0308M143   Candidate's Seat No :_____

B.Sc. Sem.-6 Examination

CC - 311

Statistics

Time : 2-00 Hours]   **August 2021**   [Max. Marks : 50

Instructions

1. *There are two sections in this question paper.*
2. *All questions in Section – I carry equal marks.*
3. *Attempt ANY THREE questions from Section – I.*
4. *Section – II is compulsory.*
5. *Figures to the right indicate full marks of the questions/sub-questions.*

SECTION - I

Q.1 (a) With respect to population, explain, population growth and discrete population growth.   7

(b) State various factors that affect growth pattern of a population.   7

Q. 2 (a) Describe continuous time population growth model, role of Weibull distribution and its survival function.   7

(b) Explain, in details, Population growth,   7

Q. 3 (a) Discuss interpretation of odds ratio.   7

(b) A survey was conducted to study lever cancer caused by consuming wine and oily food on a group of people. 58 of 157 people consuming wine but did not expose oily food, compared with 44 of 137 people consuming wine and had oily food. Present the data in a tabular form and find odds ratio.   7

Q. 4 (a) Write a note on odds, odds ratio.   7

(b) Describe, in brief, epidemiology   7

Q. 5 (a) Explain risk ratio and give its formula.   7

(b) With reference to epidemiology, answer the following: 7

(i) Explain utility of measures of association.

(ii) Define relative risk.

Q. 6 (a) Describe term: "Clinical Trials" In how many phases, clinical studies are carried out? State importance of first phase of clinical trials..   7

(b) Explain, in details, Simpson's paradox.   7

Q. 7 (a) Write a note on clinical trials.   7

Give, in brief, general history of drug discovery.   7

Q. 8 (a) Give importance of Cross over design in clinical trials.   7

(b) Answer the following: 7

(i) What is evidence based design?

(ii) State uses of longitudinal studies.

SECTION –II

Q. 9   Answer ANY EIGHT from the following: 8

1 State one use of clinical trials.

2 Give one advantage of epidemiology.

3 Define relative risk, also state one use of relative risk.

4 define birth and death rates

5 Write a note on Exponential population growth and give its application.

6 Define discrete population growth.

7 What is change in population size during a fixed time?

8. Define Hazard Rate.

9 State the World Estimated Birth rate and death rate for the year 2011.