Roll No…….. **Total No. of Printed Pages: [01]**
Total No. of Questions: [09]

B. SC. (FOOD TECH.)/ B.F.S.T. (HONS.) (Semester – 7th)
FOOD STORAGE ENGINEERING
Subject Code: BFOTS1-701
Paper ID: [19131734]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

a. Define perishable food.

b. What do you mean by climacteric fruits?

c. Enlist causes of spoilage in storage of food.

d. Define tower silos.

e. What is cover and plinth (CAP) storage?

f. Enlist various improved storage structures.

g. Why aeration is important in storage of grains.

h. Define shelf life of foods.

i. What is the role of temperature in food storage?

j. Briefly explain importance of warehouses in food storage.

Section – B **(5 marks each)**

Q2. Differentiate between climacteric and non-climacteric fruits.

Q3. What is the purpose of aeration in storage structures?

Q4. Explain detail about various destructive agents in food spoilage.

Q5. Write short note on perishable cold storage. Explain various categories with the help of example.

Q6. Wheat weighing 900 kg/m^3 is loaded in a circular concrete silo of 3 m internal diameter and a clear height of 8 m. The angle of internal friction for wheat is 25° and that for wheat and concrete is 24°. Applying Airy theory, calculate the maximum lateral pressure at the bottom of bin section.

Section – C **(10 marks each)**

Q7. Define food storage. What are direct and indirect losses during storage? Explain sources of infestation and control.

Q8. Elaborate in detail about various grain pressure theories.

Q9. Write short note on controlled and modified storage. What is fumigation in storage of food?