

**STUDENT ASSIGNMENTS
(SESSION 2021-22)**

INSTRUCTIONS

The students are required to read carefully and follow the instructions given below:

- Submission of one complete Assignment in each course of the programme every year is compulsory.
- Completed Assignments on prescribed Assignment booklets are to be submitted by hand or through post to the Study Centre/Programme Coordinator, CDOL as per dates mentioned in the Academic Calendar 2021-22 (<http://jmi.ac.in/bulletinboard/academic-calendar/cdol>).
- For Assignments Submitted after dates mentioned in the Academic Calendar, a late fee of **Rs. 100/-** per Assignment will be payable to CDOL through Demand Draft in favour of Jamia Millia Islamia, Payable at New Delhi.
- For Ex-Students who failed to submit Assignments during the course of the programme are required to submit **Rs. 200/-** per Assignment to CDOL in the form of Demand Draft in favour of Jamia Millia Islamia, Payable at New Delhi.
- Write your name, roll number and other details as required on the cover page of **Assignment Booklet**.
- **For your record you may keep a photocopy of your Assignment.**
- Contact your Study Centre/ Programme Coordinator to collect evaluated Assignments.
- **Please go through your Programme Guide carefully.**

Post Graduate Diploma in Geo-informatics (PGDGI)

Course Name: Fundamental of Remote Sensing & GPS
Session: 2021-22

Course Code: DGI –101
Max. Marks: 30

Note: Attempt any three Questions. All questions carry equal marks.

1 Describe the advantages and limitations of aerial photography.
2 Discuss the various triangulation methods. Write short notes photogrammetric mapping and mapping accuracy.
3 Explain the history of remote sensing, Discuss the scope and applications of remote sensing
4 Describe various types, working / operating principles of sensors
5 Explain GPS constellations and its arrangement.

Course Name: Image Interpretation & Processing
Session: 2021-22

Course Code: DGI –102
Max. Marks: 30

Note: Attempt any three Questions. All questions carry equal marks.

1 What is Density of Normal Distribution? Write down properties of Normal Distribution
2 Explain three most common digital data formats in detail.
3 Explain Atmospheric, Geometric and Systematic Correction in detail.
4 Explain Principal Components Analysis (PCA) Transformation with feature Extraction.
5 Explain K-Mean clustering with a numerical example.

Course Name: Geographical Information System
Session: 2021-22

Course Code: DGI –103
Max. Marks: 30

Note: Attempt any three Questions. All questions carry equal marks.

1 Briefly explain atleast five GIS softwares.
2 Explain the process of Scanning and Digitization of maps and satellite images.
3 What is the difference between Vector and Raster Data? Explain conversion of Vector and Raster data.
4 Explain Errors and accuracies in GIS and their corrections.
5 Explain Spatial Decision Support System (DSS) modeling.

Course Name: Cartography

Course Code: DGI –104

Session: 2021-22

Max. Marks: 30

Note: Attempt any three Questions. All questions carry equal marks.

1	Define the term Cartography and discuss its types and functions.
2	Discuss the criteria used for classifying map projection and state the major characteristics of each type of projection.
3	Write a note on cartographic generalization and symbolization.
4	Elaborate the methods of lettering and positioning in the map designing.
5	Write a note on the terms: (a) Geoid, (b) Plumb Line, (c) Datum

Course Name: Thematic Application in Geosciences

Course Code: DGI –105

Session: 2021-22

Max. Marks: 30

Note: Attempt any three Questions. All questions carry equal marks.

1	What are the issues in land use planning and policy in India?
2	Discuss the elements of Geomorphic interpretation according to their landforms types.
3	Explain Soil Classification as per the soil taxonomy.
4	What are the methods of estimating evapotranspiration and Soil moisture?
5	How remote sensing and GIS tackle the problem of Solid waste and its management process?
