

(b) Calculate Karl Pearson using appropriate formula :

X	Y
20	15
21	16
22	17
23	18
24	19
25	20
27	21

(10)

7. Define Hypothesis. How Null hypothesis and Alternate hypothesis differ from each other? Give suitable examples.

(15)

Roll No. 21501325024 o/c Total Pages : 4

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B.Sc. (LS) Vth SEMESTER

Biostatistics (DEC-08)

Time : 3 hours]

[Max. Marks : 75

Instructions :

1. It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.
2. Answer any four questions from Part-B in detail.
3. Different sub-parts of a question are to attempted adjacent to each other.

PART-A

1. (a) Define SPSS. (1.5)
(b) What do you understand by parametric test and non-parametric test? (1.5)
(c) data is anything that can be counted or measured. (1.5)
(d) Define covariance. (1.5)
(e) Define Quartiles. (1.5)

- (f) Comparison between mean deviation and standard deviation. ✓ (1.5)
- (g) Characteristics of Z test. ✓ (1.5)
- (h) What is the probability of getting tail in a throw of a coin? ✓ (1.5)
- (i) Define Bayes theorem. ✓ (1.5)
- (j) Write the names of five statistical softwares. (1.5)

PART-B

2. (a) Explain all the properties of student's t-test distribution. (5) ✓
- (b) Give the applications of Biostatistics in modern research. (10) ✓
3. (a) Illustrate, one tailed and two tailed test. (5) ✓
- (b) Suppose a zoology book with 585 pages contains 43 typographical errors. If those errors are randomly distributed throughout the book, what is the probability that 10 pages, selected at random, will be free from errors? (Use $e^{-0.735} = 0.4795$) (10)
4. (a) Write differences between Correlation and Regression. (5) ✓

- (b) Explain different types of Graphs, Bar diagram, histogram, frequency polygon, frequency curve, pie chart, Ogive. ✓ (10)

5. (a) Compute the arithmetic mean by short cut method for the following data : (5)

Wages in Rs.	Number of Persons
10-20	5
20-40	15
40-50	25
50-70	35
70-80	12
80-100	8

- (b) Write note on measures and importance of Kurtosis and coefficient of variation. (10)

6. Find the median for the following data : (5)

Income Rs.	Number of Persons
100	5
150	15
80	25
200	35
250	12
180	8
Total	122