

Code No: RT41355

R13**Set No. 1**

IV B.Tech I Semester Supplementary Examinations, February/March - 2018

SEED PROCESING AND STORAGE ENGINEERING**(Agriculture 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 THREE questions from Part-B*

PART- A(22Marks)

- 1 a) Differentiate between types of moisture. [3]
- b) Compare heated and unheated driers. [3]
- c) Explain air movement in a store house. [4]
- d) List out the changes occurring in grains during their storage. [4]
- e) Write briefly about brick and cement bin. [4]
- f) Explain the methods of storage of grains under controlled atmospheric conditions. [4]

PART –B(3 X 16=48Marks)

- 2 a) Explain the method of construction, principle of operation, advantages, and disadvantages of flatbed type of batch driers. [8]
- b) List out and explain major air distribution systems with neat diagrams. [8]
- 3 a) Explain in detail the construction and operation of rotary drier with a neat labeled sketch. [8]
- b) Explain the construction, air distribution system, grain discharge mechanism in a CSU drier. [8]
- 4 a) List out different types and causes of spoilage occurring during storage. [8]
- b) Explain the changes occurring in stored grains due to moisture and temperature. [8]
- 5 a) List out the sources of insect infestation and explain the factors responsible for enhancing insect infestation. [8]
- b) How mechanical ventilation and artificial drying help in conditioning the environment inside a store house. [8]
- 6 a) Define and explain in detail about the hermitically sealed and air cooled storages. [8]
- b) Give a brief account on design aspects of bag storage structures. [8]
- 7 a) Give a detailed account on essential components and limitations in the use of pneumatic conveyor. [8]
- b) Explain the salient features of belt conveyers in respect of belt tension power requirements and design considerations. [8]