

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCES
DEPARTMENT OF ENVIRONMENTAL SCIENCES

**BACHELOR OF SCIENCE HONOURS DEGREE IN SAFETY, HEALTH AND
ENVIRONMENTAL MANAGEMENT**

ESP208: PRINCIPLES OF INDUSTRIAL PROCESSES _ 2

DURATION: 2 HRS

TOTAL MARKS: 70

INSTRUCTIONS TO CANDIDATES

Answer question 1 and any other two.

A blue ink stamp with the text "MAR 2023" and a small graphic of a building to the left.

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1. (a) Explain the importance of industrialization to a nation. [10 Marks]
(b) With the aid of a flow chart, describe the processes involved in the cement manufacturing industry. [5 Marks]
(c) Discuss any five cleaner production practices that can be applied at a fertilizer manufacturing company. [15 Marks]
 2. Describe the process control measures you can implement in a beverage manufacturing industry to manage the following:
(a) Air pollution, [10 Marks]
(b) Water pollution. [10 Marks]
 3. (a) Describe the processes involved in sugar manufacturing. [10 Marks]
(b) Discuss the process control measures that can be used to reduce environmental pollution from the sugar manufacturing industry. [10 Marks]
 4. Explain how environmental impacts from petroleum production can be managed. [20 Marks]
 5. Describe the environmental impacts of the mining industry. [20 Marks]

END OF PAPER