



Data Analysis and Interpretation

SWAYAM Prabha Course Code – S5

PROFESSOR'S NAME	Prof. Sadhana Dash
DEPARTMENT	Physics
INSTITUTE	Indian Institute of Technology, Bombay
COURSE OUTLINE	This is an introductory course in applied statistics and probability for undergraduate students in engineering and the physical or chemical sciences. These individuals play a significant role in designing and developing new products and manufacturing systems and processes, and they also improve existing systems. Statistical methods are an important tool in these activities because they provide the engineer with both descriptive and analytical methods for dealing with the variability in observed data.

COURSE DETAILS

S. No	Module ID/ Lecture ID	Lecture Title/Topic
1	L1	Introduction
2	L2	Introduction
3	L3	Description and summarization of Data
4	L4	Description and summarization of Data
5	L5	Random Variables
6	L6	Random Variables
7	L7	Joint Probability Distributions
8	L8	Joint Probability Distributions
9	L9	Special Random Variables
10	L10	Binomial Random Variable

11	L11	Special Random Variables-II
12	L12	Binomial Random Variable-II
13	L13	Special Random Variables-II
14	L14	Normal Random Variables
15	L15	Special Random Variables-III
16	L16	Special Random Variables-III
17	L17	Sampling Distribution
18	L18	Parameter Estimation
19	L19	Parameter Estimation : Interval Estimation
20	L20	Parameter Estimation
21	L21	Hypothesis Testing (I)
22	L22	Hypothesis Testing (II)

References if Any: