

# **INTERNAL ASSIGNMENT QUESTIONS**

**P.G. Diploma in Data Science**

**SEMESTER II –2025**



**PROF. G. RAM REDDY CENTRE FOR DISTANCE EDUCATION**

(RECOGNISED BY THE DISTANCE EDUCATION BUREAU, UGC, NEW DELHI)

**OSMANIA UNIVERSITY**

(A University with Potential for Excellence and Re-Accredited by NAAC with "A" + Grade)

**DIRECTOR**

**Prof. G.B. REDDY**

# Hyderabad – 7 Telangana State

PROF.G.RAM REDDY CENTRE FOR DISTANCE EDUCATION  
OSMANIA UNIVERSITY, HYDERABAD – 500 007

Dear Students,

Every student of PG Diploma in Data Science has to write and submit **Assignment** for each paper compulsorily. Each assignment carries **30 marks**. The marks awarded to the students will be forwarded to the Examination Branch, OU for inclusion in the marks memo. If the student fail to submit Internal Assignments before the stipulated date, the internal marks will not be added in the final marks memo under any circumstances. The assignments will not be accepted after the stipulated date. **Candidates should submit assignments only in the academic year in which the examination fee is paid for the examination for the first time.**

Candidates are required to submit the Exam fee receipt along with the assignment answers scripts at the concerned counter on or before **05-03-2025** and obtain proper submission receipt.

**ASSIGNMENT WITHOUT EXAMINATION FEE PAYMENT RECEIPT (ONLINE) WILL NOT BE ACCEPTED**

**Assignments on Printed / Photocopy / Typed will not be accepted and will not be valued at any cost.**

**HAND WRITTEN ASSIGNMENTS will be accepted and valued.**

**Methodology for writing the Assignments (Instructions) :**

1. First read the subject matter in the course material that is supplied to you.
2. If possible read the subject matter in the books suggested for further reading.
3. You are welcome to use the PGRRCDE Library on all working days for collecting information on the topic of your assignments. (10.30 am to 5.00 pm).
4. Give a final reading to the answer you have written and see whether you can delete unimportant or repetitive words.
5. The cover page of the each theory assignments must have information as given in FORMAT below.

## **FORMAT**

1. NAME OF THE STUDENT :
2. ENROLLMENT NUMBER :
3. NAME OF THE COURSE :
4. NAME OF THE PAPER :
5. DATE OF SUBMISSION :
6. Write the above said details clearly on every subject assignments paper, otherwise your paper will not be valued.
7. Tag all the assignments paper wise and submit them in the concerned counter.
8. Submit the assignments on or before **05-03-2025** at the concerned counter at PGRRCDE, OU on any working day and obtain receipt.

**DIRECTOR**

**P.G. Diploma in Data Science**  
**INTERNAL ASSESSMENT 2025**  
**PAPER – I : Machine Learning**

**SECTION - A**

**Answer the following short questions (each question carries two marks)**

**5 x 3 = 15**

1. Explain the types of machine learning
2. Describe linear model specifications
3. Introduce the logistic regression along with its types.
4. Describe the architecture of neural networks.
5. Give an overview of evaluation metrics of classification

**SECTION – B**

**Answer the following questions (each question carries Five marks)**

**5 x 3 = 15**

1. Explain decision tree building process.
2. Explain about the K-means algorithm.
3. Explain the idea of support vector machine.
4. Describe the architecture of neural networks.
5. Give an overview of evaluation metrics of classification.

**P.G. Diploma in Data Science**  
**INTERNAL ASSESSMENT 2025**  
**PAPER – II : Big Data Analytics**

**SECTION - A**

**Answer the following short questions (each question carries two marks)**

**5 x 3 = 15**

1. Explain 5 V's and 7 V's.
2. What is meant by Generative Adversarial Networks? Explain it.
3. Draw and explain Hadoop Eco System.
4. What are the caching strategies? Explain them.
5. What are the types of NoSQL Databases for Big Data Storage?

**SECTION – B**

**Answer the following questions (each question carries Five marks)**

**5 x 3 = 15**

1. Differentiate Apache Hadoop, Apache Spark and Apache Flink.
2. Explain about back propagation networks.
3. Write about Types of Schedulers.
4. Discuss real time analytics with apache kafka.
5. Write short note on storage mechanism in HBase.

**\*\*\***