

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. - SEMESTER – IV • EXAMINATION – WINTER 2012

Subject code: 141404

Date: 29/12/2012

Subject Name: Technology of Grains

Time: 02.30 pm - 05.00 pm

Total Marks: 70

Instructions:

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

- Q1** (a) List various properties of grain. Also give importance of properties.
Discuss effect of temperature on quality of grains 07
- (b) Explain dry milling of corn 07
- Q2** (a) Discuss CFTRI method of pulse milling 07
- (b) Draw the flowsheet of rice milling 07
- OR**
- (b) Discuss protein isolate preparation with flow diagram. 07
- Q3** (a) Discuss hydrogenation process with flow sheet. 07
- (b) Explain mechanical and solvent extraction. 07
- OR**
- (a) Briefly explain rubber roll sheller. 07
- (b) Enlist various cleaning machinery used for cleaning of paddy & explain any one. 07
- Q4** (a) Explain the unit operations of modern wheat roller flour mill. 07
- (b) Enlist the different grades of wheat flour and explain any one. 07
- OR**
- Q4** (a) Write short note on (Any Two) 07
- (i) Properties of parboiled rice. (ii) Different kinds of corn
- (iii) Refining of oil
- (b) (A) Define / explain following terms (Any Four) 04
- (i) Terminal velocity (ii) Grain (iii) Hysteresis
- (iv) Gota (v) Angle of repose
- (B) Explain conditioning in milling of grain. 03
- Q5** (a) (i) Discuss thermal properties 04
- (ii) Briefly discuss separation process 03
- (b) (i) Discuss grinding process 03
- (ii) Explain dehushing of pulses 04
- OR**
- Q5** (a) (A) Answer the following (Any Four) 04
- (i) Give use of angle of repose.
- (ii) Give chemical content of any grain.
- (iii) List machinery used in oil extraction.
- (iv) What is turbo milling?
- (v) List factors affecting hydrothermal treatment.
- (B) Answer the following 03
- (i) Differentiate wet and dry milling of pulses.
- (ii) What are physico thermal properties?
- Q5** (b) Discuss the following 07
- (i) Butter making process from oil seeds. (ii) Machinery used in pulse milling.
