

**Total No. of Pages : 02**

**Total No. of Questions : 09**

**M.Sc (Food Technology) (2017 Batch) (Sem.-3)**

## TECHNOLOGY OF CEREALS, PULSES AND OILSEEDS

**Subject Code : MSFT-611**

**Paper ID : [75576]**

**Time : 3 Hrs.**

**Max. Marks : 60**

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTION-A** contains **SIX** questions carrying **TWO** marks each and students has to attempt any **ALL** questions.
2. **SECTIONS-B** consists of **FOUR** Subsections : Units-I, II, III & IV. Each Subsection contains **TWO** questions each carrying **TWELVE** marks each and student has to attempt any **ONE** question from each Subsection.

## SECTION-A

**Q1. Answer in brief :**

- What is the molecular basis of wheat grain texture?
- Differentiate between tempering and conditioning of wheat.
- How biscuits differ from crackers and cookies?
- Differentiate between microbial spoilage and staling of bread.
- Enlist the factors affecting rice yield during milling.
- Differentiate between protein concentrate and isolate.

## SECTION-B

## UNIT-I

- Q2. a) Discuss physical grain characteristics that influence wheat quality. (5)
- b) Why different wheats require different milling procedures? Describe general procedure of wheat milling. (7)

**OR**

- Q3. a) Explain the functionality of wheat proteins and lipids in bakery products. (6)
- b) List major enzymes of wheat and explain their technological significance. (6)

**UNIT-II**

- Q4. a) Classify bread and discuss in brief the role of ingredients in bread production. (7)  
b) What causes of bread to stale? Classify staling of bread. What changes occur in stale bread? (5)

**OR**

- Q5. a) Give a brief account of unit operations used in the processing of cakes. (7)  
b) Explain the role of mixing time and temperature on dough rheology. (5)

**UNIT-III**

- Q6. Describe the unit operations used for modern rice milling with the help of a flow diagram. (12)

**OR**

- Q7. Write notes on the following : (2×6)  
a) Technology of rice convenience foods.  
b) Parboiling of rice.

**UNIT-IV**

- Q8. Write notes on the following : (2×6)  
a) Technological and nutritional aspects of sorghum.  
b) Dry milling of corn.

**OR**

- Q9. a) What is the importance of pulses in the Indian diet? Explain the CFTRI method of dal milling. (6)  
b) Differentiate between solvent extraction and mechanical pressing of oil. Describe the chemical oil refining process. (6)