

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

**Course Code & Name : 23ADO201 – DATA SCIENCE FUNDAMENTALS**

**Course Faculty : Mr.K.Karthikeyan/AP/CSE**

### Question Bank

#### UNIT-III: INFERENTIAL STATISTICS

#### Part A- Two Mark Questions

PART A					
S.No	Questions	M	CO	BL	Industry/Company Name
1	Define population and sample.	2	CO-3	L-1	Infosys
2	What is random sampling?	2	CO-3	L-1	TCS
3	Explain the concept of sampling distribution.	2	CO-3	L-2	Wipro
4	What is standard error of the mean?	2	CO-3	L-1	HCL
5	State the null and alternative hypotheses.	2	CO-3	L-1	Accenture
6	What is a z-test?	2	CO-3	L-1	Cognizant
7	Differentiate between one-tailed and two-tailed tests.	2	CO-3	L-2	Deloitte
8	What is the decision rule in hypothesis testing?	2	CO-3	L-2	Capgemini
9	Define p-value.	2	CO-3	L-1	Microsoft
10	When is a z-test preferred over a t-test?	2	CO-3	L-2	Google

**Part B 16 Mark Questions**

<b>PART B</b>					
<b>S.No</b>	<b>Questions</b>	<b>M</b>	<b>CO</b>	<b>BL</b>	<b>Industry/Company Name</b>
1	Explain the steps involved in hypothesis testing with an example using the z-test.	16	CO-3	L-4	IBM
2	Discuss the importance of sampling and sampling distributions in inferential statistics.	16	CO-3	L-4	Accenture
3	Compare and contrast one-tailed and two-tailed tests with real-world examples.	16	CO-3	L-5	Deloitte
4	Solve a hypothesis testing problem using the z-test procedure and interpret the results in a business scenario.	16	CO-3	L-5	Amazon