B. Tech.
(SEM. VIII) EXAMINATION, 2006-07
ENVIRONMENTAL ASPECTS IN OILS & ALLIED INDUSTRIES

Time : 3 Hours] [Total Marks : 100

Note : Attempt all questions. All questions carry equal marks.

1 Attempt any four of the following :
   (a) What is the concept of pollution prevention? 5
       Also discuss the benefits of pollution prevention.
   (b) Explain how soap-stock is produced as a by-product in refining industry. Also suggest a method for the recovery of valuable neutral oil from soap-stock. 5
   (c) Describe a method for recovery of oil from the spent bleaching earth obtained after the bleaching process in edible oil refinery. 5
   (d) What are the valuable by-products obtained from the deodorization process in edible oil refinery? 5
   (e) Discuss the process of Biological Treatment of waste water. 5

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(f) Explain the terms ‘Equalization’ and ‘Sedimentation’ with respect to waste water treatment.

2 Attempt any two of the following:
(a) With the help of a neat flow diagram explain the activated sludge process to handle industrial effluents.
(b) What are the various causes of waste generation in a vegetable oil processing industry? Also suggest a suitable plan to minimize waste.
(c) Discuss the environmental impact of an edible oil refinery.

3 Attempt any two of the following:
(a) How are different types of pollution defined? Also give the preventive and legislative measures to control pollution.
(b) What is the importance and relevance of quality policy of an organization for ISO certification?
(c) What is the concept of waste management? Also give the significance of waste audit and its procedure.

4 Attempt any two of the following:
(a) What are the effluents obtained from refinery and solvent extraction plants? Suggest a suitable method for the treatment of these effluents. Also give the maximum limits of effluent parameters.

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(b) Give the scope and functions of quality control section of an edible oil refining industry.

(c) What is the concept of pollution prevention? Discuss the important factors that can reduce waste. Also mention the strategies to minimize waste.

5 Write short notes on any two of the following:

(a) Principles of hydrogen safety.
(b) Prevention of fire hazards
(c) Mechanical collectors and electrostatic precipitators.

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