

**ASSIGNMENT BOOKLET**  
**POST GRADUATE CERTIFICATE IN**  
**CLIMATE CHANGE (PGCCC)**

**Assignments**  
**July 2024 and January 2025 Sessions**

**Tutor Marked Assignments (TMA) for**  
**MEV 021; MEV 022; MEV 023;**  
**MEV 024 and MEV 025**



**School of Inter-disciplinary and**  
**Trans-disciplinary Studies**  
**Indira Gandhi National Open University Maidan**  
**Garhi, New Delhi-110068**

Dear Learner,

Welcome to the Post Graduate Certificate in Climate Change (PGCCC).

As per the laid down guidelines of the University, you need to complete the assignment for each course. Answer any five questions in each assignment. All questions carry equal marks. It is important that you should write the answers to all the questions in your own words. You should remember that writing answers to assignment questions will improve your writing skills and prepare you for the term-end examination.

This booklet includes assignments for the following courses:

**MEV 021: Introduction to Climate Change**

**MEV 022: Impacts of Climate Change**

**MEV 023: Mitigation and Adaptation to Climate Change**

**MEV 024: Climate Change Assessment Tools**

**MEV 025: Climate Change and Society**

You are required to submit the assignments for 3 compulsory courses and one optional course, that you have opted for during admission. It is compulsory to submit the assignments within the stipulated time to be eligible for appearing the term-end examination. You will not be allowed to appear for the term-end examination for a course if you do not submit the assignment for that course within the due date. If you appear in the term-end examination of a course without submitting its assignment, the result of the term-end examination is liable to be cancelled/ withheld.

The assignments constitute the continuous component of the evaluation process and have 30% weightage in the final grading.

Before you write the assignments, first go through the course material and then prepare the assignments carefully by following the instructions pertaining to assignments. Your responses should not be a verbatim reproduction of the textual materials provided for self-learning purposes but it should be in your own words.

If you have any doubt or problem pertaining to the course material and assignments, contact the programme coordinator or concerned programme in-charge or academic counsellor at your study centre. If you still have problems, do feel free to contact us at School of Interdisciplinary and Transdisciplinary Studies.

Wishing you all the best to complete the programme successfully.

**Dr. V. Venkat Ramanan**  
**Programme Coordinator**  
**PGCCC**  
**School of Interdisciplinary and**  
**Transdisciplinary Studies**  
**e-mail: [vvramanan@ignou.ac.in](mailto:vvramanan@ignou.ac.in)**

## INSTRUCTIONS

1. On the first page of the assignment response sheet, write the course code, course title, assignment code, name of your study centre (PSC) and date of submission.
2. Your enrolment number, name and full address should be mentioned on the top right corner of the first page.
3. Write the course title, assignment number and the name of the study centre you are attached to, in the centre of the first page of your response sheet.
4. The top of the first page of your response sheet should be like the following:

NAME: .....

ENROLLMENT NO.: .....

CYCLE OF ADMISSION: .....

PROGRAMME CODE: .....

ASSIGNMENT CODE: .....

COURSE CODE: .....

COURSE TITLE: .....

ADDRESS: .....

CONTACT NUMBER: .....

DATE OF SUBMISSION: .....

5. Read the instructions related to assignments given in the programme guide.  
Please note that unless you submit the assignments contained in this booklet within the stipulated time, you would not be permitted to appear for the term-end examination.

**Note the following points before you start writing the assignments:**

- Use only A-4 size paper for writing your responses.
- Tie the pages after numbering them carefully.
- Write the question number for each answer.

**Submission**

- Keep a copy of the assignment answer sheets with you before submission for future reference.
- Answer each assignment on separate sheet.
- It is preferred to write all assignments neatly in your own handwriting. Write your name, course code, enrolment No. and cycle of admission on all the assignments in bold letters.
- Express your response in your own words. You are advised to restrict your response based on the marks assigned to it. This will also help you to distribute your time in writing or completing your assignments on time.
- The completed assignment should be sent to the Programme Coordinator, PGCCC. Please read the instructions given in your programme guide. Send your assignments to the following address:

**Dr. V. Venkat Ramanan,**

**Assistant Professor, School of Interdisciplinary and Transdisciplinary Studies,  
Block 15, Ground Floor, IGNOU, Maidan Garhi, New Delhi-110068.**

**Phone No. 9868598433.**

**e-mail: [vvramanan@ignou.ac.in](mailto:vvramanan@ignou.ac.in)**

**It is desirable to keep with you a photocopy of the assignment(s) submitted by you.**

You have to submit the assignments by **30<sup>th</sup> September, 2024** (for July 2024 cycle) if you wish to appear in the December 2024 TEE and **31<sup>st</sup> March, 2025** (for January 2025 cycle) if you wish to appear in the June 2025 TEE.

**Due date for submission:** For July 2024 cycle: September 30, 2024

For January 2025 cycle: March 31, 2025

## GUIDELINES FOR TMAs

You will find it useful to keep the following points in mind:

1. **Planning:** Read the questions carefully. Go through the points on which they are based. Make some points regarding each question and then rearrange these in a logical order. And please write the answers in your own words. Do not reproduce passages from the units.
2. **Organisation:** Be a little more selective and analytic before drawing up a rough outline of your answer. In an essay-type question, give adequate attention to your introduction and conclusion. The introduction must be a brief interpretation of the question and how you propose to develop it. The conclusion must summarize your response to the question. In the course of your answer to a question, you may like to make references to other texts or books as this will add some depth to your analysis.
3. **Presentation:** Once you are satisfied with your answers, you can write down the final version for submission, writing each answer neatly and underlining the points you wish to emphasize.

**Make sure that your answer:**

- (a) is logical and coherent;
- (b) has clear connections between sentences and paragraphs;
- (c) is written correctly giving adequate consideration to your expression, style and presentation;
- (d) Does not exceed the number of words indicated in the question, if any.

# Tutor Marked Assignment

## MEV 021: Introduction to Climate Change

Course Code: MEV 021

Assignment Code: MEV-021/TMA/2024-25

Max. Marks: 100

**Note:** This assignment is based on the entire course.

**Answer any five questions.** All question carries equal marks. The marks for each question are indicated against it within brackets on the right-hand side.

Please write all answers in your own words.

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1. Write short notes on the following: (20 marks)
  - a. REDD+
  - b. Vertical structure of the atmosphere
2. Explain the features of the extreme weather events. (20 marks)
3. Explain the factors influencing India's climate policy. (20 marks)
4. Explain the anthropogenic drivers of climate change. (20 marks)
5. Explain the Global Heat Budget with suitable diagram. (20 marks)
6. What is climate feedback? Explain the different types of climate feedbacks. (20 marks)

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# Tutor Marked Assignment

## MEV 022: Impacts of Climate Change

Course Code: MEV 022

Assignment Code: MEV-022/TMA/2024-25

Max. Marks: 100

**Note:** This assignment is based on the entire course.

**Answer any five questions.** All question carries equal marks. The marks for each question are indicated against it within brackets on the right-hand side.

Please write all answers in your own words.

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1. Explain the impacts of climate change on agriculture. (20 marks)
2. Explain the impacts of climate change on forest. (20 marks)
3. Explain the impacts of climate change on infrastructure. (20 marks)
4. Explain the impacts of climate change on human health. (20 marks)
5. Explain the impacts of climate change on urban systems. (20 marks)
6. Explain the impacts of climate change on biodiversity. (20 marks)

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# Tutor Marked Assignment

## MEV 023: Mitigation and Adaptation to Climate Change

Course Code: MEV 023

Assignment Code: MEV-023/TMA/2024-25

Max. Marks: 100

**Note:** This assignment is based on the entire course.

**Answer any five questions.** All question carries equal marks. The marks for each question are indicated against it within brackets on the right-hand side.

Please write all answers in your own words.

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1. What is climate smart agriculture? Explain the salient features of climate smart agriculture. (20 marks)
2. Explain the strategies to enhance carbon sequestration. (20 marks)
3. What is waste to energy technology? Explain the different types of waste to energy technologies (20 marks)
4. Write short notes on the following: (20 marks)
  - a. Algal biofuels
  - b. Resilient health-service infrastructure
5. Explain the concept of mitigation and adaptation. (20 marks)
6. Write short notes on the following: (20 marks)
  - a. Climate resilience
  - b. Biogas technology

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# Tutor Marked Assignment

## MEV 024: Climate Change Assessment Tools

Course Code: MEV 024

Assignment Code: MEV-024/TMA/2024-25

Max. Marks: 100

**Note:** This assignment is based on the entire course.

**Answer any five questions.** All question carries equal marks. The marks for each question are indicated against it within brackets on the right-hand side.

Please write all answers in your own words.

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1. Explain the application of geoinformatics in disaster risk reduction. (20 marks)
2. Describe the methods for analysing vulnerability to climate change. (20 marks)
3. Define geographic information system. Explain its components. (20 marks)
4. Explain the different stages of life cycle assessment study. (20 marks)
5. Explain the following: (20 marks)
  - a. Spectral signatures of common earth surface features
  - b. Vector data Model
6. Explain the features and applications of crop simulation models. (20 marks)

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# Tutor Marked Assignment

## MEV 025: Climate Change and Society

Course Code: MEV 025

Assignment Code: MEV-025/TMA/2024-25

Max. Marks: 100

**Note:** This assignment is based on the entire course.

**Answer any five questions.** All question carries equal marks. The marks for each question are indicated against it within brackets on the right-hand side.

Please write all answers in your own words.

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1. Explain the impacts of climate change on human society. (20 marks)
2. Explain the measures taken by the Indian government to address climate change. (20 marks)
3. Explain how climate change challenges sustainable development. (20 marks)
4. Explain the impacts of climate change on critical infrastructure. (20 marks)
5. Explain how gender mainstreaming aid in addressing climate change. (20 marks)
6. Explain the salient features of Paris Agreement on climate change. (20 marks)

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