

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV • EXAMINATION – WINTER 2013****Subject Code: 141404****Date: 26-12-2013****Subject Name: Technology of Grains****Time: 02.30 pm - 05.00 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) Explain in detail the dry milling process of corn. **07**
(b) Discuss the mechanical methods of oil extraction. **07**
- Q.2** (a) What is dry heat parboiling of paddy? Discuss the conventional methods of dry heat parboiling. **07**
(b) Explain the various factors affecting milling characteristics of pulses. **07**
- OR**
- (b) Write short notes on: **07**
i) Supply chain of food grains
ii) Soybean processing
- Q.3** (a) Discuss the various physico-chemical properties of food grains. **07**
(b) State the different types of rice polishers and explain the importance of rice polishing. **07**
- OR**
- Q.3** (a) Discuss the effect of hydrothermal treatment on different properties of grains. **07**
(b) Briefly explain the different types of wheat flour available in the market. **07**
- Q.4** (a) Explain the dehulling process of paddy using rubber roll sheller. **07**
(b) Describe the importance of break roll and reduction roll in modern roller flour mill. **07**
- OR**
- Q.4** (a) Draw the morphological structure of corn and explain the importance of various parts. **07**
(b) Write the objectives of the following process:- **07**
i. Wheat milling ii. Rice milling
- Q.5** (a) Discuss the commercial scale method for milling of pulses. **07**
(b) How the oil seeds are prepared before oil extraction? Explain in detail. **07**
- OR**
- Q.5** (a) Write comments on 'Equipments or machineries used for milling of pulses'. **07**
(b) What is hydrogenation of oil? Describe the process of hydrogenation of oil. **07**
