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BIOSTATISTICS AND RESEARCH METHODOLOGY (BP801T)

IMPORTANT QUESTIONS FOR FINAL EXAMINATION

NOTE- ALL QUESTIONS ARE COMPULSORY.

SECTION A(NUMERICALS)

(A) Find the mean of the following data- 2,8,10,16,37,44,93,24,0,8.

(B) Find the arithmatic mean of the given data-15,47,9,23,64,11,2,4,8,0,9,0.

(C) Marks of 10 students in a class are following 34,25,43,44,32,39,49,40,35,41. Find the average marks of students.

(D) Find the mean, mode, and median of the following data- 2,4,4,5,7,8,3,9,1,7.

(E) Find the mean, mode, and median of the given data-

X	5	8	9	6	3
F	2	2	7	3	6

(F) Find the mode of 3,4,6,9,8,7,26,38,45.

(G) calculate median-

C.I	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	2	4	5	10	7	4

(H) calculate mean, median, and mode-

x	10-25	25-40	40-55	55-70	70-85	85-100
f	6	50	44	26	3	1

(G) Find standard deviation-

C.I	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
FREQUENCY	5	10	20	40	30	20	10	5

(H) Blood serum cholesterol levels of 10 persons are 240,260,290,245,255,288,272,263,277,251. Calculate standard deviation.

(I) Find the coefficient of correlation between the two subjects from the following-

x	67	60	69	57	63	65	67	59	64	62	65
y	62	60	75	53	63	69	51	58	55	61	90

(J) Find coefficient of correlation between x and y-

X	2	4	4	7	5
Y	8	8	5	6	2

(K) calculate the coefficient of correlation from the data-

x	2	3	4	5	6	7	8
y	4	6	8	9	12	15	16

(L) Draw histogram from the following distribution-

C.I	0-20	20-40	40-60	60-80	80-100	100-120	120-140	140-160
Frequency	7	6	10	9	5	11	8	5

(M) Draw o-give curve-

Wages(rs)	0-10	10-20	20-30	30-40	40-50	50-60	60-70
frequency	4	6	8	10	18	5	1

(N) Fit a straight line to the following data treating y as a dependent variable-

X	1	2	3	4	5
Y	2	7	9	10	11

(O) Express the following data in discrete frequency distribution-

0,4,2,3,1,1,2,0,5,3,4,1,2,0,2,2,1,1,4,3,3,2,1,0,4.

(P) Form a cummulative frequency table-

Class marks	23	28	33	38	43	48	53	58
Frequencies	1	2	5	8	14	6	3	1

(Q) Find the Karl Pearson's coefficient of correlation from the following data-

X	2	4	4	7	5
Y	8	8	5	6	2

SECTION B (THEORTICAL)

QUE.1 Explain Type I error and Type II error.

QUE.2 Explain t-test(sample, paired, unpaired).

QUE.3 Write short note on ANOVA(Analysis of Variance).Discuss One way and Two way ANOVA.

QUE.4 Define null hypothesis and alternative hypothesis.

QUE.5 What is sampling and types of sampling?

Or

What is Essence of sampling?

QUE.6 Clinical trial and various phases in designing clinical trial.

QUE.7 Write note on-

(i) Kruskal Wallis test

(ii) Friedman test

(iii) Mann-Whitney u test

QUE.8 Write a short note on "Blocking and confounding system for two level factorial".

QUE.9 Define regression modeling. Explain hypothesis testing in simple and multiple regression models.

QUE.10 Explain the following;

(i) Cohort studies

(ii) Statistical analysis using Excel or SPSS

(iii) Historical design

(iv) Standard error of mean.