



## GEETHANJALI INSTITUTE OF SCIENCE & TECHNOLOGY

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu)

(Accredited by NAAC with "A" Grade, NBA (EEE,ECE &ME) & ISO9001:2008 Certified Institution)

### QUESTION BANK(DESCRIPTIVE)

**Subject Name with Code: Introduction to Data Science**

**Course & Branch: Year& Semester: B.Tech CSE(DS) II-I**

**Regulation: RG23**

### UNIT - I

S.No.	Question	[BT Level] [CO][ Marks]
<b>2 Marks Questions (Short)</b>		
1.	What is project Charter?	L1, CO1,2M
2.	What is Data Cleaning?	L1, CO1,2M
3.	What is Data & Information in data science?	L1, CO1,2M
4.	List out the Benefits &Uses in data science?	L1, CO1,2M
5.	How does data science related to computer science?	L2, CO1,2M
6.	What is data science &where it comes from?	L1, CO1,2M
7.	Define Data Integration?	L1, CO1,2M
8.	What is Data Transformation?	L1, CO1,2M
9.	List Out the Facets of Data in Data Science?	L1, CO1,2M
10.	What is Labelled &Unlabelled Dataset?	L1, CO1,2M
<b>Descriptive Questions (Long)</b>		
11.	What is Data Science? How does data science related to other fields in real time?	L2, CO1,10M
12.	Write a short note on Information vs Data in Data Science?	L2, CO1,10M
13.	Explain Data Science Process Steps in Brief with an Example?	L2, CO1,10M
14.	Write a short Note on a) Defining Goals &Creating Project Charter b) Retrieving Data	L2, CO1,10M
15.	Differentiate between data science and computer science? and explain in detail?	L2, CO1,10M
16.	Write a short note on Data Cleaning &Integration Explain Them with an Example?	L2, CO1,10M
17.	Explain How Big Data Ecosystem is Used in Data Science with a Neat Sketch?	L2, CO1,10M
18.	Write a short note on EDA& Model Building Explain Them with an Example?	L2, CO1,10M
19.	Write a short note on Presenting Findings and Building Applications On Top of Them in Data Science Process?	L2, CO1,10M

### UNIT - II

S.No.	Question	[BT Level] [CO][ Marks]
<b>2 Marks Questions (Short)</b>		
1.	What is Machine Learning?	L1, CO2,2M
2.	List out the Applications of Machine learning in Data Science?	L1, CO2,2M
3.	List out some of the challenges of unstructured data in Data Science?	L1, CO2,2M
4.	What is Structured data in data science?	L1, CO2,2M
5.	Define Unstructured data in data science?	L1, CO2,2M
6.	Define Semi Structured data in Data science?	L1, CO2,2M

7.	Define validation & Prediction in ML?	L1, CO2,2M
8.	Define Semi supervised Learning in ML?	L1, CO2,2M
9.	What is Database?	L1, CO2,2M
<b>Descriptive Questions (Long)</b>		
10.	Briefly Explain Role of Machine learning in data Science??	L2, CO2,10M
11.	Write a short note on a) Semi-Supervised Learning b) Model Selection in ML?	L2, CO2,10M
12.	Explain briefly about the some of the Python Library Functions like Numpy,Pandas,SKlearn tools data science?	L2, CO2,10M
13.	What is structured and unstructured data? Compare them? & Explain in detail?	L2, CO2,10M
14.	Explain Briefly about the Different Types of Machine learning Techniques in detail?	L2, CO2,10M
15.	Write short note on Validation & Prediction in Machine Learning?	L2, CO2,10M
16.	Explain how handling large amount of data & Its techniques in Machine Learning?	L2, CO2,10M
17.	Write short note on Programming Tips for large Amount of Data in Machine Learning?	L2, CO2,10M
18.	Explain Briefly about the Problems & General Techniques for Handling Large Data in ML?	L2, CO2,10M
19.	Explain Briefly About the Modelling process for Process Engineering in Machine Learning?	L2, CO2,10M

### **UNIT - III**

S.No.	Question	[BT Level] [CO][ Marks]
<b>2 Marks Questions (Short)</b>		
1.	What is big data Analysis?	L1, CO3,2M
2.	What is meant by Hierarchial Database?	L1, CO3,2M
3.	List out Different types of Databases?	L1, CO3,2M
4.	Define Nosql in data Science?	L1, CO3,2M
5.	List out Different types of Nosql databases?	L1, CO3,2M
<b>Descriptive Questions (Long)</b>		
7.	Explain Briefly About the NoSQL Movement for handling big data in Data science?	L2, CO3,10M
8.	Write a short note on CAP Theorem with a neat Sketch?	L2, CO3,10M
9.	Explain Briefly About the ACID Principle Relational databases in DS with a neat sketch?	L2, CO3,10M
10.	Illustrate the Risk Assesment for Loan Sanctioning in Real time with an Example?	L3, CO3,10M
11.	Write a short note on different types of NoSQL Databases with a neat sketch?	L2, CO3,10M
12.	Explain Briefly About the Base principle of NoSQL databases with a Neat sketch?	L2, CO3,10M
13.	Illustrate how disease diagnosis and profiling is occurred in health care in Data science with an Example?	L3, CO3,10M

14	Write a short note on Distributing Data Storage devices in Data Science?	L2, CO3,10M
15.	Explain Briefly About the Hadoop Framework processing with a neat Sketch?	L2, CO3,10M

### **UNIT - IV**

S.No.	Question	[BT Level] [CO][ Marks]
<b>2 Marks Questions (Short)</b>		
1.	Define Neo4J Tool?	L1, CO4,2M
2.	What is Encryption?	L1, CO4,2M
3.	What is Meant by Graph Databases?	L2, CO4,2M
4.	What is Data warehousing?	L1, CO4,2M
5.	What is Decryption?	L1, CO4,2M
6.	What is Data Mining?	L1, CO4,2M
<b>Descriptive Questions (Long)</b>		
7.	Explain Briefly About the Tools &Applications of Data Science with a neat sketch?	L2, CO4,10M
8.	Write a short note on Graph query Language &Explain them with an Example?	L2, CO4,10M
9.	Explain Briefly About the Natural Language tool kit processing with a neat sketch?	L2, CO4,10M
10.	Write a short note on Applications of Graph Databases in Data science?	L2, CO4,10M
11.	Explain Briefly About the python library SQLite function in Data science?	L2, CO4,10M
12.	Write a short note on Text Mining & Analytics in Datascience?	L2, CO4,10M
13.	Explain Briefly About the Neo4J Dealing with Graph Databases in Real time?	L2, CO4,10M
14.	Write a short note on Encryption &Decryption ?with a neat sketch?	L2, CO4,10M

## **UNIT - V**

<b>S.No.</b>	<b>Question</b>	<b>[BT Level] [CO][ Marks]</b>
<b>2 Marks Questions (Short)</b>		
1.	What is mean by prototyping?	L1, CO5,2M
2.	What is Data Visualization?	L1, CO5,2M
3.	Define Crossfilter in Data Science?	L1, CO5,2M
4.	What is mean by Mapreduce?	L1, CO5,2M
5.	What is Scalability?	L1, CO5,2M
<b>Descriptive Questions (Long)</b>		
7.	Explain Briefly About the Java script Map reduce library function in data science?	L2, CO5,10M
8.	Write a short note on Data Visualization options in data Science with a neat sketch	L2, CO6,10M
9.	Write a short note on Crossfilter & Explain them with an Example?	L2, CO6,10M
10.	Illustrate How Data Science process is applicable for real time world problem solving scenarios in detail?	L3, CO6,10M
11.	Explain Briefly About the Interactive Dashboard tools with dc.js ?with a neat sketch?	L2, CO6,10M
12.	Write a short note on dashboard development tools with a neat sketch?	L2, CO6,10M
13.	What is Data Visualization? Explain how prototyping is used in Data science?	L2, CO6,10M
14.	Write a short note on dc.js Dashboard tool in Data Science with a neat sketch?	L2, CO6,10M

**Signature of the Staff: Mr.V.Chaithanya**

**Signature of Department Academic Committee Member 1:**

**Signature of Department Academic Committee Member 2:**

**Signature of Department Academic Committee Member 3:**