

**PG CBCS**  
**M.SC. Semester-II Examination, 2021**  
**FOOD SCIENCE & NUTRITION**  
**PAPER: FSN 201**  
**(HEALTH MODULATING NUTRIENTS)**

**Full Marks: 40****Time: 2 Hours****Answer any FOUR questions:****10X4=40**

1. Write the genetical basis of cancer. What are the apoptotic and anti-apoptotic factors? Explain the different stages of cancer. 2+3+5
2. Define LD50. Mention the different routes of drug administration. Briefly describe about the phase I and phase II biotransformation of drug. 2+3+5
3. Explain the role of plasma protein in drug transportation. How does nutrient affect the drug metabolism? 5+5
4. What do you mean by First Order and Zero Order kinetics of drug elimination? Write short notes on polymeric and monomeric formula with application. 4+6
5. Write the pathophysiology of phenylketonuria. What is the treatment strategy of Maple Syrup Urine disease? Mention the name of the enzymes which are responsible for different types of galactosemia. 4+3+3
6. How does PUFA in the diet improve cardiovascular health? Write the role of phytosterol for lowering hypercholesterolemia. 5+5
7. Differentiate between white and brown adipose tissue. Write the role of hormones released from the adipose tissues. 4+6
8. Why dietary fibre is increased in the diet of a CVD patient? How drug affect the nutrient absorption? What do you mean by plasma half life of a drug? 2+5+3