(f) Explain the following:

(i) stem and leaf plot

(ii) ogives

[This question paper contains 6 printed pages.]

Your Roll No...............

Sr. No. of Question Paper : **7561**

Unique Paper Code   : 61018313

Name of the Paper   : (GEC-3.2) Statistical Data Analysis Using Software Packages (SPSS)

Name of the Course   : **B.VOC. (CBCS) 2023**

Semester   : III

Duration   : 2 Hours

Maximum Marks   : 50

Instructions for Candidates

1.   Write your Roll No. on the top immediately on receipt of this question paper.

2.   **All** questions are compulsory.

1.   Answer the following   (1×6)

(a) The 'variable view' in IBM SPSS's data editor is used for entering data.

P.T.O.

(b) IBM SPSS report as 10.574 E-05 as 0.00010574.

(c) 81% of variance has been explained by a correlation of 0.9.

(d) R^2 is known as Partial correlation coefficient.

(e) The error bar on an error bar chart represent, the standard error of the mean.

(f) The t-test tests for, whether a correlation is significant.

2. Attempt **any seven** of the following: (2x7)

(a) What is the difference between variables and values in SPSS?

(b) How can we generate and interpret histograms in SPSS?

(d) How do you interpret the results of a t-test in SPSS, including the t-value, degrees of freedom, and p-value, in the context of hypothesis testing?

(e) Give the procedure to obtain the Karl Pearson coefficient and Spearman rank correlation coefficient for bivariate data. Write the null and alternative hypothesis. Comment on the correlation coefficient from the following table.

Correlations

		Accidents	Population at risk
Accidents	Pearson Correlation	1	-.106
	Sig. (1-tailed)		.421
	N	6	6
Population at risk	Pearson Correlation	-.106	1
	Sig. (1-tailed)	.421	
	N	6	6

(c) How can you perform simple random sampling in SPSS?

(d) Define scale and nominal levels of measurement of SPSS, explain them.

(e) What is and the purpose of a simple linear regression analysis?

(f) Give the procedure to open the in-built data set in SPSS?

(g) What does a diagonal line on a normal probability plot in SPSS indicate?

(h) How can one "recode" variables in SPSS?

3. Answer **any five** of the following: (5×6)

(a) Can you explain how to add various statistical measures to your automated report, including

means, medians, standard deviations, and quartiles, and how to ensure they are correctly calculated and presented?

(b) A public library wants to determine the research needs of children and adults who access the reference section. You will use stratified sampling?

   (i) Define the population.

   (ii) Define the sample frame.

   (iii) Explain how you would select the sample.

   (iv) Explain how you would gather the data

(c) What is the role of syntax files and scripting in managing and automating statistical analyses within SPSS projects, and how can they improve efficiency and reproducibility?