

B. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2020**SEMESTER –6: STATISTICS (FOR B Sc COMPUTER APPLICATIONS)****COURSE: 15U6CRCST7: COMPUTER AIDED DATA ANALYSIS USING EXCEL & R***(Common for Regular 2017 Admission & Improvement 2016/Supplementary 2016 /2015 Admissions)*

Time: Three Hours

Max Marks: 75

PART A***Each question carries five marks, maximum marks from this part is 25***

1. List out any four functions that R provides.
2. How can you input data in R?
3. Mention how you can produce co-relations and regression using Excel
4. Explain what are the functions with () and by () functions in R used for?
5. Give any four data structures in R that are used to perform statistical analysis and to create graphs.
6. What is the use of subset () function and sample () function in R?
7. Explain how you can create a table in R without external file.
8. Using the in-build in R to find the values in c(1,2,3,19) that are not present in c(2,6,14,16,3).

PART B***Each question carries ten marks, maximum marks from this part is 50***

9. Find mean, median, and mode of the following data using R
54,59,58,59,59,60,60,55,59,59,54,59,59,58,58,54,59,59.
10. Create first 25 multiples of 2 in Excel and read that data in R and compute its mean and variance.
11. Compute mean deviation about median for the following data using Excel.

x	10	20	30	40	50	60	70	80
f	2	9	12	18	20	16	8	1

12. Using MS excel plot a scatter diagram and find the correlation coefficient and interpret it.

X	65	66	67	67	68	69	70	72
Y	67	68	65	68	72	72	69	71

13. Two random samples drawn from two normal populations are

Sample 1 : 20, 16, 26, 27, 23, 22, 19, 30, 25, 18

Sample 2 : 27, 34, 40, 35, 31, 33, 38, 37, 28, 40, 44, 31, 36

Test whether the two populations have the same variance using R or Excel stating the assumptions clearly.

14. From the following table, obtain the regression line of Y on X and X on Y and estimate the blood pressure where the age is 45 years.

Age in years(x) = 56, 42, 72, 36, 63, 47, 55, 49, 38, 42, 68, 60

Blood Pressure(Y) = 147, 125, 160, 118, 149, 128, 150, 145, 115, 140, 152, 155.

15. The following data give the gain in the weights of 20 rats, half of which received their protein from raw peanuts and the other half from roasted peanuts. Test whether roasting has any effect.

Raw : 62, 60, 56, 63, 56, 63, 54, 56, 44, 61

Roasted : 57, 56, 49, 61, 55, 61, 57, 54, 62, 58.
