

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE- IVth SEMESTER–EXAMINATION – MAY/JUNE- 2012

Subject code:141404

Date: 29/05/2012

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) Discuss in detail the dry milling process of corn milling. 07
(b) Explain various properties of grain in brief. 07

- Q.2 (a) Explain mechanical extraction of oil. 07
(b) Write short notes on: 07
1. Polishing of rice.
2. Pneumatic bran separation.

OR

- (b) Explain the characteristic of whole wheat flour. 07
- Q.3 (a) Briefly explain the various conventional methods of paddy parboiling. 07
(b) Enlist continuous methods of paddy drying and explain any one in detail. 07

OR

- Q.3 (a) Discuss dry and wet milling of pulses. 07
(b) Define/explain following terms (any seven). 07
(i) Gota (v) Solvent extraction
(ii) Refining (vi) Dehusking
(iii) Cleaning (vii) Pretreatment
(iv) Parboiling (viii) Thermal property

- Q.4 (a) Answer the following. 08
(i) Give composition of grain.
(ii) What is hydrothermal treatment?
(iii) What is separation process?
(iv) What is hysteresis?
(b) Discuss protein isolate preparation process with flow diagram. 06

OR

- Q.4 (a) Draw the structure of paddy kernel and briefly explain the importance of each part. 07
(b) What is return paddy? Explain the compartment type separator used for paddy. 07

- Q.5 (a) Discuss the following. 07
(i) Byproducts of corn milling.
(ii) Cleaning of wheat.
(b) What is turbo milling? Explain the important features of wheat turbo milling industry. 07

OR

- Q.5 (a) Discuss CFTRI method of pulse milling. 05
(b) Describe machinery used in oil extraction and pulse milling. 05
(c) Explain hydrogenation process of oil. 04
