

FACULTY OF SCIENCE
M.C.A. IV- SEMESTER REGULAR / BACKLOG EXAMINATIONS, APR - 2024
/ **BIG DATA ANALYTICS**
PAPER -I (b)

[Max. Marks: 70]

Time: 3 Hours]

Note: Answer all the following questions from Section – A and Section – B
(5x4=20)

Section – A

Answer the following questions in not more than **ONE** page each:

- ①. What is Big Data? Explain, how it differs from Traditional Data?
2. Briefly describe the purpose and functionalities of Oozie.
3. Discuss the importance of synchronization mechanisms in MapReduce to ensure data consistency.
- ④. In what scenarios might Big Data analysis be more suitable than using a Data Warehouse?
- ⑤. What is NoSQL? Explain.

(5x10=50)

Section – B

Answer the following questions in not more than **FOUR** pages each:

6. (a) Define Big Data Analytics. How does it extract valuable insights from Big Data? Discuss the key advantages of Big Data Analytics.

(OR)

- b) Differentiate between different Cloud deployment models. Which Cloud deployment model would be most suitable for a specific Big Data application?

7. a) What is the concept of "Blocks" in HDFS architecture? How does it impact data storage and retrieval? Differentiate between Namenode and Datanode functionalities in HDFS.

(OR)

- b) What is HBase? Describe the architecture of HBase and How does it compare to HDFS for storing Big Data?

8. (a) Discuss the key features of MapReduce. Explain how hardware and network topology, as well as the underlying file system, can impact MapReduce performance.

(OR)

- b) For each layer in Big Data Stack, explain its purpose and the technologies involved.

9. (a) Define the concept of Polyglot Persistence in the context of data storage. Explain how it can be beneficial when dealing with diverse data requirements within an organization.

(OR)

- b) Differentiate between Relational Databases (RDBMS) and Big Data storage solutions.

10. (a) Discuss about Key Value Stores and Column Oriented Stores.

(OR)

- b) Differentiate between Schema-Less and Schema-on-Write approaches. Discuss the advantages and potential challenges associated with each approach.

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MANAGEMENT INFORMATION SYSTEM
PAPER –III (a)

Time: 3 Hours]

[Max. Marks: 70

Note: Answer all the following questions from Section – A and Section – B

Section – A

(5x4=20)

Answer the following questions in not more than **ONE** page each:

- ① Explain the functions of an Information System.
- ② What is the strategic role of MIS in business?
- ③ Write short notes on end user development.
- ④ Explain the importance of ESS.
- ⑤ What are the challenges of managing IT INFRASTRUCTURE?

Section – B

(5x10=50)

Answer the following questions in not more than **FOUR** pages each:

- ⑥ a) Explain the interdependence between Organization and Information system.
(OR)

b) Explain the contemporary approaches to Information system.

7. a) What is strategic in Information System? Explain the types of strategic in Information System.

(OR)

b) What do you mean by Operation Information? Explain the categorization of information in terms of application.

8. a) List the methods of building an Information System? Explain in Detail.

(OR)

b) Discuss in detail the various terminologies used in Information System planning.

9. a) Define Decision Support System (DSS)? Discuss types of DSS.

(OR)

b) Explain organizational Knowledge Management System in Detail.

10. a) Explain in detail the tools for Information Security.

(OR)

b) State the Ethical and Social Issue in MIS.

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