



**ANDHRA LOYOLA INSTITUTE OF ENGINEERING AND TECHNOLOGY**  
(Approved by AICTE, Recognized by Govt of AP, Affiliated to JNTUK)  
An ISO 9001 : 2015 Certified Institution

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**AY:2021-22**

**YEAR: IV**

**SEMESTER: I**

**SUBJECT NAME:BIG DATA ANALYTICS**

**Blooms Taxonomy levels**

L1– Remember, L2-Understanding, L3- Applying /Analyzing

**Question – Bank**

**UNIT-1**

<b>Q.NO</b>	<b>Question</b>	<b>Marks</b>	<b>BT-level</b>
1	a)Why linked lists, stacks and queues are called as linear data structures b)Explain in brief about the operations performed on stacks, queues with suitable examples.	5M 5M	1 1
2	Explain in brief about the operations performed on Linkedlist with suitable examples.	5M	2
3	a)What do you mean by linear and non-linear data structures? Specify the sets are comes under linear or non-linear b)Explain the various types of sets supported by java along with their operations with suitable examples.	5M 5M	1 1
4	a)What is map .What is the difference between the 'set' & 'map' data structure b) Explain map operations with suitable examples	5M 5M	1 1
5	Write Java Program to Implement Generic Single-linked list?	5M	2
6	What is the use of generic methods and generic classes in java and explain the various generic methods and classes supported by java.	5M	1
7	a)Identify the differences between a primitive type and a wrapper class. b)Explain about the conversion from primitive type to wrapper class and vice-versa with an example.	5M 5M	1 3
8	Illustrate wrapper class and explain the concept of autoboxing& unboxing with suitable examples.	10M	2
9	What is the advantage of object serialization in java and explain about serializing an object with suitable examples	5M	2

10	What is the advantage of object serialization in java and explain about Deserializing an object with suitable examples	5M	2
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**UNIT-2**

Q.NO	Question	Marks	BT-level
1	List the various operational modes of hadoop cluster configuration and explain in detail about configuring/installing the hadoop in pseudo distributed mode.	10M	3
2	What are the various operational modes of hadoop cluster configuration and explain in detail about configuring/installing hadoop in fully distributed mode.	10M	3
3	Explain the basic building blocks of Hadoop with a neat sketch. Write down advantages and disadvantages of Hadoop?	10M	2
4	Are there any similarities between the GFS & HDFS and explain the GFS architecture with a neat sketch.	5M	2
5	Explain the steps involved in establishing Stand alone/local mode with an example	5M	2
6	Explain the hadoop distributed file system architecture with a neat sketch. How google file system differs from the hadoop file system.	5M	2
7	Explain the roles of Job Tracker and Task Tracker	5M	2
8	Explain about the Name node, Secondary Name node	5M	2
9	Define Data node? How does name node tackle data node failures? How many instances of Data Node run on a Hadoop Cluster?	5M	1
10	Explain the uses of Name node, Data node and Secondary Name node in HDFS. What is replication factor in HDFS and what is the default value	10M	2

**UNIT-3**

Q.NO	Question	Marks	BT-level
1	Describe in brief about API for Map reduce framework. Distinguish between the old and new versions of Hadoop API for Map Reduce frame work.	10M	2
2	Explain the anatomy of map reduce job run. Discuss in brief about the implementation of map reduce concept with suitable example.	10M	2
3	Explain the role of driver code, mapper code and reducer code within a map reduce program model by a suitable example.	10M	2
5	Explain the role of combiner, record reader and partitioner within a map reduce program model of hadoop.	5M	2
6	What are core methods of a reducer? What happens if you try to run a hadoop job with an output directory that is already present?	5M	1

7	Apply Mapreduce algorithm and write Mapreduce program for word count with Driver,Mapper and Reducer codes.	10M	3
8	Write Mapreduce program to analyze NCDC data with Driver,Mapper and Reducer codes.	10M	3
9	Explain the functionalities and methods of the following classes a) Mapper, b) partitioner, c) record writer d)JobConf e) Reducer	10M	2
10	Write Mapreduce program to analyze Weather dataset	10M	3