

[Time: 2 ½ Hours]

[Marks:60]

Please check whether you have got the right question paper.

- N.B:**
1. All Questions carry equal marks.
 2. All questions are **compulsory**.
 3. **Figures** to the **right** indicate **full marks**.
 4. **Draw neat labeled diagram whenever necessary**.

- Q.1**
- a) Explain competitive and uncompetitive inhibition? **06**
 - b) Explain non competitive and irreversible inhibition. **06**
- OR**
- c) Write in brief the safety issues related to flavors? **06**
- Q.2**
- a) Explain in detail any two chemical methods of food preservation. **06**
 - b) Explain term Food Intoxication. Mention in detail conditions arises due to Food intoxication. **06**
- OR**
- c) Explain the contamination & microbial spoilage of various food products – Any two of following- **06**
 - 1) Eggs & poultry.
 - 2) Vegetable & fruits.
 - 3) Milk & Milk Products.
- Q.3**
- a) Explain the following terms with appropriate examples & diagrams- **06**
 - 1) Uniport system
 - 2) Symport system
 - 3) Antiport system
 - b) Explain the steps in endochondral ossification of bone. **06**
- OR**
- c) Explain the nerve action potential. **06**
- Q.4**
- a) Which hormones of anterior pituitary control the synthesis of estrogen? Explain in detail menstrual cycle in women? **06**
 - b) Comment on : Progesterone **06**
- OR**
- c) Comment on Androgens. **06**
- Q.5** Write Short Note on any three – **12**
- a) Explain following terms-
 - i) Osmolality & water activity
 - ii) Viscosity – Relation between viscosity and temperature
 - b) Hormone Receptors
 - c) Color Additives
 - d) E-Number
 - e) ADH