

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-IV • EXAMINATION – SUMMER • 2014****Subject Code: 141404****Date: 23-06-2014****Subject Name: Technology of Grains****Time: 10.30 am - 01.00 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) Define parboiling and explain the properties of parboiled rice. **07**  
(b) Why refining is required for crude oil? Explain briefly the process of oil refining. **07**

- Q.2** (a) Discuss the important features of supply chain of food grains in India. **07**  
(b) Explain the processing of deoiled cake with respect to various protein rich products. **07**

**OR**

- (b) Describe the mechanical methods of oil extraction. **07**

- Q.3** (a) Explain the commercial method of pulse milling. **07**  
(b) Explain the mechanism involved in paddy separation using tray separator. **07**

**OR**

- Q.3** (a) Describe the modern method of pulse milling. **07**  
(b) Enlist the different grades of flour and briefly explain their utility. **07**

- Q.4** (a) Explain the size reduction process of wheat grains in modern wheat milling. **07**  
(b) Explain the turbo milling of wheat. **07**

**OR**

- Q.4** (a) Write short notes on: **07**  
i) Steeping of corn  
ii) Byproducts of corn milling industry  
(b) Briefly explain the various unit operation involved in rice milling. **07**

- Q.5** (a) Write short notes on: **07**  
ii) Soybean processing  
iii) Oil hydrogenation  
(b) Explain the maturation process of wheat flour and state its significance. **07**

**OR**

- Q.5** (a) Write short notes on: **07**  
i) Cleaning of oilseeds  
ii) Factors affecting solvent extraction of oil  
(b) Explain the commercial importance of corn milling with suitable examples. **07**

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