

# **Assignments**

**2019-20**

**Post Graduate Diploma in Geo- Informatics  
(PGDGI)**

**Centre for Distance & Open Learning  
Jamia Millia Islamia  
New Delhi-11002**

## **STUDENT ASSIGNMENTS (SESSION 2019-20)**

### **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 is compulsory.
- Completed assignments on prescribed assignment booklet are to be submitted by hand or through post to the study centre/Programme Coordinator, CDOL as per dates mentioned in the Academic Calendar 2019-20.

(<https://www.jmi.ac.in/bulletinboard/academiccalendar/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 own 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.

**ASSIGNMENT: Post Graduate Diploma in GEO- INFORMATICS (PGDGI)**  
**(DISTANCE MODE)**

**Fundamentals of Remote Sensing and GPS - (DGI-101)**

**Session: 2019-20**

**Marks: 30**

**NOTE:** Attempt any **three** questions. All questions carry equal marks.

1. Describe the definition and scope of aerial photography.
2. (a) Discuss the various types of aerial photographs.  
(b) Write short notes digital photogrammetric.
3. Explain the types and scope of remote sensing with suitable examples.
4. Write short notes on
  - (a) Electromagnetic radiation
  - (b) Electromagnetic spectrum
5. Explain the errors and accuracy in GPS measurements.

**Image Interoperation and Processing - (DGI-102)**

**Session: 2019-20**

**Marks: 30**

**NOTE:** Attempt any **three** questions. All questions carry equal marks.

1. Explain: (a) Row and column ordering.  
(b) Transposition and conjugate rules.
2. Differentiate between monochromatic colour and pseudo colour display.
3. List the factors responsible for radiometric corrections. Explain systematic and non-systematic corrections.
4. Write short notes on:-
  - a) Image fusion
  - b) PCA transformation.
  - c) Density slicing
  - d) Tasselled cap (K-T) transformation
5. Define unsupervised classification. Explain the different process involved in unsupervised classification.

**Geographical Information Systems (DGI-103)**

**Session: 2019-20**

**Marks: 30**

**NOTE:** Attempt any **three** questions. All questions carry equal marks

1. Discuss the basic operating system and give detailed any two operating systems.
2. Differentiate between spatial data and non-spatial data.
3. Define data structure. What are the advantages and disadvantages and uses of various data structures?
4. Write short notes on:
  - a) Topological overlay .
  - b) Polygon-in-polygon overlay.
  - c) DEM.
5. Explain the fuzzy spatial analysis.

### **Cartography (DGI-104)**

**Session: 2019-20**

**Marks: 30**

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

1. Explain concept of Cartography and its types and functions.
2. How will you explain the concept of “Geodesy”?
3. Write short notes on:
  - a) Lamberts Orthomorphic
  - b) Plum line
  - c) BNG system
  - d) Mercators projection
4. Explain
5. Write down the elements and different controlling factors of map design.

### **Thematic Applications in Geosciences (DGI- 105)**

**Session: 2019-20**

**Marks: 30**

**NOTE: Attempt any three questions.** All questions carry equal marks.

1. What are the issues in land use planning and explain the policies regarding land use planning in India?
2. Describe the various identification and mapping of rocks types.
3. Explain the soil classification as per soil taxonomy.
4. What are the different approaches and methods of mapping?
5. Discuss the hydrological cycle and explain the types of precipitation.

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