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**PRESIDENCY UNIVERSITY**

**Bengaluru**

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| **Ph.D. Course Work End Term Examinations – JAN-FEB 2025** |
| **Date:** 30 – 01- 2025 **Time:** 09:30 am – 12:30 pm |

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| --- | --- | --- |
| **School:** SOE | **Program:** Ph.D. | |
| **Course Code :** CIV827 | **Course Name :** Advanced Applications of Remote Sensing In Environmental Monitoring And Disaster Management | |
| **Semester**: | **Max Marks**:100 | **Weightage**: 50% |

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| --- | --- | --- | --- | --- | --- |
| **CO - Levels** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
| **Marks** | **20** | **40** | **40** | **-** | **-** |

**Instructions:**

1. *Read all questions carefully and answer accordingly.*
2. *Do not write anything on the question paper other than roll number.*

**Part A**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Answer ALL the Questions. Each question carries 10 marks. 6Q x 10M=60Marks** | | | | |
| **1** | Explain the differences between active and passive remote sensing techniques | **10 Marks** | **L2** | **CO1** |
| **2** | What are the challenges in using SAR (Synthetic Aperture Radar) data for land cover classification? | **10 Marks** | **L2** | **CO1** |
| **3** | What are the primary methods for assessing soil moisture using remote sensing data | **10 Marks** | **L2** | **CO2** |
| **4** | What are the challenges in using remote sensing data for monitoring groundwater resources | **10 Marks** | **L2** | **CO2** |
| **5** | What are the ethical considerations in the use of remote sensing data for environmental monitoring | **10 Marks** | **L3** | **CO3** |
| **6** | How does remote sensing contribute to disaster risk reduction in flood-prone areas | **10 Marks** | **L2** | **CO3** |

**Part B**

|  |  |  |  |  |  |
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| **Answer the Questions. Each question carries 20 marks 2Q x 20 = 40 Marks** | | | | | |
| **7.** |  | Compare the capabilities of optical and radar remote sensing for disaster response and management. | **20 Marks** | **L3** | **CO2** |
|  | | | | | |
| **8.** |  | Discuss the role of remote sensing in monitoring coastal erosion and sea level rise. | **20 Marks** | **L3** | **CO3** |

**\*\*\*\*\* BEST WISHES \*\*\*\*\***