

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-V (NEW) EXAMINATION – WINTER 2020****Subject Code:3151406****Date:29/01/2021****Subject Name:Technology of Grains****Time:10:30 AM TO 12:30 PM****Total Marks: 56****Instructions:**

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) What are the objectives of milling of pulses? **03**
(b) Explain the criteria to decide the right stage of paddy harvesting. **04**
(c) What is scalping? Explain the scalping process of paddy with neat sketch of scalper. **07**
- Q.2** (a) What are the conditions for the safe storage of rice? **03**
(b) What is protein isolate? Give the flow chart of preparation of protein isolate. **04**
(c) Explain the dry and wet method of pulse milling. **07**
- Q.3** (a) Explain the significance of determination of physico-chemical properties of food grains **03**
(b) Write short note on 'Soybean processing' **04**
(c) Enlist the pre-treatments required to oilseeds prior to oil extraction and explain any four of them. **07**
- Q.4** (a) Write the nutritional significance of pulses. **03**
(b) Explain the various factors affecting milling characteristics of pulses. **04**
(c) List out the groups of impurities present in crude oil and describe briefly the steps involved for their removal. **07**
- Q.5** (a) State the different methods of dhal polishing. **03**
(b) State the principle and process of preparation of hydrogenated fat. **04**
(c) State the objectives of dry milling of corn and explain the process in detail. **07**
- Q.6** (a) Explain the term 'Scratching/pitting of pulses' **03**
(b) Classify the methods of oil extraction and discuss any one method of oil extraction. **04**
(c) Draw the morphological structure of wheat and explain the importance of each part. **07**
- Q.7** (a) Explain the nature of dent variety of corn. **03**
(b) What is parboiling of paddy? Explain any one traditional method of paddy parboiling. **04**
(c) Explain the milling of rice using disc sheller with neat sketch. **07**

- Q.8** (a) State the objectives of corn steeping. **03**
- (b) Enlist the various unit operations of modern rice milling with their functions. **04**
- (c) Explain the post milling treatment of wheat flour. **07**
