

**(FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2022 ONLY)**

22UBY510

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : NOVEMBER-2024

COURSE NAME: B.Sc.-BOTANY

MAXIMUM MARKS: 50

SEMESTER: V

TIME : 3 HOURS

**PART - III
BIOSTATISTICS
SECTION – A**

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

MULTIPLE CHOICE QUESTIONS.

(K1)

1. The scope of biostatistics includes _____.
 - a) Analysis of environmental data
 - b) The management of biodiversity
 - c) Public health and epidemiology studies
 - d) All of the above
2. Bar diagrams are best used for representing _____.
 - a) Trends over time
 - b) Continuous data
 - c) Categorical data
 - d) Geographic data
3. If a dataset has more than one mode, it is said to be _____.
 - a) Bimodal
 - b) Symmetric
 - c) Uniform
 - d) Skewed
4. In a binomial distribution, the trials are _____.
 - a) Dependent on each other
 - b) Independent of each other
 - c) Always equal in probability
 - d) Unlimited
5. The first step to create a chart in Excel is to _____.
 - a) Use the formula bar to enter a chart formula
 - b) Select the range of data to be visualized
 - c) Open the Data Analysis ToolPak
 - d) Install chart-related add-ins

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.

(K2)

6. Secondary data is
7. A histogram differs from a bar chart because
8. In hypothesis testing, degrees of freedom are used to ?
9. If the calculated F-value in ANOVA is greater than the critical F-value, we
10. In Excel, how to create a line chart

SECTION – B

(5 X 3 = 15 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

11. a) Write any three main object of sampling?

(OR)

- b) Write the Characteristics of Secondary Data

- 12 a) Draw a multiple characteristics bar diagram for the following data

Year	Sales	Gross Profit	Net Profit
1974	100	30	10
1975	120	40	15
1976	130	45	25
1977	150	50	25

(OR)

(CONTD.....2)

- b) Define bar diagram? State its various types.

13.a) The expenditure of 10 families in Rupees are given below

Expenditure: 30 70 10 75 500 8 42 250 40 36

Find the Arithmetic mean

(OR)

b) Explain different types of correlation with examples

14.a) Write a characteristics of Chi- Square Test.

(OR)

b) List out the properties of students 't' test.

15. a) Explain how to work formula bar in MS Excel.

(OR)

b) Explain how to draw the Bar diagram in MS Excel.

SECTION – C

(5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

(K4 (Or) K5)

16. a) Write an essay on data collection methods.

(OR)

b) State the problems that arise in the collection of data.

17.a) Explain the difference between Graphs and Diagram

(OR)

b) Explain the types of diagrams and their uses.

18. a) The annual profits of 90 companies given below, Find the AM

Annual profit : 0-19	20-39	40-59	60-79	80-99
No of companies: 5	17	32	24	12

(OR)

b) Calculate Standard deviation from following data

Marks: 0-19	20-39	40-59	60-79	80-99
No std: 5	20	35	20	12

19.a) 4 coin were tossed 160 times and the following results were obtained

No of heads: 0	1	2	3	4
----------------	---	---	---	---

Observed frequencies: 17	52	54	31	6
--------------------------	----	----	----	---

Under the assumption that coin are balanced, find the expected frequencies of getting 0,1,2,3 or 4 heads and test the goodness of fit

(OR)

b) A set of data involving four tropical feed stuffs A,B,C,D tried on 20 chicks is given below. All the 20 chicks are treated alike in all respects expect the feeding treatment and each feeding treatment is given to 5 chicks. Perform ANOVA and draw your conclusions

A	55	48	42	23	55
B	61	62	61	50	48
C	47	46	47	48	49
D	42	51	52	54	55

20.a) Explain the MS Excel how to find the standard deviation.

(OR)

b) Describe the method of drawing charts in MS Excel.