

Code No: R1642353

R16

Set No. 1

IV B.Tech II Semester Advanced Supplementary Examinations, Aug/Sep - 2022
AGRO INDUSTRIES AND BI-PRODUCT UTILIZATION

(Agricultural Engineering)

Time: 3 hours

Max. Marks: 70

Question paper consists of Part-A and Part-B

Answer ALL sub questions from Part-A

Answer any FOUR questions from Part-B

PART-A(14 Marks)

1. a) Write the formulae of efficiency of furnace [2]
b) Explain the benefits of rice husk [2]
c) What does it mean by coir? [2]
d) Distinguish between pelleting and extruding [3]
e) Elaborate about COD and BOD [3]
f) What is an anaerobic decomposition? [2]

PART-B(4x14 = 56 Marks)

2. a) Explain the manufacturing process how to produce high purity silicon (calcium reduction process). [7]
b) What are the problems on rice husk combustion, and explain design of inclined grate furnace. [7]
3. a) Explain the production process of ethyl alcohol by SSF process. [7]
b) Briefly explain about the following terms are Edible copra, milling copra, oil milling, quality of copra and oil. [7]
4. a) Explain in detail about Cashew nut-Harvesting and processing. [7]
b) Explain about coconut toddy production and mango stone & peel utilization [7]
5. a) What is paper pulp? Explain paper making from agricultural wastes [7]
b) Write about layout of feed mills for commercial production along with neat diagram [7]
6. a) Write the properties of agricultural waste and also characteristics of solid and liquid wastes [7]
b) What are the problems on solid-liquid separation, screening, drying, incineration, and pyrolysis and explain them briefly? [7]
7. a) What are the advantages and disadvantages of anaerobic lagoons [7]
b) Explain the factors affecting for establishing of agro processing plants. [7]

