Ph.D. ENVIRONMENTAL SCIENCES (PHDEV)

Term-End Examination December, 2022

REVE-006: CLIMATE CHANGE

Time: 3 hours Maximum Marks: 100

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

- **1.** Write short notes on the following :
 - (a) Greenhouse Effect
 - (b) Climate Change
- 2. Write about the significance of Stratospheric Ozone. Discuss the mechanism of Stratospheric Ozone depletion.
- 3. Explain the carbon dioxide fertilization effect. Why do ${\rm C_3}$ plants benefit from increase in atmospheric carbon dioxide concentration?
- **4.** Write short notes on the following:
 - (a) Structure of Atmosphere
 - (b) Climate System

- **5.** Explain the various carbon pools and processes involved in soil carbon sequestration.
- **6.** What are the unique features of soil ecosystem? Discuss the major impacts of climate change on soil ecosystem.
- **7.** Explain the impacts of climate change on wetlands.
- **8.** What do you understand by the term carbon capture and storage? Explain the processes involved in carbon capture and storage.
- **9.** Explain the impacts of climate change on mountain and hill ecosystems.
- **10.** Explain the drivers of climate change policy.
- 11. Discuss the impacts of climate change on human health.
- **12.** Discuss the various missions under National Action Plan on Climate Change.
- **13.** Write short notes on the following:
 - (a) Carbon Credits
 - (b) Carbon Trading
- **14.** Explain the philosophy of sustainable development engrained in Sustainable Development Goals.