

Roll No.

Total No. of Pages : 02

Total No. of Questions : 18

B.Sc. (BT) (2018 Batch) (Sem.-2)

**BIOSTATISTICS**

Subject Code : BSBT-203-18

M.Code : 75874

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

**SECTION-A**

**Write briefly :**

- Q1. What do you understand by the term Sample?
- Q2. What do you understand by tabulation of data?
- Q3. Define Histogram.
- Q4. Define Arithmetic Mean.
- Q5. Properties of Regression co-efficients.
- Q6. Define Probability.
- Q7. What do you understand by Binomial Distribution?
- Q8. Probable error.
- Q9. What is Interpolation?
- Q10. Curve smoothening.

### SECTION-B

Q11. What is Correlation? What are various types of correlation?

Q12. Calculate Spearsman Rank Correlation co-efficient from the following data :

<b>X</b>	15	20	28	12	40	60	20	80
<b>Y</b>	40	30	45	30	15	15	35	55

Q13. What are Experimental Designs? Explain the basic principles of experimental designs.

Q14. Write a note on Derivative Curves.

Q15. Find a fourier series to represent  $x - x^2$  from  $x = -\pi$  to  $x = \pi$ .

### SECTION-C

Q16. Obtain the two regression equations and calculate co-efficient of correlation from the following data :

<b>X</b>	91	97	103	121	67	124	51	73	111	57
<b>Y</b>	97	75	69	97	70	91	39	61	80	47

Q17. (a) The mean yield of two sets of plots and their variability are as given below. Examine whether the difference in the variability in yields is significant at 5% level of significance.

<b>Variables</b>	<b>Set of 40 plots</b>	<b>Set of 60 plots</b>
<b>Mean per Plot</b>	1258 lbs	1243 lbs
<b>Standard deviation per plot</b>	34	28

(b) Evaluate  $J = \int_0^1 e^{-x^2} dx$  by means of (2) with  $n = 10$ .

Q18. State the properties of determinants.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**