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

[AHS 0222]   **FEBRUARY 2022**   Sub. Code: 2828
(OCTOBER 2021 EXAM SESSION)

MASTER OF HOSPITAL ADMINISTRATION
FIRST YEAR
PAPER I – PRINCIPLES OF EPIDEMIOLOGY, RESEARCH METHODOLOGY, BIOSTATISTICS AND MEDICAL ETHICS
Q.P. Code : 432828

Time: Three hours   **Answer ALL Questions**   **Maximum: 100 Marks**

I. Elaborate notes on: (2 x 20 = 40)

1. Define Epidemiology. What are the uses of Epidemiology? Describe various study designs, key features and relative advantages and disadvantages of each design.

2. What is ' Protocol Writing' in Research? What are the common components in protocol? Write a sample protocol.

II. Write Short Notes on: (10x6 = 60)

1. Natural history of disease.
2. Measures of association.
3. Steps involved in designing a questionnaire.
4. Operations Research.
5. ICMR guidelines and IEC (Institutional Ethics Committee).
6. What is Blinding? List the types of blinding with brief note on each.
7. What is Odds Ratio? Explain briefly its application.
8. Measures of central tendency.
9. Alpha and Beta errors.
10. Bioethics.

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

[AHS 0522]   **MAY 2022**   **Sub. Code: 2828**

MASTER OF HOSPITAL ADMINISTRATION
FIRST YEAR
PAPER I – PRINCIPLES OF EPIDEMIOLOGY, RESEARCH METHODOLOGY,
BIOSTATISTICS AND MEDICAL ETHICS
Q.P. Code : 432828

Time: Three hours   **Answer ALL Questions**   **Maximum: 100 Marks**

I. Elaborate notes on: **(2 x 20 = 40)**

1. Describe the various methods of sampling in detail.

2. Is single Research design suitable for all studies? Why? Describe the types of epidemiological designs in detail. Write the advantage and disadvantage of each study design.

II. Write Short Notes on: **(10x6 = 60)**

1. Outbreak investigation.
2. Differentiate: Primary Data against Secondary Data.
3. Non-parametric tests.
4. Bias.
5. What is range, standard deviation and normal distribution?
6. Validity and Reliability of Instrument.
7. Ethics in Research.
8. Steps involved in testing Hypothesis.
9. Confidence intervals and p values.
10. How will you determine optimal sample size?

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

[AHS 1022]   **OCTOBER 2022**   Sub. Code: 2828

MASTER OF HOSPITAL ADMINISTRATION
FIRST YEAR (Candidates admitted in 2020-2021)
PAPER I – PRINCIPLES OF EPIDEMIOLOGY, RESEARCH METHODOLOGY,
BIOSTATISTICS AND MEDICAL ETHICS
Q.P. Code : 432828

Time: Three hours   Answer ALL Questions   Maximum: 100 Marks

I. Elaborate notes on: **(2 x 20 = 40)**

1. Classify Analytical Epidemiology. Describe in detail the steps to conduct a case control study. Mention two examples of case control study done in the history of Medicine.

2. What is review of Literature? Mention the importance and role of review of Literature in Research. Describe the steps involved in review of Literature.

II. Write Short Notes on: **(10 x 6 = 60)**

1. Systematic Error and Random Error.
2. Binomial Distribution.
3. Histogram and Frequency Polygon.
4. Types of Mean.
5. Chi Square test.
6. Iceberg phenomenon.
7. Framing Objectives in research.
8. Incidence and Prevalence.
9. Randomization in Clinical trial.
10. Criteria for disease causation.

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

[AHS 1023] **OCTOBER 2023** **Sub. Code: 2828**

MASTER OF HOSPITAL ADMINISTRATION (AHS)
FIRST YEAR (From 2020-2021 onwards)
PAPER I – PRINCIPLES OF EPIDEMIOLOGY, RESEARCH METHODOLOGY,
BIOSTATISTICS AND MEDICAL ETHICS

Q.P. Code: 432828

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate notes on: **(2 x 20 = 40)**

1. Classify Quantitative study designs. Describe in detail the Descriptive Epidemiology and the role on burden of disease in community. Add a note on Descriptive Epidemiology in John Snow's report on cholera outbreak in England.

2. Define Health. Briefly mention the dimensions of Health. What are the various determinants of Health in an individual?

II. Write Short Notes on: **(10 x 6 = 60)**

1. Poisson Distribution.
2. Standard deviation and standard Error.
3. Ethical issues in Clinical trials.
4. Null Hypothesis and Alternate Hypothesis with example.
5. Relative Risk and Attributable Risk.
6. Ethics in organ Transplantation and Stem cell therapy.
7. Measures of Mortality.
8. Applications of Epidemiology.
9. ANOVA.
10. Role of Pilot study in Research.

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