



NBV-003-017402 Seat No. _____

M. Sc. (Statistics) (Sem. IV) Examination

April / May - 2017

STAT.CST-4002 : Survival Analysis & Clinical Trials

Faculty Code : 003

Subject Code : 017402

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) Attempt all questions.
(2) Each question carries equal marks.

1 Answer the following questions : (any seven) 14

- (1) In a Cross-over design which design repeated t times, If $t=1$ the analysis not follow the procedure of analysis of such design ?
- (2) Logistic function $f(z) = \frac{1}{1+e^{-z}}$ $-\infty < z < \infty$ then $f(z)$ lie between _____.
- (3) A Parallel line assay in which each of the preparation has equal number of doses and subject is allocated is called _____.
- (4) A clinical trial is called _____ clinical trials which is randomized and double blinded.
- (5) Randomized control study is comparative studies with an intervention group and _____ group.
- (6) All clinical trials are compromises between _____.
- (7) For testing the linearity of regression, the mean squares for the deviations from regression is tested by the _____.
- (8) In cutler - Ederer estimate method, the assumption is made that the death and loses are follows _____ distribution?
- (9) A Prospective study comparing the effect and value of interventions against a control in human being is said to be _____.
- (10) The Phase-study of Clinical trial in which Phase We focused on effectiveness?

- 2** Answer the following questions : (any **two**) **14**
- (1) Explain fieller's theorem and fiducial limits.
 - (2) Explain analysis of parallel line assays.
 - (3) Explain direct assays.
- 3** Answer the following questions : **14**
- (1) Explain survival analysis.
 - (2) Write a short note on randomize control study.
- OR**
- 3** Answer the following questions : **14**
- (1) Explain phase study and write on phase-2.
 - (2) Explain cross-over design. Write its advantages.
- 4** Answer the following questions : (any **two**) **14**
- (1) Define survival function of exponential model.
 - (2) Explain cutler - ederer estimate for survival analysis.
 - (3) Explain censoring.
- 5** Answer the following questions : (Any **Two**) **14**
- (1) Explain analysis of cross over design.
 - (2) Define hazard and survival function of gamma distribution.
 - (3) Find the difference between cross over design and parallel-line assays.
 - (4) Explain logit function and logistic regression model.