

Duration: 3 Hours

Maximum Marks: 100

Instructions to the candidates:- Please check that you have got the correct question paper.

- 1) All the questions are compulsory. Choice is internal.
- 2) Figures to the right indicate full marks.
- 3) All questions carry equal marks.
- 4) Draw flowcharts /diagrams wherever necessary.

- Q1 A) Fill in the blanks** **4**
- i) Principal cation of the extra cellular fluid is _____
 - ii) _____ occurs when a child doesn't eat enough protein and energy to meet nutritional needs
 - iii) The vitamin responsible for synthesis of blood clotting factors is _____
 - iv) _____ is a person's weight in kilograms divided by the square of height in meters.
- Q1 B) Write short note on ANY ONE** **4**
- i) Biochemical role of K & Fe as a nutrient
 - ii) Energy assessment - BMR
- Q1 C) Answer ANY TWO** **12**
- i) Explain- Respiratory Quotient.
Justify : The Respiratory Quotient varies for a diet rich in protein to that rich in carbohydrates
 - ii) Justify, dietary fibers play an important role in human nutrition
 - iii) Discuss the functions of proteins as macro-nutrient
- Q2 A) Fill in the blanks** **4**
- i) The mineral requirement containing _____ for a lactating mother are the same as during pregnancy
 - ii) _____ milk provides all nutrients in the right proportion as needed for the rate of growth of the infants & in easily digestible forms
 - iii) _____ is a condition in which there is blockage of the flow of bile out of the liver.
 - iv) Treatment for ulcers consists of rest, _____ therapy & regular and frequent bland meals
- Q2 B) Discuss the dietary management in ANY ONE** **4**
- i) Obstructive jaundice
 - ii) Hypertension
- Q2 C) Answer ANY TWO** **12**
- i) Design a diet for a Mr. Mahi who is a geriatric individual with Diabetes Mellitus
 - ii) Discuss the importance of nutrition during pregnancy
 - iii) Write a descriptive note on meal planning

- Q3 A) Fill in the blanks** **4**
- (i) Half-life of a drug is _____
 - (ii) _____ dose is more than the maintenance dose
 - (iii) A bioassay method which involves slow administration of drug until fatal effect is known as _____
 - iv. The bioavailability of a drug administered via _____ route is 1.
- Q3 B) Justify ANY ONE** **4**
- i) Bioavailability and Bioequivalence are not synonyms.
 - ii) Drug absorption is dependent on various factors
- Q3 C) Answer ANY TWO** **12**
- i) Create a note on the different factors affecting drug absorption.
 - ii) Discuss the principles and methods of bioassay.
 - iii) Write a detailed note on drug excretion.
- Q4 A) Fill in the blanks** **4**
- i) _____ is a calcium channel blocker.
 - ii) The science which is concerned with the study of mechanism of action of drug and pharmacological effects produced on the human body is known as _____.
 - iii) _____ are drugs used to relieve pain.
 - iv) Sulfonamides are _____ in their action.
- Q4 B) Attempt ANY ONE** **4**
- i) Justify: Drug response is mediated through different types of receptors.
 - ii) Explain in detail the pharmacodynamics of PPIs.
- Q4 C) Answer ANY TWO** **12**
- i) Comment on the pharmacological relevance of:
a. Placebos b. Antimetabolites c. Antiseptics
 - ii) Explain the mechanism of action and adverse reactions associated with salicylates. Suggest any other drugs that function as antipyretics and analgesics.
 - iii) Elaborate on the bactericidal action of penicillin.
- Q5 A) Define and explain** **8**
- a) Protein corrected amino acid score
 - b) Macro-nutrient
 - c) Adolescence

OR

OR

- d) Pre-schooler
- e) TD₅₀

OR

- f) Pharmacology
- g) Antagonist

OR

- h) Non-receptor mechanism

Q5 B) State True or False with justification

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- i) Zn is an essential nutrient & is ubiquitous in the body
- ii) Carbohydrates are not the principal source of energy, supplying 10-20% of the caloric requirements of the body
- iii) Intestinal bacteria ferment some fibers, causing flatulence and often discomfort.
- iv) Pharmacodynamics and pharmacokinetics are synonyms
- v) Vaccines stimulate natural active immunity
- vi) Biotransformation of drugs involves three phases.
