

# Government Degree College Ganderbal

## Department of Statistics

### Some Important Instructions

Before writing and preparing your assignments, candidates are required to read the instructions given below carefully. It is mandatory for candidates to strictly adhere to every point so that your assignments will be approved for evaluation without any issue.

- 1) Students are required to write down their Roll No, Name, Registration No, Semester and page numbering, on top of each page.
- 2) The assignments must be hand written on A4 size ruled paper with not more than 10 pages.
- 3) Students are required to convert their hand written assignment into a single pdf file by using a user friendly camscanner app.
- 4) Students are required to scan your hand written assignments clearly, so that the submitted assignments are readable for concerned evaluator
- 5) Students are required to submit their scanned copy of assignment through Email: [statistics.assignmentskillsem4@gmail.com](mailto:statistics.assignmentskillsem4@gmail.com)
- 6) Do not waste your precious time by simply copying from other students, instead you must use your IQ to prepare your assignments for best results
- 7) Students are advised to keep a hard copy of their assignments with them
- 8) The last date for the submission of assignments is 26/06/20.
- 9) Students must put their signatures on top of each page.
- 10) The first page of assignment must only contain the following information
  - i) Name of candidate.....
  - ii) Roll No.....
  - iii) Batch.....
  - iv) Category: Fresh/Backlog.....
  - v) Regn. No:.....
  - vi) Subject.....
  - vii) Semester.....
  - viii) Contact No.....
  - ix) Email address.....
  - x) Date of Submission.....
  - xi) Signature of Candidate.....
- 11) Last but not least students must cross check whether they have followed all the points given in the instructions carefully before the submitting their assignments.

**Assignment Paper for 4<sup>th</sup> semester (Skill), June 2020**

**Subject: Skill Enhancement Course (Statistical Methods)**

**For**

**Backlog Students**

Note: Attempt any 02 questions. Each question carries equal marks.

- Q1 (i) Calculate Karl Pearson's coefficient of skewness for the following data on the number of red flowers on a plant: 12, 18, 35, 22, 18
- (ii) The number of bacteria in 1 ml of blood from 5 persons are 2, 3, 7, 8, 10. Calculate the first, second, third and fourth moment about the mean. Hence find out skewness and Kurtosis?

- Q2 The first three moments of a distribution about 2 of the variable are 1, 16 and -40.

(i) Show that mean is 3, variance is 15 and 3<sup>rd</sup> moment about mean is -86.

(ii) Show that first three moments about the origin are 3, 24, 76

- Q3 (i) Calculate the correlation coefficient for the following heights (in inches) of fathers (X) and their sons (Y)

X: 65 66 67 67 68 69 70 72

Y: 67 68 65 68 72 72 69 71

(ii) Obtain the Spearman's rank correlation coefficient for the following data

X: 68 64 75 50 64 80 75 40 55 64

Y: 62 58 68 45 81 60 68 48 50 70

- Q4 In the following data the test scores made by salesman on an intelligence test and their weekly sales

Salesman: 1 2 3 4 5 6 7 8 9 10

Test score: 40 70 50 60 80 50 90 40 60 60

Sales(in '000) 2.5 6 4.5 5 4.5 2 5.5 3 4.5 3

Calculate the regression line of sale on test score and predict weekly sales volume if salesman makes a score of 70