

2018

Full Marks : 40

Time : 2 hours

All Question carry equal marks.

*Answer any **four** questions from any one group as per your specialization.*

Draw neat labeled diagrams wherever necessary

Group - A

(Environmental Biology)

1. (a) What is oil pollution ? Discuss different causes and effect of oil pollution.
(b) Write note on pollution in Indian rivers.
2. (a) How do plant adapt to water deficit stress ?
(b) Write note on eutrophication and its role in assessing water standard of the source.
3. (a) Write note on ecological efficiencies and production in tropical region.
(b) Give a brief account of natural habitat conservation in Odisha with special reference to Similipal.
4. (a) Write note on secondary production and yield to man.
(b) Discuss different approaches to wildlife conservation of Odisha.
5. (a) Give a brief account on environmental monitoring system and its application.
(b) Write note on solid waste management and its importance.
6. (a) Discuss environmental education and awareness. Add a note on role of university students in this regard.
(b) Give the brief account of various environmental protection laws in India.

(Turn over)

(2)

Group - B

(Biotechnology)

1. (a) What are plasmids ? Describe the role of plasmids as cloning vectors for recombinant DNA.
(b) Write a note on western blotting and its application.
 2. (a) Define polymerase chain reaction. Discuss the basic steps of polymerase chain reaction.
(b) Write note on YAC.
 3. (a) Discuss different culture media used in animal cell culture.
(b) Write a note on soma clonal variation.
 4. (a) Discuss the role of CO₂ in animal cell culture.
(b) Write note on composition of culture media for plant tissue culture with example of any one.
 5. (a) Write note on production of alcohol using microorganism.
(b) Give a brief account of renewable sources of energy.
 6. (a) Discuss different steps involved in designing of drugs. Add a note on their application.
(b) Write note on use of biotechnology tools for biodiversity conservation.
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