

Manipal Academy of Higher Education
Master of Public Health 1st Year, Block 2
MPH 521: Applied Epidemiology

November 2, 2021

Time: 10 am to 1 pm

Max Marks: 60

Answer all the questions.

1. Design a case control study to test the association between vaccination and Covid-19 occurrence. Illustrate epidemiological measure of association calculated from case control study with an example
 - a. CONSTRUCT a hypothetical 2x2 table for testing the association
 - b. EXPLAIN how will you identify the cases?
 - c. DESCRIBE the method and rationale for selection of appropriate controls
 - d. EXPLAIN the measures of association derived from the study
 - e. INTERPRET the measure of association you calculated

(5x2= 10 Marks)
2. Explain main features of Experimental studies. Describe the importance of randomization. Discuss different types of experimental study design.

(4+3+3=10 Marks)
3. Describe methods to maximize validity in a cohort study

(5 Marks)
4. Differentiate Causation and Confounding factor

(5 Marks)
5. Explain Survival analysis

(5 Marks)
6. List the advantages of Nested case-control studies

(5 Marks)
7. Explain the merits of Analytical studies over Descriptive studies

(5 Marks)
8. Describe the measures to minimize bias in a Cross-sectional study

(5 Marks)
9. Compare the advantages of Cross-sectional studies over Ecological studies

(5 Marks)
10. Describe Meta analysis. Can a Systematic Review be carried out without a Meta-Analysis (Yes/No)

(4+1 = 5 Marks)
