



WEST BENGAL STATE UNIVERSITY
B.Sc. Programme 6th Semester Examination, 2022

STSGDSE03T-STATISTICS (DSE2)

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

GROUP-A

Answer any four questions from the following

5×4 = 20

1. Explain the memory less property of Exponential distribution. 5
2. Explain the properties of hazard function under the assumption of gamma distribution. 5
3. Write a note on right censored observations. 5
4. What are integrated hazard and survival? — Explain. 5
5. Write a note on survival function. 5
6. Explain the case of censoring that is clearly informative. 5

GROUP-B

Answer any two questions from the following

10×2 = 20

7. Estimate the mean survival time and variance of the estimator for Type I censored data. 10
8. Describe Kaplan-Meier method for estimating survival function. Describe advantages and disadvantages of Kaplan-Meier estimator. 10
9. Describe the role of likelihood function in survival analysis. 10
10. Explain the properties of hazard function under assumption of lognormal distribution. What are the advantages and disadvantages of actuarial estimator? 10

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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