



Name :
Roll No. :
Invigilator's Signature :

CS/M.Sc(GENETICS)/SEM-3/MSGEN(EBT)-305B/2011-12

2011

BIOTECHNOLOGY IN ENVIRONMENT

Time Allotted : 1½ 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) BOD stands for
 - a) Biological Oxygen Demand
 - b) Biochemical Oxygen Demand
 - c) Bioavailable Oxygen Demand
 - d) Biosorptive Oxygen Demand.
 - ii) Albedo is related to
 - a) solar radiation
 - b) ocean current
 - c) chemical toxicity
 - d) soil erosion.
 - iii) The instrument used to measure air pressure is
 - a) Hygrometer
 - b) Barometer
 - c) Viscometer
 - d) Spherometer.



5. What is the current status of biotechnology in environment protection ?
6. Briefly describe the types of bioenergy produced from wastes.

GROUP - C

(Long Answer Type Questions)

Answer any *one* of the following. $1 \times 15 = 15$

(Brief description of each point is necessary)

7. a) Give an account of Lignin biodegradation and biotechnological utilization of such renewable natural resources.
- b) What are the recalcitrant compounds ? How recalcitrant compounds can be degraded ? Give one example of recalcitrant waste management. $7 + 8$
8. a) Describe biotechnological application of Cyanobacteria in development of clean technology.
- b) Describe the utility of membrane filter technique in management of municipal solid waste. $7\frac{1}{2} \times 7\frac{1}{2}$

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