

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**MSc (SS) DEGREE EXAMINATION MAY 2026
(Ninth Semester)**

Branch - SOFTWARE SYSTEMS (Five Years Integrated)

DISCIPLINE SPECIFIC ELECTIVE - IV: 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 technology is most closely related to Big Data for storage and computation?

a) Cloud Computing	b) Edge Computing
c) Grid Computing	d) Embedded Systems

- 2) HDFS stands for _____

a) High Data File Storage	b) Hadoop Distributed File System
c) Hadoop Data Flow System	d) High Distributed File Structure

- 3) Which of the following is not a data transportation method?

a) Data pipelines	b) Network transfers
c) Physical shipment	d) Data ignoring

- 4) Which model is used for stream data representation?

a) Static model	b) Stream data model
c) Batch model	d) Time-independent model

- 5) Which of the following is an example of structured Big Data application?

a) Database records	b) Social media images
c) Audio transcripts	d) Video streams

SECTION - B (15 Marks)

Answer ALL Questions

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

- 6) a) Explain the main challenges in big data.
OR
b) Elaborate the need of big data value.

- 7) a) Narrate the salient features of NoSql database.
OR
b) Determine the purpose of Flume in Hadoop ecosystem.

- 8) a) Summaries the specification of bio-medical data.
OR
b) Illustrate the data pre-processing in big data acquisition.

- 9) a) State the benefits of stream computing.
OR
b) Discuss the counting distinct elements in a stream.

- 10) a) Show the Map-Reduce for machine learning
OR
b) Highlight the application of social network.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11) a) Analyze the relationship between cloud computing and big data.

OR

b) Enumerate the evolution of database.

12) a) Discuss the implementation of Hadoop Eco system.

OR

b) Elucidate the general requirements of Mahout.

13) a) Compare and construct the enterprise data and IoT data.

OR

b) Examine the data transportation in big data acquisition.

14) a) Discover the general architecture of stream data model.

OR

b) Assume the Real Time Analytics Platforms (RTAP) applications.

15) a) Elucidate the Nearest Neighbour Classifier with example.

OR

b) Determine the application of health care and medical.

Z-Z-Z END