

**RAN-4001****S.Y. BPT Examination****March / April - 2019****Biostatistics****સૂચના : / Instructions**

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

S.Y. BPT Biostatistics

Name of the Subject :

Biostatistics

Subject Code No.:

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Seat No.:

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Student's Signature

Q-1 What is measure of variation? Explain different measures of variation (10)
with example.

OR

Q-1 Calculate mean, median and mode from the following data.

Class	5-10	10-15	15-20	20-25	25-30	30-35
F	6	8	11	9	4	3

Q-2 Attempt any three of the following (5*3=15)

1. Identify more consistent series using co-efficient of variation from the following data:

Series-1: 3, 5, 2, 0, 2, 4, 5

Series-2: 4, 1, 3, 5, 4, 2, 2

2. Calculate Pearson's correlation co efficient between following two variables and interpret its value:

X	8	7	5	6	9	7
Y	5	9	8	6	4	2

3. Explain what is simple and multiple regression, linear and non linear regression. From the following information obtain regression line of Y on X.

	Mean	Standard deviation
X	11.9	2.3
Y	12.8	3.5
Correlation coefficient	0.77	

Also estimate value of Y when $x=25$.

4. To examine is the effectiveness of diet programme, data are collected on before and after diet programme on 10 individuals and following information obtained:
- State null and alternative hypothesis if researcher wants to know is there
 - Sample information obtained are $\bar{d} = 9, s_d = 2.3$
 - If $t_{\text{cri}} = 2.262$, report your decision

Q-3 Short answer type (5 out of 6)

(3*5=15)

- Histogram
- Ordinal scale of measurement
- Linear and non linear correlation
- Analysis of variance (ANOVA)
- One sample t-test
- Stratified sampling