



Paper ID : 261307

Printed Page: 1

Subject Code:BCIT601

Roll No:

BTECH

(SEM. VI) THEORY EXAMINATION 2025-26

DATA SCIENCE IN IOT

TIME: 3 HRS

M.MARKS: 70

Note: Attempt all Sections. In case of any missing data; choose suitably.

SECTION A

1. Attempt *all* questions in brief.

02 x 7 = 14

Q no.	Question	CO	Level
a.	Explain the major challenges faced in IoT Analytics.	1	K1
b.	What is Data Pre-engineering in IoT Analytics?	2	K1
c.	How do visualization techniques help in identifying model accuracy?	3	K1
d.	What are Linked Analytical Datasets?	4	K1
e.	Explain the concept of Predictive Maintenance.	4	K1
f.	What are IoT-based applications?	5	K1
g.	What is Real-Time Analytics in IoT?	5	K1

SECTION B

2. Attempt any *three* of the following:

07 x 3 = 21

Q no.	Question	CO	Level
a.	What is IoT Analytics, and why is it important in modern data-driven businesses?	1	K2
b.	How does Exploratory Data Analytics (EDA) help in identifying patterns, trends, and anomalies in datasets?	2	K3
c.	Differentiate between Simple Regression and Multiple Regression with suitable examples.	3	K2
d.	Explain different strategies used for linking data sources in analytics systems.	4	K2
e.	Explain the role of IoT Analytics in Healthcare with examples such as remote patient monitoring and smart medical devices.	5	K3

SECTION C

3. Attempt any *one* part of the following:

07 x 1 = 07

Q no.	Question	CO	Level
a.	How does cloud computing support IoT Analytics, and what are the advantages of using cloud-based IoT platforms?	1	K3
b.	What are the key issues related to data management and scalability in IoT Analytics systems?	1	K2



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4. Attempt any *one* part of the following:

07 x 1 = 07

Q no.	Question	CO	Level
a.	What are the different types of data used in Data Analytics, and how are they classified in IoT systems?	2	K2
b.	Compare skewness and kurtosis with suitable examples, and explain how they help in understanding data distribution.	2	K3

5. Attempt any *one* part of the following:

07 x 1 = 07

Q no.	Question	CO	Level
a.	Explain Polynomial Regression and discuss the importance of Pipelines in machine learning workflows.	3	K2
b.	Describe the use of Box Plots, Pivot Tables, and Heat Maps in data visualization and exploratory analysis.	3	K3

6. Attempt any *one* part of the following:

07 x 1 = 07

Q no.	Question	CO	Level
a.	How can IoT Analytics create new revenue opportunities for organizations and industries?	4	K3
b.	How does the predictive maintenance cycle help reduce operational costs and improve equipment efficiency?	4	K3

7. Attempt any *one* part of the following:

07 x 1 = 07

Q no.	Question	CO	Level
a.	Discuss the application of IoT Analytics in Smart Surveillance systems for security and public safety.	5	K2
b.	Compare the use of IoT Analytics across different domains such as healthcare, agriculture, finance, and smart cities.	5	K3