

2025

**M.Sc. 3rd Semester Examination**  
**CLINICAL NUTRITION & DIETETICS**

**PAPER : CND-301**

**(Nutrigenomics and Nutriproteomics and  
Nutrimetabolomics, and Drug Nutrient  
Interaction)**

**Full Marks : 50**

**Time : Two Hours**

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

**Group - A**

**Answer any *four* questions :                      2×4=8**

1. What is pharmacodynamics?
2. What is antagonist? Give one example. 1+1
3. What do you mean by efficacy of drug and intrinsic activity? 1+1
4. Define nutrigenomics.
5. What do you mean by bio-availability of drug?
6. What do you mean by synergistic effect?

**P.T.O.**

( 2 )

**Group - B**

Answer any *four* questions :  $4 \times 4 = 16$

7. Write the differences between efficacs and potency of drug. Write the full forms of MLX and SREBP.  
 $3 + (\frac{1}{2} + \frac{1}{2})$
8. What is biotransformation of drug? Write the effect of alcohol on drug metabolism.  $1 + 3$
9. Discuss the role of carbohydrate on gene expression.
10. Write the principle of drug action. What is receptor up regulation?  $3 + 1$
11. State the differences between competitive and noncompetitive antagonisms.
12. State briefly about the role of vitamin-D on regulation of its receptor guided gene expression.

**Group - C**

Answer any *two* questions :  $8 \times 2 = 16$

13. Discuss with example about the drug nutrient interaction at the site of fecal clearance. What is therapeutic window?  $6 + 2$
14. How nutrient influence the gene expression? Write the role of folic acid on regulation of DNA methylation.  $3 + 5$

15. What is drug-nutrient interaction? State briefly about the influences of nutrients on drug transportation and absorption site. 2+2+4
16. Define metabolomics and metabolome. "Metabolomics is preferred over genomics and proteomics" — Justify the statement with example. Write any two techniques followed in metabolomics. 2+4+2

**Internal Assessment : 10 marks**

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