



QP CODE: 26019632



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Reg No : .....

Name : .....

**M.Sc DEGREE (CSS) EXAMINATION, MARCH 2026**

**Fourth Semester**

MSC Data Analytics

**ELECTIVE - ST900402 - EPIDEMIOLOGY AND CLINICAL TRIALS**

2020 Admission Onwards

630D59DB

Time: 3 Hours

Weightage: 30

**Part A (Short Answer Questions)**

*Answer any **eight** questions.*

*Weight 1 each.*

1. State the difference between absolute effects and relative effects.
2. Mention any two types of observational studies.
3. Define matching.
4. What are the different types of censoring?
5. Write the equation for survival function.
6. Graphically illustrate the probability density function of an exponential distribution with parameter  $\lambda$ .
7. Define a protocol.
8. What all are the factors affecting multiplicity adjustment methods?
9. What are the different types of subgroup analysis?
10. Define sensitivity analysis.

(8×1=8 weightage)

**Part B (Short Essay/Problems)**

*Answer any **six** questions.*

*Weight 2 each.*

11. Write a short note on incidence.
12. What are the properties and uses of prevalence?
13. What is the importance of Kaplan meier estimator?





14. Define a Cox proportional hazard model.
15. Briefly explain the different types of clinical trials.
16. Define simple and block randomization methods.
17. What is the significance of using statistical analysis plan?
18. What are the advantages and disadvantages of meta analysis?

(6×2=12 weightage)

**Part C (Essay Type Questions)**

*Answer any **two** questions.*

*Weight **5** each.*

19. Write a short note on cross-sectional study design. Also mention its advantages as well disadvantages.
20. Write a short note on (i) Exponential distribution (ii) Weibull distribution
21. Describe the 13 principles of ICH - GCP.
22. Write a short note on the topics included in a clinical trial protocol.

(2×5=10 weightage)

