

January — 2007

Subject Code—5844-X

P.G.D.B.S.T. EXAMINATION

(Re-appear)

PGDBST-01

**WHEAT GRAIN STRUCTURE, QUALITY AND
MILLING**

Time : 3 Hours

Maximum Marks : 100

Note : Attempt any *Five* questions. All questions carry equal marks.

1. The milling of wheat is considered complex, whereas milling of other cereal grains is simpler. Justify this statement. Discuss the milling of bread wheat.
2. Explain basis of wheat variety hardness/softness. How can grain hardness be determined ? Discuss physicochemical grain characteristics that influence wheat quality.

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3. Define Wheat Quality. Classify wheat species and indicate their commercial importance.
4. Enlist milling by-products. Give a brief account of milling by-products. Discuss in brief the milling of soft and durum wheat milling.
5. Give a brief account of laboratory mills commonly used in research laboratories for assessing milling potential of wheat varieties. How milling results are interpreted for the purpose of evaluating the milling quality of wheat ?
6. Describe general procedure of wheat milling. Explain major functions of tempering. Differentiate between tempering and conditioning of wheat. Also, define the term extraction rate. How does it influence the composition of wheat flour ?
7. Discuss technological importance of structural components of wheat grains. Also explain the nutritional and technological importance of wheat flour.
8. Discuss botanical, physical and chemical characteristics that determine wheat quality.