



Total Three (03) Questions.

Answer all questions.

1.

- i. What is “bio-leaching”? (05 marks)
- ii. Explain the “direct leaching” mechanism by using an illustrated model. (15 marks)
- iii. Describe the percolation bacterial leaching technique. (10 marks)
- iv. State the difference between heap leaching and tank leaching. (05 marks)

2.

- i. Propose a method to clean sea water. (05 marks)
- ii. Explain the theory behind the method you proposed in (i) above. (10 marks)

3.

- i. Briefly explain water bioremediation. (10 marks)
- ii. Discuss the advantages and disadvantages of cleaning oil spills using bacteria. (15 marks)
- iii. A company producing a certain chemical has developed a dumping site (a concrete container) which is located 30 meters deep from the ground level. Suddenly the company finds a chemical leakage at the bottom of the concrete container. Propose the most suitable and low cost method with justifications to remediate the chemical leakage.

(25 marks)