

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -I EXAMINATIONS- 2023

M.Sc.2nd Semester (BT)

COURSE CODE (CREDITS): 20MSWBT232

MAX. MARKS: 15

COURSE NAME: Environmental Biotechnology

COURSE INSTRUCTORS: Ashok Kumar Nadda

MAX. TIME: 1 Hour

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

Section I

Q1 Very short answer type questions. Each question is carrying one mark.

- a) Give an example of ligninolytic fungi that can be used to remove the lignin from waste biomass. **(Mark 1)**
- b) What are annamox bacteria. Give the example of microbes that involved in annamox processes. **(Mark 1)**
- c) Write two examples of free living nitrogen fixing prokaryotes. **(Mark 1)**
- d) How does the lead toxicity affect the human health? Name the medical ailments caused by lead. **(Mark 1)**
- e) Name the organisms that involves in the oxidation of hydrogen sulphide to sulfate. **(Mark 1)**

Section II

Q 2 Discuss the various effects of radioactive pollution on human health. (Mark 1.5)

Q 3 What is the scope and goal of environmental biotechnology? (Mark 1.5)

Q 4 What are the various components of biosensors? How the biosensors can be used to monitor the environmental pollution? (Mark 2.0)

Section III

Q 5 Write an essay on plastic pollution in India. How do the plastic and its derivative enter in living cells and shows harmful effects. (Mark 2.5)

Q 6 What are the various components of bioremediation. Discuss the factor that affects the rate of bioremediation processes. (Mark 2.5)