

BSC HOME SCIENCE 3 YEARS COURSE
SEMESTER WISE PROGRAMME FOR BSC HOME SCIENCE 2023-24

बीएससी गृह विज्ञान 03 वर्षीय पाठ्यक्रम
बीएससी गृह विज्ञान के लिए सेमेस्टर वार कार्यक्रम 2023–24

General Instruction:

Each B.Sc. Home Science theory paper is of 4 credits for which there will be 6 hours of lectures per week. This gives 45 hours of teaching work for each theory paper per semester. Each Practical shall be of 2 credits for which there will be 4 Hours of laboratory work per batch per batch per week. This gives 60 hours for laboratory work per semester. For laboratory work, a batch should not exceed 20 students. Each theory course shall contain 5 units.

सामान्य निर्देश:

प्रत्येक बी.एस.सी. गृह विज्ञान सैद्धान्तिक पेपर 4 क्रेडिट का है जिसके लिए प्रति सप्ताह 6 घंटे का व्याख्यान होगा। इस तरह प्रत्येक सैद्धान्तिक पेपर के लिए प्रति सेमेस्टर 45 घंटे का शिक्षण कार्य होगा। प्रत्येक प्रैक्टिकल 2 क्रेडिट का होगा जिसके लिए प्रति बैच प्रति सप्ताह 4 घंटे का प्रयोगशाला कार्य होगा। इस तरह प्रति सेमेस्टर प्रायोगिक कार्य 60 घंटे होगा। प्रयोगशाला कार्य के लिए एक बैच 20 छात्रों से अधिक नहीं होना चाहिए। प्रत्येक सैद्धान्तिक पाठ्यक्रम में 5 इकाइयां होगी।

Instructions to end semester examination theory question paper setters. The end semester examination system adopted is given below-

The course will contains 5 units. The question paper shall contain 3 sections :- **Section A** - (10 Marks) shall contain 10 question two from each unit. Each question shall be of 01 marks. All the questions are compulsory. The answer should not exceed 50 words. **Section B** – (25 Marks) shall contain 5 questions (Two from each unit with external choice) each question shall be of 5 marks. The candidate is required to answer all 5 questions. The answer should not exceed 200 words. **Section C** – (45 Marks) shall contains 5 question one from each 4 unit. Each question shall be of 15 marks. Candidate is required to answer any three questions by selecting these three questions from different units. The answer should not exceed 500 words.

अंत-सेमेस्टर परीक्षा सिद्धांत प्रश्न पत्र सेट करने वालों के लिए निर्देश: अपनाई गई अंत-सेमेस्टर परीक्षा प्रणाली नीचे दी गई है – खंड अ (10 अंक) में प्रत्येक इकाई से 10 प्रश्न होंगे। प्रत्येक प्रश्न 01 अंक का होगा। सभी प्रश्न अनिवार्य है। उत्तर 50 शब्दों से अधिक नहीं होने चाहिए। खंड ब (25 अंक) में 5 प्रश्न होंगे (आंतरिक विकल्प के साथ प्रत्येक इकाई से दो)। प्रत्येक प्रश्न 05 अंक का होगा। उम्मीदवार को सभी 5 प्रश्नों का उत्तर देना आवश्यक है। उत्तर 200 शब्दों से अधिक नहीं होने चाहिए। खंड स (45 अंक) में 5 प्रश्न होंगे, प्रत्येक इकाई से एक। प्रत्येक प्रश्न 15 अंक का होगा। अभ्यर्थी को पांच इकाइयों में से किन्ही तीन प्रश्नों का उत्तर देना आवश्यक है। उत्तर 500 शब्दों से अधिक नहीं होने चाहिए।

विवाद की स्थिति में अंग्रेजी संस्करण को प्राथमिकता दी जाएगी। उम्मीदवार को सैद्धान्तिक, प्रायोगिक और आंतरिक मूल्यांकन परीक्षा में अलग-अलग उत्तीर्ण होने के लिए 36% अंक प्राप्त करना आवश्यक है।

Instructions for internal evaluation : Internal evaluation will be of 30 marks. Continuous comprehensive evaluation process shall be adopted to find out each course level learning outcome, i.e. assignments, test, quiz, seminar etc. that includes logical thinking, knowledge and shall required during the course. The assessment should be done periodically after every 30 days for all core/elective course per semester. The institution should keep proper record of the attendances of students for each evaluation process.

आंतरिक मूल्यांकन के लिए निर्देश: आंतरिक मूल्यांकन कुल मिलाकर 30 अंकों का होगा (सैद्धान्तिक और प्रायोगिक में कोई विभाजन नहीं)। प्रत्येक पाठ्यक्रम स्तर के सीखने के परिणाम, यानी असाइनमेंट, प्रयोगशाला रिकार्ड, परीक्षण, प्रश्नोत्तरी, सेमिनार आदि का पता लगाने के लिए निरंतर व्यापक मूल्यांकन प्रक्रिया अपनाई जाएगी जिसमें पाठ्यक्रम के दौरान अर्जित तार्किक सोच, ज्ञान और कौशल शामिल है। प्रति सेमेस्टर सभी मुख्य या वैकल्पिक पाठ्यक्रम के लिए प्रत्येक 30 दिनों के बाद समय-समय पर मूल्यांकन किया जाना चाहिए। संस्थान द्वारा अपनाई गयी प्रत्येक मूल्यांकन प्रक्रिया के लिए छात्रों की उपस्थिति का उचित रिकॉर्ड रखा जाएगा।

SEMESTER - I
COMMUNITY HEALTH & HUMAN PHYSIOLOGY
(Fundamentals of Human Physiology & Community Health)
Paper Code BHS4.5DCCT12

Credit Hours (04)
Duration of Exam: 3 hrs.

Marks: 80
Min. Marks: 29

UNIT I

1. Structure & functions of various systems.
2. Structure and functions of human cell.
3. Cardiovascular System: -
 - A. Blood & its Composition
 - B. Blood Groups
 - C. Coagulation of Blood
 - D. Structure and functions of human heart.
 - E. Circulation of blood: types & mechanisms.
 - F. Heart rate, pulse rate, blood pressure & its Regulation.
4. Skeleton System and Joints: -
 - A. Types and functions of Bones
 - B. Classification of joints
 - C. Structure of Synovial Joint

UNIT II

1. NERVOUS SYSTEM: -
 - A. Structure of Neuron.
 - B. Structure and functions of different parts of the brain.
2. ENDOCRINE SYSTEM
 - A. Structure & functions of Endocrine glands.
 - B. Impact of hypo & hyper functioning: -
 - a. Hypothyroidism & Hyperthyroidism.
 - b. Diabetes Mellitus
 - c. Hypo & hyperparathyroidism
 - d. Cushing's Syndrome
 - e. Addison's disease
 - f. Prolactinoma
 - g. Graves' disease

UNIT III

1. Structure and functions of digestive system: -
 - a. Structure of stomach
 - b. Structure of small intestine
 - c. Structure of liver
 - d. Structure of Pancreas
 - e. Structure of Gallbladder
2. EXCRETORY SYSTEM:
 - A. Structure and functions of Kidney & Nephron.
 - B. Formation of Urine
 - C. Structure and functions of Skin.
3. RESPIRATORY SYSTEM:
 - A. Structure and functions of Respiratory System.
 - B. Structure of Lungs.

UNIT-IV

1. Health Concept

- a) Health (Physical, mental, social and Spiritual Health improving Factors) Positive Health, Community Health, Determinants of Health, Factors affecting Health, causes of poor health
- b) Yoga & Meditation - Concept, Meaning and Importance

2. Environmental Sanitation

Water- Importance of water, sources of water, types of water soft & hard), Purification of water at domestic level

Ventilation-Importance, impurities in atmosphere and their effect on health, types of ventilation.

Sanitation: Types of refuse, methods/ ways of disposal of refuse (waste). Rural or village sanitation, sanitation, at fairs & festivals.

3. Health Education- Concept, content of health education, objectives principles, role of communication in health education.

UNIT- V

1. Causes, mode of transmission, incubation period, sign & symptom, life cycle, care and preventive measures of the following diseases:

- a) Water, food and milk borne diseases- cholera, Typhoid, diphtheria.
- b) Air borne and viral infections- small pox, chicken pox, Whooping Cough, Tuberculosis poliomyelitis
- c) Disease caused by insect- Malaria.
- d) Diseases caused by direct- contact- Hydrophobia, venereal disease, Tetanus, trachoma, Scabies, Acquired Immuno Deficiency syndrome (AIDS)
- e) Worm Infestation (Life- cycle)
 - Ascaris Lumbricoides (Round worm)
 - Ancylostoma Duodenal (Hook Worm)
 - Oxyuris Vermicularis (Thread Worm)
 - Entamoeba Histolytica (Amoebiasis)

2. A Immunity- Classification of immunity,

B Types of immunization, routine immunization schedule, hazards of immunized immunization.

PRACTICAL
Fundamentals of Human Physiology & Community Health
BHS 4.5DCCP12

Credit Hours (02)
Duration of Exam: 3 hrs.

Marks: 40
Min. Marks: 14

- I. Aims, Scope and rules of First Aid.
- II. General Principles of First Aid in :
- Burns and Scalds.
 - Cuts, Wounds and Haemorrhages.
 - Sprains, fractures and dislocations, use of splint.
 - Simple unconsciousness
 - Electric shock and fire
 - Heat stroke and frost bite
 - Animal bite-dog and snake bite
 - Foreign bodies in the eye, nose and throat.
 - Common poisoning.
- III. First Aid Box
- Room for the sick, Bed making procedures for the patient.
 - Essential items for the sick room, bed pan, urinal, bed table, hot water bottle, ice cap, back rest, air ring, glass, measuring glass, spittoon, feeding cup and thermometer.
 - Basic Knowledge about
- Recording of temperature (making chart) and pulse rate, blood pressure
 - Applications of moist inhalations Hot and cold fomentation
 - Types of enema.
 - Patients rate of breathing & Patients Discharges (Knowing the condition of patient)
Prectical record and file – 05 Marks
Two major problems – 10+10 Marks
First Aid Box – 05 Marks
Viva Voce – 10 Marks

Textbook of Anatomy and physiology for nurses - P.R. Asha Latha
Anatomy and phusiology for nurses by Eyelyn Pearce

डॉ. कमलजीत कौर मान : शरीर रचना एवं क्रिया विज्ञान – दिल्ली पब्लिकेशन
कान्ति पाण्डेय, प्रमिला वर्मा : शरीर क्रिया विज्ञान – हिन्दी ग्रन्थ अकादमी
पाण्डेय एवं अग्रवाल : शरीर रचना एवं क्रिया विज्ञान
वृन्दा सिंह : शरीर रचना एवं क्रिया विज्ञान – पंचशील प्रकाशन

डॉ. सत्यदेव आर्य : स्वास्थ्य विज्ञान, हिन्दी ग्रन्थ अकादमी, जयपुर।
डॉ. डी.एस. भरारा: प्राथमिक चिकित्सा, सेंट एम्बुलेंस एसोसिएशन, नई दिल्ली
मनोरमा बैद, डॉ. निधि सिंघल : प्राथमिक सहायता एवं गृह परिचर्या, अजमेरा बुक डिपो, त्रिपोलिया बाजार जयपुर।
बेला भार्गव : जन स्वास्थ्य एवं परिवार कल्याण, जैना पब्लिकेशन, जयपुर।
डॉ. वृन्दा सिंह, जन स्वास्थ्य एवं परिवार कल्याण, पंचशील प्रकाशन, जयपुर।
डॉ. सुधा नारायण। स्वास्थ्य एवं परिवार कल्याण, मातृ एवं शिशु कल्याण कालेज बुक डिपो।

SEMESTER –I
HUMAN DEVELOPMENT-I
(LIFE SPAN DEVELOPMENT)
BHS 4.5 DCCT13

Credit Hours (04)
Duration of Exam: 3 hrs.

Marks: 80
Min. Marks: 29

Unit-I

Introduction to Human Development :
Definition, Scope Concept of Growth & Development, Role of Heredity & Environment on development, Importance, need & scope of life Span Development.
b.) Stages, Principles of Human Development, Methods of Studying Human Development, Conception to birth.
2.) Genetic & Environmental influences on Development, Stages of Human development.

Unit-II

3.) Early Childhood Years : Development in Infancy and Preschool
Physical Development - Meaning, Importance, Stages, Factors affecting Development.
4.) Motor Development - meaning, importance, stages, factors, Hand & Leg skills & Handedness, Reflexes (from Infancy to Maturity)
5.) Speech and Language development:
Pre speech & speech forms of communication, Major tasks in learning to speak, Hazards in Speech development

Unit-III

6.) Social Development: Meaning, Importance, Pattern, Hazards of social development.
7.) Emotional development: Meaning, Importance, Pattern, Preschool and Play, Role of Family and Society.
8.) Moral Development - Moral behaviour, Morality, Pattern, Importance, Stages, Factors affecting Moral Development, Meanings essentials of discipline.

Unit – IV

9.) Cognitive Development - definition, stages, characteristics, cognitive abilities in childhood, factors affecting cognitive development.
10.) a.) Play Development: Meaning, importance, Contributions & Characteristic, types of play activities.
b.) Development of Creativity: Meaning, Values & Development Expressions & Hazards of Creativity.

Unit –V

11.) Adolescence:
a.) Introduction, Characteristics, Physical & Psychological changes
b.) Transition in family relations, Problems during adolescence, Counselling for adolescents.
12.) Personality Development:
a.) Meaning, Development, Determinants
b.) Changes in interests (from Infancy to old age)

**PRACTICAL
HUMAN DEVELOPMENT-I
(LIFE SPAN DEVELOPMENT)
BHS 4.5DCCP13**

Credit Hours (02)

Marks: 40

Duration of Exam: 3 hrs.

Min. Marks: 14

- 1.) Assessment of Growth and Development through Anthropometry.
- 2.) Use of different methods of studying Human Development.
- 3.) Preparation and use of teaching aids for promoting various developments.
- 4.) Report Writing on Different Stages of life span Development (Any Two)
 - a.) Early Childhood , School Age, Adolescence, Adulthood ,Old Age
- 5.) Report Writing /file making .

Distribution of Marks:

1. Methods of studying Human Development - 05 Marks
2. Report writing - 05 Marks
3. Teaching Aid - 05 Marks
4. Activity planning & Implementation - 05 Marks
5. File & Record - 10 Marks
6. Viva Voce - 10 Marks

TotalMarks: 40*

References:

- Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi: Orient BlackSwan.
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata a. McGraw- Hill.
- Berk, L. E. (2007). Development through the lifespan. Delhi: Pearson Education.
- Baal Manovigyan : Baal Vikas by Dr. Preeti Verma & Dr. D.N. Shrivastava, ShriVinod Pustak Mandir.
- Manav Vikas Avam Parivarik Sambandh : Dr. Brinda Singh , PUNCHHEEL PRAKASHAN.

FOODS AND NUTRITION-I
Fundamentals of Foods and Nutrition
BHS 4.5DCCT14

Credit Hours (04)
Duration of Exam: 3 hrs.

Marks: 80
Min. Marks: 29

UNIT I

1. Concept and definition of the terms- nutrition, food, nutrients, malnutrition and health, Relationship between food, nutrition, health and disease. Brief history of nutritional science. Scope of Foods and Nutrition.
2. Functions of Food-Physiological, psychological and sociocultural functions.
3. Concept of Balanced Diet, Basic Food Groups and Exchange lists.
4. Factors affecting selection of food & related behaviour of families -availability, agricultural production, food cost and economy, environment, socio-cultural, psychological and religious factors, role of industrialization, urbanization, work pattern, mass media etc. Acceptability of foods- sensory qualities, likes & dislikes, knowledge, attitude & practices regarding food-fads, fallacies and beliefs.

UNIT II

1. Nutrients: Macro and Micronutrients. Classification, composition, chemistry, properties, functions, sources, digestion, absorption and utilization, Recommended Dietary Allowances, Deficiency and excess of
 - (a) Carbohydrate
 - (b) Fat
 - (c) Protein (including - protein quality-definition, biological & chemical methods of assessment, factors affecting protein quality & methods of improving protein quality of diets.)

UNIT-III

1. Minerals & Trace elements-calcium, phosphorous, magnesium, manganese's, iron, copper, zinc, selenium, fluorine, iodine, sodium and potassium.
2. Vitamins
 - (i) Fat soluble vitamins-A, D, E, & K
 - (ii) Water soluble vitamins- Thiamine, riboflavin, niacin, pyridoxiiiie, pantothenic acid, folic acid, cynocobalamin and ascorbic acid.
3. Phyto chemicals

UNIT IV

1. Food Preparation
 - (a) Basic terminology used in food preparation
 - (b) Reasons of cooking food
 - (c) Principles of food preparation
 - (d) Methods of cooking-classification, procedure, merits & limitations

UNIT V

1. Water Balance
2. Regulation of water balance in the body
3. Electrolyte balance

**PRACTICAL
FOOD AND NUTRITION
BHS 4.5DCCP14**

Credit Hours (02)
Duration of Exam: 3 hrs.

Marks: 40
Min. Marks: 14

Contents:

1. Use and care of kitchen equipment
2. Controlling techniques :
 - a. Weights and Measures- Standard and household measures for raw and cooked foods.
 - b. Recipe standardization technique.
 - c. Evaluation of food product for quality characteristics as a sources of specific nutrients.
3. Categorization of foods as rich, moderate and poor sources of energy and nutrients.
4. Preparation, serving and evaluating food items.
 - a. Beverages-tea, coffee, cocoa, fruit juice, punches, milk shakes etc.
 - b. Cereals- breakfast cereals-upma, pohae, variation in paranthas, chapati, rice, pulao, biryani, sandwiches, pastas, pancakes, biscuits, cookies, cakes, etc.
 - c. Pulses- using whole, dehusked and sprouted pulses-chana, rajmah, vadas, dhokla, kadi etc.
 - d. Vegetables- dry vegetables, curries, koftas, baked vegetables, cutlets, etc.
 - e. Salads, Soups and Stews
 - f. Milk, cheese and Khoa preparation- puddings- custards, kheers, ice creams
 - g. Eggs-hard and soft boiled, poached, scrambled. Omelette and eggnogs, etc.
 - h. Meat, fish and poultry (Optional)
 - i. Desserts-halwas, souffles, baked and steamed desserts, other hot and cold desserts.
 - j. Snacks-Savoury: mathri, kachories, pakoras, etc. Sweets: ladoos, gunjias, malpuas.

Distribution of Marks

a) Preparation of two dishes	20 Marks
i) Quality characteristics	05 Marks
ii) Method of work & cleanliness	05 Marks
iii) Serving	03 Marks
b) Files and Records	05 Marks
Viva-voce	02 Marks
Total	40 Marks

डॉ. मुक्ता अग्रवाल : भोजन एवं पोषण – अजमेरा बुक डिपो, जयपुर।

डॉ. निधि अग्रवाल, संगीता धौलपुरिया – आहार एवं पोषण विज्ञान, अग्रवाल साहित्य सदन, श्रीगंगानगर

सी.गोपालन, भारतीय खाद्यान्नों का पोषण मान, आहार विज्ञान

तरला दलाल : पूर्ण सैट भोजन बनाने की विधि, वकील एण्ड फेफेयर्स, मुम्बई

अंजली शरण : व्यंजन कोश तीन खण्ड, अचार मुरब्बे एवं कन्फेक्शनरी, स्वादिष्ट व्यंजन – बजरंग प्रकाशन, नई दिल्ली

SEMESTER -II

Extension and Communication- I Introduction to Extension Education BHS 4.5DCCT22

Credit Hours (04)

Marks: 80

Duration of Exam: 3 hrs.

Min. Marks: 29

Unit - I

1. Home science and Extension Education:
 - a) Definition of Extension Education with special reference to Home Science. Concept, need and importance of Extension Education. Introduction of home science association of India.
 - b) Philosophy, objectives, principles and scope of Extension Education.
 - c) Extension Education and its relationship with other Social Science.
 - d) Need and role of Home Science Extension Education for the development of society.

Unit-II

2. a) Community Development programme - Concept, objectives, organisation, activities, achievement and failure. Duties and skills required in community worker.
b) Panchayati Raj Institutions - Concept, objectives, structure and functions.

Unit-III

3. Extension Teaching Methods & approaches.
 - a) Classification of Extension Teaching Methods.
 - b) Concept, use, importance and limitations of various types of Extension Teaching Methods.
 - c) Factors affecting the use and selection of teaching methods.

Unit - IV

4. Rural Development programmes:- NEGP, DWCRA, IRDP, TRYSEM, SGSY, WDP, ICDS.
Role of voluntary agencies and rural Institutions in Rural Development

Unit - V

Motivation and Learning: Teaching & learning

- a) Definition, principles, types and role of motivation in Extension Education.
- b) Definition, principles and process of learning, factors affecting learning.
- c) Principles of teaching and learning in Extension and their implications in Extension Education, adult learning.
- d) Difference in teaching in formal and informal situations.

**ELEMENTS OF EXTENSION EDUCATION
PRACTICAL
BHS 4.5DCCP22**

Credit Hours (02)
Duration of Exam: 3 hrs.

Marks: 40
Min. Marks: 14

1. Planning preparation and presentation of communication aids/media for rural and urban background:
 - A.
 - i. Poster
 - ii. Chart
 - iii. Pamphlet/Leaflet
 - B.
 - i. Flash cards
 - ii. Folder
2. Each student has to prepare and display two of the above teaching aids (A&B).
3. Report writing / Role Play any one topic (particularly for women health, child nutrition and care, immunization, family planning, environment conservation).

Distribution of Marks:

1. File and Practical Record – 05
 2. Preparation and display of any two teaching aid. – 10+10
 3. Report / Role Play – 10
 4. Viva Voce – 05
- Total = 40

Family Resource Management – I
(Introduction to Family Resource Management)
BHS 4.5DCCT23

Credit Hours (04)
Duration of Exam: 3 hrs.

Marks: 80
Min. Marks: 29

Unit - I

1. Introduction of family resource management : Basic concepts, Objectives, Process, Management Functions, Obstacles.
2. Objective and principles of Management.
3. Family Life Cycle - Stages and factors affecting them-money, time & energyManagement.

Unit - II

4. Motivating factors in Management.
 - (a) Goals - definition, importance, types
 - (b) Values definition, importance, sources, classification, characteristics,
 - (c) Standards - definition, classification.
 - (d) Interrelatedness of values, goals and standards.

Unit - III

5. Decision making - Meaning, Importance, types, steps, tools, role of decision making in Management.
6. Management process applied to energy concept, fatigue causes, types and measures to relieve fatigue, process of energy management, effective use of body.
7. Work simplification-Definition, Importance, techniques, Mundel's classes of change.

Unit - IV

8. Management of specific resources,
 - (a) Family Resources - definition, types, characteristics, factors affecting resources, Guidelines to increasing satisfaction from resources.
 - (b) The use ofManagement process applied to time-philosophy of time, tools of time management, process of time management.

Unit - V

9. Management of Family Income;
 - (a) Types of income, sources, family budgeting & its importance, methods of handling budget, steps in making budget, factors affecting the budget
 - b) Savings & investments - Meaning, importance and types.

MANAGEMENT IN THE FAMILY

BHS 4.5DCCP23

Credit Hours (02)

Marks: 40

Duration of Exam: 3 hrs.

Min. Marks: 14

1. Study of time management practices of selected families.
2. Application of managerial process for various events e.g. organizing party, official meeting etc.
3. Work simplification techniques and Mundel's Classes of change.
4. Budgeting - Planning & Implementation of Seven days expenditure of the students.
5. Pot decoration & flower arrangement.

Distribution of Marks

1. File and records – 05 Marks
2. Two major problems – 10+10 Marks
3. One minor problems – 08 Marks.
4. Viva Voce – 07 Marks.

References:

1. Gross and Crandall E. (1963) - Management for Modern Families, Appleton Cenary Craft, New York.
2. Nickel and Dorsey J.M. (1970) - Management in family living, wiley Eastern Ltd., New Delhi.
3. Mullick, Premlak (2000) Textbook of Home Science Kolyani Publishers, New Delhi.
4. Steidal R.E. & Bratton E.C., Work in Home.
5. Gross I.H. Crandall, E.W. Crandall and Knoll, N.M. 1980 Management for Modern Families.
6. Donnelly J.H., Gibson, J.L. and Francerich, J.M. 1995 Fundamentals for Management, Chicago.
7. Fisher C.D. 1997 Human Resource Management, Chennai, All Indian Publisher and distributors.
8. Kole M.G. (1998) Management and human resources.
9. डॉ. बैलाभार्गव : 2001. गृह प्रबन्ध, साधन व्यवस्था एवं आन्तरिक सज्जा, युनिवर्सिटी बुक हाउस, जयपुर।
10. डॉ. वृन्दा सिंह, 2005, गृह प्रबन्ध एवं आन्तरिक सज्जा पंचशील प्रकाशन, जयपुर।
11. मंजूपाटनी, गृहप्रबंध, विजयबुकसेंटर, जयपुर।

INTRODUCTION TO BIOCHEMISTRY & FOOD MICROBIOLOGY

BHS 4.5DCCT24

Credit Hours (04)

Duration of Exam: 3 hrs.

Marks: 80

Min. Marks: 29

UNIT-I

1. Introduction to Biochemistry – Definition, objectives scope and inter-relationship between biochemistry and other biological science.
2. Water Balance : Positive and Negative water balance, regulation of water balance in the body, Dehydration, ORT & ORS.
3. Fluid : Electrolyte and acid-base-balance.

UNIT-II

4. (a) Molecular aspects of transport : Passive diffusion, facilitated diffusion and active transport.
- (b) Definition of digestion and absorption.
- (c) Digestion and absorption of proteins, carbohydrates and lipids

UNIT-III

5. Carbohydrates : Definition, classification, structure & Functions.
6. Lipids : Definition, Classification, structure & Functions.
7. Proteins : Definition, classification, structure & Functions.

UNIT-IV

(Introduction to food microbiology)

8. Microbiology : Brief history, classification of microorganisms-Moulds, yeasts, bacteria, protozoa, fungi & algae.
9. Structure of typical bacterial cell and virus, useful and pathogenic micro organisms.
10. Economic importance of bacteria.

UNIT-V

11. Microbiology of food : microorganisms responsible for spoilage of fresh meat, processed meat, fish, eggs, fresh fruit and vegetables, pickles, sugar products honey and syrups, bread, ghee & butter.

RECOMMENDED READING :

1. Principles of Biochemistry by Lehninger
2. Textbook of Biochemistry by U. Satyanarayana & U. Chakrapani
3. General Microbiology : Volume II, Dr. C.B. Power & Dr. H.F. Daganawalal Himalaya Publishing House Mumbai.
4. Mycology, Microbiology & Plant Pathology by Dr. Gyanprakash Sharma. Sakshi Publishing House, Jaipur
5. Fungi, Microbiology and Plant pathology by C.B. Gena, B.L. Choudhary & K.C. Sharma, Alka Publication, Ajmer.

INTRODUCTION TO BIOCHEMISTRY & MICROBIOLOGY :

INTRODUCTION TO BIOCHEMISTRY & FOOD MICROBIOLOGY

BHS 4.5DCCP24

Credit Hours (02)

Marks: 40

Duration of Exam: 3 hrs.

Min. Marks: 14

1. Qualitative tests for carbohydrates.
2. Qualitative tests for protein.
3. Qualitative tests for lipids.
4. Identification of Blood groups.
5. Estimation of Hemoglobin by sahli's Hemoglobinometer.

Distribution of Marks.

- | | |
|---------------------------|----------------------------|
| 1. Two qualitative tests | = 10 Marks (05 Marks each) |
| 2. One quantitative tests | = 20 Marks |
| 3. Record | = 5 Marks |
| 4. Viva Voice | = 5 Marks |