B.Sc. (Nursing) DEGREE EXAMINATION
(New Regulations for the candidates admitted from 2013-2014 onwards)
THIRD YEAR
PAPER IV – NURSING RESEARCH & STATISTICS

Q.P. Code : 664724

Time: Three hours   **Maximum : 75 Marks**

SECTION A
NURSING RESEARCH

I. Elaborate on: **(1 x 15 = 15)**

1. Define sampling. Explain the types of sampling methods in detail with suitable examples.

II. Write notes on: **(5 x 5 = 25)**

1. Characteristics of good research.
2. Identification of problem area.
3. Historical research.
4. Bio-physiological measurements.
5. Communication of research findings.

III. Short answers on: **(5 x 2 = 10)**

1. Define reliability.
2. Types of hypothesis.
3. Write four important points of ethics in nursing research.
4. Types of survey method.
5. Write the purposes of literature review.

SECTION B
STATISTICS

I. Elaborate on :   **(1 x 15 = 15)**

1. The weight and Hb values for the students of a public school are recorded and given below. Calculate the correlation coefficient for the data.

Weight	10	12	14	13	16	18
Hb value	7	8	7	8	10	10

II. Short answers on: **(5 x 2 = 10)**

1. Scales of measurement.
2. Write any four statistical packages.
3. Type II error.
4. Normal probability curve.
5. Classification of data.

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B.Sc. (Nursing) DEGREE EXAMINATION
(New Regulations for the candidates admitted from 2013-2014 onwards)
THIRD YEAR
PAPER IV – NURSING RESEARCH & STATISTICS

Q.P. Code : 664724

Time: Three hours   **Maximum : 75 Marks**
SECTION A
NURSING RESEARCH

I. Elaborate on: **(1 x 15 = 15)**

1. Explain experimental research designs with suitable examples.

II. Write notes on: **(5 x 5 = 25)**

1. Importance of nursing research.
2. Methods of data collection.
3. Criteria of good research problem.
4. Research variables.
5. Validity and reliability of an instrument.

III. Short answers on: **(5 x 2 = 10)**

1. What is descriptive research?
2. Define sampling.
3. State any four sources of literature review.
4. Mention two needs for research in nursing.
5. Define hypothesis.

SECTION B
STATISTICS

I. Elaborate on: **(1 x 15 = 15)**

1. a) What is statistics? Explain the importance of statistics in nursing.
    b) Explain the scales or levels of measurement.

II. Short answers on: **(5 x 2 = 10)**

1. Mention any four common diagrams used in statistics.
2. Write two properties of normal distribution.
3. Find out the range of following data 7, 6, 4, 3, 8, 12.
4. Find the mean 7, 3, 5, 4, 6, 4, 5.
5. State the types of correlation.

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B.Sc. (Nursing) DEGREE EXAMINATION
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THIRD YEAR
PAPER IV – NURSING RESEARCH & STATISTICS

Q.P. Code : 664724

Time: Three hours   **Maximum : 75 Marks**

SECTION A
NURSING RESEARCH

I. Elaborate on: **(1 x 15 = 15)**

1. Describe non-experimental research design in detail with suitable examples.

II. Write notes on: **(5 x 5 = 25)**

1. Pilot study.
2. Difference between qualitative and quantitative research design.
3. List the components of a research report.
4. Review of literature.
5. Need for research in nursing.

III. Short answers on: **(5 x 2 = 10)**

1. Define validity.
2. Define sampling error.
3. Define Randomization.
4. Two purpose of survey methods.
5. List the components of critiquing published research.

SECTION B
STATISTICS

I. Elaborate on: **(1 x 15 = 15)**

1. What do you understand by central tendency? Describe the various measures.

II. Short answers on: **(5 x 2 = 10)**

1. List any two uses of statistics.
2. List four scales of measurement.
3. Formula for standard deviation.
4. Define mode.
5. What is confidence interval?

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B.Sc. (Nursing) DEGREE EXAMINATION
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THIRD YEAR
PAPER IV – NURSING RESEARCH & STATISTICS

Q.P. Code : 664724

Time: Three hours   **Maximum : 75 Marks**

SECTION A
NURSING RESEARCH

I. Elaborate on: **(1 x 15 = 15)**

1. Discuss the steps of nursing research process in detail.

II. Write notes on: **(5 x 5 = 25)**

1. Probability sampling techniques.
2. Research statement.
3. Sources of research problem.
4. Steps in literature review.
5. Types of experimental research designs.

III. Short answers on: **(5 x 2 = 10)**

1. State any four non-experimental research designs.
2. What is variable?
3. Mention any two types of validity.
4. Define pilot study.
5. Define population.

SECTION B
STATISTICS

I. Elaborate on: **(1 x 15 = 15)**

1. Find the mean respiratory rate/minute and its SD in the 9 samples which are given below:
   23, 22, 20, 24, 16, 17, 18, 19 and 21.

II. Short answers on: **(5 x 2 = 10)**

1. List the uses of chi-square test.
2. Mention two uses of statistics in nursing research.
3. Draw Pie chart, Males - 40%, Females - 60%.
4. State the types of correlation.
5. Define histogram.

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B.Sc. (Nursing) DEGREE EXAMINATION
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THIRD YEAR

PAPER IV – NURSING RESEARCH & STATISTICS

Q.P. Code : 664724

Time: Three Hours **Maximum : 75 Marks**

SECTION - A
NURSING RESEARCH

I. Elaborate on: (1 x 15 = 15)

1. Explain the purpose, scope, source and steps in Review of Literature.

II. Write notes on: (5 x 5 = 25)

1. Descriptive research.
2. Evidence based practice.
3. Sampling process.
4. Conceptual frame work.
5. Utilization of research findings.

III. Short answers on: (5 x 2 = 10)

1. List any four ethical principles in research.
2. Define research objectives.
3. Differentiate target and accessible population.
4. List any four bio-physiological measurements.
5. Write a research hypothesis statement.

SECTION - B
STATISTICS

I. Elaborate on: (1 x 15 = 15)

1. Discuss test of significance procedures.

II. Short answers on: (5 x 2 = 10)

1. What is degree of freedom?
2. List any four data collection methods.
3. List the uses of chi-square test.
4. What is 'P' value?
5. Calculate standard deviation for the following data: 2, 5, 7, 12, 15.

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B.Sc. (Nursing) DEGREE EXAMINATION
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THIRD YEAR
PAPER IV – NURSING RESEARCH & STATISTICS

Q.P. Code: 664724

Time: Three Hours   **Maximum : 75 Marks**

<u>**SECTION - A**</u>
NURSING RESEARCH

I. Elaborate on: **(1 x 15 = 15)**

1. Define Sampling. Explain the types of sampling techniques with suitable examples.

II. Write notes on: **(5 x 5 = 25)**

1. Non - Experimental Research design.
2. Validity and reliability of instruments.
3. Differentiate between Quantitative and Qualitative research.
4. Observation methods of data collection.
5. Research Critique.

III. Short answers on: **(5 x 2 = 10)**

1. Write the uses of research in nursing.
2. Types of Hypothesis.
3. Define Randomization.
4. Types of writing research reports.
5. Types of rating scale.

<u>**SECTION - B**</u>
STATISTICS

I. Elaborate on: **(1 x 15 = 15)**

1. Calculate Correlation coefficient for the following data:

     X: 2   4   6   8   10
     Y: 3   9   4   6   4

II. Short answers on: **(5 x 2 = 10)**

1. Define Statistics.
2. Type I and Type II error.
3. Define range.
4. List two properties of normal probability curve.
5. Find the mean of the following data: 4, 5, 8, 2, 5.

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B.Sc. (Nursing) DEGREE EXAMINATION
(New Regulations for the candidates admitted from 2012-2013 onwards)

THIRD YEAR

PAPER IV – NURSING RESEARCH & STATISTICS

Q.P. Code: 664724

Time: Three Hours **Maximum : 75 Marks**

SECTION - A
NURSING RESEARCH

I. Elaborate on: **(1 x 15 = 15)**

1. Explain the methods and tools of data collection with suitable examples.

II. Write notes on: **(5 x 5 = 25)**

1. Pilot study.
2. Criteria for selecting a good research problem.
3. Non probability sampling techniques.
4. Qualitative research design.
5. Communication of research findings.

III. Short answers on: **(5 x 2 = 10)**

1. Define Nursing Research.
2. Define Manipulation.
3. Types of Variables.
4. Define reliability.
5. Write four characteristics of good research.

SECTION - B
STATISTICS

I. Elaborate on: **(1 x 15 = 15)**

1. What is central tendency? Explain in detail about various measures of central tendency.

II. Short answers on: **(5 x 2 = 10)**

1. List down the Non-parametric tests.
2. Mention the types of diagrams.
3. Define correlation.
4. List four scales of measurements.
5. Write the uses of student 't' test.

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B.Sc. (Nursing) DEGREE EXAMINATION
(New Regulations for the candidates admitted from 2013-2014 onwards)
THIRD YEAR
PAPER IV – NURSING RESEARCH & STATISTICS

Q.P. Code: 664724

Time: Three Hours   **Maximum : 75 Marks**

SECTION – A
NURSING RESEARCH

I. Elaborate on: **(1 x 15 = 15)**

1. Explain the methods and types of writing research report.

II. Write notes on: **(5 x 5 = 25)**

1. Dependent variable.
2. Ethics in research.
3. Types of Survey.
4. Case study research.
5. Quasi Experimental Research Design.

III. Short answers on: **(5 x 2 = 10)**

1. Define sampling error.
2. What is sampling criteria?
3. List any four characteristics of good hypothesis.
4. Define validity.
5. Write any four types of qualitative research.

SECTION – B
STATISTICS

I. Elaborate on: **(1 x 15 = 15)**

1. Explain the various methods of collecting statistical data.

II. Short answers on: **(5 x 2 = 10)**

1. Define probability.
2. Define vital statistics.
3. Find the mean of 8, 6, 4, 2, 9, 7.
4. List the levels of measurements.
5. Types of Bar Diagram.

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B.Sc. (Nursing) DEGREE EXAMINATION
(New Regulations for the candidates admitted from 2013-2014 onwards)
THIRD YEAR
PAPER IV – NURSING RESEARCH & STATISTICS

Q.P. Code: 664724

Time: Three Hours   **Maximum : 75 Marks**

SECTION - A
NURSING RESEARCH

I. Elaborate on: **(1 x 15 = 15)**

1. Present an overview of research process in detail.

II. Write notes on: **(5 x 5 = 25)**

1. Rating Scales.
2. Data collection in qualitative approach.
3. Communication of research findings.
4. Criteria of good research problem.
5. Difference between qualitative and quantitative research design.

III. Short answers on: **(5 x 2 = 10)**

1. State any four non-experimental research designs.
2. What is variable?
3. Differentiate target and accessible population.
4. List any four bio-physiological measurements.
5. Write four important points of ethics in nursing research.

SECTION - B
STATISTICS

I. Elaborate on: **(1 x 15 = 15)**

1. Discuss the test of significance procedures.

II. Short answers on: **(5 x 2 = 10)**

1. Draw Pie chart: Males - 40%, Females - 60%.
2. State the types of correlation
3. Find out the range of following data 7, 6, 4, 3, 8, 12.
4. Write the uses of student 't' test.
5. What is degree of freedom?

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B.Sc. (Nursing) DEGREE EXAMINATION
(New Regulations for the candidates admitted from 2013-2014 onwards)
THIRD YEAR
PAPER IV – NURSING RESEARCH & STATISTICS

Q.P. Code: 664724

Write Section – A and B in the same Answer booklet.

Time: Three Hours   Maximum : 75 Marks
SECTION – A
NURSING RESEARCH
I. Elaborate on: **(1 x 15 = 15)**

1. Mention the characteristics of qualitative research design and explain qualitative research design with suitable example.

II. Write notes on: **(5 x 5 = 25)**

1. Conceptual frame work.
2. Randomization.
3. Barriers to utilization of research findings.
4. Evidence based practice.
5. Grounded theory.

III. Short answers on: **(5 x 2 = 10)**

1. List two advantages of pilot study.
2. Two purpose of survey methods.
3. Mention two needs for research in nursing.
4. Define Hypothesis.
5. Steps in literature review.
SECTION – B
STATISTICS
I. Elaborate on: **(1 x 15 = 15)**

1. a) Discuss assumptions of Karl Pearson Correlation, Co-efficient methods.
   b) Estimate SBP value when DBP – 90 using regression Co-efficient.
      DBP - 78   95   76   92   98   95
      SBP - 127 135   120   130   144   136

II. Short answers on: **(5 x 2 = 10)**

1. List the use of Chi-Square Test.
2. What is "P" value?
3. Type II error.
4. Normal probability curve.
5. Define mode.

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B.Sc. (Nursing) DEGREE EXAMINATION
(New Regulations for the candidates admitted from 2013-2014 onwards)
THIRD YEAR
PAPER IV – NURSING RESEARCH & STATISTICS

(Write Section A & B in the same answer booklet)

Q.P. Code: 664724

Time: Three Hours   **Maximum : 75 Marks**

SECTION - A
NURSING RESEARCH

I. Elaborate on: **(1 x 15 = 15)**

1. Explain the Components of a good research report.

II. Write notes on: **(5 x 5 = 25)**

1. What is simple random sampling?
2. What are the guidelines to design a good question?
3. List any five differences between basic research and applied research?
4. What are the characteristics of relevant review of literature?
5. List five sources of hypothesis?

III. Short answers on: **(5 x 2 = 10)**

1. What Is Mean and Median?
2. What Is cluster sampling?
3. Mention the two forms of question?
4. Write any two advantages of observational method?
5. Write the types of sampling technique?

SECTION - B
STATISTICS

I. Elaborate on: **(1 x 15 = 15)**

1.   Explain the measures of central tendency.

II. Short answers on: **(5 x 2 = 10)**

1. Explain the two types of Hypothesis?
2. What is Standard Deviation?
3. Explain Reliability?
4. Write any two guidelines for making frequency table?
5. What is Nominal scale?

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B.Sc. (Nursing) DEGREE EXAMINATION
(New Regulations for the candidates admitted from 2013-2014 onwards)
FINAL YEAR
PAPER IV – NURSING RESEARCH & STATISTICS

Q.P. Code: 664724

Time: Three Hours **Maximum : 75 Marks**

SECTION – A
NURSING RESEARCH

I. Elaborate on: **(1 x 15 = 15)**

1. Explain Quantitative research designs with suitable examples.

II. Write notes on: **(5 x 5 = 25)**

1. Steps of Research process.
2. Criteria of a good research problem.
3. Types of Sampling Techniques.
4. Ethical Principles in Research.
5. Bio physiological Measures.

III. Short answers on: **(5 x 2 = 10)**

1. Types of survey method.
2. Write the purposes of literature review.
3. Randomization
4. Pilot study
5. Research objectives.

SECTION – B
STATISTICS

I. Elaborate on: **(1 x 15 = 15)**

1. A study to evaluate the effect of cognitive behavioural therapy on wellbeing scores among cancer patients. A sample of 10 cancer patients was randomly selected and their wellbeing scores measured before CBT and again after 2 months of CBT. Are there any difference in mean wellbeing scores before and after CBT at $P<0.05$ level? (Table Value is 2.262).

   Before CBT: 2,4,5,7,8,10,3,3,3 and 12
   After CBT: 22,12,10,20,19,22,20,23,26 and 14

II. Short answers on: **(5 x 2 = 10)**

1. What is standard deviation?
2. Mention the Scales of Measurement?
3. What is Probability?
4. What are the uses of Statistics?
5. What is central tendency?

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[BSCN 0522]   **MAY 2022**   **Sub. Code: 4724**
(FEBRUARY 2022 SESSION)

B.Sc. (Nursing) DEGREE EXAMINATION
(Regulations for the candidates admitted from 2013-2014 onwards)
THIRD YEAR
PAPER IV – NURSING RESEARCH & STATISTICS
Q.P. Code: 664724

Time: Three Hours   **Maximum : 75 Marks**

SECTION – A
NURSING RESEARCH

I. Elaborate on: **(1 x 15 = 15)**

1. Explain the qualitative research design with suitable examples.

II. Write notes on: **(5 x 5 = 25)**

1. Steps of scientific method.
2. Type I and Type II error.
3. Barriers of research utilization.
4. Methods of sampling technique.
5. Sources of research problem.

III. Short answers on: **(5 x 2 = 10)**

1. Write the characteristics of good research.
2. Write the types of research objectives.
3. Expand MCR, RCT.
4. Difference between Assumption and Hypothesis.
5. What are the methods of communication in research?

SECTION – B
STATISTICS

I. Elaborate on: **(1 x 15 = 15)**

1. Explain the measures of central tendency with suitable examples.

II. Short answers on: **(5 x 2 = 10)**

1. What is degree of freedom?
2. Define histogram.
3. Mention the parametric tests.
4. List down the levels of measurement.
5. What are the limitations of statistics?

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THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[BSCN 1122]   **NOVEMBER 2022**   Sub. Code: 4724
(AUGUST 2022 EXAM SESSION)

B.Sc. (Nursing) DEGREE EXAMINATION
(Regulations for the candidates admitted from 2013-2014 onwards)

THIRD YEAR
PAPER IV – NURSING RESEARCH & STATISTICS
Q.P. Code: 664724

Time: Three Hours   **Maximum : 75 Marks**

<u>**SECTION – A**</u>
NURSING RESEARCH

I. Elaborate on: **(1 x 15 = 15)**

1. a) What is Problem statement?
    b) What are the Criteria of a good research Problem?
    c) Write the types of statement of problem with example and formulate the objectives and hypothesis for it.

II. Write notes on: **(5 x 5 = 25)**

1. Types of Assumptions.
2. Critique of nursing research studies.
3. Stages of systemic review.
4. Bio Physiological parameters.
5. Dependent Variable.

III. Short answers on: **(5 x 2 = 10)**

1. Define plagiarism.
2. Write the types of closed ended question.
3. Expand PICO.
4. Define null hypothesis.
5. Define Target population.

<u>**SECTION – B**</u>
STATISTICS

I. Elaborate on: **(1 x 15 = 15)**

1. What is a statistical average? Describe the characteristics of a good statistical average.

II. Short answers on: **(5 x 2 = 10)**

1. Define probability.
2. Write the types of 't' test.
3. What is Cohort study?
4. Find the Mode of following data
       2,3,3,5,3,4,3,3,3,4,2,2.
5. Define Incidence Rate.

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B.Sc. (Nursing) DEGREE EXAMINATION
(Regulations for the candidates admitted from 2013-2014 onwards)

THIRD YEAR
PAPER IV – NURSING RESEARCH & STATISTICS
Q.P. Code: 664724

Time: Three Hours   Maximum : 75 Marks

SECTION – A
NURSING RESEARCH

I. Elaborate on: (1 x 15 = 15)

1. a) Define of Research and Nursing Research.
   b) List the characteristics of Good Research.
   c) Explain in detail the steps of Research process overview.

II. Write notes on: (5 x 5 = 25)

1. Criteria of a good research problem.
2. Item analysis.
3. Questioning method.
4. Utilization of Research findings.
5. Historical Research.

III. Short answers on: (5 x 2 = 10)

1. Need for Nursing Research.
2. Hypotheses.
3. Types of Validity.
4. Population.
5. Case study.

SECTION – B
STATISTICS

I. Elaborate on: (1 x 15 = 15)

1. A group of 5 patients treated with medicine. A weights 42, 32, 48, 60 and 41 kg. A second group of 6 patients from same hospital treated with medicine B 38, 42, 56, 64, 67 and 69. Do you agree that medicine B increases weight significantly at $P < 0.05$ level (Table Value is 2.262).

II. Short answers on: (5 x 2 = 10)

1. Mention any four common diagrams used in statistics.
2. Write two properties of normal distribution.
3. State the types of Correlation.
4. Use of Chi Square.
5. Explain the Measures of Dispersion.

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