



KC-234

Seat No. \_\_\_\_\_

**Third Year B. Sc. Examination**

March / April – 2013

**Biotechnology : Paper-IX**

*(Environmental Biotechnology)*

Time : 3 Hours]

[Total Marks : 70

1 Answer the following : 14

- (a) Explain the Carbon cycle.
- (b) Explain models of population growth.

OR

- (a) Discuss negative interactions with suitable examples.
- (b) Write a note on Deserts and Grasslands biomes.

2 Explain the following : 14

- (a) Write a note on Extremophiles.
- (b) Explain Biodegradation of Nitrobenzene.

OR

- (a) Give an overview on biomagnifications.
- (b) Discuss microbial degradation of PCE and Cyclohexane.

- 3 Discuss the following : 14
- (a) Write a note on air pollution and its effects.
  - (b) Discuss microbiological analysis of Drinking Water.

OR

- (a) Explain concept of Primary treatment of waste water.
- (b) Explain Aerobic sludge digestion method used for the waste water treatment.

- 4 Discuss the following : 14
- (a) Write a note on Biofertilizers
  - (b) Write a note on bioplastics.

OR

- (a) Enlist the mechanisms of bioleaching and explain any one method in detail.
  - (b) Give an overview on bioremediation.
- 5 Write notes on any two of the following : 14
- (a) Explain biological nitrogen fixation
  - (b) Explain basic concept and applications of metagenomics
  - (c) Write a note on Bioethanol
  - (d) Write a note on Biogas.