

Botany (P.G.)**[CBCS]****M.Sc. Fourth Semester End Examination-2024****[Regular & Supplementary Paper]****PAPER- BOT 403****Ecology & Biodiversity [Special Paper - II]****Full Marks: 40****Time: 02 Hrs***The figures in the right hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.**Illustrate the answers wherever necessary.***Group-A****1. Answer any four question from the followings: 4x2=8**

- a) What is Organismal diversity?
- b) What do NBPGR and NBAGR stands for?
- c) How pollen grains are stored in a bank? Name 4 gene bank centres of crop species in India.
- d) What is Red Data Bank? What are the different species categories found in the Red Data Book?
- e) State the Liebig's law of limiting factor.
- f) What are the main objectives of BSI?
- g) Distinguish between forest and garden.
- h) Express Biodiversity at several spatial scales.

(2)

Group-B

2. Answer any four questions from the following: 4x4=16

- a) What is biological hotspot? Write shortly about two Indian hotspots. 1+3
- b) Differentiate between Biosphere Reserve and National Park. 2+2
- c) Write current members of LMMC. What is the characteristic of a mega diverse country? 2+2
- d) Write notes on habitat fragmentation. 4
- e) What are forest conservation Act and Environmental Protection Act? What are the types of forest under Forest Act? 3+1
- f) Mention the primary causes and effects of deforestation. 2+2

Group -C

3. Answer any two questions of the following: 2x8 = 16

- a) Write short notes on:
 - i) Over exploitation of resources
 - ii) Corridors and connectivity. 4+4
- b) Write down the major values of biodiversity with special reference to genetic diversity. 8
- c) What are the ways to prevent and spread of non-native invasive species? Write about habitat modification by invasive species with example. 5+3
- d) Explain the two types of Diversity Indices of Biodiversity. 4+4