

U.G. 4th Semester Examination - 2022**FOOD & NUTRITION****[HONOURS]****Skill Enhancement Course (SEC)****Course Code : F&N-H-SEC-T-2B**

Full Marks : 40

Time : 2 Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **five** questions: $2 \times 5 = 10$
- a) What is antigen?
 - b) Distinguish between humoral and cell mediated immune response.
 - c) Name one immunoglobulin that can be found in human breast milk. Which immunoglobulin can cross placental barrier?
 - d) Define toxoid.
 - e) What is the basic principle of toxicology?
 - f) Name two organophosphate and two carbamate pesticides.

g) What is the significance of BOD?

2. Answer any **two** questions: $5 \times 2 = 10$
- a) What is LD50? Write a note on biomagnification. 5
 - b) Describe the adverse health effects of mercury food contamination. 5
 - c) Describe the structure of a typical IgG antibody. 5
 - d) What do you mean by drug accumulation? What is drug toxicity? What is first pass effect? $2+2+1$
3. Answer any **two** of the following: $10 \times 2 = 20$
- a) Discuss the influence of lead on food chain. Discuss the mechanism of actions of anticoagulant pesticides. $5+5$
 - b) Describe the alternative pathway of complement activation. Write any two differences between structure of MHC Class-I and MHC Class-II molecules. What are xenobiotics? $6+2+2$
 - c) Discuss in detail about drug biotransformation? Describe the mechanism of drug distribution in the human body. $5+5$

- d) What is adjuvant? Give one example. State the characteristics of adaptive immune system. Write briefly about antigen presentation during an immune response. 1+1+4+4
