

AUGUST 2005

[KN 253]

Sub. Code : 2853

M.Sc. (Biostatistics) DEGREE EXAMINATION.

FIRST YEAR

**Paper III — RESEARCH METHODS AND HEALTH
DATA MANAGEMENT**

Time : Three hours

Maximum : 100 marks

**Sec. A & B : Two hours and
forty minutes**

Sec. A & B : 80 marks

Sec. C : Twenty minutes

Sec. C : 20 marks

Answer ALL questions.

SECTION A — (2 × 15 = 30 marks)

- 1. Research design is a guideline to conduct research. Discuss and explain in detail the importance of any three research designs in Health Care management.**
- 2. Explain the salient features of electronic devices in conducting health research.**

SECTION B — (10 × 5 = 50 marks)

- 3. Write short notes on :**
 - (a) Internal and external validity.**
 - (b) Endogenous factors of Infant mortality.**
 - (c) Principles of literature review.**
 - (d) Writing styles of Dissertation.**
 - (e) Scientific Research.**
 - (f) Major decision points while conducting Health research.**
 - (g) Theoretical context in research.**
 - (h) Informatics Application in Health Systems Management.**
 - (i) Role of microcomputers in Primary Health Centres.**
 - (j) Presentation of critique.**

SEPTEMBER 2006

[KP 253]

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M.Sc. (Biostatistics) DEGREE EXAMINATION.

First Year

Paper III — RESEARCH METHODS AND HEALTH
DATA MANAGEMENT

Time : Three hours Maximum : 100 marks

Descriptive : Two hours and Descriptive : 80 marks
forty minutes

Objective : Twenty minutes Objective : 20 marks

Answer ALL questions.

1. Explain the different stages involved in the presentation of a research report with reference to a research project in which you are interested. (20)
2. How should you identify the research problem - the guide or the scholar? Explain the strengths and weaknesses of each source of research problem. (15)
3. Explain the importance of data resource management to a Hospital, and how it is implemented by methods such as database administration, data administration and data planning. (15)

4. Write short notes on : (6 × 5 = 30)

- (a) Distinguish between the qualitative and quantitative approaches in carrying out an experimental research.
- (b) Discuss in detail the designing of questionnaires and schedules, highlighting the points to be kept in mind by the researchers.
- (c) Write a note on assessing errors of measurement.
- (d) Describe response bias in data collection.
- (e) What are public and private variables in FOXBASE (DBASE)? Explain with suitable illustrations.
- (f) Develop a GW BASIC program to compute the mean and variance of N-values.

MARCH 2008

[KS 253]

Sub. Code : 2853

M.Sc. (Biostatistics) DEGREE EXAMINATION.

First Year

**Paper III — RESEARCH METHODS AND HEALTH
DATA MANAGEMENT**

Q.P. Code : 282853

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Essays : (2 × 20 = 40)

1. (a) Provide advantages and disadvantages of true experiments

(b) Explain a prospective study, and also provide its merits and demerits. In what ways is it different from retrospective study?

2. (a) Discuss various types of research documents, giving examples wherever necessary.

(b) Explain the uses of RECODE statement in SPSS.

(c) Develop a program to compute the regression coefficient using GWBASIC.

II. Write short notes on : (10 × 6 = 60)

(1) Write down the types of non-experimental research.

(2) Summarize the factors that contribute to errors of measurements.

(3) Write down the major steps involved in the research. Explain any two.

(4) Explain how the validity and reliability measures are used in assessing measurements (data collected)

(5) Explain Characteristics of the scientific approach.

(6) Explain the problem of stating research hypothesis.

(7) Explain any five built-in-functions in BASIC with appropriate examples.

(8) Explain READ, RESTORE and DATA statements with examples.

(9) Write a BASIC program to compute the minimum and maximum of blood pressure observed from 100 patients.

(10) Explain the CROSSTABS procedure using SPSS.

September - 2009

[KV 253]

Sub. Code: 2853

M.Sc (BIOSTATISTICS) DEGREE EXAMINATION

FIRST YEAR

**Paper III –RESEARCH METHODS AND HEALTH DATA
MANAGEMENT**

Q.P. Code : 282853

Time : Three hours

Maximum : 100 marks

Answer All questions.

I. Essays:

(2 X 20=40)

1. "It is known that observing universal precautions prevents hospital associated infection among patients and health care workers". If you have to find out to what extent universal precautions are practiced by the health care provider working in different hospitals in a large metropolitan city:
 - a) What study design will you choose? Give reasons.
 - b) Describe in detail how you will actually conduct the above mentioned study.
2. "Process of data implies editing, coding, classification and tabulation". Describe in brief these four operations, pointing out the significance of each in context of research study.

II. Write Short Notes on :

(10X 6 = 60)

1. Describe the types of mistakes that frequently occur in interpretation of data. What precautions do you suggest to avoid them?
2. Discuss the observational methods used in the data collection process.
3. Discuss the criteria that are used to evaluate a research report.
4. Explain briefly the basic principles and methods of research designs.
5. Pre-testing is in fact like a "Theoretical dress rehearsal of the final study". – Elucidate this statement.
6. 'A large sample does not necessarily mean that it is a representative sample'. – Comment.
7. Describe the salient features of case – control and cohort studies. Discuss their advantages and limitations.
8. What is measurement? Explain its importance. Describe the various scales of measurement.
9. Explain : a) DO – WHILE b) IF – ELSE c) IF – THEN
10. What are the procedures available in Discriminant analysis and principle component analysis using SPSS?

[KZ 1011]

Sub. Code: 2853

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

PAPER III – RESEARCH METHODS AND HEALTH DATA MANAGEMENT

Q.P. Code : 282853

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

	Pages (Max.)	Time (Max.)	Marks (Max.)
1. (a) Describe the different steps involved in research process.	17	40	20
(b) What is research design? Describe the layout of a research report.			
2. Distinguish between primary and secondary data. Explain the difference between the collections of data through questionnaires and schedules with their relative merits.	17	40	20

II. Write notes on :

1. Characteristics of scientific approach.	4	10	6
2. Role of Literature review.	4	10	6
3. Case studies and its merits.	4	10	6
4. Quasi-experimental research.	4	10	6
5. Reliability and validity of data.	4	10	6
6. Uses of electronic devices in health data management.	4	10	6
7. Distinguish between sequential and random files in GWBASIC.	4	10	6
8. Explain GOSUB, FORTO.... RESTORE statements with example.	4	10	6
9. Explain the procedure to from ANOVA table using SPSS Pet.	4	10	6
10. Explain the use of SPSS in discriminant function and principal component.	4	10	6
