

I YEAR - SEMESTER – I
KAKATIYA UNIVERSITY – WARANGAL - TELANGANA
Under Graduate Courses (Under CBCS 2025-26 onwards)
PAPER-I: Food Chemistry & Nutrition

UNIT – I

1. Introduction to nutrition – definition of nutrition, Food as a source of nutrients. Functions of foods
2. Inter relationship between nutrition and health, visible symptoms of good health.
3. Food guide-basic five food groups and usage of food guide.
4. Use of food in body-digestion, absorption, transport, utilization of nutrients in the body.

UNIT – II

1. Carbohydrates- composition, classification, sources, functions, structure, physical & chemical properties.
2. Lipids – classification, composition, nomenclature, saturated& unsaturated fatty acids, food sources, functions of fats.
3. Proteins – composition, classification, sources, functions, denaturation, and protein deficiency, determination of protein quality.
4. Amino acids – classification, Physio-chemical properties, modification of food protein through processing and storage.

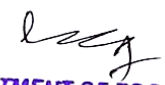
UNIT – III

1. Water as a nutrient, function, sources, requirement, structure and water balance – effect of deficiency.
2. Moisture in food: Hydrogen bonding, Bound water, free water, Water activity and Food stability.
3. Energy – Unit of energy, food as a source of energy, energy value of food, the body's need for energy, energy requirement for different age groups. B.M.R. activities
4. Enzymes. Nomenclature, specificity, uses of enzymes in foods, enzyme added to food during processing

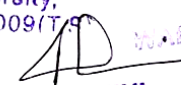
UNIT – IV

1. Mineral functions, sources, Bio-availability, and deficiency of following minerals – calcium, Iron, Iodine, Fluorine, sodium, potassium.
2. Vitamins – Classification, units of measurement, sources, functions and deficiency diseases caused by following vitamins:
3. Pigments indigenous to food, structure, chemical and physical properties. Effect of processing and storage.
4. Flavours – Vegetables, fruit and spice flavours, fermented food, Meat and sea food.


Chairperson Board of Studies
Department of Zoology
Kakatiya University
WARANGAL - 506 009, T.S.


DEPARTMENT OF ZOOLOGY
University College
Kakatiya University,
WARANGAL.-506009(T.S.)


HEAD
Department of Zoology
University College
Kakatiya University,
WARANGAL.-506009(T.S.)


Dr. P. ROHINI

Asst. Professor of Zoology
Kakatiya Government College (A)
Hanumakonda, Telangana.