



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/MBA/SEM-3 (FT)/HSA-302/2012-13  
2012**

**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**

**( Multiple Choice Type Questions )**

1. Choose the correct alternatives for the following :

10 × 1 = 10

- i) A disease that is present at a relatively constant, albeit low, level in a population is termed 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) Prevalence
  - 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 populations
  - d) disease, illness and ill health are very rarely distributed in large populations.
- 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
- a) the attack rate
  - b) the post primary attack rate
  - c) the secondary attack rate
  - d) the person to person attack rate.



- vii) It is assumed that diseases 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 favourable 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 labor
  - Hypothesised that cholera was primarily due to overcrowded conditions and malnutrition.



**GROUP - B**

**( Short Answer Type Questions )**

Answer any *three* of the following.  $3 \times 5 = 15$

2. Define the terms attack rate and secondary attack rate.
3. Occupational environment.
4. Write short notes on
  - a) Attributable risk
  - b) Relative risk.
5. Explain the following :
  - a) Odds ratio
  - b) Crude death rate
  - c) Maternal mortality rate.

**GROUP - C**

**( Long Answer Type Questions )**

Answer all of the following.  $3 \times 15 = 45$

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