

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE SEM-IV Examination-Nov/Dec-2011

Subject code: 141404

Date: 30/11/2011

Subject Name: Technology of Grains

Time: 02.30 pm -5.00 pm

Total marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Enlist the improved methods of paddy parboiling and discuss in detail any one. **07**
(b) Enlist various grain properties and describe any one in detail. **07**

- Q.2** (a) Explain oil extraction process. **07**
(b) Briefly explain the various unit operations of roller flour mill. **07**

OR

- (b) Discuss the effect of temperature and moisture on grain. **07**

- Q.3** (a) Write short notes: **07**
1. Industrial uses of corn.
2. Byproducts of rice milling.
(b) Explain the remedial measures to avoid the rice grain cracking during milling. **07**

OR

- Q.3** (a) Discuss the protein isolate preparation. **07**
(b) Write short notes on refining and hydrogenation of oil. **07**

- Q.4** (a) Explain in detail the wet milling process of corn. **07**
(b) Briefly explain the various unit operations of modern rice mill. **07**

OR

- Q.4** (a) Discuss the CFTRI method of pulse milling. **07**
(b) Describe the biochemical properties of grain. **07**

- Q.5** (a) 1. Define the following (Any three): **03**
a. Angle of repose b. Dry milling process c. Grain
d. Unit operation
2. Explain the dehusking process of pulse. **04**
(b) Discuss in detail the hydrothermal and oil treatment in pulse processing. **07**

OR

- Q.5** (a) Draw the structure of maize grain and explain the importance of each part. **07**
(b) Do as directed: **07**
1. Distinguish between break roll and reduction roll.
2. Discuss the features of paddy storage house.
