

# **Janki Devi Bajaj Government Girls College, Kota**

## **Department of Botany**

**M.Sc. Botany Semester – II**

**Paper-2.1 Plant Ecology**

Maximum Marks 15

### **Very short questions (1 marks each)**

1. Define niche.
2. What are temporal changes?
3. Define community.
4. What do you understand by holistic environment?
5. Differentiate between analytical and synthetic characters.

### **Short answered question (2.5 marks each)**

6. Explain interspecific association.
7. Explain stages of succession on bare land.

### **Long answered questions (5 marks each)**

8. Explain Carbon cycle in detail.

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**Paper-2.2 Plant Resource Utilization and Conservation**

Maximum Marks 15

### **Very short questions (1 marks each)**

1. Define Hotspots of biodiversity.
2. How many centers of origin (Primary diversity) were recognized by Vavilov?
3. Define Germplasm.
4. Write botanical name and uses of one medicinal plant.
5. Define *ex-situ* conservation.

### **Short answered question (2.5 marks each)**

**Write short notes on the following.**

6. Timber yielding plants
7. *In-situ* conservation

### **Long answered questions (5 marks each)**

8. Write an essay on Green revolution.

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**Paper-2.3 Cell and Molecular Biology**

Maximum Marks 15

### **Very short questions (1 marks each)**

1. What is active transport?
2. Give example of two giant chromosomes.
3. Which plant species has minimum number of chromosome?
4. Who proposed Z scheme.
5. What are cycling dependent kinases.

### **Short answered question (2.5 marks each)**

6. Describe the role of cdk inhibitors in the progression progression of cell cycle with suitable examples.
7. Explain RFLP.

### **Long answered questions (5 marks each)**

8. Explain process of protein synthesis by RNA

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**Paper-2.4 Biochemistry**

Maximum Marks 15

### **Very short questions (1 marks each)**

1. What are enzymes?
2. What is glycoprotein?
3. Define lipids.
4. Define GS -GOGAT system.
5. Give example of 2 disaccharides.

### **Short answered question (2.5 marks each)**

6. Explain root nodulation.
7. Explain mechanism of enzyme action.

### **Long answered questions (5 marks each)**

8. Define secondary metabolites with suitable examples.