(For candidates admitted from 2007-2008 onwards)

### PAPER VIII – RESEARCH METHODOLOGY AND EPIDEMIOLOGICAL ANALYSIS

Q.P. Code: 283058

Time: Three Hours Maximum: 100 marks

#### **Answer ALL questions**

I. Elaborate on:  $(2 \times 20 = 40)$ 

- 1. What is Research Design? What are the different types of epidemiological research design? Briefly describe the analytical study designs and compare and contrast the two major study designs. (2 + 6 + 6 + 6)
- 2. What is a Health Information System? Briefly comment on the different sources of Health Information. Write briefly on the Sample Registration System. (2 + 8 + 10)

II. Write notes on:  $(10 \times 6 = 60)$ 

- 1. Strategies to control Bias in research.
- 2. Testing of Hypothesis.
- 3. Hand search
- 4. Participatory rapid Appraisal.
- 5. Graphical representation.
- 6. Likert V/s Gutman Scales.
- 7. Pilot study.
- 8. MeSH terms.
- 9. Components of a report with brief explanation of components of a table.
- 10. NRR.

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Q.P. Code: 283058

Time: Three Hours Maximum: 100 marks

#### Draw suitable diagram wherever necessary.

#### **Answer ALL questions**

I. Elaborate on:  $(2 \times 20 = 40)$ 

- 1. Write in detail about the sources of demographic data.
- 2. Explain in detail the various research designs.

II. Write notes on:  $(10 \times 6 = 60)$ 

- 1. Explain Blinding.
- 2. How to write a good research report?
- 3. Major steps in research process.
- 4. The requisite for selection of a research question.
- 5. Explain reliability and validity.
- 6. Explain the Bias in Research.
- 7. Explain how to form a frequency distribution table.
- 8. Various methods of sampling technique.
- 9. What are the components of health information system.
- 10. Write short notes on Type I and Type II error.

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### PAPER VIII – RESEARCH METHODOLOGY AND EPIDEMIOLOGICAL ANALYSIS

O.P. Code: 283058

Time: Three Hours Maximum: 100 marks

Draw suitable diagram wherever necessary.

#### **Answer ALL questions**

I. Elaborate on:  $(2 \times 20 = 40)$ 

1. What is interventional epidemiology? What are the three types of interventional epidemiology? Write in detail about the double blind randomized controlled trial.

(2+6+12)

2. What is a Sample? What are the different types of sampling design? Explain in detail stratified cluster sampling technique. (2+6+12)

II. Write notes on:  $(10 \times 6 = 60)$ 

- 1. Normal curve.
- 2. Constructing a self administered questionnaires.
- 3. Measures of mortality.
- 4. TAM study.
- 5. Types of qualitative studies case analysis.
- 6. Evidence based methods.
- 7. Colon classification.
- 8. Advantages and disadvantages of case control study.
- 9. Socio-gram. Explain with example.
- 10. Systematic review and meta-analysis.

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O.P. Code: 283058

Time: Three Hours Maximum: 100 marks

#### Draw suitable diagram wherever necessary.

#### **Answer ALL questions**

I. Elaborate on:  $(2 \times 20 = 40)$ 

- 1. List the social science research techniques. Describe the steps in conducting focus group discussions.
- 2. Write the steps in conducting a behavioural health modification intervention. What are the measures to be taken to improve the validity?

II. Write notes on:  $(10 \times 6 = 60)$ 

- 1. Behavioural surveillance in HIV.
- 2. Strengths and weakness of 'Participant observation'.
- 3. Sample registration system.
- 4. Define 'Confounder'. What are the methods to control confounding in case control studies.
- 5. Describe in brief, the lay out of a research report.
- 6. Cross sectional study.
- 7. Write the relative advantages of structured and semi-structured questionnaire.
- 8. Describe briefly the "Likert Scale'.
- 9. Describe with example the importance of calculating confidence interval.
- 10. Advantages and limitations of qualitative study.

#### M.Sc. (MEDICAL SOCIOLOGY) DEGREE EXAMINATION

(For candidates admitted from 2007-2008 onwards)

#### FIRST YEAR

### PAPER VIII – RESEARCH METHODOLOGY AND EPIDEMIOLOGICAL ANALYSIS

O.P. Code: 283058

Time: Three Hours Maximum: 100 marks

#### Draw suitable diagram wherever necessary.

#### **Answer ALL questions**

I. Elaborate on:  $(2 \times 20 = 40)$ 

- 1. Explain in detail the various Research Designs.
- 2. Explain the applications of  $x^2$  test with examples.

II. Write notes on:  $(10 \times 6 = 60)$ 

- 1. Explain the problems encountered by researchers in India.
- 2. Describe various ways of presentation of a data.
- 3. State and prove addition theorem of probability.
- 4. Write down the steps involved in Testing of hypothesis.
- 5. Evidence based methods.
- 6. Uses and application of health information data in Epidemiology.
- 7. Explain briefly about the Types and Sources of Control.
- 8. Write short notes as the time of Epidemiology.
- 9. Methods of collection of Data.
- 10. Explain Type-I and Type-II error.

(For candidates admitted from 2007-2008 onwards)

### PAPER VIII – RESEARCH METHODOLOGY AND EPIDEMIOLOGICAL ANALYSIS

O.P. Code: 283058

Time: Three Hours Maximum: 100 marks

#### **Answer ALL questions**

I. Elaborate on:  $(2 \times 20 = 40)$ 

1. Write in detail the various methods of collection of Data and presentation of Data.

2. Explain in detail about "Health Information System".

II. Write notes on:  $(10 \times 6 = 60)$ 

- 1. What are the sources of secondary data?
- 2. Explain the characteristics of a frequency distribution table.
- 3. Explain Bayes theorem by an example.
- 4. Explain Null and Alternate Hypothesis.
- 5. Write down the steps involved in test of significance.
- 6. Differentiate between prospective and retrospective studies.
- 7. How to conduct a clinical trial.
- 8. Explain Linkert Scaling Techniques.
- 9. What are the principles to be observed while writing a good report?
- 10. Write down the problems encountered by researchers in India.

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### PAPER VIII – RESEARCH METHODOLOGY AND EPIDEMIOLOGICAL ANALYSIS

Q.P. Code: 283058

Maximum: 100 marks

**Time: Three Hours** 

(180 Min.)	17142211114		
Answer ALL questions in the same order I. Elaborate on :	<b>Pages</b>	Time (Max.)	
1. Explain biases in research.	17	40 min.	20
2. What are the components, uses and application of health information in epidemiology?	17	40 min.	20
II. Write notes on:			
1. Differences between qualitative and quantitative research.	4	10 min.	6
2. Measures of central tendency.	4	10 min.	6
3. Features of good research designs.	4	10 min.	6
4. Differences between observational and experimental studies.	4	10 min.	6
5. Steps in testing a hypothesis.	4	10 min.	6
6. Characteristics of a good report.	4	10 min.	6
7. Relative merits and demerits of Rating vs. Ranking scales.	4	10 min.	6
8. Measures of disease frequency in epidemiology.	4	10 min.	6
9. Advantages of case-control over cohort study.	4	10 min.	6
10. Clinical trial with examples.	4	10 min.	6