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BPHARM
(SEM VIII) THEORY EXAMINATION 2024-25
BIOSTATISTICS AND RESEARCH METHODOLOGY

TIME: 3 HRS

M.MARKS: 75

Note: 1. Attempt all Sections. If require any missing data, then choose suitably.

SECTION A

1. Attempt all questions in brief.

10 x 2 = 20

a.	Define correlation.
b.	Define Variance.
c.	Discuss method of least squares
d.	Write short note on ANOVA.
e.	Define Friedmann Test.
f.	Define pie chart.
g.	Describe regression Modeling.
h.	Explain the formulation of Null hypothesis and Alternative hypothesis.
i.	Differentiate between dependent and independent variables.
j.	State factorial design.

SECTION B

2. Attempt any two parts of the following:

2 x 10 = 20

a.	Illustrate Correlation and their types.
b.	What do you understand by plagiarism. Explain the classification of plagiarism.
c.	Explain observational and experimental studies in detail.

SECTION C

3. Attempt any five parts of the following:

5 x 7 = 35

a.	Calculate the median of marks obtained by a batch of 9 students in list:									
	No.	1	2	3	4	5	6	7	8	9
	Marks	33	32	55	47	21	50	27	12	48
b.	What do you know about dispersion? Explain Standard deviation and its Mathematical properties.									
c.	What is Wilcoxon Rank Sum Test? Explain in brief.									
d.	Explain the various phases of designing clinical trials.									
e.	Explain the application EXCEL and SPSS programs in statistical research analysis.									
f.	Explain factorial design? How would you demonstrate 2^2 and 2^3 factorial designs with example.									
g.	Explain response surface methodology. Write about its types, limitation and uses.									