PART C — (3 × 10 = 30)

Answer any THREE questions.

16. Briefly explain the methods of collecting the primary data.

17. Delineate the importance of diagrammatic and graphical representation of data.

18. Calculate the standard deviation from the data given below :

Size of item :	3.5	4.5	5.5	6.5	7.5	8.5	9.5
Frequency :	3	7	22	60	85	32	8

19. Describe the methods of studying correlation.

20. To test the hypothesis that the average number of days a patient is kept in the three local hospitals say A,B and C is the same, a random check on the number of days that seven patients stayed in each hospital reveals the following :

Hospital A :	8	5	9	2	7	8	2
Hospital B :	4	3	8	7	7	1	5
Hospital C :	1	4	9	8	7	2	3

Test the hypothesis at $\alpha = 0.05$.

S.No. 5068 RACSY 71 F

(For candidates admitted from 2008 to 2015 Batch)

B.Sc. DEGREE EXAMINATION, APRIL 2022

Part III – Allied

BIO-STATISTICS

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20)

Answer ALL questions.

1. List out the types of data.

2. Define statistical error.

3. What is tabulation of data?

4. Pictorize a simple bar diagram.

5. Define mean deviation.

6. Write down the formula for mean and median (discrete and continuous case)

7. Regression analysis- Define.

8. What is Spearman's Rank correlation.

9. Draw the ANOVA table with relevant data.

10. Give two examples to demonstrate F-test.

PART B — (5 × 5 = 25)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain the methods of collection of data.

Or

(b) Discuss the census methods.

12. (a) Give one example to demonstrate the classification of data. (Classify the data).

Or

(b) Create your own data and fit to the pie diagram.

13. (a) Write the merits and demerits of median.

Or

(b) From the following data, compute Arithmetic mean.

Marks :	0-10	10-20	20-30	30-40	40-50	50-60
No. of Students :	5	10	25	30	20	10

14. (a) Calculate Karl Pearson's coefficient of correlation from the following data

X :	6	8	12	15	18	20	24	28	31
Y :	10	12	15	15	18	25	22	26	28

Or

(b) From the following data obtain the regression equation X on Y and also Y on X.

X :	6	2	10	4	8
Y :	9	11	5	8	7

15. (a) The nicotine content in miligrams of two samples of tobacco were found to be as follows :

Sample A :	24	27	26	21	25	–
Sample B :	27	30	28	31	22	36

Can it be said that two samples come from normal populations having the some mean?

Or

(b) Write the applications of t-test.