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

(a) Explain the concept of 'case summaries' in the function 'reports'. Discuss the role of 'grouping variable(s)' in case summaries with example.

(b) Explain the functions 'Frequencies', 'Descriptive and 'Explore' used in SPSS with examples.

(c) Give the procedure to measure the degree of linear relationship between two variables using scatter diagram. Also explain the major types of scatter diagram.

(d) What are the different levels of measurement specified in SPSS and explain them.

(e) What is the different 'variable type' in variable view of SPSS? Briefly explain them?

(f) 12 school boys were given a test in Statistics. They were given a month's coaching and a second test, was held at the end of it. The marks recorded are as follows :

Boys	1	2	3	4	5	6	7	8	9	10	11	12
Marks in I test	44	40	61	52	32	44	70	41	67	72	53	72
Marks in II test	53	38	69	57	46	39	73	48	73	74	60	78

Write the null and alternative hypothesis. Select the appropriate statistical method and write the procedure to conduct the test in SPSS. Also mention the circumstance of p-value to, reject the null hypothesis.

4/12/18 (Evening)

[This question paper contains 4 printed pages.]

Instructions for Candidates

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

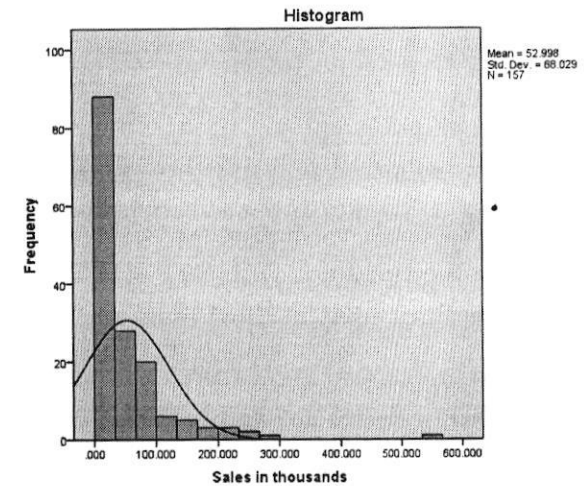2. **All** questions are compulsory.

1. True/False :   (1×6)

(a) In SPSS, The full form of the variable name may be written in 'Label' in variable view.

(b) The result is said to be significant, if p-value is greater than level of significance.

P.T.O.

(c) In SPSS, variable measure 'Ordinal' is used for quantitative observation.

(d) In order to completely delete cases and variables in SPSS 'Delete' is used from the edit menu.

(e) The full form of the SPSS is 'Statistical package for social science'.

(f) In SPSS, a variable name may be 'accident per day'.

2. Attempt any **seven** of the following :   (2×7)

(a) Give the procedure for constructing less than cumulative chart in SPSS.

(b) Write the procedure to open the in-built data set named "tv-survey" in SPSS.

(c) Write the procedure to prepare a frequency table of the variable 'manufacturer' in the data set 'car_sales' and also give the procedure to create a bar chart of the frequency table in SPSS.

(d) Data of marks (out of 100) of 20 students in a particular subject are given. Give the procedure to arrange the given marks into ascending order.

(e) Interpret the following figure?

Histogram — Mean = 52.998, Std. Dev. = 68.029, N = 157

(f) In SPSS, explain the procedure to perform t-test for testing the means of two samples, when both the samples are independent.

(g) Define the function 'values' in variable view of SPSS.

(h) Differentiate between Percent and Valid Percent from the following table

Department

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Development	16	22.9	25.8	25.8
	Computer services	30	42.9	48.4	74.2
	Finance	13	18.6	21.0	95.2
	Other	3	4.3	4.8	100.0
	Total	62	88.6	100.0	
Missing	Don't know	8	11.4		
	Total	70	100.0		