Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE - SEMESTER-IV (OLD) - EXAMINATION - SUMMER 2017

	Subject Code: 141404 Date: 08/06 Subject Name: Technology Of Grains		2017
Time: 10:30 AM to 01:00 PM Instructions:		s: <b>7</b> 0	
		Attempt all questions.	
Q.1	(a) (b)	Explain in detail how the oilseeds are prepared prior to oil extraction. Explain in detail the pneumatic rice bran separation process.	07 07
Q.2	(a)	'Rice grain break during milling and polishing'. Find out the possible reasons and suggest the suitable remedy to avoid the breakage.	07
	<b>(b)</b>	Write short notes on:  i) Neutralization of oil  ii) Protein Isolate	07
		OR	
	<b>(b)</b>	Write short notes on:  i) Solvent extraction of oil  ii) Hydrogenation of oil	07
Q.3	(a)	State the objectives of milling of pulses. Explain the home scale methods of pulse milling.	07
	(b) (c)	Explain the physical properties porosity and angle of repose of grains.  What is hydrothermal treatment of grains? State its objectives.  OR	04 03
Q.3	(a)	Describe the factors affecting milling characteristics of pulses.	07
	(b) (c)	Explain the various the thermal properties of grains.  Define the terms: i) Terminal velocity ii) Gota iii) Hysteresis	04 03
Q.4	(a)	Define conditioning of wheat, state its objectives and briefly explain the process of wheat conditioning.	07
	<b>(b)</b>	Explain the screw and hydraulic pressing of oilseeds.  OR	07
Q.4	(a) (b)	Explain soybean processing with respect to various soy based products.  Write short notes on:  i) Beall degermer  ii) Hydrocyclone	07 07
Q.5	(a) (b)	Explain the pressure parboiling method used for paddy.  Describe the dry milling of corn in detail.	07 07
Q.5	(a)	OR Distinguish between:	07
Ų.J	(a)	<ul><li>i) Modern and conventional rice milling.</li><li>ii) Abrasive and metal polisher</li></ul>	U/
	<b>(b)</b>	Draw the morphological structure of wheat kernel and explain the commercial importance of each fraction.	07

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