

A.G. & S.G. Siddhartha Degree College of Arts & Science

Vuyyuru-521165, Krishna District, Andhra Pradesh

(Managed by: Siddhartha Academy of General & Technical Education, Vijayawada-10)

An Autonomous College in the Jurisdiction of Krishna University

Accredited by NAAC with "A" Grade

ISO 9001:2015 Certified Institution



DEPARTMENT OF STATISTICS

Value Added Course / Certificate Course

Title: Analysis of Time series

Name of the Lecturer : N. Siva Naga Raju

Class : I MSCs

Duration of the Course : 30 Days

VAC Code : STAT-ATS -01

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Title: Analysis of Time series

Objectives : Time series analysis can be useful to see how a given asset, security, or economic variable changes over time. It also can be used to examine how the changes associated with the chosen data point compare to shifts in other variables over the same time period.

Methodology : Teacher- Centered method

Duration : 30 Days

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Vuyyuru-521165, Krishna District, Andhra Pradesh

Value Added Course / Certificate Course

Student Enrolment Sheet

Class : IMSCs

S. No	Roll No.	Name of the Student	Signature
1	2155301	K. Dharani	K. Dharani
2	2155302	G. Divya	G. Divya
3	2155303	M. Sri Lakshmi	M. Sri Lakshmi
4	2155304	A. Sai Sowmya	A. Sai Sowmya
5	2155305	B. Susanth	B. Susanth
6	2155306	B. Manoj Phanindra	B. Manoj Phanindra
7	2155307	J. Keerthi Priya	Keerthi Priya
8	2155308	K. Alekhya	K. Alekhya
9	2155310	N. Anusha	N. Anusha
10	2155311	A. Chakradhar	A. Chakradhar
11	2155312	MD. Khadeera Begum	MD. Khadeera Begum
12	2155313	B. Pawan Kumar	B. Pawan Kumar
13	2155314	J. Jhansi Lakshmi	J. Jhansi Lakshmi
14	2155315	K. Tulasi	K. Tulasi
15	2155316	P. Hima sri	P. Hima Sri

N. SivaNagaRaju.

N. V. [Signature]

S. No	Roll No.	Name of the Student	Signature
16	2155317	K. Naga Sravani	K. Naga Sravani
17	2155319	M. Karuna Sri	M. Karuna Sri
18	2155320	P. Phani Supraja	P. Phani Supraja
19	2155321	K. Hema Sri	K. Hema Sri
20	2155322	R. Durga Bhavani	R. Durga Bhavani
21	2155323	D. Naga Gireesha	D. Naga Gireesha
22	2155324	N. Naga Mounika	N. Naga Mounika
23	2155325	G. Dedeepya	G. Dedeepya
24	2155326	E. Joshimani	E. Joshimani
25	2155327	G. Yuva Kiran	G. Yuva Kiran
26	2155328	V. Sri Lakshmi	V. Sri Lakshmi
27	2155329	M. Chaitanya	M. Chaitanya
28	2155330	R. Bobby	R. Bobby
29	2155331	P. Praneeth Kumar	P. Praneeth Kumar
30	2155332	MD. Abrar Ahamad	MD. Abrar Ahamad
31	2155333	G. Harika	G. Harika
32	2155334	V. Deepthi	V. Deepthi

N. Siva Naga Raju.

N. V. [Signature]

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Vuyyuru-521165, Krishna District, Andhra Pradesh

Value Added Course / Certificate Course

Title: Analysis of Time series

Date: 01-09-2022 to 30-09-2022

Date	Content	Module No.
01-09-2022	Introduction, Components of time series- Trend, Periodic changes, Irregular component; Analysis of Time series- Mathematical models for Time series, Uses of Time series.	I
09-09-2022	Measurement of Trend- Graphic method, Method of semi-averages, Method of Curve Fitting by Principle of Least squares, Growth curves and their fitting, Moving Average method, Approximation to Moving Averages.	II
16-09-2022	Measurement of Seasonal Variations- Method of Simple Averages, Ratio to Trend method, Ratio to Moving Averages method, Link Relatives method, Deseasonalisation of data.	III
23-09-2022	Measurement of Cyclic variations	IV

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Value Added Course / Certificate Course

Title: Analysis of Time series

Model Question Paper

Max.Time:2 Hours
Course code: STAT-ATS-01
Roll.no:

Analysis of Time series

Max.:50 marks
Min.Pass:18 marks

Section-A

Answer any **Three** of the following

3x10=30marks

1. Define Time series. Explain the components of Time series.
2. Explain the additive and multiplicative models of a Time series.
3. Explain the method of curve fitting by using principle of least squares.
4. Explain the detail procedure of link relatives method.
5. Write a note on measurement of cyclic variations.

Section-B

Answer any **FOUR** of the following

4x5=20marks

6. Write the uses of Time series.
7. Explain the procedure of moving Average method.
8. Explain Logistic curve and write its properties.
9. What do you understand by the seasonal variations in a time series.
10. Define Deseasonalisation of data.
11. What are business cycles.

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Title: Analysis of Time series

Scheme of valuation

1. Definition- 2M
Components of time series- 8M
2. Additive model- 5M
Multiplicative model- 5M
3. curve fitting- 10M
4. Link relatives method- 10M
5. measurement of cyclic variations- 10M

6. Uses of Time series- 5M
7. procedure of moving Average method- 5M
8. Logistic curve- 3M
Properties- 2M
9. seasonal variations- 5M
10. Definition- 5M
11. business cycles- 5M

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Department of Statistics

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Marks List

Class: IMSCs

S. No	Roll No.	Name of the Student	Marks
1	2155301	K. Dharani	<u>28</u>
2	2155302	G. Divya	<u>45</u>
3	2155303	M. Sri Lakshmi	<u>30</u>
4	2155304	A. Sai Sowmya	<u>46</u>
5	2155305	B. Susanth	<u>27</u>
6	2155306	B. Manoj Phanindra	<u>44</u>
7	2155307	J. Keerthi Priya	<u>42</u>
8	2155308	K. Alekhya	<u>45</u>
9	2155310	N. Anusha	<u>48</u>
10	2155311	A. Chakradhar	<u>29</u>
11	2155312	MD. Khadeera Begum	<u>43</u>
12	2155313	B. Pawan Kumar	<u>31</u>
13	2155314	J. Jhansi Lakshmi	<u>35</u>
14	2155315	K. Tulasi	<u>25</u>
15	2155316	P. Hima sri	<u>43</u>

S. No	Roll No.	Name of the Student	Marks
16	2155317	K. Naga Sravani	<u>41</u>
17	2155319	M. Karuna Sri	<u>26</u>
18	2155320	P. Phani Supraja	<u>34</u>
19	2155321	K. Hema Sri	<u>46</u>
20	2155322	R. Durga Bhavani	<u>47</u>
21	2155323	D. Naga Gireesha	<u>45</u>
22	2155324	N. Naga Mounika	<u>44</u>
23	2155325	G. Dedeepya	<u>38</u>
24	2155326	E. Joshimani	<u>29</u>
25	2155327	G. Yuva Kiran	<u>40</u>
26	2155328	V. Sri Lakshmi	<u>37</u>
27	2155329	M. Chaitanya	<u>25</u>
28	2155330	R. Bobby	<u>40</u>
29	2155331	P. Praneeth Kumar	<u>48</u>
30	2155332	MD. Abrar Ahamad	<u>47</u>
31	2155333	G. Harika	<u>47</u>
32	2155334	V. Deepthi	<u>40</u>

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Feed Back Form

1. Is the programme interested to you (Yes/No)
2. Have you attended all the session (Yes/No)
3. Is the content of the program is adequate (Yes/No)
4. Have the teacher covered the entire syllabus? (Yes/No)
5. Is the number of hours adequate? (Yes/No)
6. Do you have any suggestions for enhancing or reducing the number of weeks designed for the program? (Yes/No)
7. On the whole, is the program useful in terms of enriching your knowledge? (Yes/No)
8. Do you have any suggestions on the program? (Yes/No)

N. SivaNagaraju.

N.V. Seenuvaru

A.G. & S.G. Siddhartha Degree College of Arts & Science

Vuyyuru-521165, Krishna District, Andhra Pradesh

Value Added Course / Certificate Course - Attendance Register

Class / Section: IMSCs

Year: 2021-22

Department of: Statistics

Paper: I

Lecturer: N. Siva Naga Raju

Sl.No	Roll No	Student Name	Category	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
1	2155301	K. Dharani	BC-A	P	P	A	P	P	A	P	P	P	P	P	A	P	P	P	12
2	2155302	G. Divya	BC-A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	14
3	2155303	M. Sri Lakshmi	BC-A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	14
4	2155304	A. Sai Sowmya	BC-B	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	14
5	2155305	B. Susanth	BC-B	A	P	P	P	P	P	P	A	P	P	P	P	P	P	A	12
6	2155306	B. Manoj Phanindra	BC-B	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15
7	2155307	J. Keerthi Priya	BC-B	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	14
8	2155308	K. Alekya	BC-D	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	14
9	2155310	N. Anusha	BC-D	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15
10	2155311	A. Chakradhar	OC	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	14
11	2155312	MD. Khadeera Begam	BC-E	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	14
12	2155313	B. Pawan Kumar	SC	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	14
13	2155314	J.Jhansi Lakshmi	OC	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	14
14	2155315	K. Tulasi	OC	A	P	P	A	P	P	A	P	P	P	P	P	P	P	P	12
15	2155316	P. Hima sri	BC-D	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	14

N. Sivanaga Raju

N.V. 

Sl.No	Roll No	Student Name	Category	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
16	2155317	K. Naga Sravani	BC-D	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	14
17	2155319	M. karuna sri	SC	P	A	P	P	P	P	A	P	P	A	P	P	P	P	A	11
18	2155320	P. Phani Supraja	OC	P	P	P	P	P	P	A	P	P	P	P	P	P	P	A	13
19	2155321	K. Hema Sri	OC	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15
20	2155322	R. Durga Bhavani	BC-D	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	13
21	2155323	D. Naga Gireesha	BC-D	P	P	P	P	P	P	A	P	P	P	P	P	P	P	A	13
22	2155324	N. Naga Mounika	BC-D	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	13
23	2155325	G. Dedeepya	BC-D	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15
24	2155326	E. Joshimani	SC	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	13
25	2155327	G. Yuva kiran	OC	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15
26	2155328	V. Sri Lakshmi	BC-D	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	13
27	2155329	M. Chaitanya	SC	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15
28	2155330	R. Bobby	SC	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	14
29	2155321	P. Praneeth kumar	SC	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15
30	2155332	MD. Abrar Ahamad	BC-E	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	14
31	2155333	G. Harika	BC-D	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	14
32	2155334	V. Deepthi	BC-A	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	13

N. SivaNaga Raju .

N.V. 

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Vuyyuru-521165, Krishna District, Andhra Pradesh

Value Added Course / Certificate Course - Attendance Register

Class / Section: IMSCs

Year: 2021-22


Department of: Statistics

Paper: I

Lecturer: N. Siva Naga Raju


Sl.No	Roll No	Student Name	Category	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total
1	2155301	K. Dharani	BC-A	P	P	A	P	P	P	P	P	P	A	P	P	A	P	P	12
2	2155302	G. Divya	BC-A	P	A	P	P	A	P	P	P	P	P	P	P	A	P	P	12
3	2155303	M. Sri Lakshmi	BC-A	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	13
4	2155304	A. Sai Sowmya	BC-B	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15
5	2155305	B. Susanth	BC-B	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	13
6	2155306	B. Manoj Phanindra	BC-B	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	14
7	2155307	J. Keerthi Priya	BC-B	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	14
8	2155308	K. Alekya	BC-D	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15
9	2155310	N. Anusha	BC-D	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	14
10	2155311	A. Chakradhar	OC	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	14
11	2155312	MD. Khadeera Begam	BC-E	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	14
12	2155313	B. Pawan Kumar	SC	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15
13	2155314	J.Jhansi Lakshmi	OC	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15
14	2155315	K. Tulasi	OC	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	14
15	2155316	P. Hima sri	BC-D	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15

N. Siva Naga Raju .

N. V. 

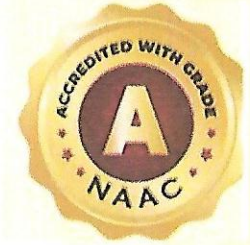
Sl.No	Roll No	Student Name	Category	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total
16	2155317	K. Naga Sravani	BC-D	A	P	P	A	P	P	P	P	A	P	P	P	P	P	P	12
17	2155319	M. karuna sri	SC	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	13
18	2155320	P. Phani Supraja	OC	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	14
19	2155321	K. Hema Sri	OC	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	14
20	2155322	R. Durga Bhavani	BC-D	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	14
21	2155323	D. Naga Gireesha	BC-D	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15
22	2155324	N. Naga Mounika	BC-D	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	14
23	2155325	G. Dedeepya	BC-D	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	14
24	2155326	E. Joshimani	SC	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	14
25	2155327	G. Yuva kiran	OC	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	14
26	2155328	V. Sri Lakshmi	BC-D	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	14
27	2155329	M. Chaitanya	SC	P	P	A	P	P	A	P	P	P	A	P	P	A	P	P	11
28	2155330	R. Bobby	SC	P	P	P	P	A	P	A	P	P	P	P	P	A	P	P	12
29	2155321	P. Praneeth kumar	SC	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	13
30	2155332	MD. Abrar Ahamad	BC-E	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	15
31	2155333	G. Harika	BC-D	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	14
32	2155334	V. Deepthi	BC-A	P	P	P	P	P	A	P	A	P	P	P	P	P	P	P	13

N. Siva Naga Raju.

N. V. 



**ADUSUMILLI GOPALAKRISHNAIAH AND SUGARCANE GROWERS
SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE,
(AUTONOMOUS) VUYYURU A.P
(Accredited at "A" level by NAAC, Bengaluru)**



Department of Statistics

VALUE ADDED COURSE: Analysis of Time series

CERTIFICATE

This is to Certify that .

Son/Daughter of Shri/Smt

has Successfully completed value added course in Analysis of Time Series

Conducted by the Department of Statistics from 01-09-2022 to 30-09-2022 We wish him her bright future

Co-ordinator

Head of Department

Principal