

M.Sc Sem-3 Examination**502****Climate Change****November-2024****Time : 2-30 Hours]****[Max. Marks : 70**

Instructions: All Questions carry equal marks
Attempt all Questions

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| Q I | Explain improved energy efficiency in detail | 14 |
| OR | | |
| Q I | A. Discuss Carbon capture and Sequestration | 7 |
| | B. Write a note on Hydropower | 7 |
| Q II | What are the pros and cons of various renewable energy technologies? | 14 |
| OR | | |
| Q II | A. What is the role and composition of CARB? | 7 |
| | B. Provide solutions to reduce emissions from agriculture sector. | 7 |
| Q III | B. How does the concept of 'cap-and-trade' work, and what are its key components? | 14 |
| OR | | |
| Q III | A. Discuss the concept of 'additionality' in carbon projects and why it is crucial for the credibility of carbon markets. | 7 |
| | B. Discuss the principles behind the establishment of carbon markets and how they aim to reduce greenhouse gas emissions globally. | 7 |
| Q IV | Discuss biomass and wind energy as a technology option | 14 |
| OR | | |
| Q IV | A. Explain technologies to reduce climate change | 7 |
| | B. Discuss barriers to technology transfer | 7 |
| Q V | Attempt any 7 out of 12 MCQs/Short question (One- or Two-line answer)/ Fill in the blanks/True or False etc. | 14 |
| 1 | Define HDR technology. | |
| 2 | Iogen is known for _____. | |
| 3 | Euro 2 capped the sulphur levels below _____ppm for diesel vehicles. | |
| 4 | Which of the following is considered a Scope 1 emission? | |
| | A) Purchased electricity | |
| | B) Employee commuting | |
| | C) On-site fuel combustion for heating | |
| | D) Waste generated in operations | |

(P.T.O.)

- 5 Which of the following would be classified under Scope 3 emissions?
A) Fuel combustion in company-owned vehicles
B) Emissions from purchased electricity
C) Emissions from the production of purchased goods and services
D) Fugitive emissions from refrigerants used in air conditioning
- 6 Which of the following is a primary function of the European Climate Exchange (ECX)?
A) Trading renewable energy certificates
B) Trading carbon credits under the Kyoto Protocol
C) Trading EU Allowances (EUAs) and Certified Emission Reductions (CERs)
D) Trading electricity futures
- 7 Explain Equity
- 8 What is Sustainability
- 9 Write any two benefits of fuel substitution
- 10 Write any two barriers to technology transfer
- 11 Write any two disadvantages of Hydropower
- 12 Explain Geothermal energy
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