



Name :

Roll No. :

Invigilator's Signature :

CS/M.Sc.(GE)/SEM-3/MSGEN(EBT)-304A/2009-10

2009

ENVIRONMENTAL BIOLOGY

Time Allotted : 2 Hours

Full Marks : 35

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

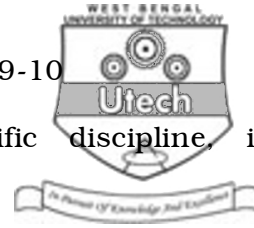
GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *five* of the following :

5 × 1 = 5

- i) occurs when individuals share a resource which is in short supply.
- a) Coevolution b) Parasitism
- c) Competition d) none of these.
- ii) The final seral stage is stable and is called the
- a) climax stage b) pioneer stage
- c) colonizer stage d) optimun stage.
- iii) Russian ecologist Georgii Frantsevich Gause formulated the law of
- a) growth model b) competitive exclusion
- c) diversity index d) none of these.



iv) Restoration ecology, as a scientific discipline, is theoretically rooted in

- a) population biology b) community
- c) conservation biology d) none of these.

v) Percentage of O₂ in normal air is

- a) 25.09 b) 29.50
- c) 20.95 d) none of these.

vi) Even very low concentrations of ozone can be harmful to

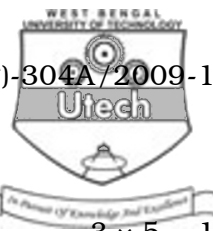
- a) lungs b) kidney
- c) liver d) spleen.

vii) EPA or USEPA began operation in

- a) 1980 b) 1990
- c) 1970 d) 2000.

viii) The first widely used herbicide was often abbreviated

- a) 2,4-D b) CDEA
- c) DDT d) BHC.



GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following.

3 × 5 = 15

2. What do you mean by restoration ecology ? State three of its major approaches.
3. Discuss on ecophysiology of halophytes.
4. What do you mean by pollution due to invasive species ? Give two examples.
5. What is aerosol ? Name two micro-organisms present in the aerosol. 3 + 2
6. What is Good Ozone & Bad Ozone ? What is Ozone screen ? Mention causes of Ozone depletion. 2 + 1 + 2

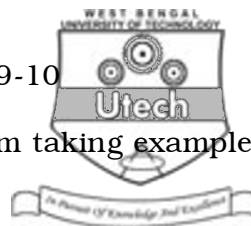
GROUP – C

(Long Answer Type Questions)

Answer any *one* of the following.

1 × 15 = 15

7. a) What do you mean by the term 'ecological succession' ? Give example. What do you mean by climax community ?
- b) Describe quadrat sampling method. For example, if a 10 m × 10 m (100 m²) site is being surveyed, three quadrats of a smaller size, 1 m × 1 m (1 m²), are selected at random. If the population densities of a particular species at the three quadrats are 10, 12 and 14 individuals per m², calculate the estimated population size within the site. 8 + 7



8. a) Describe human impacts on ecosystem taking examples of Deforestation and Desertification. 8 + 7
- b) Discuss on growing tendencies of chlorofluorocarbon and particulate pollution. Add a note on their health effects and control measures.
9. a) What is eutrophication ? Why is it recognized as a pollution problem ? How can it be prevented ?
- b) What is aquatic thermal pollution ? What are the ecological effects of such pollution ? How may thermal pollution be controlled ? 7 + 8
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