**B.Sc. Botany Degree (C.B.C.S.S.) EXAMINATION, OCTOBER 2015**

**Fifth Semester**

**Model Questions**

**Open course: Biotechnology**

(2013 admissions)

Time: Three Hours Maximum marks: 80

**Part A** (Short Answer Questions)

Answer **all** questions.

Each question carries 1 mark.

1. Expand PCR.
2. Who is called Father of vaccination?
3. Name the causative microorganism of the disease Typhoid.
4. What is ozone depletion?
5. What is bioleaching?
6. What is micropropagation?
7. Name the power house of the cell.
8. Name the hormone that induces rooting in tissue culture.
9. What are linkers and adapters?
10. Explain MPN?

 (10×1=10Marks)

**Part B** Answer any **eight** questions.

Each carries 2 marks.

1. What are biopesticides?
2. Explain Ligase.
3. Write down the application of PCR.
4. Explain the outline of paneer production.
5. Explain pBR 322.
6. What are cosmids?
7. Differentiate between redifferentiation and dedifferentiation.
8. What are the sterilization techniques used for explants?
9. What are the functions of Endoplasmic reticulum?
10. What is embryogenesis?
11. Write a note on Bioremediation.

22. What is Gene library? (8×2=16 Marks)

**Part C**

Answer any **six** questions.

Each question carries 4 marks.

1. Write the important contributions of Louis Pasteur.
2. Briefly explain HGP.
3. Write briefly about causative organism, symptoms, control and preventive methods of the disease TB.
4. Explain the production of cheese.
5. What are the different enzymes in rDNA technology?
6. What are carbohydrates? Mention their role in a cell.
7. Write a short essay on PCR and its applications.
8. Write a note on different sterilization techniques in tissue culture.

 (6×4=24 marks)

**Part D**

Answer any **two** questions.

Each question carries **15** marks.

1. Explain the role of micro organisms in waste management.
2. What are the different types of pollution causes and its implications?
3. What are the basic facilities in a tissue culture laboratory?
4. Explain the steps involved in micropropagation? What are the advantages of micropropagation? (2×15=30 marks)