



DEPARTMENT OF BIOTECHNOLOGY
SRI Y.N. COLLEGE (AUTONOMOUS), NARSAPUR – 534275
(Adikavi Nannaya University)

Thrice Accredited by NAAC with 'A' Grade
Recognized by UGC as "College with potential for Excellence"



CERTIFICATE COURSE
BIOSTATISTICS

2019 - 2020

Unit-1:

Introduction to Biostatistics:

Statistics: A General Account; Biostatistics: Introduction; Definition; Basic concepts of Biostatistics; population; data; sample; variable and notations used in Biostatistics

Statistical terms and symbols:

Important symbols used in Biostatistics; Exercise.

Collection and Representation of Data:

Introduction; Collection of Data; Classification of Data; tabulation of data; Primary and Secondary Data.

Unit-2:

Graphical Representation of Data(Introduction,Graph,Histogram,Frequency Polygon, Frequency Curve); Diagrammatic Representation of Data(Introduction, Line Diagram, Bar Diagram, Pie Diagram, Pictograms and cartograms); Exercise

Measure of central Tendency:

Introduction; mean; arithmetic Mean; Geometric Mean; Harmonic Mean; Median and mode.

Unit-3:

Measure of Dispersion:

Introduction; Range; Quartile Deviation; Mean Deviation; Standard Deviation; Exercise

Test of significance:

General note; Student's "t" Test; Exercise.

Chi-square Test; Introduction; Definition; Exercise.

Probability: Introduction; Definition; Types of Probability; Exercise.

Correlation: meaning of correlation: Definition; kinds of Correlation; Exercise.

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GUIDELINES TO THE PAPER SETTER

Unit no	Essay Questions	Short Answer Questions	Total
I	1 (Section-A)	2 (Section-B)	3
II	1 (Section-A)	2 (Section-B)	3
III	1 (Section-A)	4 (Section-B)	5

APPROVED

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Unit-3:**Measure of Dispersion:**

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Test of significance:

General note; Student's "t" Test; Exercise.

Chi-square Test; Introduction; Definition; Exercise.

Probability; Introduction; Definition; Types of Probability; Exercise.

Correlation; meaning of correlation: Definition; kinds of Correlation; Exercise.

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APPROVED

[Handwritten signatures and initials over the table and approval stamp]

DEPARTMENT OF BIOTECHNOLOGY
SRI Y.N.COLLEGE (AUTONOMOUS), NARSAPUR
Under the jurisdiction of Adikavi Nannaya University
Accredited by NAAC at 'A' Grade with a CGPA of 3.40
Recognized by UGC as 'College with Potential for Excellence'
CERTIFICATE COURSE (BIOSTATISTICS)

Time: 2Hrs

Max.Marks: 50M

SECTION-A

Answer any two of the following:

2X15=30M

1. A drug given to each of the 12 persons resulted in the following changes in the blood pressure from normal -3,2,8,-1,3,0,7,-2,1,5,0,4. Calculate the student "t" test.
2. Numbers of clusters per plant in black gram is given in frequency distribution. Calculate the range.

No. of clusters	15	25	35	45	55	65	75
No. of plants	6	10	12	15	11	7	4

3. The weights of testis of an untreated group of rats are 900mg,950mg,2010mg,1012mg,1100mg,930mg,980mg and 910mg.the testicular weight of another group of rats from the same population after the treatment with a drug was obtained as 100mg,880mg,640 mg,870 mg,520 mg,590 mg,610 mg,680 mg and 610mg. apply t test to find out significance of difference between means of two groups.

SECTION-B

Answer any Five of the following:

4X5=20M

4. Hemoglobin percentage of ten patients sufferings from AIDS was recorded as 5.2mg,5.3mg,5.6mg,5.7mg,5.4mg,5.2mg,5.3mg,5.3mg,5.4mg and 5.2mg.find out the mean Hb% of patients suffering from AIDS. Calculate arithmetic mean (ungrouped data).

5. Calculate standard deviation for the following data which shows the length of fishes.

Length in cm.	5	6	7	8	9	10	11
No. of fishes	1	2	5	5	3	3	1

6. Define "Biostatistics" and describe role of statistics in life science.

7. Calculate the mode from the following data.

Class interval	Frequency
30-34	3
35-39	7
40-45	5

8. The number of clusters per plant in black gram is given in frequency distribution. Calculate the range.

No of clusters	No of plants
15	6
25	10
35	12
45	15
55	11
65	7
75	4

9. RBCs count in lac/mm^3 was recorded as 6,7,4,5,5,3,4 in different blood samples of an animal. Compute median.

5-15-17

Dr. P. Chennakeswari
Principal
K. J. Somaiya Institute of
Postgraduate Studies
Pune-411 004



P. Chennakeswari

K. J. Somaiya

APPROVED

T. Famer

15/12/17

List of Students enrolled for Certificate Course

S.No.	NAME OF THE STUDENT	GROUP
1.	K.Divya Sree	CBM
2.	Y.Bhargavi Lakshmi	CBM
3.	K.Sharon Puspha	CBM
4.	K.Giraja Swathi	CBM
5.	P.Padma	CBM
6.	P.Mary Joy Sree	CBM
7.	N.Srilatha	CBM
8.	R.Muneera	CBM
9.	M.Sudha	CBM
10.	V.Aishwarya	CBM
11.	K.Sowmya	CBM
12.	T.L.R.Tarangini	CBM
13.	D.Jahnavi	CBM
14.	R.Rohini Sailu	CBM
15.	G.Bhagya Sree	CBM

16.	B.Durga Satya Sai	CBM
17.	S.Sai Kumar	CBM
18.	M.Pallavi	CBM
19.	M.Ayesha Fathima	CBM
20.	J.M.Priyanka	CBM
21.	K.Suvarna Rani	CBM
22.	A.V.S.Teja Sree	CBM
23.	M.Anandini	CBM
24.	Ch.Bharath Chandu	CBM
25.	V.Sravathi	CBM
26.	M.Sandeep	CBM