DHARAMPETH M. P. DEO MEMORIAL SCIENCE COLLEGE, NAGPUR

B.Sc. (Statistics) SEMESTER- IV

Paper 1 (STATISTICAL INFERENCE)

Unit 1

Point estimate of a parameter, unbiased estimator, concept of bias: https://youtu.be/57-WL12pN94?si=Gg9BKlbs0deIj3Zz

Interval Estimation: Concept of confidence intervals: https://youtu.be/Y4gSdAsCO2g?si=OSxaM_X5gmLoA4PW

Null and alternative hypothesis, Types of errors, Critical region, level of significance, p-values, power of a test: https://youtu.be/_OjC0HZHTK4?si=5WO3na-VMtQoBL42

Unit 2

Test and construction of Confidence intervals for the mean of univariate normal distribution: https://youtu.be/kkuPSQd9JEY?si=gjjisSRBBSpxEx6w

Test and construction of confidence intervals for the difference of two means and two variances: https://youtu.be/0Kmc--WA-Do?si=u0G5U9w_bYm26NKi

Testing for the significance of sample correlation coefficient in sampling from bivariate normal distribution: https://youtu.be/nMCdoIXeUuo?si=1pk4i1SlQ9FPYxPB

Unit 3

Chi-square tests: https://youtu.be/f53nXHoMXx4?si=4PZM_v2rCdJvmmfJ

Pearson's chi-square test for goodness of fit: https://youtu.be/bFk_UjBhl2Q?si=vvqg5GqVS1fFyUW-

Contingency tables and test of independence of attributes: https://youtu.be/hpWdDmgsIRE?si=1xawgaGF_CiB3vM7

Unit 4

Large Sample tests: https://youtu.be/wCDJ_1AjHbA?si=NmxyGELLMw0M7iQv

Tests and construction of confidence intervals for a single mean: https://youtu.be/czdwHU27OqA?si=0m0SIbmOi6fakjw9