

No. of Printed Pages : 3

**MEV-024**

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

**Term-End Examination**

**December, 2025**

**MEV-024 : CLIMATE CHANGE ASSESSMENT  
TOOLS**

*Time : 3 Hours*

*Maximum Marks : 100*

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**Note :** Answer any *ten* questions. All questions carry equal marks.

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1. What is life cycle assessment ? Explain the various stages of life cycle assessment. 10
2. What is soil carbon sequestration ? Discuss the strategies to promote carbon sequestration for climate mitigation. 10
3. What are Greenhouse Gases ? Discuss the different approaches for GHG inventories. 10

4. What is remote sensing ? Explain the interaction of electromagnetic radiation with the atmosphere and earth surface. 10
5. Write short notes on the following :  $2\frac{1}{2} \times 4 = 10$
- (a) Kirchhoff's law
  - (b) Planck's law
  - (c) Stefan-Boltzmann's law
  - (d) Wien's displacement law
6. Write short notes on the following : 5+5
- (a) Vector data analysis
  - (b) General circulation models
7. Write short notes on the following : 5+5
- (a) Climate resilience
  - (b) Non-selective scattering
8. What is early warning system ? Explain the concept and key principles of early warning system. 10
9. What is Geoinformatics ? Explain the applications of geoinformatics in climate change studies. 10

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10. Write short notes on the following : 5+5
- (a) Spatial data infrastructure
  - (b) Climate risk assessment
11. What is climate change vulnerability ?  
Explain the methods for analysing climate change vulnerability. 10
12. What is crop simulation model ? Explain the structure and applications of crop simulation models. 10
13. Write short notes on the following : 5+5
- (a) Descriptive modelling
  - (b) Stochastic models
14. Write short notes on the following : 5+5
- (a) Urban heat island
  - (b) Forest fires

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