[KD 403]

M.Sc. (Nursing) DEGREE EXAMINATION.

(Revised Regulations)

First Year

Part I

Paper III — BIO–STATISTICS AND RESEARCH METHODS INCLUDING NURSING RESEARCH

Time : Three hours   Maximum : 100 marks

Answer Parts A and B in separate answer books.

PART A — (50 marks)

(BIO–STATISTICS)

Answer any TWO questions.

1. (a) Discuss the principles of classification of Raw Data and represent the same through Graphical and Diagrammatic methods :   (15)

20	30	70	10	20	10	50	60	80
20	20	30	50	60	70	80	70	65
55	45	45	25	65	55			

(b) What are the implications of central Tendency in research studies?   (10)

2. (a) Given below is weight gain of patients on two diets X and Y :

| Diet X : | 25 | 32 | 30 | 32 | 24 | 14 | 32 |
| Diet Y : | 24 | 34 | 22 | 30 | 42 | 31 | 40 |

Test at 5.1 level, whether the two diets differ significantly with regard to increase in weight.

(Table value of 't' for 12 degrees of freedom at 5% = 1.782)   (15)

(b) Define coefficient of variation (C.V.). Discuss the significance of it in representing results of the study.   (10)

3. Write short notes on any FIVE :   (25)

(a) Probability

(b) Hypothesis testing

(c) Spearmens Rank Correlation

(d) Inferential statistics

(e) Normal Distribution

(f) Spurious correlation.

PART B — (50 marks)

(RESEARCH METHODS INCLUDING NURSING RESEARCH)

Answer ALL the questions.

4. (a) Specify the contributions of Nursing Research in the Development of Nursing Profession. (10)

(b) Define Population and sampling. Discuss the various methods of sampling. (10)

5. It has been brought to your notice through Dailis that the incidence of Tuberculosis is increasing. You as a Nurse Researcher has initiated to conduct a study. In relation to the same specify the following :

(a) Research problems, objectives and need for the study.

(b) Hypothesis and conceptual frame-work.

(c) Appropriate Research Design and Tools of Data collection.

(d) Techniques of Data Analysis.

(e) How will you prepare for the publication of the results? (20)

6. Write short notes on any TWO of the following : (2 × 5 = 10)

(a) Pilot study

(b) Health and Vital Statistics

(c) Double Blind Research method.

[KE 403]

M.Sc. (Nursing) DEGREE EXAMINATION.

First Year

(Revised Regulations)

Paper III — BIOSTATISTICS AND RESEARCH
METHODS INCLUDING NURSING RESEARCH

Time : Three hours   Maximum : 100 marks

Answer Parts A and B in separate answer books.

PART A — (50 marks)

(BIOSTATISTICS)

Answer any TWO questions.

1.   (a) Discuss the use of vital and health statistics
in the practice of nursing.   (7)

     (b) Bring out the relative merits of the various
measures of dispersion.   (10)

     (c) Distinguish between population and sample.
Why should random sample be used in nursing studies?
          (8)

2. (a) When will you use Linear regression? What are the limitations of its use? (5)

(b) Describe the steps in simple test of significance. (10)

(c) Calculate Birth Rate, Death Rate, Maternal Mortality Rate, Infant Mortality Rate and Incidence of Tuberculosis using the following data :

Total population 1,50,000

All deaths   1,500

Live Births   3,600

Still Births   350

Maternal Deaths 18

Deaths under one year of age 144

New cases of Tuberculosis 150

Old cases of Tuberculosis 650. (10)

3. Write short notes on : (5 × 5 = 25)

(a) Coefficient of variation.

(b) Probability.

(c) Point and Interval Estimation.

(d) Histogram.

(e) Levels of measurements.

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PART B — (50 marks)

(RESEARCH METHODS INCLUDING NURSING RESEARCH)

Answer ALL questions.

4. (a) What do you learn from the history of Nursing Research in India? (10)

(b) How will you select a problem for research? (10)

5. (a) Discuss briefly the basic principles and methods of research designs. (10)

(b) How will you assess reliability and validity of an instrument? (10)

6. Write short notes on any TWO of the following : (2 × 5 = 10)

(a) Need for Pilot Study.

(b) Plan of analysis.

(c) Selection of sample.

(d) Formulation of Hypothesis.

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[KH 403]

M.Sc. (Nursing) DEGREE EXAMINATION.

First Year

(Revised Regulations)

Part – I

Paper III — BIOSTATISTICS AND RESEARCH METHODS INCLUDING NURSING RESEARCH

Time : Three hours   Maximum : 100 marks

Answer Parts A and B in separate Answer books

PART A — (50 marks)

(BIOSTATISTICS)

Answer any TWO questions.

1. (a) Define biostatistics and discuss its uses.   (5)

   (b) Calculate the mean, median and mode for the haemoglobin level of 10 children.

   10.4, 11.1, 12.7, 11.5, 11.5, 12.1, 10.8, 12.5, 11.0, 11.8.   (10)

   (c) When will you use correlation and regression? Give the meaning of correlation coefficient and regression coefficient.   (10)

2. (a) Define population and sample. (5)

(b) A study was conducted to find out the effect of planned nursing interventions on the prognosis. Using the data given below test for the association between the nursing intervention (experimental group) and the prognosis. (10)

Group	Prognosis Good	Prognosis Bad
Experimental	70	40
Control	30	60

NOTE : Chi square with one degree of freedom 5% level is 3.84 and 1% level is 6.63.

(c) Discuss the need for probability sampling. Explain any two methods of sampling. (10)

3. Write short notes on the following : (5 × 5 = 25)

(a) Uses of vital statistics

(b) Frequency distribution

(c) Tests of significance

(d) Interval estimation

(e) Normal distribution.

PART B — (50 marks)

(RESEARCH METHODS INCLUDING NURSING RESEARCH)

Answer any TWO questions.

4. (a) How will you select a research problem? (5)

(b) Discuss the reliability and validity of a tool. (10)

(c) Describe the scales and techniques of psychological measures. (10)

5. (a) Explain Research Hypothesis. (5)

(b) Discuss the role of literature review in research. (10)

(c) Describe the salient features of experimental designs. (10)

6. Write short notes on the following : (5 × 5 = 25)

(a) Historical studies

(b) Check list

(c) Pilot study

(d) Research Report

(e) Data gathering plan.

[KI 403]   Sub. Code : 2303

M.Sc. (Nursing) DEGREE EXAMINATION.

First Year

(Revised Regulations)

Part I

Paper III — BIOSTATISTICS AND RESEARCH METHODS INCLUDING NURSING RESEARCH

Time : Three hours   Maximum : 100 marks

Answer Parts A and B in separate Answer Books.

PART A — (50 marks)

(BIOSTATISTICS)

1.   (a) Discuss the commonly used statistical averages with examples.

(b) Explain the Sampling Techniques.

$(12 + 8 = 20)$

2.   (a) Discuss the difference between an interview schedule and questionnaire as a technique of data collection.

(b) Explain the steps in developing an observation schedule and the advantages and disadvantages of the observational method. $(10 + 10 = 20)$

3.   Write short notes on any TWO of the following :

$(2 \times 5 = 10)$

(a) Hypotheses

(b) Variables

(c) Conceptual frame work.

PART B — (50 marks)

(RESEARCH METHODS INCLUDING NURSING RESEARCH)

4.   Diarrhoea is a common illness occurring in a given population, where you are working.

Discuss the measurement of morbidity in terms of

(a) Incidence Rate

(b) Prevalence Rate.   (20)

5.   (a) List the methods of data collection.

(b) Discuss the advantages and delimitations of experimental methods. $(10 + 10 = 20)$

6.   Write short notes on any TWO of the following :

$(2 \times 5 = 10)$

(a) Randomization

(b) Critique of nursing studies

(c) Surveys in Research.

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[KK 403]   Sub. Code : 2303

M.Sc. (Nursing) DEGREE EXAMINATION.

First Year

(Revised Regulations)

Part I

Paper III — BIOSTATISTICS AND RESEARCH
METHODS INCLUDING NURSING RESEARCH

Time : Three hours   Maximum : 100 marks

Sec. A & B : Two hours   Sec. A & Sec. B : 80 marks
and forty minutes

Sec. C : Twenty minutes   Section C : 20 marks

SECTION A

(BIOSTATISTICS)

1.   Two types of drugs were used on 5 and 7 patients
for reducing their weight. Drug A was imported and
drug B was indigenous.

The decrease in the weight in Kgs after using the
drugs for six months was as follows :

Drug A :   10   12   13   11   14

Drug B :   8   9   12   14   15   10   9

Is there a significant difference in the efficacy of
the two drugs? If not, which drug should you buy?

Or

2. For a random sample of 10 persons, fed on diet A, the increase in weight in a certain period were :

10 6 16 17 13 12 8 14 15 9

For another random sample of 12 persons, fed on diet B, the increase in the same period were :

7 13 22 15 12 14 18 8 21 23 10 17

Test whether the diets A and B differ significantly as regards their effect on increase in weight (Degree of freedom value of λ at 5 percent level is 2.09)

3. Write short notes on :　　　　　　$(5 \times 5 = 25)$
   (a) Theoretical distribution
   (b) Census enumeration
   (c) Chi–square of analysis
   (d) Regression analysis
   (e) Data compilation.

SECTION B

(RESEARCH METHODS INCLUDING NURSING RESEARCH)

4. Prepare a proposal for Nursing Research work–shop on any theme which is of interest to you. (15)

Or

5. Discuss in detail the importance of Nursing Research and Nurses Role in the development of Advanced Nursing Research. (15)

6. Write short notes on any FIVE only :　$(5 \times 5 = 25)$
   (a) Life expectancy
   (b) Epidemiological Research
   (c) Experimental Design
   (d) Instruments and Tools of Data Collection
   (e) Pilot study.
   (f) Scales of measurement.

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[KL 403]   Sub. Code : 2303

M.Sc. (Nursing) DEGREE EXAMINATION.

First Year

(Revised Regulations)

Part I

Paper III — BIO STATISTICS AND RESEARCH
METHODS INCLUDING NURSING RESEARCH

Time : Three hours   Maximum : 100 marks

Sec. A & B : Two hours and   Sec. A & B : 80 marks
          forty minutes

Sec. C : Twenty minutes   Sec. C : 20 marks

Answer Sections A and B in SEPARATE Answer Books.

Answer Section C in the Answer Sheet provided.

Answer ALL questions.

SECTION A

(BIO STATISTICS)

1.   (a) What are the biostatistics applications of
chisquare (χ^2) test.

      (b) Using the data given below test for the
association between smoking and cancer :

Group	Smoking	No smoking
Cancer	40	20
No Cancer	10	30

Note :

Chisquare (χ^2) with one degree of freedom (1df)
5% level is 3.84.   (15)

2.   Write short notes on the following :   (5 × 5 = 25)

      (a) Normal distribution

      (b) Population and sample

      (c) Type I and Type II errors

      (d) Uses of Vital statistics

      (e) Calculate the standard deviation for the
following 5, 7, 8, 6, 4.

SECTION B

(RESEARCH METHODS INCLUDING
NURSING RESEARCH)

3.   Describe the barriers of utilization of research in
nursing.   Discuss the future directions for nursing
research.   (15)

4.   Write short notes on the following :   (5 × 5 = 25)

      (a) Research related activities of a Nurse

      (b) Research abstract

      (c) Evidence based nursing practice

      (d) Source of research problem

      (e) Purpose of literature review

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FEBRUARY 2005

[KM 403]   Sub. Code : 2303

M.Sc. (Nursing) DEGREE EXAMINATION.

First Year

(Revised Regulations)

Part I

Paper III — BIOSTATISTICS AND RESEARCH
METHODS INCLUDING NURSING RESEARCH

Time : Three hours   Maximum : 100 marks

Sec. A & B : Two hours and   Sec. A & B : 80 marks
        forty minutes

Section C : Twenty minutes   Sec. C :   20 marks

Answer Sections A and B in **SEPARATE**
Answer Books.

Answer Section C in the Answer Sheet provided.

Answer ALL questions.

SECTION A

(BIOSTATISTICS)

1. (a) Explain the procedure of tests of significance.
                                                              (5)

   (b) Calculate the correlation coefficient from the
following data and interpret :   (10)

Apgar score :	1	3	2	4	5
Birth weight (kg) :	1.5	2.5	2.0	3.0	3.5
Apgar score :	3	4	3	2	3
Birth weight (kg) :	2.0	3.5	2.0	2.0	3.0

2. Write short notes on any FIVE of the following :
                                                  $(5 \times 5 = 25)$

   (a) Variables.

   (b) Measures of central tendency.

   (c) Probability.

   (d) Normal distribution.

   (e) Systematic sample.

   (f) Estimation of mid-year population.

SECTION B

(RESEARCH METHODS INCLUDING NURSING RESEARCH)

3. Describe the characteristics of experimental,
quasi-experimental,   pre-experimental   and   non-
experimental research designs and discuss their
strengths and weaknesses.   (15)

4. Write short notes on the following : $(5 \times 5 = 25)$

   (a) Purposes of nursing research.

   (b) Research variables.

   (c) Steps in nursing research.

   (d) Communicating research.

   (e) Ethics and nursing research.

[KN 403]   **Sub. Code : 2303**

M.Sc. (Nursing) DEGREE EXAMINATION.

First Year

(Revised Regulations)

Part I

Paper III — BIOSTATISTICS AND RESEARCH
METHODS INCLUDING NURSING RESEARCH

Time : Three hours   Maximum : 100 marks

Sec. A & B : Two hours and   Sec. A & B : 80 marks
                  forty minutes

Sec. C : Twenty minutes   Sec. C : 20 marks

Answer Sections A and B in **SEPARATE**
answer book.

Answer Section C in the answer sheet provided.

Answer ALL questions.

SECTION A

(BIOSTATISTICS)

1.   Find out the regression equation of Systolic Blood
pressure (y) on age (x) using the following data :

Age (x) years :   30   40   50   60   70

Systolic Blood pressure (y) : 120 126 142 146 150
mm Hg

Estimate the blood pressure for the age
57 years.   (15)

2. Write short notes on any FIVE of the following :   (5 × 5 = 25)

    (a) Statistical average

    (b) Sector diagram

    (c) Sources of Health Statistics

    (d) Simple Random Sampling method

    (e) Uses of student – 't' – test

    (f) Incidence and prevalence rates.

SECTION B

(RESEARCH METHODS INCLUDING NURSING RESEARCH)

1. It has been brought to your notice through Dailies that the incidence of suicidal deaths are increasing. You as a nurse researcher has been initiated to conduct a study. In relation to the same specify the following :

    (a) Research problems, objectives and need for the study.

    (b) Techniques of data collection and analysis.   (15)

2. Write short notes on :   (5 × 5 = 25)

    (a) Double blind study

    (b) Hypothesis

    (c) Focused Group Discussion

    (d) Reliability

    (e) Questionnaire.

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[KO 403]   **Sub. Code : 2303**

M.Sc. (Nursing) DEGREE EXAMINATION.

First Year

(Revised Regulations)

Part I

Paper III — BIOSTATISTICS AND RESEARCH
METHODS INCLUDING NURSING RESEARCH

Time : Three hours   Maximum : 100 marks

Sec. A & B : Two hours and   Sec. A & B :   80 marks
          forty minutes

Section C : Twenty minutes   Section C :   20 marks

Answer Sections A and B in **SEPARATE** answer book.

Answer Section C in the answer sheet provided.

Answer ALL questions.

SECTION A — (40 marks)

(BIOSTATISTICS)

1.   (a)   Define Biostatistics and its applications in
nursing.   (5)

      (b)   Calculate Mean, Median and Mode for the
following.

Number of Beds :	0–10	10–20	20–30	30–40	40–50
Number of Hospitals :	10	4	5	3	2

(10)

2.   Write short notes on the following : $(5 \times 5 = 25)$

      (a)   Co-efficient of variation

      (b)   Spurious correlation

      (c)   Random sampling

      (d)   Hypothesis

      (e)   Bar diagram

SECTION B — (40 marks)

(RESEARCH METHODS INCLUDING NURSING
RESEARCH)

3.   Discuss the contributions of Nursing Research in
relation to independent practice.   (15)

4.   Write short notes on the following : $(5 \times 5 = 25)$

      (a)   Research programme on HIV/AIDs

      (b)   Importance of Vital and Health Statistics in
Nursing Research

      (c)   Population and sampling

      (d)   Barring to Nursing Research

      (e)   Conceptual and theoretical frame work.

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[KP 403]   Sub. Code : 2303

M.Sc. (Nursing) DEGREE EXAMINATION.

First Year

(Revised Regulations)

Part I

Paper III — BIOSTATISTICS AND RESEARCH METHODS INCLUDING NURSING RESEARCH

Time : Three hours   Maximum : 100 marks

Descriptive: Two hours and   Descriptive : 80 marks
forty minutes

Objective : Twenty minutes   Objective : 20 marks

Answer Sections A & B in **SEPARATE** answer book.

Answer Section 'C' in the answer sheet provided.

Answer ALL questions.

SECTION A

1. Patients treated on 2 medicines, weigh as follows :

Weight of Patients (kgs)

Medicine A   42   39   48   60   41

Medicine B   38   42   56   64   68   69   62

Group one – Medicine A – 5 patients

Group two – Medicine B – 7 patients

Do you agree with the claim that patients treated with medicine B are significantly heavier than those treated with medicine A. ($t_{0.05}(10) = 2.228$).   (15)

2. Explain three Sampling Techniques in detail.   (10)

3. Write short notes on :   ($3 \times 5 = 15$)

   (a)   Correlation

   (b)   Census

   (c)   Collection of Data.

SECTION B

4. Health of the Older Adults is a great concern at Global Level. In relation to this you are appointed by WHO to conduct a study. As a Nurse Researcher how will you propose to WHO through Indian Nursing Council to conduct a Research Study.   (15)

5. Pilot Study.   (10)

6. Write short notes on :   ($3 \times 5 = 15$)

   (a)   Critical Social Theory

   (b)   Levels of Measurement

   (c)   Budgeting in Research.

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[KQ 403]　　　　　　　Sub. Code : 2303

M.Sc. (Nursing) DEGREE EXAMINATION.

First Year

(Revised Regulations)

Part I

Paper III — BIOSTASTICS AND RESEARCH METHODS INCLUDING NURSING RESEARCH

(Common for all Branches)

Time : Three hours　　　　Maximum : 100 marks

Descriptive : Two hours and　　Descriptive:　80 marks
forty minutes

Objective : Twenty minutes　　Objective :　20 marks

Answer Sections A and B in the **SEPARATE** Answer Book.

Answer ALL questions.

SECTION A

(BIOSTATISTICS)

1.　Following are the marks obtained by two groups of B.Sc. (N) students A and B in 10 sets of examination :

Sets	1	2	3	4	5	6	7	8	9	10
Marks obtained by A:	44	80	76	48	52	72	68	56	60	64
Marks obtained by B:	48	75	54	60	63	69	72	51	57	56

If the consistency of performance is the criterion for awarding the medal, who should get the award? (15)

2.　Discuss in detail the statistical significance of central tendency.　　　　　(10)

3.　Write short notes on the following :　$(3 \times 5 = 15)$

(a)　Define and explain probability

(b)　Measures of dispersion

(c)　Discuss the various measures and methods of calculation of vital events.

SECTION B

(RESEARCH METHODS INCLUDING NURSING RESEARCH)

4.　Define the term hypothesis and discuss the purpose and functions of hypothesis in nursing research with examples.　　　　　(15)

5.　Discuss the various methods of sampling.　　(10)

6.　Write short notes on the following :　$(3 \times 5 = 15)$

(a)　Purposes of theoretical frame work in research study.

(b)　Standardization of Research tool.

(c)　Ethics in Nursing Research.

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[KR 403]   **Sub. Code : 2303**

M.Sc. (Nursing) DEGREE EXAMINATION.

First Year

(Revised Regulations)

Part I

Paper III — BIOSTATISTICS AND RESEARCH METHODS INCLUDING NURSING RESEARCH

(Common for all branches)

Time : Three hours   Maximum : 100 marks

Descriptive : Two hours and   Descriptive : 80 marks
forty minutes

Objective : Twenty minutes   Objective : 20 marks

Answer Sections A and B in the SEPARATE
Answer Book.

Answer ALL questions.

SECTION A

(BIOSTATISTICS)

I.   Essay questions :

1.   Explain any two sampling methods in detail with suitable examples.   (15)

2.   Discuss the uses of statistical methods in nursing research.   (10)

II.   Write short notes on the following :   (3 × 5 = 15)

(a) Measures of dispersion

(b) Random sampling

(c) Tests of significance.

SECTION B

(RESEARCH METHODS INCLUDING NURSING RESEARCH)

I.   Essay Type Questions :

1.   Define population and sampling. Discuss any three types of sampling procedure.   (15)

2.   List out the type of research design and discuss in detail any two types.   (10)

II.   Write short notes on the following :   (3 × 5 = 15)

(a) Pilot study

(b) Techniques of data analysis

(c) Epidemiological research.

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[KS 403]   **Sub. Code : 2303**

M.Sc. (Nursing) DEGREE EXAMINATION.

First Year

(Revised Regulations)

Part I

Paper III — BIOSTATISTICS AND RESEARCH METHODS INCLUDING NURSING RESEARCH

(Common for all branches)

Q.P. Code : 302303

Time : Three hours   Maximum : 100 marks

Answer Sections A and B in the Separate Answer Book.

Answer ALL questions.

SECTION A
(BIOSTATISTICS)

I.   Essay :   (1 × 20 = 20)

(1)   Explain briefly the techniques of probability and nonprobability sampling with suitable example.

II.   Write Short notes on :   (5 × 6 = 30)

(1)   Characteristics of Ideal Measure of central Tendency.

(2)   Calculate standard deviation for the following : 3, 6, 7, 5, 4.

(3)   Normal Distribution.

(4)   Level of significance.

(5)   Net Reproduction Rate.

SECTION B
(RESEARCH METHODS INCLUDING NURSING RESEARCH)

I.   Essay :   (1 × 20 = 20)

(1)   Discuss the design of a study identifying a population and methods of selection of the sample required (with example) in research.

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

(1)   Presentation of Research report in professional meetings.

(2)   Characteristics of good figures.

(3)   Identify the guidelines for coding questionnaire.

(4)   Pilot study – discuss briefly.

(5)   How will you search and analyse the literature for facts and theory relating to the problem

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M.Sc. (Nursing) DEGREE EXAMINATION.

First Year

(Revised Regulations)

Part I

Paper III — BIOSTATISTICS AND RESEARCH
METHODS INCLUDING NURSING RESEARCH

(Common for all branches)

Q.P. Code : 302303

Time : Three hours   Maximum : 100 marks

Answer Sections A and B in the **SEPARATE**
Answer Book.

Answer ALL questions.

SECTION A

(BIOSTATISTICS)

I.   Essay :   (1 × 20 = 20)

(1)   (a)   Calculate the standard deviation for
the following data .   (10)

          17,   20,   15,   13,   25

(b)   Discuss   the   advantages   and
disadvantages of various measures of central tendency. (10)

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

(1) Measurement scales

(2) Pie diagram

(3) Sampling distribution

(4) t-test

(5) Health statistics

SECTION B

(RESEARCH METHODS INCLUDING NURSING RESEARCH)

I. Essay : (1 × 20 = 20)

(1) (a) What is reliability? How is it measured? (10)

(b) Discuss the salient features of experimental design and quasi experimental design. (10)

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

(1) Objectives of Research

(2) Projective techniques

(3) Case Study Approach

(4) Observational studies

(5) Data Analysis plan.

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[KU 403]   **Sub. Code: 2303**

M.Sc (Nursing) DEGREE EXAMINATION
First Year
(Revised Regulations)
Part I
Paper III – BIOSTATISTICS AND RESEARCH METHODS INCLUDING NURSING RESEARCH
(Common to all branches)
Q.P. Code : 302303

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

Answer Sections A and B in the SEPARATE Answer book
Answer All questions.
SECTION –A
(BIOSTATISTICS)

I. Essay: (1 X 20=20)

1. a) What is correlation coefficient? Discuss the method of calculation, uses and limitations.

   b) Discuss about any two sampling methods.

II. Write Short Notes on : (5X 6 = 30)

1. Population and sample.
2. Sampling distribution.
3. Interval estimation.
4. Chi square tests.
5. Population estimation.

SECTION –B
(RESEARCH METHODS INCLUDING NURSING RESEARCH)

I. Essay: (1 X 20=20)

1. a) What are the steps in the research process?

   b) Discuss the uses of case studies in nursing research.

II. Write Short Notes on : (5X 6 = 30)

1. Check list.
2. Prospective studies.
3. Uses of computers.
4. Arrangement of report.
5. Sampling techniques.

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[KV 403]   Sub. Code: 2303

M.Sc (Nursing) DEGREE EXAMINATION
First Year
(Revised Regulations)
Part I
Paper III – BIOSTATISTICS AND RESEARCH METHODS INCLUDING NURSING RESEARCH
(Common to all branches)
Q.P. Code : 302303

Time : Three hours   **Maximum : 100 marks**
Answer Sections A and B in the SEPARATE Answer book
Answer All questions.

SECTION –A
(BIOSTATISTICS)

I. Essay: **(1 X 20=20)**

1.   a) Discuss the various methods employed for data collection. **(10)**
     b) List the various methods of presentation of data and describe any two
        methods in detail.   **(10)**

II. Write Short Notes on :   **(5X 6 = 30)**
   1. Uses of statistical methods in nursing.
   2. Hypothesis.
   3. Bar charts.
   4. 't' test.
   5. Point and interval estimation.

SECTION –B
(RESEARCH METHODS INCLUDING NURSING RESEARCH)
I. Essay: **(1 X 20=20)**
   1. Define population and sampling. Discuss the various methods of sampling.

II. Write Short Notes on :   **(5X 6 = 30)**
   1. Observational studies.
   2. Bias reduction.
   3. Conceptual framework.
   4. Validity and reliability.
   5. Research designs.

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[KW 403]   **Sub. Code: 2303**
M.Sc (Nursing) DEGREE EXAMINATION

First Year
(Revised Regulations)
Part I
Paper III – BIOSTATISTICS AND RESEARCH METHODS INCLUDING NURSING RESEARCH
(Common to all branches)
Q.P. Code : 302303

Time : Three hours   **Maximum : 100 marks**
Answer Sections A and B in the SEPARATE Answer book
Answer All questions.
SECTION –A
(BIOSTATISTICS)

I. Essay: **(1 X 20=20)**

1. a) Enumerate the fertility related statistics.   **(5)**
    b) Enlist the sources of vital statistics.   **(5)**
    c) The population was 50,000 as per 1981 census and 60,000 as per 1991 census estimate the population growth rate and mid year population for 1998 using arithmetic progression method. From the records of the village the number of live births and number of infant deaths for the year 1998 are 1380 and 69 respectively. Find the crude birth rate and infant mortality rate.
                                                                 (10)

II. Write Short Notes on :   **(5X 6 = 30)**
1. Measures of dispersion
2. Correlation.
3. Presentation of data.
4. Histogram.
5. Normal curve.

SECTION –B
(RESEARCH METHODS INCLUDING NURSING RESEARCH)
I. Essay: **(1 X 20=20)**
1. a) Explain research approaches in public health.   **(10)**
    b) What are the essential requirements to be fulfilled before conducting a survey?.   **(10)**
II. Write Short Notes on :   **(5X 6 = 30)**
1. Research protocol.
2. Hypothesis.
3. Pilot studies.
4. Ethical considerations in research.
5. Advantages and disadvantages of research.

[KX 403]   **Sub. Code: 2303**

M.Sc (Nursing) DEGREE EXAMINATION

First Year
(Revised Regulations)
Part I
Paper III – BIOSTATISTICS AND RESEARCH METHODS INCLUDING
NURSING RESEARCH METHODS
(Common to all branches)
Q.P. Code : 302303

Time : Three hours   **Maximum : 100 marks**
Answer Sections A and B in the SEPARATE Answer book
Answer All questions.
SECTION –A
(BIOSTATISTICS)

I. Essay: **(1 X 20=20)**

1. a) Discuss the role of statistical methods in Nursing.
    b) Critically evaluate various measures of central tendency.
    c) Calculate coefficient of variation for the following data (Age of Children attended a clinic) 9, 12, 10, 11, 8.

II. Write Short Notes on :   **(5X 6 = 30)**
   1. Population and Sample.
   2. Correlation and Coefficient.
   3. Interval Estimation.
   4. Chi square tests.
   5. Characteristic of normal distribution.

SECTION –B
(RESEARCH METHODS INCLUDING NURSING RESEARCH)

I. Essay: **(1 X 20=20)**
   1. a) Discuss the difference between basic and applied research.
       b) Describe the purpose of nursing research.

II. Write Short Notes on :   **(5X 6 = 30)**
   1. Check List.
   2. Prospective Studies.
   3. Use of Computers.
   4. Arrangement of report.
   5. Sampling Techniques.

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[KY 403]   Sub. Code: 2303

M.Sc (Nursing) DEGREE EXAMINATION
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Q.P. Code : 302303

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

Answer Sections A and B in the SEPARATE Answer book
Answer All questions.
SECTION –A
(BIOSTATISTICS)

I. Essay: (1 x 20 = 20)
    1. What is correlation coefficient and coefficient of determination? Explain various methods of studying correlation coefficient with suitable examples.

II. Write Short Notes on :   (5 x 6 = 30)
    1. Random sampling procedure.
    2. Histogram.
    3. Median.
    4. Correlations and Regression.
    5. Design of experiment.

SECTION –B
(RESEARCH METHODS INCLUDING NURSING RESEARCH)

I. Essay: (1 x 20 = 20)
    1. a) Describe the steps involved in planning and conducting research.
        b) Explain the current trends in nursing research.

II. Write Short Notes on :   (5 x 6 = 30)
    1. Experimental study.
    2. Reliability of the tool.
    3. Self reports.
    4. Pilot study.
    5. Research ethics.

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