

**Post Graduate Diploma in Management (Hospital & Health Management)  
PGDM – 2023-25 Batch**

**1<sup>st</sup> Year – 1<sup>st</sup> Term Examination**

**Course & Code : Essentials of Epidemiology-CC 605**

**Reg. No. :**

**Term & Batch : I, 2023-25**

**Date : December 18, 2023**

**Duration : 3 Hrs.**

**Max. Marks : 70**

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**Instructions:**

- Budget your time as per the marks given for each question and write your answer accordingly.
  - Don't write anything on the Question Paper except writing your Registration No.
  - Mobile Phones are not allowed even for computations.
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**Part A: Attempt all questions. Q.1 to Q.10 (10 questions\*1 marks = 10 marks)**

- 150 cases of a certain disease were reported during a particular time of the year in a locality, which was much more than what was expected during that particular time. You could best describe this as :  
A. Outbreak B. Sporadic C. Exotic D. Endemic
- The following is a feature of a quasi experimental study :  
A. Randomization  
B. Absent control group and randomization  
C. Publication in a peer-reviewed journal  
D. Statistical analysis using logistic regression
- The denominator for calculating incidence rate is .....
- Relative risk can be calculated in all study designs except  
A. Cohort B. Quasi experimental C. Descriptive D. RCT
- In a point source epidemic, all the cases occur within one incubation period. True or False ?
- A line list is prepared as part of  
A. Quasi experimental study  
B. Disease surveillance  
C. Outbreak investigation  
D. Calculating sensitivity of screening tests
- In a joint family of 11 adults and 8 children, there was an index case of measles in a child. 2 of the 7 unaffected children were immunized. All the adults had measles before. Within two weeks, 2 of the unimmunized children had measles. What is the secondary attack rate?  
A. 28.57% B. 80% C. 11.11% D. None of the above
- Public health surveillance includes which activities?  
A. Data collection  
B. Data analysis & interpretation  
C. Data dissemination  
D. All

**Contd...2..**

9. In the definition of epidemiology, “determinants” generally includes all except:  
A. Agents B. Causes C. Control measures D. Risk factors
10. In prospective studies, the same respondents are surveyed at .....

**Part B: Q.11 to Q.15 Attempt ANY FOUR questions. Each question carries equal marks.  
(5 questions \*4 marks = 20 Marks)**

11. Enlist the 3 key elements in studying the distribution of a disease.
12. In 1945, there were 1,000 women who worked in a factory painting radium dials on watches. The incidence of bone cancer in these women up to 1975 was compared with that of 1,000 women who worked as telephone operators in 1975. Twenty of the radium dial painters and four of the telephone operators developed bone cancer between 1945 and 1975. What is the study design ? Calculate risk of association of radium dials and bone cancer.
13. Briefly describe the different types of blinding
14. Briefly compare and contrast matching with randomization.
15. Web of causation

**Part C: Q.16 to Q.19 Attempt all questions. Each question carries equal marks.  
(4 questions\*10 marks = 40 marks)**

16. The incidence of Disease X in a community is 5% and its prevalence, 25%. A screening test has to be applied on all the patients with disease X in a locality. If the test had a sensitivity of 70% and a specificity of 90%, what were the chances that a person with a positive and negative test had disease X? Demonstrate using 2x2 table.
17. Outline the steps of outbreak management with brief explanation.
18. Compare and contrast descriptive and analytical study designs
19. Do you think a health/hospital/ HIT manager should have an understanding of epidemiologic concepts. Substantiate your opinion.