(An Autonomous Institution affiliated to VTU, Belagavi)

Eighth Semester B.E. (CSE) (Credit System) Degree Examinations

April - May 2017

13CS817 – BIG DATA ANALYTICS (BAO)

ation: 3 Hours

Max. Marks: 100

*Note: Answer **Five** full questions choosing **One** full question from **each Unit.***

		Marks	BT*
	Unit – I		
a)	What is Big Data analytics? Explain benefits and barriers of big data analytics.	8	L*4
b)	Write a note on Big Data Framework.	6	L2
c)	Discuss five key Big Data use cases.	6	L1
a)	What is Big Data? Explain the characteristics of Big Data.	6	L1
b)	Explain different Big Data success stories and applications?	8	L2
c)	Why is Big Data important? List the different Big Data sources.	6	L1
	Unit – II		
a)	How MapReduce works? Explain with word count example.	8	L4
b)	Explain Flat Scalability and Data distribution feature of Hadoop?	6	L2
c)	Write a note on HDFS file system commands and commands for Checking health of file system.	6	L1
a)	What is HBase? Give the difference between HBase and Relational database.	6	L2
b)	Explain Hadoop Distributed File System.	6	L2
c)	Explain how Flume works?	4	L4
d)	Explain data node Commissioning and Decommissioning process.	4	L4
	Unit – III		
a)	With an example explain various JSON formats.	4	L2
b)	Write a short note on JAQL schema.	4	L4
c)	How Input/Output (I/O) is performed in JAQL? Explain I/O adapters.	8	L2
d)	Why materialized assignment? Compare normal assignment and materialized assignment in JAQL.	4	L2
a)	Explain arrays , records and Map Reduce process in JAQL	8	L4
b)	Discuss JAQL core operators.	8	L4
c)	What is JAQL? Where does JAQL fit in big data ecosystem?	4	L2
	Unit – IV		
a)	What is Pig? Explain the execution steps of Pig and also list different data types it supports.	6	L2
b)	What is Zookeeper? Explain Zookeeper data model	6	L4
c)	With a Hive architecture explain Hive.	8	L4
a)	Give the Difference between SQL and HiveQL .	8	L2
b)	Explain primitive data types of Hive and Commands for loading data into Hive .	6	L4
c)	Discuss Pig Latin statements, data types and input/output operators.	6	L4
	Unit – V		
a)	How Streams work? Discuss IBM Infosphere Streams during Analysis and scaling.	8	L4
b)	Explain filter and utility operators of Streams Processing Language (SPL).	8	L2
c)	Explain communication among SPL applications.	4	L4
a)	Explain runtime and development view of InfoSphere Streams objects.	8	L4
b)	Write a short note on Streams schema.	6	L2
c)	Discuss SPL data types.	6	L2

* Bloom's Taxonomy, L* Level

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Eighth Semester B.E. (CSE) (Credit System) Degree Examinations

Make up / Supplementary Examinations – July 2017

13CS817 – BIG DATA ANALYTICS (BAO)

tion: 3 Hours

Max. Marks: 100

*Note: Answer **Five** full questions choosing **One** full question from **each Unit.***

		Marks	BT*
	Unit – I		
a)	What is Big Data Analytics? Explain different benefits and Barriers of Big Data Analytics?	8	L*1
b)	Explain each component of Big Data Process with a neat diagram?	6	L3
c)	Explain any 5 Use cases of Big Data Analytics?	6	L2
a)	Explain the different characteristics of Big Data with respect to social medias like Facebook, Twitter, etc?	6	L4
b)	How Big Data approach is different from Traditional approach is solving any problem?	6	L3
c)	Illustratedifferent Big Data types with an example for each?	8	L2
	Unit – II		
a)	Discuss about Hadoop? Give examples for Hadoop in action?	6	L3
b)	Bring out the different components that are involved Hadoop? What is Flat scalability feature in Hadoop?	8	L2
c)	Write a note on HDFS Configuration settings? How HDFS Interaction is facilitated in Hadoop?	6	L1
a)	Explain MapReduce by taking WordCount as an example?	6	L4
b)	Discuss different components and characteristics of HBase Tables? What are the rolesplayed byZooKeeper in HBase?	8	L3
c)	Explain the different aspects of HDFS- Hadoop Distributed File System? Also emphasize on NameNode and DataNode?	6	L4
	Unit – III		
a)	Describe JASON format? Where does JAQL fit in Big Data ecosystem?	6	L2
b)	Discuss any five core operators of JAQL with an example for each?	10	L3
c)	In JAQL, what is the operator (->) called as? Illustrate with simple example?	4	L3
a)	Explain MapReduce basics through the use of JAQL?	8	L2
b)	Explain JAQL arrays and records with an example for each?	6	L3
c)	Write a note on JAQL I/O Adapters? List the different I/O Adapter operations supported by JAQL?	6	L2
	Unit – IV		
a)	Explain the importance of STORE operator in Pig? Discuss the important built-in functions supported by STORE operator?	6	L2
b)	What is Pig in Big Data? List different data types supported by Pig?	6	L1
c)	Explain Hive Data Organization?	4	L2
d)	Discuss the importance of commands CREATE, SHOW, DESCRIBE, USE, DROP, ALTER? Illustrate a Hive query for any one command?	4	L3
a)	List the different primitive data types supported by Hive?	6	L2
b)	What is Hive? Explain the different components of Hive with a block diagram?	8	L4
c)	Discuss the following operations in the context of Hive- Joins, Views, and Explain?	6	L4

P.T.O.

Big... B.E. (CSE) (Credit System) Degree Examinations ... VTU, Belagavi)

April - May 2018

14CS825 – BIG DATA ANALYTICS

Duration: 3 Hours

Max. Marks: 100

*Note: Answer **Five full** questions choosing **One full** question from **each Unit.***

		Marks	BT*
	Unit – I		
1. a)	What is big data analytics? Explain 5 'V's' of big data.	10	L*1
b)	Why is finding similar items important in Big Data? Illustrate using two example applications.	10	L1
2. a)	Relate the types of digital data in details and explain?	10	L1
b)	Define data environment versus big data environment in detail.	10	L1
	Unit – II		
3. a)	Explain what is Nosql? Why Are NoSQL Databases Interesting? Why we should use Nosql? When to use Nosql?	10	L2
b)	Classify the difference between Sql and Nosql? Explain the types of Nosql?	10	L2
4. a)	Explain Hadoop Ecosystem? Discuss various components of Hadoop Ecosystem.	10	L2
b)	Explain core architecture of Hadoop with suitable block diagram. Discuss the roll of each component in details?	10	L2
	Unit – III		
5. a)	Explain the working of various phases of Map reduce with appropriate example and diagram.	10	L3
b)	Discuss in brief about API for Map reduce framework.	10	L3
6. a)	How MapReduce Works? / Explain the anatomy of classic map reduce job run/How Hadoop runs map reduce Job?	10	L4
b)	Classify the Yarn Architecture? Briefly.	10	L5
	Unit – IV		
7. a)	Discuss the difference between Pig and Map reduces in details.	10	L4
b)	Classify Grunt is a pig interactive shell?	10	L5
8. a)	Explain in brief about Data manipulation in HIVE.	10	L4
b)	Discuss in brief about PIG Commands.	10	L4
	Unit – V		
9. a)	Discuss the difference between Data Science and Machine Learning.	10	L5
b)	Discuss the types of descriptive, predictive, perspective analytics in details.	10	L5
10. a)	Predict the importance of Big data analytics.	10	L4
b)	Explain the overview of intelligence in Big data analytics?	10	L4

Bloom's Taxonomy, L Level

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