

ASSIGNMENT BOOKLET

**MSc Programme in Geography
(MSCGG)
(4th Semester)**

**HYDROLOGY AND WATER RESOURCES
MGGE-004**

Valid from 1st July, 2026 to 30th June, 2027



**School of Sciences
Indira Gandhi National Open University
Maidan Garhi
New Delhi-110068
(2026-27)**

Dear Student,

Please read the section on assignments in the Programme Guide of MSc Geography Programme. A weightage of 30 per cent, as you are aware, has been earmarked for continuous evaluation, **which would consist of one tutor-marked assignment** for this course. The assignment given in this booklet consists of three parts, Part A, B and C. The total marks of all the parts are 100, of which 35% are needed to pass it.

Instructions for Formatting Your Assignments

Before attempting the assignment please read the following instructions carefully:

- 1) On top of the first page of your answer sheet, please write the details exactly in the following format:

ENROLMENT NO.:.....
NAME:.....
ADDRESS:.....
.....
.....

COURSE CODE:
COURSE TITLE: ...
ASSIGNMENT NO.:
STUDY CENTRE:DATE:

PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.

- 2) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.
- 3) Leave 4 cm margin on the left, top and bottom of your answer sheet.
- 4) Your answers should be precise.
- 5) Complete each of Part A, Part B and Part C of this assignment separately, and **submit them together.**
- 6) The assignment answer sheets are to be submitted to your Study Centre within the due date. **Answer sheets received after the due date shall not be accepted. We strongly suggest that you retain a copy of your answer sheets.**
- 7) **This assignment is valid from 1st July 2026 to 30th June 2027. The last date for assignment submission is as follows: 30th September 2026 for January 2026 admission cycle 31st March 2027 for July 2026 admission cycle**

You cannot fill the exam form for this course till you have submitted this assignment.

For any further queries, please contact: satyaraj@ignou.ac.in, vishalwarpa@ignou.ac.in, knrao@ignou.ac.in

We wish you good luck.

TUTOR MARKED ASSIGNMENT

Course Code: MGGE-004
Assignment Code: MGGE-004/TMA/2026
Maximum Marks: 100

Part-A

All Questions are compulsory. Each question carries 10 marks.

1. Explain the significance of water in the three major human civilizations.
2. Describe the drainage basin. Elaborate any five drainage patterns with diagrams.
3. What is runoff? Describe in detail the various direct and indirect methods used for measuring runoff.
4. Explain the cryosphere's role in the climate system.

Part-B

All Questions are compulsory. Each question carries 10 marks.

5. Explain the concept of valuing water. Give a detailed explanation of the water's use and non-use values.
6. Discuss the several pollutants that contaminate water. Describe the effects of water pollution on the environment and human health.
7. What are the sustainable development goals? Describe in detail the SDG 6 goal of clean water and sanitation.

Part-C

8. Write Short notes on the following. Each question carries 5 marks.

- a) Measurement of Water Balance
- b) Effects of Droughts
- c) Groundwater
- d) Nation Water Policy-2020
- e) Water Demand and Use
- f) National Mission for Clean Ganga