



SRR & CVR GOVT. DEGREE COLLEGE (Autonomous)

PHONE NO : 9848732916

NAAC : B+ (III Cycle with CGPA : 2.60) - Estd: 1937

WEBSITE : www.srrcvr.ac.in

ISO 9001 - 2015 Certified

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Institution is ranked by NIRF 101 -150 band at NIRF - 2020



BOARD OF STUDIES

(Under Graduate)

A.Y 2018-2019



STATISTICS

III & IV SEMESTERS

Minutes of Meeting
& Curriculum/Syllabi

DEPARTMENT OF STATISTICS



SRR & CVR GOVT. DEGREE COLLEGE

(Autonomous)

NAAC accredited with 'B' Grade

Machavaram, Vijayawada – 520 004, Krishna District.



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Dr. Velaga Joshi, Principal

M.A.(Phil), M.A.(Hist), M.A.(M.C.), B.L., M.Phil., Ph.D.

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MINUTES OF THE MEETING OF DEPARTMENT OF STATISTICS(BOS)

A meeting of Board of studies of Department of Statistics held on 12-03-2018 in the Department of Mathematics and Statistics for 3rd and 4th semester of second II B.Sc(mscs) ,course syllabus under the chairmanship of K.Bhanu Prasad , Head Of The Department Statistics . The following members present

1.) University Nominee
Dr. K.Rosaiah M.Sc ,Ph.D
Professor of statistics
Acharya Nagarjuna University
Nagarjuna Nagar ,Guntur

:

2.) Subject Expert
B.Neelavendra Rao MSc
Lecturer in Statistics
Government Degree College (w)
Autonomous ,Guntur .

:

3.)Subject Expert
G. Chakravarthi M.Sc
Lecturer in Statistics
P.B. Sidhartha College Of Arts & Science
Autonomous ,Vijayawada

:

4.)Chairman
K.Bhanu Prasad M.Sc
Lecturer in Statstics
SRR & CVR Govt.Degree college
Autonomous ,Vijayawada

:

5.)Alumni
D.Lakshmi Durga SRR &CVR Govt. Degree College
Vijayawada

:

Agenda :-

1. To approve Statistics Syllabus for 3rd and 4th semesters of IIB.Sc.(autonomous) for the academic year 2018-2019
2. To approve Model papers,Blue Print
3. To divide 100 marks into two components a) i)External 60Marks, ii)Internal 40Marks.b)External 60marks further divided into Section-A consisting 20Marks;Section-B consisting -40Marks.
4. To evaluate Internal Assessment as follows :-

(a) Internal exams (two) -	10
(b) Assignments (two) -	10
(c) Project	- 10
(d) Attendance	-5
(e) Seminar	-5
Total	= 40
5. To approve paper setters and practical Examiners
6. To divide the Syllabus into 5 units
7. To approve other Academic activities of the Department
8. To give permission to the Chairman for any small changes

Resolutions:-

In BOS meeting the committee has unanimously resolved and approved the following items:-

- 1.) The syllabus for Statistics of 3rd and 4th semester for second BSc Statistics for 2018-2019 is approved
- 2.) To divide 100 marks into two components a) i)External 60Marks, ii)Internal 40Marks.

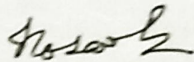
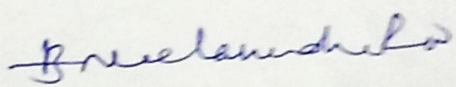
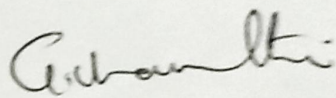
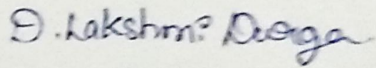
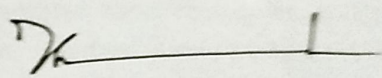
b)External 60marks further divided into Section-A consisting 20Marks;Section-B consisting -40Marks, is approved.
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- 3.) Internal exams (two) - 10

Assignments (two)	- 10
Project	- 10
Attendance	-5
Seminar	-5
Total	= 40 is approved.

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A. Chambliss

- 4) In the Model paper Section - A consisting Questions of Weightage 4 marks Each. Five questions to be answered i.e $5 \times 4 = 20$ marks Section - B Consisting Questions of Weightage 8 marks each. Four Questions to be answered $5 \times 8 = 40$ Marks is approved.
- 5) To pass the Exam student must get 40 % of 60 and overall 40% Combining both internal and external
- 6) For practical consisting of 50 marks (25 internal +25 external) practical consists 3 hours duration , 2 credits ,Workload -2 hours per batch ,batch = 15 students .
- 7.) Work load for this paper is 6 hours (4 theory +2 practical)
- 8.) The chairman is given empowerment to do any small changes.
- 9.) The Panel of Paper Setters for theory and Practical is approved.
- 10.) The Controller of examinations is given empowerment for any Changes in selecting paper setter & practical examiner in case Of non-availability of examiners as are listed.

- 1.) Dr.K.Rosaiah : 
- 2) B.Nelavendra Rao : 
- 3.)G.Chakravarthy : 
- 4.) D.Lakshmi Durga : 
- 5.) K.Bhanu Prasad : 

S.R.R & C.V.R GOVT.DEG.COLLEGE(Autonomous)::2018-2019

Department of Statistics

II YEAR B.A/B.Sc

STATISTICS SYLLABUS (With Mathematics Combination)

Semester - III CBCS Paper - III Statistical Methods

Time:3hrs

Max.marks:100(40int.+60Ext.)

Unit-I

Correlation: Def.,scatter diagram ,its coefficient and its properties. , scatter diagram, computation of correlation coefficient for ungrouped data. spearman's rank correlation coefficient, properties of spearman's correlation coefficients and problems.

Unit-II

Regression: simple linear regression, properties of regression coefficients. Regression lines, Concept of Correlation ratio, partial and multiple correlation coefficients, correlation verses regression and their problems.

Unit - III

Curve fitting: Method of least square - Fitting of linear, quadratic, Exponential and power curves and their problems.

Unit-IV

Attributes : Introduction, Nature, and consistency and mention its conditions. Independence and association of attributes, co-efficient of association, coefficients of contingency and their problems.

Unit -V

Exact sampling distributions: Concept of population, Parameter, random sample, statistic, sampling 2, t, F distributions and their intery distribution, standard error. Statement and Properties of relationships.

Text books

1. BA/BSc II year statistics - statistical methods and inference - Telugu Academy by A. Mohanrao, N.Srinivasa Rao, Dr R.Sudhakar Reddy, Dr T.C. Ravichandra Kum.
2. K.V.S. Sarma: Statistics Made Simple: Do it yourself on PC. PHI.
3. Fundamentals of Mathematics statistics: VK Kapoor and SC Gupta.

Reference Books:

1. Outlines of statistics, Vol II : Goon Gupta, M.K.Guptha, Das Gupta
2. Introduction to Mathematical Statistics : Hoel P.G.

M. Rao

Srinivasa Rao

A. Chaitanya
D. Lakshmi Ranga

Practicals - Semester -III Conduct any 6 (Ms-exel is compulsory)

Max.Marks:50(25internal+25external)

1. Fitting of straight line.
2. Fitting of exponential curves.
3. Fitting of power curve.
4. Computation of correlation coefficient & Fitting of Regression lines.
5. Rank correlation coefficient.
6. Computation of Contingency coefficients.

Blue Print

	Unit-1	Unit-2	Unit-3	Unit-4	Unit-5
Short answers Questions (4marks)	2	2	2	2	2
Long answers(8marks) Questions	A or B 2	A or B 2	A or B 2	A or B 2	A or B 2

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1/ G. Chandra
2/ Anil Kumar
G.

D. Lakshmi Durga.

D.

S.R.R & C.V.R GOVT. DEG. COLLEGE (Autonomous):: 2018-2019
Department of Statistics
II YEAR B.A/B.Sc
STATISTICS SYLLABUS (With Mathematics Combination)
Semester - IV CBCS Paper - IV:: Statistical Inference

Time: 3hrs

Max. marks: 100 (40 int. + 60 Ext)

UNIT-I

Theory of estimation: Estimation of a parameter, criteria of a good estimator - unbiasedness, consistency, efficiency, & sufficiency and. Statement of Neyman's factorization theorem. Estimation of parameters by the methods of moments and maximum likelihood (M.L), properties of MLE's. Binomial, Poisson & Normal Population parameters estimate by ML method. Confidence intervals of the parameters of normal population.

UNIT II

Concepts of Statistical hypothesis: Null and alternative hypothesis, critical region, two types of errors, level of significance, power of a test. 1 tailed, 2 tailed tests, Neyman - Pearson's lemma. Examples in of Binomial. Poisson, Normal distributions.

Unit-III

Large Sample Tests : Large sample tests for single mean, two means, Single proportion, Two proportions, Standard Deviation of single and double samples and Fisher's Z transformation .

Unit-IV

2-test for test for independence of χ^2 , t and F. χ^2 Small sample tests: Tests of significance based on attributes, t-test for single, double and paired tests, Variance Ratio Test (F-test).

Unit-V

Non-parametric tests - Advantages and Disadvantages. Two sample run test, Two sample Median test and Two sample sign test.

TEXT BOOKS

1. BA/BSc II year statistics - statistical methods and inference - Telugu Academy by A.Mohanrao, N.Srinivasa Rao, Dr R.Sudhakar Reddy, Dr T.C. Ravichandra Kumar.
2. K.V.S. Sarma: Statistics Made Simple: Do it yourself on PC. PHI. REFERENCE BOOKS: 1. Fundamentals of Mathematics statistics : VK Kapoor and SC Guptha.
3. Outlines of statistics, Vol II : Goon Guptha, M.K.Guptha, Das Guptha
4. Introduction to Mathematical Statistics : Hoel P.G.

Rosalee

Arnelandhe
A. Chamathi

D. Lakshmi Reddy

Practical's Semester – IV Conduct any 6 (MS-excel is compulsory)

1. Large sample tests for mean(s).
2. Large sample tests for proportion(s).
3. Large sample tests for standard deviation(s).
4. Large sample tests for Fisher's Z- transformation.
5. Small sample tests for Single and Doublet-test.
6. Small sample tests for Paired t-test.
7. F-Test.
8. Chi square test for independence of attributes.
9. Non-parametric testst – run test.
10. Non-parametric tests - median test.
11. Non-parametric tests - sign tests.
12. MS-Excel methods for the above Serial Numbers 1,2,3,4.

Blue Print

	Unit-1	Unit-2	Unit-3	Unit-4	Unit-5
Short answers Questions(4marks)	2	2	2	2	2
Long answers Questions(8Marks)	A or B 2	A or B 2	A or B 2	A or B 2	A or B 2
Total Questions	4	4	4	4	4

Kesav E

Someshwari
A. Chakraborty

Dakshini Daga

DEPARTMENT OF STATISTICS
BOS MEETING APPROVED THE FOLLOWING EXAMINERS
LIST OF EXAMINERS FOR AUTONOMOUS

S.NO	NAME OF THE LECTURER	DESIGNATION	COLLEGE
1	K.NARASIMHA RAO	LECTURER IN STATISTICS	CHAITANYA DEG.COLLEGE. NANDIGAMA,KRISHNA DL.
2	G.CHAKRAVARTHI	LECTURER IN STATISTICS	P.B.SIDHARDA COLLEGE OF ARTS& SCIENCE,VIJAYAWADA
3	Dr.V.VASUNDARA DEVI	LECTURER IN STATISTICS	GOWTHAM DEGREE COLLEGE VIJAYAWADA
4	T.NAGESH	LECTURER IN STATISTICS	THRIVENI DEGREE COLLEGE VIJAYAWADA
5	B.SHOBA RANI	LECTURER IN STATISTICS	SARADA DEGREE COLLEGE VIJAYAWADA
6	Dr.N.SRINIVAS	LECTURER IN STATISTICS	ANDHRA LOYOLA COLLEE VIJAYAWADA
7	V.MURALI KRISHNA	LECTURER IN STATISTICS	P.B.SIDHARDA COLLEGE OF ARTS& SCIENCE,VIJAYAWADA

PANEL FOR PAPER SETTERS FOR AUTONOMOUS

S.NO	NAME OF THE LECTURER	DESIGNATION	COLLEGE
1	Dr.N.VISWAM	LECTURER IN STATISTICS	HINDU COLLEGE GUNTUR
2	B.NEELAVENDRA RAO	LECTURER IN STATISTICS	GDC (W),GUNTUR
3	A.MOHANRAO	LECTURER IN STATISTICS	GDC(W) GUNTUR
4	P.RAGHU	LECTURER IN STATISTICS	JKC COLLEGE,GUNTUR
5	P.RAJA RAO	LECTURER IN STATISTICS	CAREER COLLEGE GUNTUR
6	Dr.VARAPRASAD	LECTURER IN STATISTICS	GDC,NELLORE
7	V.SAROJA	LECTURER IN STATISTICS	MARYSTELLA COLLEGE VIJAYAWADA
8	B.RAMESH	LECTURER IN STATISTICS	ANR COLLEGE,GUDIWADA
9	SMT.G.RADHIKA	LECTURER IN STATISTICS	KBN COLLEGE,VIJAYAWADA
10	V.NARASIMHA RAJU	LECTURER IN STATISTICS	DNR COLLEGE,BHIMAVARAM
11	Dr.Madhavi	LECTURER IN STATISTICS	GDC ,RAJHAMUNDRY EAST GODAVARI

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*B. Neelavendra Rao
G. Chakravarthi*

D. Lakshmi Durga

S.R.R & C.V.R GOVT. DEG.COLLEGE(Autonomous)VJA.:2018-2019

Department of Statistics

Model Question Paper

II YEAR B.A/B.Sc (with maths Combination)

Semester - III CBCS Paper - III:: Statistical Methods

Time:3hrs

Max.Marks :60Marks.

Section - A

ANSWER any five of the following questions :-

5x4=20 marks

- 1.) Define correlation . What are the types of correlation ?
- 2.) Explain the Scatter diagram ?
- 3.) Distinguish between correlation & regression ?
- 4.) Explain the multiple regression coefficient ?
- 5.) Define curve fitting .How do you fit the principles of least squares ?
- 6.) Explain the fitting of an Exponential curve of the type $y = ab^x$
- 7.) Define independence of attributes and its criteria of them
- 8.) Explain the 2x2 contingency table
- 9.) Define the terms (i) Population (ii) Sample
- 10.) Explain the concept of sampling distribution of a statistic

Section- B

Answer all the following questions :-

5x8=40 marks

11.)

- a) Define karal pearson's coefficient , s.t it is not effected by change of origin and scale

(Or)

- b) Derive spearman 's rank correlation coefficient is lies between -1 and 1

- 12.) a) Define Regression .What are the properties of regression coefficient

(Or)

- b) Derive the regression line of Y on X

- 13.) a) Explain the fitting of Straight line

(or)

- b) Explain the procedure of fitting of Second degree parabola

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Sneelamsha Rao
G. Chakraborty

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D Lakshmi Daga

14) a) Define Consistency .What are the condition for consistency of data
(Or)

b) S.T. Relationship between Q & Y i.e., $Q = \frac{2Y}{1+Y^2}$

15) a) Define t- distribution and its properties
(Or)

b) Establish the relationship between F and X^2 distribution

-----The End-----

Naras E

Achalsavanti
Bneelandra Rao

D. Lakshmi Durga

D/h

