Himachal Pradesh University, Summer Hill, Shimla-5
Centre for Distance and Online Learning
Department of Economics

MA (Economics) II Semester
Paper: Basic Statistics
Course Code: ECON122 (DSC)

Important Instruction: All the students are required to prepare all three assignments separately. These assignments are compulsory to submit in a time bound manner, otherwise admit card for the exams will not be generated. A sample of the title page is also attached.

Assignment- I

Maximum Marks – 07

Note: Attempt any two questions out of following:

Q1. Distinguish between the following:

a) Central tendency and dispersion

b) Skewness and Kurtosis

c) Correlation and Regression

Q2. Calculate Mean, Mode, S.D. and Coefficient of Skewness for the following

Marks (Less than)	10	20	30	40	50	60
No. of students	4	10	30	40	47	50

Q3. For the equation $y = a + bx_1 + cx_2$ the data have been given as under

Y	4	6	7	9	13	15	18	8	5
X_1	15	12	8	6	4	3	2	10	14
X_2	30	24	20	14	10	4	2	21	27

Find the values of a, b and c and intercept them

Q4. What is sampling. Explain the probability sampling methods with their merits and demerits.

3.5× 2=7

Assignment- II

Maximum Marks – 07

Note: Attempt any two questions out of following:

Q1. (a) Two Tailed and One Tailed Tests

(b) Type I and Type II Errors

(c) Explain the Non-Parametric Tests and write their advantages and limitations.

Q2. The table given below shows the data obtained during outbreak of COVID

	Attacked	**Not Attacked**	**Total**
Vaccinated	31	469	500
Not Vaccinated	185	1315	1500
Total	216	1784	2000

Test the effectiveness of vaccination in preventing the attack from COVID.

Q3. What is Time Series? Explain in detail its various components.

Q4. Fit an exponential trend $y = ab^x$ to the following data

Year	1990	1991	1992	1993	1994	1995	1996
Sale	12	10	14	18	20	24	30

3.5× 2=7

Assignment- III

Maximum Marks – 06

Note: Attempt any two questions out of following:

Q1**.** a) Uses of chi-square distribution

b) 't' test and its properties

c) Binomial distribution

Q2. a) Define normal distribution? Write down the various properties of normal distribution.

b) Find the value of $R_{1.23}$ if

$X_1 = 55$	$X_2 = 51$	$X_3 = 56$
$S_1 = 5$	$S_2 = 7$	$S_3 = 9$
$r_{12} = 0.57$	$r_{13} = 0.58$	$r_{23} = 0.97$

Q3. Discuss the uses and problems in the construction of Index Numbers.

Q4. Construct the cost of living index for the year 2022 from the basis of 2012 from the following data and give your comments

Items	**Price (in Rs.) in 2012**	**Price (in Rs.) in 2022**	**Weights**
Food	39	47	4
Fuel	8	12	1
Cloth	14	18	3
Rent	12	15	2
Other	25	30	1

3× 2=6

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MA (Economics) ……Semester

Session…….

Assignment Subject:…….

Course Code: …….

Assignment No. ……..

Submitted by:

Name: ……

Registration No……..

Roll No…….

Address …….

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Email id……..

Contact No. ……..

Date:…….....

Signature……..