NATIONAL INSTITUTE OF PUBLIC HEALTH TRAINING AND RESEARCH, MUMBAI
Post Graduate Diploma in Hospital Management (PGDHM) Batch: 2023-24
First Semester Examination – Final Exam

PAPER–III

RESEARCH METHODOLOGY & INTRODUCTION TO STATISTICS

Date: 20/11/2023   Total Marks: 100
Time: 02:00 PM to 05:00 PM (03 Hours)   Credit: 4.0

Section: A) Research Methodology	**Credit: 2.0 / Marks: 50**

Q: 1)   Descriptive Question   **(Attempt any two)**   **20 Marks**

a) Differentiate between qualitative and quantitative research methodologies comprehensively.

b) What are the different types of instruments used for data collection?

c) What is a research protocol? Discuss the essential elements of a research protocol.

Q: 2)   Write in Brief   **(Attempt any three)**   **15 Marks**

a) Ethical issues in Public Health Research

b) Records and Reports

c) Steps involved in the public health research

d) Patient Opinion Poll

e) Case Control Studies

Q: 3)   Short Notes   **(Attempt any three)**   **15 Marks**

a) Research hypothesis

b) In-depth interview

c) Types of data

d) Sources of errors in measurement

e) Randomization in Research Studies

Section: B) Introduction To Statistics

Q: 1)   **Descriptive Question**   (Attempt any two)   20 Marks

a)   Enumerate various sampling techniques. Describe stratified sampling technique with example.

b)   What are the various tests of significance? Differentiate between the parametric and non-parametric tests with examples.

c)   Enumerate measures of central tendency. Describe in brief the methods of calculation and uses of the mean.

Q: 2)   **Write in Brief**   (Attempt any three)   15 Marks

a)   Describe the applicability of 't' test with examples.

b)   What is Bayes theorem? State various uses of Bayes theorem with examples.

c)   Define sensitivity and specificity of a diagnostic test. Compute the values of specificity and sensitivity of a diagnostic test using the following contingency table:

	Disease: True	Disease: False
Test: Positive	180	80
Test: Negative	20	720

d)   Describe types of sampling errors in research studies.

e)   What is frequency distribution curve?

Q: 3)   **Short Notes**   (Attempt any three)   15 Marks

a)   Difference between bar diagram and line diagram

b)   Odds Ratio vs Attributable risk

c)   Type-I and Type-II errors.

d)   95% confidence interval

e)   Standard deviation

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