

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BCA DEGREE EXAMINATION MAY 2025
(Sixth Semester)

Branch – COMPUTER APPLICATIONS

BIG DATA ANALYTICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1 Which of the following is a benefit of using a standard Big Data architecture?
(i) Reduced data storage costs
(ii) Improved data analysis and decision-making
(iii) Enhanced data security and compliance
(iv) Increased data processing speed and scalability
- 2 NoSQL is _____.
(i) a type of non-relational database (ii) a type of relational database
(iii) a type of data analytics tool (iv) a type of data visualization tool
- 3 What is the data type of a field that stores a string value in MongoDB?
(i) Integer (ii) String (iii) Date (iv) Boolean.
- 4 What is a keyspace in Apache Cassandra?
(i) A collection of tables (ii) A collection of rows
(iii) A collection of columns (iv) A logical grouping of data
- 5 Which of the following is a Hive file format?
(i) ORC (Optimized Row Columnar) (ii) Avro
(iii) Parquet (iv) All of the above

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a Explain the benefitting from Big Data.
OR
b Describe about the machine to machine communications.
- 7 a Explain about challenges in capitalizing on Big Data.
OR
b Describe about NOSQL.
- 8 a Outline the distributed computing challenges.
OR
b Describe about Mongo DB.

Cont...

9 a Classify the features of Cassandra.

OR

b Describe about CRUD operations.

10 a Sketch the Hive file format.

OR

b Summarise the Piggy bank.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11 a Analyze the technology challenges for Big Data.

OR

b Discuss about standard Big Data Architecture with example.

12 a Elucidate the classification of analytics.

OR

b Discuss about the Hadoop in detail.

13 a Discuss about interacting with Hadoop ecosystem.

OR

b Examine the data types in Mongo DB.

14 a Discuss about mapper and reducer in detail.

OR

b Elucidate the CQL data types with example.

15 a Analyze the user-defined function in Hive.

OR

b Enumerate about the anatomy of Pig.

Z-Z-Z

END