

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

**Term-End Examination**

**February, 2021**

**MEV-022 : IMPACTS OF CLIMATE CHANGE**

*Time : 3 hours*

*Maximum Marks : 100*

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

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**1.** Write short notes on any **four** of the following :

$$4 \times 2 \frac{1}{2} = 10$$

- (a) Agriculture as a sink for greenhouse gases.
- (b) Impacts of agriculture on environment.
- (c) Negative impacts of climate change on forestry.
- (d) REDD and REDD<sup>T</sup>.
- (e) CO<sub>2</sub> fertilization effect and Net primary production.

2. Describe the linkages between livestock and global warming. Give five ways to reduce GHG's emitted by livestock. *5+5=10*
  
3. Describe the direct and indirect effects of climate change on distribution, species composition, productivity and extinction of fishes. *10*
  
4. Explain the interactions between soil and components of environment. How does climate change affect soil carbon and nitrogen dynamics, soil salinity and evapotranspiration ? *4+6=10*
  
5. Describe the response of ocean system to climate change. Describe the vulnerability and migration pattern of marine organisms to climate change. *5+5=10*
  
6. Describe the interaction between climate change and wetlands. How do wetlands play an important role in climate resilience ? *5+5=10*
  
7. Explain the distinct features of mountain ecosystem. Describe the potential threats of climate change on glacier melting and livelihood support systems in mountain ecosystem. *5+5=10*

8. What is soil erosion ? Explain various types of soil erosion. Describe the impact of climate change on water resources.  $1+2+7=10$
9. Give a brief description of energy security and energy efficiency in terms of climate change. Describe the impacts of climate change on energy sources.  $4+4+2=10$
10. Explain the vulnerability and impact assessment of biodiversity to climate change. Give various approaches for reducing the impacts on biodiversity.  $5+5=10$
11. Define infrastructure. Give impacts of climate change on  $2+8=10$
- (a) Telecommunication
  - (b) Buildings
  - (c) Transportation
  - (d) Water infrastructure
12. Write short notes on any **two** of the following :  $2\times 5=10$
- (a) Cities as heat islands
  - (b) Extreme weather events and spread of diseases
  - (c) Impact of climate change on human health

- 13.** Describe the vulnerability of coral reefs, low lying coastal zones and small islands to climate change. *10*
- 14.** What is livelihood ? Describe the adverse impacts of climate change on livelihood sectors. *2+8=10*
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