

SACA1101	BASIC NUTRITION	L	T	P	Credits	Total
		4	0	0	5	100

Course Objectives

- To understand the relation between nutrition and health.
- To acquire knowledge about the main nutrients and its functions in the body.

Unit I Introduction to nutrition - Food as source of nutrients, functions of food, definition of nutrition, nutrients & energy, adequate, optimum & good nutrition, malnutrition. Nutrition - Fitness, Athletics & Sports Food guide - Basic five food groups How to use food guide (according to R.D.A.) Interrelationship between nutrition & health: - Visible symptoms of good health, Use of food in body - Digestion, Absorption, transport & utilization.

Unit II Carbohydrates - Functions, classification, food sources, storage in body, Digestion, Absorption, transport & utilization.

Unit III Proteins - Composition, sources, essential & non-essential amino acids, functions, Protein deficiency. Digestion, Absorption, transport & utilization.

Unit IV Fats & Oils - Composition, saturated and unsaturated fatty acids, classification, food sources, function of fats. Digestion, Absorption, transport & utilization.

Unit V Vitamins (water & fat soluble) - Definition, classification & functions.

Unit VI Minerals (macro & micronutrients) - Functions, sources. Bioavailability and deficiency of Calcium, Iron, Iodine, Sodium & Potassium

Unit VII Water (as a nutrient) - Function, sources, requirement, water balance & effect of deficiency.

Unit VIII Food Processing and Sanitation - Effect of cooking & heat processing on the nutritive value of foods. Processed supplementary foods. Food sanitation in hygiene.

Text / Reference books

1. Human Nutrition (12th Edition) Authors: Catherine Geissler Hilary Powers Editors: Catherine Geissler Hilary Powers Book ISBN: 9780702060885 Imprint: Churchill Livingstone Published Date: 22nd October 2010
2. Clinical Dietetics and Nutrition – 15 July 2002 BY Antia F P (Author)
3. Normal and Clinical Nutrition, International Edition – 2011 by Kathryn Pinna, Sharon Rady Rolfes, Ellie Whitney
4. Foods Facts and Principles – 1 January 2008 by N. Shakuntala Manay
5. Textbook of Human Nutrition 4Ed (PB 2019) – 1 January 2017 by Bamji M S
6. A Handbook of Foods and Nutrition (2013) Agrobios (India), Jodhpur
7. Indian Council of Medical Research (2010), Nutrient Requirements and RDA for Indians, ICMR

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks: 100

PART A: 10 Questions – 2 marks each – No choice

PART B: Short Answers – 5 Questions 8 marks each – 5 out of 8

PART C: Long Answers – 2 Questions 20 marks each – 2 out of 3

Exam Duration: 3Hrs

20 Marks

40 Marks

40 Marks

SACA1102	HUMAN PHYSIOLOGY	L	T	P	Credits	Total
		4	0	0	5	100

Course Objectives

- To ensure that students understand how the body works and state the functions of each organ system of the body
- To explain the mechanisms by which each functions, and relate the function

Unit I: Cell

Structure and function, Blood - Blood cells, Hemoglobin, Blood groups, Coagulation Factors, Anemia

Unit II: Skeletal System

Bones, types, structure & bone deformities, Bone formation growth, Joints – Classification and description

Unit III: Cardiovascular & Lymphatic System

Structure of heart, Heart rate, Cardiac cycle, cardiac output, blood pressure, hypertension, radial pulse, Lymphatic system - Lymph glands and its function, spleen - structure and functions.

Unit IV: Respiratory System & Digestive System

Ventilation, Functions, Lungs volumes and capacities, Gastrointestinal System - Process of digestion in various parts.

Unit V: Endocrine & Excretory System

List of Endocrine glands, Hormones: Their secretion and functions, Excretion system - Structure of nephron, Urine formation

Unit VI: Nervous System

Central Nervous System Parts, Sliding Filament Theory, Neuro Muscular Junction, Wallerian Degeneration, Motor Nervous system - Upper motor neuron system & lower motor neuron system. Sensory nervous system, Sympathetic Nervous system & Parasympathetic nervous system.

Unit VII: Sensory Organs

Skin - Structure and functions Special senses Structure and function of eye and ear, common diseases of eye and ear

Unit VIII: Reproductive system

Structure and functions of male & female reproductive organs, menstruation, puberty, menopause, fertilization and development of fertilized ovum, placenta and its function.

Text / Reference books

- Anatomy & Physiology in health & illness, By Ross & Wilson, 8th edition, Churchill Livingstone, 2013.
- Principles of Human Physiology for paramedical courses, By Surrinder H singh, CBS Publications, 2017 edition.
- Manipal Manual of Medical Physiology, By C N Chandrashekar, CBS Publications, 2016 edition.
- Basics of Medical Physiology, By D Venkatesh & H H Surender, 4th edition, WoltersKluwer, 2018.
- Textbook of medical Physiology, By Guyton & Hall, 11th edition, 2015.
- Lipincott's Illustrated Reviews of Physiology, By Robin & Wilson. 2013

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks: 100

PART A: 10 Questions – 2 marks each – No choice

PART B: Short Answers – 5 Questions 8 marks each – 5 out of 8

PART C: Long Answers – 2 Questions 20 marks each – 2 out of 3

Exam Duration: 3Hrs

20 Marks

40 Marks

40 Marks

SACA1103	NUTRITIONAL BIOCHEMISTRY	L	T	P	Credits	Total
		4	0	0	5	100

Course Objective

- To provide a sound knowledge on the basics of biochemistry to impart the importance of biochemistry in nutrition regarding nutrients and energy in the diet.
- To emphasize on the basic principles of metabolism and its regulation\

Unit I Chemistry and metabolism of Carbohydrate

Chemistry of carbohydrates & their related metabolism - Introduction, definition, classification, biomedical importance
Brief outline of metabolism : Glycogenesis & glycogenolysis, Glycolysis, citric acid cycle & its significance, HMP shunt & Gluconeogenesis (in brief). Regulation of blood glucose level. Diabetes mellitus - definition, types, features, gestational diabetes mellitus, glucose tolerance test, glycosuria. Hyperglycemia & hypoglycemia and its causes.

Unit II Chemistry & metabolism of Protein

Amino acids - Definition, classification, essential & non-essential amino acids. Chemistry of Proteins - Introduction, definition, classification, structure and its biomedical importance. Transformation, Decarboxylation, Ammonia formation & transport, Urea cycle, metabolic disorders in urea cycle, catabolism of amino acids especially Phenylalanine, Tyrosine & Tryptophan, Creatine, Creatinine, Proteinuria.

Unit III Chemistry & metabolism of Lipids

Introduction, definition, classification, biomedical importance, essential and Non-essential fatty acids. Brief outline of metabolism : Beta oxidation of fatty acids, fatty liver, Ketosis, Cholesterol & its clinical significance, Lipoproteins in the blood composition & their functions in brief, Atherosclerosis.

Unit IV Enzymes and its clinical significance

Introduction, definition, classification, coenzymes, isoenzymes, properties, factors affecting enzyme action, enzyme inhibition, diagnostic value of serum enzymes - Creatinine kinase, Alkaline phosphatase, Acid phosphatase, LDH, SGOT, SGPT, Amylase, Lipase, Carbonic anhydrase etc.

Unit V Acid base balance concepts & disorders

Water metabolism, distribution of fluids in the body, ECF, ICF, dehydration. - pH, Buffers, Acidosis, Alkalosis.

Unit VI Micronutrients and energy needs

Basics of energy metabolism, nutrition & dietetics - Unit of measuring energy, calorific value of food, BMR & factors affecting it, SDA of food, calculation of energy requirement, balanced diet, nutrition in health & diseases (protein energy malnutrition). Vitamins - Water & fat soluble vitamins, sources, requirement, deficiency disorders & biochemical functions.

Unit VII Hormones

Hormones - Classification, general mode of action, hormones of Pituitary, Thyroid, Parathyroid, Adrenals, Reproductive Glands, Pancreas, hormonal disorders, counter regulatory hormones. General concepts & functions of immunoglobulins, Tumor markers & their clinical applications - Including oncofetal antigens, CEA etc.

Unit VIII - Medical biochemistry

Liver functions and their assessment - Based on - a) Carbohydrate metabolism b) Protein metabolism c) Lipid Metabolism d) Measurements of serum enzyme levels e) Bile pigment metabolism: Jaundice - its types and their biochemical findings. Renal functions tests - Various tests, GFR & clearance.

Text / Reference Books

- Handbook of Biochemistry & Nutrition by Shivananda Nayak B, Jaypee publishers, fourth edition, 2020.
- Biochemistry by U. Sathyanarayana & U. Chakrapani, fifth edition, Elsevier publications, 2018.
- Harper's Illustrated Biochemistry 31st edition, by Lange Publishers, 2018.
- Principles of Biochemistry by Voet & Voet, fourth edition, Wiley publishers, 2010.

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Max. Marks: 100

PART A: 10 Questions – 2 marks each – No choice

PART B: Short Answers – 5 Questions 8 marks each – 5 out of 8

PART C: Long Answers – 2 Questions 20 marks each – 2 out of 3

Exam Duration: 3Hrs

20 Marks

40 Marks

40 Marks

SACA1301	BASICS DIETETICS	L	T	P	Credits	Total
		3	0	0	5	100

Course Objectives

- To impart basic knowledge in the field of dietetics
- To develop capacity and aptitude for taking up dietetics as a profession.
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Unit I

Role of dietician: The hospital & community, Basic concepts of diet therapy, Principles of diet therapy & therapeutic nutrition for changing needs. It should cover all age groups, Adaptation of normal diet for changing needs.

Unit II

Routine hospital diets - Regular diet, light diet, full liquid and tube feeding, Modification of diet - Febrile conditions, infections and surgical conditions.

Unit III

Diets for gastro - intestinal disorders, constipation, diarrhoea, peptic ulcer. Diet for renal diseases - Nephritis, Nephrotic syndrome and renal failure.

Unit IV

Diet for obesity and cardiovascular disorders, Diet for Diabetes mellitus.

Unit V

Nutrition in cancer, Nutrition in Immune system dysfunction, AIDS & Allergy.

Unit VI

Nutrition support in metabolic disorders, Nutrition in burns and surgery.

Unit VII

Nutrition - Addictive behaviour in anorexia, nervosa, bulimia & alcoholism, Nutrient drug interaction.

Unit VIII

Feeding the patients - Psychology of feeding the patient, assessment of patient needs, Feeding infants & children - problems in feeding children in hospitals, Nutrition & diet clinics - Patients checkup and dietary counseling, educating the patient and follow up.

Text / Reference books

- 1) Sri Lakshmi B (2005) Dietetics. New Age International Publishers, New Delhi
- 2) Williams' Essentials of Nutrition and Diet Therapy – 23 December 2014 by Eleanor Schlenker PhD RD, Joyce Ann Gilbert
- 3) Fundamentals of Foods, Nutrition and Diet Therapy Paperback – 1 January 2020 by Sumati R. Mudambi
- 4) Bapco Advanced Text Book on Food and Nutrition Volume 2nd By Dr. M. Swaminathan
- 5) Joshi SA (2017): Nutrition and Dietetics, 4th Ed. Tata McGraw Hill Publications, New Delhi
- 6) Hutchison, R (2010) Food and the Principles of Dietetics, Kessinger Publishing, LLC

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks: 100

PART A: 10 Questions – 2 marks each – No choice

PART B: Short Answers – 5 Questions 8 marks each – 5 out of 8

PART C: Long Answers – 2 Questions 20 marks each – 2 out of 3

Exam Duration: 3Hrs

20 Marks

40 Marks

40 Marks

SACA1302	FAMILY MEAL MANAGEMENT	L	T	P	Credits	Total
		3	0	0	5	100

Course Objectives

- Learn the principles of meal planning.
- Acquire knowledge on planning meals for different age groups

Unit I Introduction to meal management - balanced diet, food groups & the planning of balance diet, Food guides for selecting adequate diet.

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Unit II Diettherapy, Diet & stress in current scenario, Meal planning for the family, Indian meal patterns - vegetarian & non-vegetarian.

Unit III Nutritive value of common Indian recipes Food faddism & the faulty food habits

Unit IV Nutrition in pregnancy - Physiological stages of pregnancy, nutritional requirements. food selection, complication of pregnancy, Nutrition during lactation - Physiology of lactation, nutritional requirements

Unit V Nutrition during infancy - growth & development, nutritional requirements, breast feeding, infant formula, introduction of supplementary foods.

Unit VI Nutrition during early childhood (Toddler/Preschool)- Growth & nutrient need, nutrition related problems, feeding patterns.

Unit VII Nutrition of school children- Nutritional requirement, importance of snacks, school lunch, Nutrition during adolescence - Growth & nutrient needs, food choices, eating habits, factor influencing needs.

Unit VIII Nutrition during adult hood - Nutritional requirements, feeding pattern, Geriatric nutrition: Factors affecting food intake and nutrient use, nutrient needs, nutrition related problems.

Text / Reference books

1. Swaminathan, M (2002) Food and Nutrition, Volume I, The Bangalore Printing and Publishing Company Ltd
2. Textbook Of Human Nutrition Paperback – 12 September 2014 by Anjana Agarwal
3. Recommended Dietary Intakes for Indians, I.C.M.R.(2010)
4. Mahan LK and Escott-Stump S(2007): Krause's Food and Nutrition Therapy. 12th Ed. WB Saunders Company, London
5. Begum RM (2009): A textbook of Food, Nutrition and Dietetics, 3rd Ed. Sterling Publishers, New Delhi
6. Anderson L, Dibble MV, Turkki PR, Mitchall HS, and Rynbergin HJ: Nutrition in Health and Disease, 17th Ed. J. B. Lipincott & Co. Philadelphia
7. Gibney, M.J, Elia M Ljngquist. O (2005), Clinical Nutrition, Backwell Science Publishing Co.

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks: 100

PART A: 10 Questions – 2 marks each – No choice

PART B: Short Answers – 5 Questions 8 marks each – 5 out of 8

PART C: Long Answers – 2 Questions 20 marks each – 2 out of 3

Exam Duration: 3Hrs

20 Marks

40 Marks

40 Marks

SACA1303	FOOD MICROBIOLOGY	L	T	P	Credits	Total
		3	0	0	5	100

COURSE OBJECTIVES

- This course aims on studying interaction of microorganisms and food in relation to food-borne— diseases, food spoilage and fermented dairy products
- The purpose of this course is to make students to learn about the microorganisms and their relationship to agriculture and environment

Unit I Microbes in Food

Food as a substrate for micro organisms -. Micro organisms important in food microbiology; Moulds, yeasts and bacteria - General Characteristics - Classification and importance.

Unit II Food Preservation by high temperature

Principles of food preservation - Asepsis - Removal of micro organisms, anaerobic conditions - High temperature –

Unit III Food Preservation by low temperature & other methods

Principles of food preservation, Low temperature - Drying - Food additives

Unit IV Contamination & Spoilage of Food

Contamination and spoilage- Cereals, sugar products, vegetables and fruits,

Unit V Contamination & Spoilage of Meat & Milk products

meat and meat products, milk and milk products – Fish and sea foods – poultry, spoilage of canned foods.

Unit VI Food borne disease and quality control

Food borne infections and intoxications - bacterial, non -bacterial - Food borne disease outbreaks - Laboratory testing - preventing measures - Food sanitation - plant sanitation - Employees' health standards - waste treatment and disposal - quality control.

Unit VII Fermented food products

Food fermentation: Bread cheese, vinegar, fermented vegetables, fermented dairy products. Spoilage and defects of fermented dairy products – oriental fermented foods.

Unit VIII Soil & environmental microbiology

Environmental microbiology: Water and water borne diseases. Air and air borne diseases. .Soil borne diseases. Microbial interactions between microorganisms, plant and soil. Sewage treatment primary, secondary, tertiary treatment

Text / Reference Books

1. Adams MR and Moss MO. (1995). Food Microbiology, The Royal Society of Chemistry, Cambridge.
2. Andrews AT, Varley J. (1994) Biochemistry of milk products. Royal Society of Chemistry.
3. Banwart GJ. (1989), Basic food microbiology, Chapman & Hall, New York
4. Frazier WC and Westhoff DC. (1988) Food microbiology, TATA McGraw Hill Publishing Company Ltd. New Delhi
5. Hobbs BC and Roberts D. (1993) Food poisoning and food hygiene, Edward Arnold (A division of Hodder and Stoughton), London.
6. Atlas Ronald, M., Bartha, and Richard (1987). Microbial Ecology 2nd Edition. Benjamin/Cummings Publishing Company, California.
7. Subba Rao, N.S. (1995) Soil Microorganisms and Plant Growth. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks: 100

PART A: 10 Questions – 2 marks each – No choice

PART B: Short Answers – 5 Questions 8 marks each – 5 out of 8

PART C: Long Answers – 2 Questions 20 marks each – 2 out of 3

Exam Duration: 3Hrs

20 Marks

40 Marks

40 Marks

SACA1304	FOOD SCIENCE	L	T	P	Credits	Total
		3	0	0	5	100

COURSE OBJECTIVES

- To impart knowledge on the classification of food groups, composition and nutritive value of different food ingredients.
- To understand the role of each food group in cookery

Unit I

Cereal- Structure and composition, Nutritional value, Processing- Milling, polishing. Parboiling, flaking, parching, roasting, use in variety of preparations selection, storage and care, breakfast cereals.

Unit II

Pulses: composition and nutritional value, processing, soaking, germination, Cooking and fermentations: Toxic constituents of pulses, Lathyrism

Unit III

Nuts and oil seeds: Nutritive value, importance & classification, Milk and milk products, Composition of milk, properties and effect of heat, nutritional importance, milk processing, milk products.

Unit IV

Flesh foods- selection, storage, uses and nutritional aspects of meat, fish and poultry, spoilage of fish.

Unit V

Fruits and vegetables: Classifications, composition and importance in human nutrition storage, cooking of vegetables, changes during cooking, effect of heat, acid and alkali.

Unit VI

Sugar and Sugar products (a) Form of sugar and liquid sweetness (b) Caramelization, Hydrolysis, Crystallization (c) Indian confectionery

Beverages: Coffee, tea, and cocoa, processing composition and preparation, spices and condiments, types and composition.

Unit VII

Fats and oils: Types, role of fat in cookery, Egg - composition & classification of egg & egg products, its nutritive value.

Unit VIII

Baking - Types of bake products & its nutritive value, Role of spices in food science - Importance, composition & classification

TEXT / Reference Books

1. Srilakshmi B, Food Science, Sixth Edition, New Age International Ltd Publishers, New Delhi, 2015
2. Manay S and Swamy S, Food Facts and Principles, New Age International (P) Ltd Publishers, New Delhi, 2001.
3. Reddy SM, Basic Food science and Technology, New Age Publishers, New Delhi, 2015
4. Lowe B, Experimental cookery from chemical and physical stand point, Forgotten books, UK, 2015
5. Potter NM and Hotchkiss JH, Food Science, C.B.S. Publishers, New Delhi, reprint 2008
6. Roday S, Food science and Nutrition, Oxford university press, New Delhi, 2007
7. McCance and Widdowson, Composition of food, 6th Edition, Food Standards Agency, 2004
8. Subramani A, Concise Food Science, Soundarya Publications, 1998

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks: 100

PART A: 10 Questions – 2 marks each – No choice

PART B: Short Answers – 5 Questions 8 marks each – 5 out of 8

PART C: Long Answers – 2 Questions 20 marks each – 2 out of 3

Exam Duration: 3Hrs

20 Marks

40 Marks

40 Marks

SACA1305	PERSONNEL MANAGEMENT	L	T	P	Credits	Total marks
		3	0	0	5	100

Course Objectives

- To understand the Management and system at various levels in general and in certain specific organizations
- To help the students focus on and analyse the issues and strategies required to select and develop manpower resources.

Unit I Organization and management, Definition and types of organization, Definition- functions and tools of management, Technique of effective management and its application to food preparation and science.

Unit II Food material management, Meaning, definition, and importance, Food selection, purchasing, receiving and storeroom management.

Unit III Control in relation to the operations (material planning, budgeting, material identification, modification and standardization, inventory control, store keeping, definition, objectives, functions, factors underlying successful storekeeping, duties and responsibilities of a storekeeper, purchasing, organization, principle, procedure, systems and quality control).

Unit IV Personnel Management: Recruitment, selection and training of personalities, work standards, productivity, supervision, performance appraisal and motivation incentives for effective performances.

Unit V Labour policies and legislation: (Personnel policies related to salaries, other emoluments, allowances, leave, uniform and other prize benefit, laws and organization)

Unit VI Laws affecting food service institution to study the following: (hospital, flight kitchen, hotel, restaurant, canteen, Industrial)

Unit VII a. Organization b. Physical plan and layout. c. Food and silver equipment

Unit VIII Sanitation and hygiene with personal emphasis on Hospital.

Text / Reference books

1. Organization and Management, R.D. Agarwal, Tata McGraw-Hill Education
2. Human Resource Management by Dr. Roya Anvari
3. Personnel Management, C. B. Mamoria, Himalaya Publishing House
4. Rutherford, D.G. Hotel Management and operation, van Nostrand Reinhold. 115, fifth Avenue, New York, 10003, 2010.
5. West. B.B. Wood L., Harger, V.F. (2005) Food Service Institutions, John Wiley and sons, Inc., New York, V Ed
6. Waighrich, H. and Koontz, H (2000) Management – a global perspective. McGraw Hill. International

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks: 100

PART A: 10 Questions – 2 marks each – No choice

PART B: Short Answers – 5 Questions 8 marks each – 5 out of 8

PART C: Long Answers – 2 Questions 20 marks each – 2 out of 3

Exam Duration: 3Hrs

20 Marks

40 Marks

40 Marks

SACA1501	ADVANCED DIETETICS	L	T	P	Credits	Total
		4	0	0	5	100

Course Objectives

- To Know the importance and principles of dietetics as a distinct therapy for diseases.
- Gain knowledge on the types and role of dietitians.

Unit I

Concept of Diet therapy : growth and source of dietetics, purpose and principles of therapeutic diets, modification of normal diet, classification of therapeutic diets.

Unit II

Role of Dietician : Definition of nutritional care, interpersonal relationship with patient, planning and implementary dietary care, Team approach to nutritional care.

Unit III

Routine hospital diets: Preoperative and postoperative diets, study and review of hospital diet. Basic concepts and methods of - (a) Oral feeding (b) Tube feeding (c) Parental nutrition (d) Intravenous feeding.

Unit IV

Diet in surgical conditions, burns and cancer, Obesity and leanness- causes, complication and health effects, dietary treatment and other recommendation, Diet in fever and infections- Types- metabolism in fever, general dietary consideration diet in influenza, typhoid fever, recurrent malaria and tuberculosis.

Unit V

Diet in gastritis, peptic ulcer- symptoms, clinical findings, treatment, dietary modification, adequate nutrition, amount of food, and intervals of feeding, Chemically and mechanically irrigating foods, four stage diet (Liquid, soft, convalescent, liberalized diet), Diet in disturbances of small intestine and colon. • Diarrhoea- (child and adult)- classification, modification of diet, fibre, residue. fluids & nutritional adequacy. • Constipation- flatulence - dietary considerations. • Ulcerative colitis (adults)- symptoms, dietary treatment. • Sprue, coeliac disease- disaccharide intolerance, dietary treatment.

Unit VI

Diet in diseases of the liver, gall bladder and pancreas, a) Etiology, symptoms and dietary treatment in - Jaundice, hepatitis, cirrhosis and hepatic coma. b) Role of alcohol in liver diseases. c) Dietary treatment in cholecystitis, cholelithiasis and pancreatitis, Gout- Nature and occurrence of uric acid, causes, symptoms and diet.

Unit VII

Diet in allergy and skin disturbances: Definition, classification, manifestations, common food allergies and test and dietic treatment.

Diet in Diabetes mellitus: a) Incidence and predisposing factors. b) Symptoms-types and tests for detection. c) Metabolism in diabetes d) Dietary treatment & meal management e) Hypoglycemic agent, insulin and its types. f) Complication of diabetes.

Unit VIII

Diet in Renal diseases: Basic renal function, symptoms and dietary treatment in acute and chronic glomerulonephritis, Nephrosis, renal failure, dialysis. urinary calculi-causes & treatment, acid and alkali producing and neutral foods and dietary treatment, Diet in Cardiovascular diseases: Role of nutrition in cardiac efficiency, incidence of Atherosclerosis, dietary principles, Hyperlipidemia, Hypertension- causes and dietary treatment, Sodium restricted diet, level of sodium restriction, sources of sodium, danger of severe sodium restriction.

Text / Reference books

1. Modern Nutrition in Health & Disease – Eds – Maurice E. Shils, James A. Olson, 2012.
2. Clinical Dietetics and Nutrition – F P Antia and Philip Abraham, 2002.
3. Nutrition and Metabolism – Michael J. Gibney, Marinos Elia, OlleLjungqvist, Julie Dowsett (Eds.) Nutrition Society Textbook series, Blackwell Publishers, 2005
4. Nutrition Science – B Sri Lakshmi, New Age International Publishers, 2017.
5. Normal and Therapeutic Nutrition – Robinson & Lawler, 17th edition, Mac Millan Publishers, 2001.
6. Text Book of Human Nutrition – Mahtab S Bamji, N Prahlada Rao, Vinodini Reddy, 2nd edition, Oxford & IBH Publishing Co. Pvt. Ltd, 2003.

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks: 100

PART A: 10 Questions – 2 marks each – No choice

PART B: Short Answers – 5 Questions 8 marks each – 5 out of 8

PART C: Long Answers – 2 Questions 20 marks each – 2 out of 3

Exam Duration: 3Hrs

20 Marks

40 Marks

40 Marks

SACA1502	COMMUNITY NUTRITION	L	T	P	Credits	Total marks
		4	0	0	5	100

Course Objectives

- To list the basic goals of a community assessment.
- To describe how a community assessment can be conducted including specification of the types of data that are relevant.

Unit I Nutrition and health in National development. Malnutrition- meaning. factors contributing to malnutrition, over nutrition.

Unit II Nutritional disorders- Epidemiology, clinical features, prevention and dietary treatment for Protein Energy malnutrition, nutritional anaemias & vitamin deficiency disorders.

Unit III Methods of assessing nutritional status: a) Sampling techniques, Identifications of risk groups, b) Direct assessment - Diet surveys, anthropometric, clinical and biochemical estimation. c) Indirect assessment- Food balance sheet, ecological parameters and vital statistics.

Unit IV Improvement of nutrition of a community: a) Modern methods of improvement or nutritional quality of food, food fortification, enrichment and nutrient supplementations. b) Nutrition education themes and messages in nutrition and health, Antenatal and postnatal care.

Unit V Nutritional and infection relationship: Immunization and its importance.

Unit VI Food borne infection and intoxication diseases, foods involved, methods of prevention, Infestation of food borne diseases, Outbreak, Prevention signs and control of infection.

Unit VII National and International agencies in uplifting the nutritional status -WHO, UNICEF, CARE, ICMR, ICAR, CSIR, CFTRI. Various nutrition related welfare programmes, ICDS, SLP, MOM, and others

Unit VIII Community nutrition programme planning - Identification of problem, analysis of causes, resources constraints, selection of interventions, setting a strategy, implementations and evaluation of the programme

Text / Reference books

- Park K(2017): Textbook of Preventive and Social Medicine, 24th Ed. Banarsidas Bhanot Publishers.
- King MH, King PMA, Morley D and AP Burgess(2015): Nutrition for Developing Countries, ELBS Oxford University Press.
- Seshubabu VVR(2011): Review in Community Medicine, 2nd Ed, Paras Medical Books Pvt Ltd.
- Mahajan BK, Roy RN, Saha I, Gupta, MC (2013): Text book of Preventive and Social Medicine, 4th Ed. Japee Brothers.
- VirSC(2011): Public Health Nutrition in Developing Countries, Woodhead Publishing India.
- Bamji MS, Krishnaswamy K and Brahmam GNV(2017): Textbook of Human Nutrition, 4th Ed. Oxford & IBH Publishing Co. Pvt. Ltd.

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks: 100

PART A: 10 Questions – 2 marks each – No choice

PART B: Short Answers – 5 Questions 8 marks each – 5 out of 8

PART C: Long Answers – 2 Questions 20 marks each – 2 out of 3

Exam Duration: 3Hrs

20 Marks

40 Marks

40 Marks

SACA1503	DIETETICS AND COUNSELLING	L	T	P	Credits	Total marks
		3	0	0	5	100

Course objectives

- To understand principles of diet therapy, modification of normal diet for therapeutic purposes and the role of dietitian.
- To demonstrate counseling techniques to facilitate behavior change.

Unit I Practical consideration in giving dietary advice and counseling - a) Factors affecting and individual food choice. b) Communication of dietary advice c) Consideration of behaviour modification d) Motivation.

Unit II Counseling and educating patient: Introduction to nutrition counseling, Determining the role of nutrition counselor, Responsibilities of the nutrition counselor

Unit III Practitioner v/s client managed care, Conceptualizing entrepreneur skills and behavior, Communication and negotiation skills.

Unit IV Teaching aids used by dietitians- charts, leaflets, posters etc., preparation of teaching material for patients suffering from Digestive disorders, Hypertension, Diabetes, Atherosclerosis & Hepatitis and cirrhosis.

Unit V Computer application: Use of computers by dietitian, Dietary computations.

Unit VI Dietetic management, Education/ training, Information storage, Administrations, Research

Unit VII Computer application a) Execution of software packages b) Straight line, frequency table, bar diagram, pie chart, Preparation of dietary charts for patients.

Unit VIII Statistical computation- mean, median, standard deviation, conclusion and regression test.

Text / Reference books

1. Nutrition in clinical Practice – David L. Katz, Lippincott, Williams & Wilkins, 2008.
2. Clinical Dietetics and Nutrition – F P Antia and Philip Abraham, 2002.
3. Perspectives in Nutrition – Wardlaw Kessel, Mc Graw Hills, 2001
4. Food, Nutrition and Diet Therapy – Kathleen Mahan & Krause, Sylvia Escott Stump, 2003
5. Clinical Nutrition – Ed Michael J Gibney, Marinos Elia, OlleLjungqvist and Julie Dowsett, 2012.
6. Basics of Clinical Nutrition, 2nd Edition, Joshi, Jaypee Publishers, 2009.
7. Gable J , Counselling skills for dieticians Blackwell publishing house, 2016.
8. Computer Fundamentals, P.K. Sinha & Prithi Sinha, 2004

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Max. Marks: 100

PART A: 10 Questions – 2 marks each – No choice

PART B: Short Answers – 5 Questions 8 marks each – 5 out of 8

PART C: Long Answers – 2 Questions 20 marks each – 2 out of 3

Exam Duration: 3Hrs

20 Marks

40 Marks

40 Marks