

(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 2295035

Roll No.

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B.TECH.

Regular Theory Examination (Odd Sem-VII) 2016-17

FERTILIZER TECHNOLOGY

Time : 3 Hours

Max. Marks : 100

Section - A

1. Attempt all of the followings. (2×10=20)
- a) What is telemetering?
 - b) Discuss Refrigeration and storage of Ammonia.
 - c) What is burette? List factors affecting burette formation.
 - d) Explain the different technologies used for NH₃ production.
 - e) Discuss major engineering problems in manufacturing of potassic fertilizer.
 - f) What is micronutrients? Give two example.
 - g) What is granulated mixture?
 - h) What is fluid fertilizer? Give an example.

- i) Distinguish between direct and indirect fertilizer.
- j) Explain the phosphate rock.

Section - B**2. Attempt any five of the followings. 10×5=50)**

- a) With the neat diagram explain the manufacture of ammonium nitrate.
- b) What are the different methods of sulphur recovery. Explain any one sulphur recovery method.
- c) Mention the various grades of NPK fertilizer produced in India discuss their characteristics.
- d) What are the bio fertilizer? Give example what are the advantage and limitations of Bio fertilizer?
- e) How is ammonium sulphate obtained? Explain any one method also discuss the action of Ammonium sulphate as fertilizer.
- f) Explain the various type of pollution from fertilizer industries. What are the techniques to prevention from them.
- g) What do you mean by reactor? Explain the different types of reactor used in fertilizer industries.
- h) Write the short notes
 - i) Modernization of fertilizer plant.
 - ii) Use of cooling water in fertilizer plant.

Section - C**Note: Attempt any two of the following (15×2=30)**

- 3. What do you mean by energy conservation? Write different energy conservation methods for fertilizer plants.
- 4. Discuss mixed fertilizer. With the neat and clean diagram explain the manufacturing of mixed fertilizer.
- 5. Write the short note
 - i) Diversification.
 - ii) CAN
 - iii) Computerized fertilizer plant
 - iv) Triple super phosphate.

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