Define Sampling. Discuss various sampling methods with suitable examples.   (20)

2. Write briefly on :

    (a)   Measures of dispersion

    (b)   Probability

    (c)   Regression

    (d)   Census.   (30)

3. Mention the various study designs and describe in detail how you will conduct a case control study.   (20)

4. Write brief ly on :

    (a)   Incidence and prevalence

    (b)   Blinding in a drug trial

    (c)   Relative Risk

    (d)   Primary prevention.   (30)

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