Roll No. ..... **Exam Code : J-19**

Subject Code—0679

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

(Batch 2011 Onwards)

RHEOLOGY AND CHEMISTRY OF DOUGH

PGDBST-04

Time : 3 *Hours* *Maximum Marks :* 70

Section A

Note : Attempt any *Seven* questions. **7×5=35**

1. What is Oscillatory Measurement ? Which are the oscillatory parameters ? Explain importance of these parameters.

2. Explain the effects of gliadin and glutenin subunits on mixing characteristics of dough.

3. Explain the fundamental basis of wheat gluten viscoelasticity.

4. Discuss the importance of wheat gluten viscoelasticity in gas retention and bread making.

5. Discuss the effect of water and redox agents on rheology of dough.

6. How proteins affect water absorption and dynamic rheological properties of flour ?

7. Discuss the influence amylases and proteases enzymes on the rheological behaviour of the dough.

8. Explain, how gluten proteins influence the rheology of wheat flours ?

9. Discuss the rheology of dough prepared from high extraction flour.

10. Discuss the influence of temperature on dough rheology.

Section B

Note : Attempt all the questions.

11. Discuss the effect of processing parameters on wheat dough rheology.

Or

Define wheat gluten and discuss its relevance to dough rheology. **12**

12. Discuss the importance and role of starch and sugar in dough rheology.

Or

What is Viscoelasticity ? How is it measured ? Differentiate between rheological properties of wheat dough and gluten. **12**

13. Discuss the effects of emulsifiers and yeast on the dough rheology.

Or

Classify bakery ingredients and discuss their roles in dough rheology. **11**