

NTR Govt. Degree College [W]

MBNR

Certificate Course Record

Dept. of Statistics

NTR Govt. Degree College (W), MBNR

Department of Statistics

Certificate - Course - 2021-2022



NTR GOVT DEGREE COLLEGE(W)
MAHABUBNAGAR
DEPARTMENT OF MATHEMATICS
Certificate Course

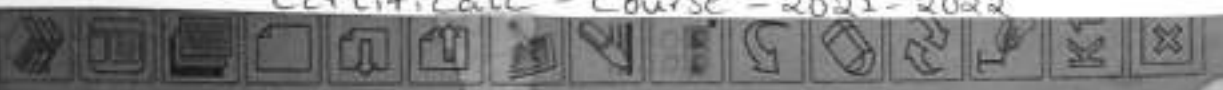
ON

"Business Statistics"

Teacher:
Dr. T.VIJAYA LAXMI

Counsellor:
K.RAMESH REDDY

Principal:
Dr.K.PADMAVATHI



To:
The Principle
NTR Govt Degree College (W),
Mahaboobnagar.

Sub: Requesting to conduct Certificate Course on "**Business Statistics**" for the students of B.Com(CA) II year for the academic year 2021-2022 -reg.

Ref: Resolution of the meeting conducted by the Dept of Statistics held on 16.04.2022 and Almanac of Palamuru University.

Respected Madam,

With reference to the above based on the resolution of the meeting conducted by the Dept of Statistics held on 16.04.2022 the department is decided to conduct a certificate course named "**Business Statistics**" for the students of B.Com(CA) II year for the academic year 2021-2022 in the month of April - May.

Hence, I herewith am attaching the complete schedule and syllabus. Requesting you to permit to conduct the certificate course and do the needful in this regard.

Thanking you,

Yours faithfully

(Dr. T. Vijayalaxmi

Asst Prof & HOD, Dept of Statistics)

NTR GOVT DEGREE COLLEGE (W), MAHABUBNAGAR
DEPARTMENT OF STATISTICS

Date: 25.04.2022

NOTICE

It is hereby informed that the Department of Statistics is going to conduct a certificate course on "**Business Statistics**" from 25.04.2022 for the students of B.Com II year for the academic year 2021-2022. The interested students can contact Ramesh Reddy, Lect.in Statistics, for register their names.

Head of the Department/In - Charge

Principal 25/4/22

PRINCIPAL
N.T.R.G.D.C (W)
Mahabubnagar

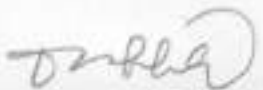
Business Statistics

Schedule and Syllabus

Objectives: To inculcate analytical and computational ability among the students.

Outcomes: Students use the knowledge acquired in Business to evaluate trends in and make estimates or forecasts.

S.No	Month	Week	Number of Hours	Topic Covered/Name of the Topic	Remark
1	April	4 th	6	Measures of Central Tendency	
2	May	1 st	5	Measures of Dispersions Skewness and Kurtosis	
3	May	2 nd	5	Correlation	
4	May	3 rd	4	Regression	
5	May	4 th	10	Theoretical Distributions	


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NTR Govt. Degree College (U) Mahabubnagar
 Department of Statistics
 Certificate Course - 2019-2020

5

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S.No	Roll No.	Name	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
001	20033030405003	Asia	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
002		Japan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
003	081	K. Shireesha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
004	098	Laxmi	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
005	090	Madhya Fatima	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
006	109	Mahak Fatima	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
007	114	Nikhitha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
008	121	Priyanka	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
009	150	R. Shireesha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
010	081	Sai Kirthana	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
011	186	Sai Sumra	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
012	154	Sana	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
013	102	Shrawani	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
014	167	Sneha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
015	194	Tanya Sree	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
016	171	Thabassum Begum	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
017	028	Thammai	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
018	041	Yamini	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

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1) Measures of Central Tendency

Measures of Central Tendency gives an idea about the concentration of the values in the central tendency part of the distribution.

→ The following are some important measures of central tendency.

1) Arithmetic mean

2) Median

3) Mode

4) Geometric mean

5) Harmonic Mean

1) Arithmetic mean:-

AM of a set of observations is the sum of all observations divided by the no. of observations. and is denoted by \bar{x}

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n x_i$$

2) Median:-

The median is that value of the variable which divides the group into two equal parts, one part comprising all values greater, and the other all values less than median.

3) Mode:-

Mode is the most fashionable value of a distⁿ because it is repeated the highest no. of times in the series.

4) Geometric Mean:-

The Geometric mean of 'n' obsⁿ of a data is defined as the n^{th} root of the product of 'n' observations.

5) Harmonic mean:-

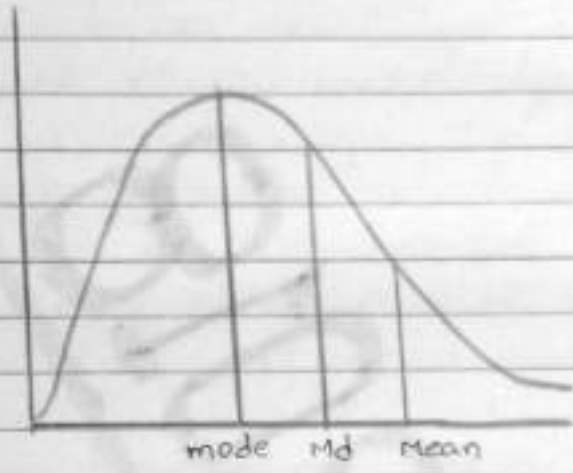
Harmonic mean is the reciprocal of the arithmetic mean of the reciprocal of values of obsⁿ in the data.

2) Measures of Dispersion Skewness and kurtosis:-

The word skewness means "Lack of symmetry".

It helps us to study the shape of the distribution.

→ Positively Skewed:-



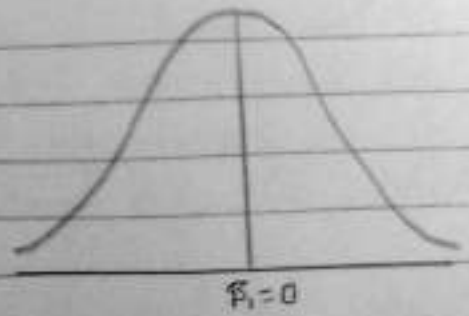
Mean > median > mode ($\beta_1 > 0$)

→ Negatively Skewed:-



mean < median < mode ($\beta_1 < 0$)

→ Symmetric distⁿ:-



Mean = Median = Mode

Normal Distⁿ:-

A continuous r.v. 'X' in the interval $(-\infty, \infty)$ with pdf

$$f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{1}{2}\left(\frac{x-\mu}{\sigma}\right)^2}; \quad \begin{array}{l} -\infty < x < \infty \\ -\infty < \mu < \infty \\ \sigma > 0 \end{array}$$

is called normal r.v. with the parameters μ & σ^2 .

Prob:- Let 'X' be normally distributed with mean 8 & S.D. 4.
Find $P(5 \leq X \leq 10)$

$$\begin{aligned} \text{sol:- } P(5 \leq X \leq 10) &= P\left(\frac{5-8}{4} \leq \frac{X-8}{4} \leq \frac{10-8}{4}\right) \\ &= P(-\infty < Z \leq 0.5) - P(-\infty < Z \leq -0.75) \\ &= P(-\infty < Z \leq 0.5) - P(0.75 < Z < \infty) \\ &= P(-\infty < Z \leq 0.5) - [1 - P(-\infty < Z \leq 0.75)] \\ &= 0.6915 - [1 - 0.7734] \\ P(5 \leq X \leq 10) &= 0.4649 \end{aligned}$$

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Mahabubnagar.



**NTR GOVT. DEGREE COLLEGE(W),
MAHABUBNAGAR**



CERTIFICATE OF PARTICIPATION

THIS IS TO CERTIFY THAT SRI./SMT./DR./MS./TE.JA SREE,

2003303040519, B.COM(E/M) HAS SUCCESSFULLY COMPLETED THE CERTIFICATE COURSE ON BUSINESS

STATISTICS- ORGANIZED BY DEPARTMENT OF STATISTICS WITH THE 90% MARKS.

Dr. K Padmavathi

Dr. K Padmavathi
Principal
NTR Govt. Degree College(W)

Counselor
K.Ramesh Reddy
NTR Govt. Degree College(W)

