

M.Sc. 3rd Semester Examination, 2024

CLINICAL NUTRITION & DIETETICS

PAPER — CND-301

Full Marks : 50

Time : 2 hours

Answer **all** questions

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

GROUP — A

Answer any **four** questions from the following :

2 × 4

1. Define genomics.
2. What do you mean by drug-nutrient interaction ?

(Turn Over)

3. What is LD50 ?
4. What do you mean by supra additive synergism ?
5. What is pharmacokinetics ?
6. Define metabolomics and metabolome. 1 + 1

GROUP – B

Answer any **four** questions from the following :

7. State briefly the role of cholesterol on gene expression. 4 × 4
8. What is DRC ? Write the differences between steep DRC and flat DRC. 1 + 3
9. Write the role of selenium on modulation of gene expression. Write the full form of MTHFR and SREBP. $3 + \left(\frac{1}{2} + \frac{1}{2}\right)$

(3)

10. Write the principle of drug action.
11. What do you mean by bio transformation of drug ? 'Biotransformation of drug is influence by nutrient' –Discuss. 1 + 3
12. Briefly discuss the role of retinoic acid on gene expression.

GROUP – C

Answer any **two** questions from the following : 8 × 2

13. What is bioavailability of drug ? How drug bioavailability is altered by nutrient ? What is therapeutic window ? Give example. 2 + 3 + (2 + 1)
14. Define nutrigenomics. How nutrients alter the gene expression ? Write the role of ω_3 fatty acids on gene expression. 2 + 3 + 3

(4)

15. State the drug-nutrient interaction at the site of renal clearance with suitable examples.

What is first pass effect ? 6 + 2

16. Discuss the importance of metabolomics. “Metabolomics is preferred over genomics and transcriptomics from the view point of fingerprint of cellular assessment” – Justify the statement. 3 + 5

[Internal Assessment – 10 Marks]
