

**Mahatma Gandhi Vidyamandir's
Samajshree Prashantdada Hiray Arts, Science and Commerce
College, Nampur
Tal: Baglan; Dist: Nashik (423204)**

**CERTIFICATE COURSE IN STATISTICAL APPLICATION IN
RESEARCH METHODOLOGY**

Department of Economics

Dated 18.12.2021
(Economics Section)

To,
The Chairman,
College Development Committee,
Samajshree Prashantdada Hiray
Arts, Science and Commerce College
Nampur; Dist. Nashik.

Subject: Regarding Permission to Certificate Course...

Respected Sir,

With reference to the above mentioned subject, college students may be allowed to take one month certificate course on "STATISTICAL APPLICATION IN RESEARCH METHODOLOGY" from 14/03/2022 to 28/04/22. With this practice certificate, students can learn Statistical Application in Research Methodology. Students will get opportunities to get employment with the knowledge of said Course. Therefore, you are humbly requested to get permission to take this certificate course at the college level.

Thanking you,


Prof. R.K. Pagar
(Coordinator)


Prof. M.R. Kshirsagar
[HOD]
HEAD
DEPT. OF ECONOMICS
S.P.H. College, Nampur
Tal. Baglan (Nashik)


Prof. M.R. Kshirsagar
IQAC Co-ordinator
S.P.H. A.S.C. College, Nampur
Tal. Baglan (Nashik)


Dr. M. D. Ahire
(Academic Supervisor)




Dr. U. B. Kadam
PRINCIPAL
Samajshree Prashantdada Hiray
Arts, Science & Comm. College
Nampur, Tal. Baglan Dist. Nashik


Chairman
College Development Committee
S.P.H. Arts, Sci. & Comm. College
Nampur, Tal. Baglan Dist. Nashik

Date: 06.01.2022
(Economics Section)

To,
The Principal,
Samajshree Prashantdada Hiray
Arts, Science and Commerce College
Nampur; Dist. Nashik.

Subject: Regarding Permission to Certificate Course...

Respected Sir,

With reference to the above mentioned subject, college students may be allowed to take one month certificate course on "*STATISTICAL APPLICATION IN RESEARCH METHODOLOGY*" from 14/03/2022 to 28/04/22. With this practice certificate, students can learn Statistical Application in Research Methodology. Students will get opportunities to get employment with the knowledge of said Course. Therefore, you are humbly requested to get permission to take this certificate course at the college level.

Thanking you,


Prof. R.K. Pagar
(Coordinator)


Prof. M.R. Shirsagar
[HOD]
HEAD
DEPT. OF ECONOMICS
S.P.H. College, Nampur
Tal. Baglan (Nashik)




Dr. U. B. Kadam
Principal
Samajshree Prashantdada Hiray
Arts, Science & Comm. College
Nampur, Tal. Baglan Dist. Nashik

Department of Economics

Notice

Date: 02th March 2022

All the students of the college are hereby informed that Department of Economics is going to conduct one month certificate Course entitled "*STATISTICAL APPLICATION IN RESEARCH METHODOLOGY*" from 14/03/2022 to 28/04/2022. Students who want to take admission should immediately contact with the professor of Economics Department.

Contacts:

1. Prof. M.R.Shirsagar (9011222339)
2. Prof. R.K.Pagar (7058449138)



(Dr. U. B. Kadam)
PRINCIPAL

Samajshree Prashantdada Hiray
Arts, Science & Comm. College
Nampur, Tal. Baglan Dist. Nashik



M. G. Vidyamandir's

**Samajshree Prashantdada Hiray Art, Science and Commerce
College Nampur Dist- Nashik.**

Department of Economics

Value Added Courseon-

STATISTICAL APPLICATION IN RESEARCH METHODOLOGY

35 Hr.

Unit-1 Introduction of Research

03

- 1.1 Meaning and Definition of Research
- 1.2 Types of Research
 - i) Basic or Pure or Fundamental Research
 - ii) Applied Research
 - iii) Action Research
- 1.3 Objectives of Research
- 1.4 Significance of Research

Unit 2. Data Collection and Data Analysis

08

- 2.1 Meanings and Definition of Data Collection
 - i. Primary Sources
 - ii. Secondary Sources
- 2.2 Meaning and Definition of Data Analysis
 - i. Graphical Representation
 - ii. Tabulation
- 2.3 Series
 - i. Geographical Series,
 - ii. Time Series,
 - iii. Qualitative Series,
 - iv. Quantities Series

2.4 Frequency Distribution

- i) Cumulative Frequency
- ii. Class Boundaries
- iii. Midpoint
- iv) Class Width

Unit 3. Measures of Central Tendencies and Dispersion

08

3.1 Mean

3.2 Medium

3.3 Mode

3.4 Measures of Dispersion

- i. Range,
- ii. Mean Deviation,
- iii. Standard Deviation and Standard Error

Unit 4 Correlation Analysis

08

4.1 Meaning and Definition

4.2 Types of Correlation

4.3 Correlation Coefficient;

- i. Karl Pearson Method,
- ii. Spearman Method

Unit 5 Testing and Hypothesis

08

5.1 Hypothesis

- i. Null Hypothesis
- ii. Alternative Hypothesis

5.2 Tests Analysis

- i. t -tests
- ii. f- test
- iii. z- test
- iv. Chi -Square test
- Table Values



PRINCIPAL

Samajshree Prashantdada Hiray
Arts, Science & Comm. College
Nampur, Tal. Baglan Dist. Nashik

Mahatma Gandhi Vidyamandir's
S.P.H. Arts, Science & Commerce College, Nampur
Tal. Baglan, Dist. Nashik.

Time Table

Department of Economics

Class: TY B.A.

Year: 2021-22

Period	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	11.15 am to 12.15 pm	RKP	MRS	MRS	RKP	RKP	MRS

With effect from 14/03/2022 to 28/04/2022

Place: Nampur


Head of the Dept.
HEAD
DEPT. OF ECONOMICS
S.P.H. College, Nampur
Tal. Baglan (Nashik)




Principal
PRINCIPAL
Samajshree Prashantdada Hiray
Arts, Science & Comm. College
Nampur, Tal. Baglan Dist. Nashik



Q4. पुढील समावेशी मालिका अपवर्जी मालिकेत रूपांतरित करा. (Convert the next inclusive series into the exclusive series)

Marks	10-19	20-29	30-39	40-49	50-59	60-69
No. of student	2	6	7	8	1	11

Q5. बहुचाल सहसंबंध म्हणजे काय? (What is multiple correlation?)

Q6. संशोधन म्हणजे काय? (What is research?)

Q7. जर समांतर माध्य 78.08 असेल आणि प्रमाण विचलन हे 10.46 असेल तर विचरन गुणांक (c. v.) माहित करा. (If the arithmetic mean is 78.08 and the standard deviation is 10.46, find the coefficient of variance (c. v.).)

प्र. IV. खालील प्रश्नाचे थोडक्यात उत्तर द्या (कोणतेही चार) (Attempt any four questions out of five questions)

(20)

Q1. खालील दिलेल्या माहितीच्या आधारे समांतर मध्य माहित करा (Find out the arithmetic mean based on the information given below)

X	50	30	20	10	12	18	15	25	35
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Q2. खालील माहितीच्या आधारे प्रमाण विचलन आणि विचरन गुणांक माहित करा. (Find the standard deviation and coefficient of variance based on the following information.)

Series	20	30	40	50	55	45
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Q3. चूक एक म्हणजे काय? (What is type 1 error)

Q4. खालील संतत मालिकेच्या आधारे मध्यक शोधा. (Find the median value of continues series given below.)

x	40-50	50-60	60-70	70-80	80-90	90-100
f	10	2	8	5	7	1

Q5. समांतर मध्याचे गुण-दोष स्पष्ट करा. (Explain the Merits and demerits of arithmetic mean)

प्र. V. खालील पैकी एका प्रश्नाचे सविस्तर उत्तर द्या. (Answer any one of the following questions.)

(10)

Q1. सहसंबंध म्हणजे काय? सागून सहसंबंधाचे विविध प्रकार स्पष्ट करा (What is correlation? Explain the different types of correlation)

Q2. खालील दिलेल्या माहितीच्या आधारे कार्ल पियर्सन पद्धतीने सहसंबंध गुणक माहित करून त्याचे t-चाचणी मूल्य माहित करा. (Based on the following information, Karl Pearson's method of the correlation coefficient and its t-test value)

X	1	2	4	5	7	8
Y	4	6	8	10	11	12



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Dist-Nashik 423204
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NAAC Re-Accredited B Grade
Phone: 02555-234316 Fax: 02555-23215
Email: sphnampur@gmail.com
Website : <http://mgvnampur.sr.kbhgroup.in>



Certificate Course in
"STATISTICAL APPLICATION IN RESEARCH METHODOLOGY"

CERTIFICATE

This Certificate is Awarded to Maheshwar Dinkar Jadhav of Class T.Y.B.A for successful completion of the
certificate course in "STATISTICAL APPLICATION IN RESEARCH METHODOLOGY" from 14/03/2022 to
28/04/2022 organized by Department of Economics, Samajshree Prashantdada Hiray Arts, Science & Commerce College,
Nampur, Tal-Baglan, Dist-Nashik.


Prof. R.K. Pagar
Co-ordinator


Prof. M.R. Shirsagar
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Arts, Science & Comm. College
Nampur, Tal. Baglan Dist. Nashik

CERTIFICATE COURSE IN STATISTICAL APPLICATION IN RESEARCH METHODOLOGY
DEPARTMENT OF ECONOMICS
ATTENDANCE OF THE STUDENTS (2021-2022)



Sr No	Name Of The Student	14/2/22	15/2/22	16/2/22	17/2/22	19/2/22	21/2/22	22/2/22	23/2/22	24/2/22	25/2/22	26/2/22	28/2/22
1	Dipali Shriram Tambe	P	P	P	P	P	P	P	P	P	P	P	P
2	Srushti Babaji Khairnar	P	P	P	P	P	P	P	P	P	P	P	P
3	Mukund Dipak Jadhav	P	P	P	P	P	P	P	P	P	P	P	P
4	Jaywant Madhukar Dhondge	P	P	P	P	P	P	P	P	P	P	P	P
5	Bhushan Dilip Bhamare	P	P	P	P	P	P	P	P	P	P	P	P
6	Diparjali Shekhar Kapadnis	P	P	P	P	P	AL	P	P	P	P	P	P
7	Ganesh Sahebrao Kandalkar	P	P	P	P	P	P	P	P	P	P	P	P
8	Ganesh Pandit Khairnar	P	P	P	P	P	P	P	P	P	P	P	P
9	Nilesh Sahebrao Jadhav	P	P	P	P	P	P	P	P	P	P	P	P
10	Sharif Shiraj Shaikh	P	P	P	P	P	P	P	P	P	P	P	P
11	Jaywant Bhumrao Zende	P	P	P	P	P	P	P	P	P	P	P	P
12	Shital vijay Yadav	P	P	P	P	P	P	P	P	P	P	P	P
13	Madhuri Prabhakar Ahire	P	P	P	P	P	P	P	P	P	P	P	P
14	Punam Prakash Pawar	P	P	P	P	P	P	P	P	P	P	P	P
15	Yogesh Rupchand Pawar	P	P	P	P	P	P	P	P	P	P	P	P
16	Dyaneshwar Dilip Bhamare	P	P	P	P	P	P	P	P	P	P	P	P
17	Prasad Sanjay Bhamare	P	P	P	P	P	P	P	P	P	P	P	P
18	Pallavi Shrivnath More	P	P	P	P	P	P	P	P	P	P	P	P
19	Durgesh Bhatu Pawar	P	P	P	P	P	P	P	P	P	P	P	P
20	Ahrar Musa Sheikh	P	P	P	P	P	P	P	P	P	P	P	P
21	Pradip Prakash Gaikwad	P	P	P	P	P	P	P	P	P	P	P	P
22	Kushal Kailash Rathod	P	P	P	P	P	P	P	P	P	P	P	P
23	Abhijit Bapu Dalvi	P	P	P	P	P	P	P	P	P	P	P	P
24	Bhushan Ramesh Jagtap	P	P	P	P	P	P	P	P	P	P	P	P
25	Sakshi Kishor Pagar	P	P	P	P	P	P	P	P	P	P	P	P
26	Ashwini Udaram Deore	P	P	P	P	P	P	P	P	P	P	P	P
27	Anuja Bhumrao Pagar	P	P	P	P	P	P	P	P	P	P	P	P
28	Mayur Gokul Desale	P	P	P	P	P	P	P	P	P	P	P	P
29	Prakash Baliram Jagtap	P	P	P	P	P	P	P	P	P	P	P	P
30	Payal Nandu Bhadane	P	P	P	P	P	P	P	P	P	P	P	P



Sr No	Name Of The Student	29/2/22	31/2/22	1/4/22	4/4/22	5/4/22	6/4/22	7/4/22	8/4/22
1	Dipali Shriram Lambe								
2	Smriti Babaji Khairnar								
3	Mukund Dipak Jadhav								
4	Jaywant Madhukar Dhondge								
5	Bhushan Dilip Bhamare								
6	Dipanjali Shekhar Kapadnis								
7	Ganesh Sahebrao Karsalkar								
8	Ganesh Pandit Khairnar								
9	Nilesh Sahebrao Jadhav								
10	Sharif Shuraj Shaikh								
11	Jaywant Bhimrao Zende								
12	Shital vijay Yadav								
13	Madhuri Prabhakar Ahire								
14	Punam Prakash Pawar								
15	Yogesh Rupchand Pawar								
16	Dyaneshwar Dilip Bhamare								
17	Prasad Sanjay Bhamare								
18	Pallavi Shivnath More								
19	Durgesh Bhatu Pawar								
20	Abrar Musa Sheikh								
21	Pradip Prakash Gaikwad								
22	Kushal Karilash Rathod								
23	Abhijit Bapu Dalvi								
24	Bhushan Ramesh Jagtap								
25	Sakshi Kishor Pagar								
26	Ashwini Udaram Deore								
27	Anuja Bhimrao Pagar								
28	Mayor Gokul Desale								
29	Prakash Baliram Jagtap								
30	Payal Nandu Bhudane								

Sr No	Name Of The Student	9/4/22	11/4/22	12/4/22	13/4/22	16/4/22	18/4/22	19/4/22	20/4/22
1	Dipsali Shiram Tambe	P	P	P	P	P	P	P	P
2	Srushti Babaji Khairnar	P	P	P	P	P	P	P	P
3	Mukund Dipak Jadhav	P	P	P	P	P	P	P	P
4	Jaywant Madhukar Dhondge	P	P	P	P	P	P	P	P
5	Bhushan Dilip Bhamare	P	P	P	P	P	P	P	P
6	Dipanjali Shekhar Kapadnis	P	P	P	P	P	P	P	P
7	Ganesh Sahebrao Kandalkar	P	P	P	P	P	P	P	P
8	Ganesh Pandit Khairnar	P	P	P	P	P	P	P	P
9	Nilesh Sahebrao Jadhav	P	P	P	P	P	P	P	P
10	Sharif Shiraj Shaikh	P	P	P	P	P	P	P	P
11	Jaywant Bhimrao Zende	P	P	P	P	P	P	P	P
12	Shital vijay Yadav	P	P	P	P	P	P	P	P
13	Madhuri Prabhakar Ahire	P	P	P	P	P	P	P	P
14	Punam Prakash Pawar	P	P	P	P	P	P	P	P
15	Yogesh Rupchand Pawar	P	P	P	P	P	P	P	P
16	Dyaneshwar Dilip Bhamare	P	P	P	P	P	A-L	P	P
17	Prasad Sanjay Bhamare	P	P	P	P	P	P	P	P
18	Pallavi Shivnath More	P	P	P	A-L	P	P	P	P
19	Durgesh Bhatu Pawar	P	P	P	P	P	P	P	P
20	Abrar Musa Sheikh	P	P	P	P	P	P	P	P
21	Pradip Prakash Gaikwad	P	P	P	P	P	P	P	P
22	Kushal Kailash Rathod	P	P	P	P	P	P	P	P
23	Abhijit Bapu Dalvi	P	P	P	P	P	P	P	P
24	Bhushan Ramesh Jagtap	P	P	P	P	P	P	P	P
25	Sakshi Kishor Pagar	P	P	P	P	P	P	P	P
26	Ashwini Udaram Deore	P	P	P	P	P	P	P	P
27	Anuja Bhimrao Pagar	P	P	P	P	P	P	P	P
28	Mayor Gokul Desale	P	P	P	P	P	P	P	P
29	Prakash Baliram Jagtap	P	P	P	P	P	P	P	P
30	Payal Nandu Bhadane	P	P	P	P	P	P	P	P



Sl No.	Name Of The Student	21/4/22							28/4/22
		21/4/22	22/4/22	23/4/22	25/4/22	26/4/22	27/4/22	28/4/22	
1	Dipali Sherraw Lambe								
2	Srushti Babaji Khairnar								
3	Mukund Dipak Jadhav								
4	Jaywant Madhukar Dhosode								
5	Bhushan Dilip Bhamare								
6	Dipsanjali Shekhar Kapadnis								
7	Ganesh Sahabrao Kandalkar								
8	Ganesh Pandit Khairnar								
9	Nilesh Sahabrao Jadhav								
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13	Madhura Prabhakar Alure								
14	Punam Prakash Pawar								
15	Yogesh Rupchand Pawar								
16	Dyaneshwar Dilip Bhamare								
17	Prasad Sanjay Bhamare								
18	Pallavi Shivnath More								
19	Durgesh Bhatu Pawar								
20	Abrar Musa Sheikh								
21	Pradip Prakash Garkwad								
22	Kushal Kailash Rathod								
23	Abhijit Bapu Dalvi								
24	Bhushan Ramesh Jagtap								
25	Sakshi Kishor Pagat								
26	Ashwini Udaram Deore								
27	Anuja Bhamrao Pagat								
28	Mayur Gokul Desale								
29	Prakash Bahram Jagtap								
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