



Name :

Roll No. :

Invigilator's Signature :

**CS/MBA(NEW)/SEM-3(FT)/HSA-302/2009-10
2009**

**EPIDEMIOLOGY AND ANALYSIS OF
HEALTHCARE INFORMATION DATA**

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP – A

(Objective Type Questions)

1. Choose the correct alternatives of the following :

10 × 1 = 10

- i) A disease that is present at a relatively constant, albeit low, level in a population is termed as a/an disease.
- a) Pandemic
 - b) Common source epidemic
 - c) Endemic
 - d) Prodromal.
- ii) Which of the following terms specifically uses death as a criteria ?
- a) Incidence
 - b) Pvealence
 - c) Mortality
 - d) Morbidity.



- iii) One of the fundamental premises underlying the study of epidemiology is
- a) Disease, illness and ill-health are randomly distributed in a population
 - b) Disease, illness and ill-health are not randomly distributed in a population
 - c) Disease, illness and ill-health are only randomly distributed in a large population
 - d) disease, illness and ill-health are very rarely distributed in large opulations.
- iv) A researcher is interested in recording the number of individuals in a particular geographic region who have a common cold at some point during the month of February 2001. Which of the following measures of morbidity would be most appropriate in answering this question ?
- a) Point prevalence b) Period prevalence
 - c) Cumulative incidence d) Incidence density.
- v) The resistance of a population to an attack by a disease to which a large proportion of the members of the group are immune is referred to as
- a) group resistance
 - b) population immunogenesis
 - c) herd immunity
 - d) the Panum effect.



- vi) The attack rate in susceptible people who have been exposed to a primary case is referred to as
- The attack rate
 - The post-primary attack rate
 - The secondary attack rate
 - The person to person attack rate.
- vii) It is assumed that disease can be transmitted directly or indirectly. A vector such as a mosquito is an example of
- Direct disease transmission
 - Indirect disease transmission
 - Single exposure
 - Common vehicle exposure.
- viii) Which of the following is not a primary requirement for conducting screening for disease control ?
- Prevalence of the disease should be high in population in the area under study
 - There should be a favorable prognosis for early treatment of the disease
 - The government should fund the program
 - The disease should be serious.
- ix) Fluoridation of water would be an example of
- A primary prevention strategy
 - A secondary prevention strategy
 - A tertiary prevention strategy
 - It is not a prevention strategy.



- x) During the 19th century, John Snow
- Proved his miasmatic theory of disease using shoe leather epidemiology
 - Proved that cholera was spread through contaminated water by conducting natural experiments
 - Was the first anaestheologist to use chloroform on a woman in labour
 - Hypothesised that cholera was primarily due to overcrowded conditions and malnutrition.

GROUP – B

(Short Answer Type Questions)

3 × 5 = 15

- Define the terms *attack rate* and *secondary attack rate*.
- Write short note Occupational environment.
- Define the following :
 - Attributable risk
 - Relative risk
 - Odds ratio
 - Crude death rate
 - Maternal mortality rate.

GROUP – C

(Long Answer Type Questions)

3 × 15 = 45

- Describe the Natural History of Disease model.
- Descriptive epidemiology includes the characteristics of person, place and time. Discuss their relevance to understanding the distribution and dynamics of disease.
- What is the meaning of the term geriatrics ? What are the problems of geriatrics ? What steps should be taken to manage the geriatric group of people ?