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**GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY UNIVERSITY, ODISHA, GUNUPUR
(GIET UNIVERSITY)**

Ph.D. (Second Semester-Summer) Examinations, May- 2025

23SPPEBO2011 – Biodiversity

(Botany)



Time: 3 hrs

Maximum: 70 Marks

The figures in the right hand margin indicate marks.

Answer ANY FIVE Questions.

(14 x 5 = 70 Marks) Marks

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| 1.a. Describe the role of biodiversity in maintaining ecosystem functioning and stability. | 8 |
| b. Describe the values of biodiversity. | 6 |
| 2. Write short notes on: (a) Biodiversity surrogates, (b) Biodiversity remote sensing. | 14 |
| 3.a. Write down the different methods for surveying and sampling biodiversity. | 7 |
| b. Explain the social, economic and ethical aspects of biodiversity conservation. | 7 |
| 4. Explain the design, management and challenges of protected areas. | 14 |
| 5.a. Describe the statistical methods used in biodiversity studies. | 7 |
| b. Describe the role of biodiversity in providing essential ecosystem services. | 7 |
| 6.a. Describe the importance of taxonomy in understanding and conserving biodiversity. | 7 |
| b. Describe the cause and effect of industrialization on air pollution. | 7 |
| 7. Write short notes on (a) Renewable resources (b) Non-renewable resources | 14 |
| 8.a. Describe the cause, effect and remedies of noise pollution. | 7 |
| b. Write down the causes, impacts and mitigation strategies of climate change. | 7 |

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