

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

**[AHS 1024]**

**OCTOBER 2024**

**Sub. Code: 2828**

**ALL M.Sc. COURSES AND M. OPTOM, EXCLUDING M.Sc. BIostatISTIC,  
M.Sc. EPIDEMIOLOGY AND M.Sc. PUBLIC HEALTH.**

**FIRST YEAR**

**PAPER I – PRINCIPLES OF EPIDEMIOLOGY, RESEARCH METHODOLOGY,  
BIostatISTICS AND MEDICAL ETHICS**

*Q.P. Code: 282828*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate notes on:**

**(2 x 20 = 40)**

1. Explain the differences between qualitative and quantitative research methods and their respective uses in healthcare research.
2. What is correlation coefficient and coefficient of determination? Describe the different types of correlation coefficient with examples.

**II. Write Short Notes on:**

**(10x6 = 60)**

1. Poisson distribution.
2. Survival analysis.
3. Receiver Operating Characteristic Curve (ROC curve).
4. Waiver of consent.
5. Outbreak investigation.
6. Ecological studies with examples.
7. Significance of p value in hypothesis testing.
8. Causal association in epidemiology.
9. Conflict of interest.
10. Relative risk and Attributable risk.

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

**[AHS 0525]**

**MAY 2025**

**Sub. Code: 2828**

**ALL M.Sc. COURSES AND M. OPTOM, EXCLUDING M.Sc. BIostatistic,  
M.Sc. EPIDEMIOLOGY AND M.Sc. PUBLIC HEALTH.**

**FIRST YEAR**

**PAPER I – PRINCIPLES OF EPIDEMIOLOGY, RESEARCH METHODOLOGY,  
BIostatistics AND MEDICAL ETHICS**

*Q.P. Code: 282828*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate notes on:**

**(2 x 20 = 40)**

1. Classify Epidemiological study designs. Explain in detail the steps in conducting Randomized Control Trial. Discuss the types of analysis in randomized control trial.
2. Describe the concept, 'Natural history of disease' with the help of a schematic diagram. Mention the levels of prevention and modes of intervention.

**II. Write Short Notes on:**

**(10x6 = 60)**

1. Spot map.
2. Mortality rates.
3. Confounding factors.
4. Implementation Research.
5. Epidemic curve.
6. Scales of measurement.
7. Data collection methods.
8. Informed consent.
9. Berksonian bias.
10. Measures of dispersion.

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

[AHS 1025]

**OCTOBER 2025**

**Sub. Code: 2828**

**ALL M.Sc. COURSES AND M. OPTOM, EXCLUDING M.Sc. BIostatISTICS,  
M.Sc. EPIDEMIOLOGY AND M.Sc. PUBLIC HEALTH.**

**FIRST YEAR**

**PAPER I – PRINCIPLES OF EPIDEMIOLOGY, RESEARCH METHODOLOGY,  
BIostatISTICS AND MEDICAL ETHICS**

*Q.P. Code: 282828*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate notes on:**

**(2 x 20 = 40)**

1. Classify Epidemiological study designs. Describe the steps in conducting cohort study. Explain the types of cohort study with example.
2. Describe the concept of web of causation in relation to coronary heart disease. Discuss the suitable measures of prevention with references to risk factors.

**II. Write Short Notes on:**

**(10x6 = 60)**

1. Herd immunity.
2. Differentiate Endemic, Epidemic and Pandemic. Give examples.
3. Effect modifiers.
4. Case reports and case series.
5. Cluster sampling.
6. Types of data.
7. Measures of dispersion.
8. Participant information sheet.
9. Lead time bias.
10. 2 x 2 Factorial design.

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