

PUNJABI UNIVERSITY, PATIALA
B Sc. Home Science in Human Development
Part – I (SEMETER I & II)
Session 2019-20, 2020-21 & 2021-22

Semester – I

Sr. No	Subjects	Total Marks	Theory	Practical	Internal Assessment
1	English	100	74		26
2	Applied Science I	100	74		26
3	Applied Science II (Practical)	70	-	70	-
4	Life Span Development	100	74		26
5	Textile and apparel Design I	100	74		26
6	Textile and Apparel Design II (Practical)	70	-	70	-
7	Entrepreneurship	100	74		26
8	Punjabi Compulsory/ (Mudla Gyan)/ Elementary Punjabi	100	75		25
	Total	740	445	140	155

Note: Internal Assessment will be based on attendance (20%), written assignments/project work etc, (40%) and two mid-semester tests/internal examinations (40%) average of both mid semester tests/internal examinations.

PUNJABI UNIVERSITY, PATIALA
B Sc. Home Science in Human Development
Part – I (SEMETER I & II)
Session 2019-20, 2020-21 & 2021-22

Semester – II

Sr. No	Subjects	Total Marks	Theory	Practical	Internal Assessment
1	English	100	74	-	26
2	Physiology and Reproductive Health	100	74	-	26
3	Nutrition and Food Science-I	100	74		26
4	Nutrition and Food Science-II (Practical)	70	-	70	-
5	Family Resource Management	100	74		26
6	Punjabi Compulsory/(Mudla Gyan)/ Elementary Punjabi	100	75		25
	Total	570	371	70	129

Note: Internal Assessment will be based on attendance (20%), written assignments/project work etc, (40%) and two mid-semester tests/internal examinations (40%) average of both mid semester tests/internal examinations.

Part I (Semester I)
Paper-I : English

Maximum Marks: **74**

Time allowed: **3 Hrs.**

Minimum Pass Marks: **26**

A) Instructions for paper-setters

The question paper will consist of three sections A, B and C. Sections A, B will have four questions from the respective sections of the syllabus and will carry 11 marks each. Section C is compulsory and will consist of 15 short answer type questions of 2 marks each which will cover the entire syllabus uniformly.

B) Instructions for candidates

Candidates are required to attempt two questions each from sections A and B of the question paper and the section C is compulsory.

Section-A

Four basic letter patterns: application letters, regret letters, appeal/request letters, complaint letters.

Reporting a good event, writing minutes of a meeting, etiquette, Writing a dialogue and role play.

Remedial grammar and vocabulary building:

(prepositions, use of articles, conjugation of verbs, use of tenses, antonyms, synonyms, homonyms etc)

Semi-official letters: Appeal, Apology, invitation, congratulations/condolence, Practice sessions for reading/writing and verbal skills to be conducted in tutorials

Section-B

Literary Appreciations of Stories 1 – 8 from the Prescribed Text „Let’s Go Home and Other Stories”: Critical responses to stories/Expressing personal responses, Reference to context, Vocabulary building.

Question paper will be set with internal Options

Conversation skills and Etiquette: How to ask questions, Introducing oneself/breaking the ice, How to give suggestions, Situational dialogue writing and role play.

PUNJABI UNIVERSITY, PATIALA
B Sc. Home Science in Human Development
Part – I (SEMETER I & II)
Session 2019-20, 2020-21 & 2021-22

References:

1. The first 8 stories from the book *Let's Go Home and Other Stories* (Ed.), Meenakshi Mukherjee, Orient Longman Private Ltd.
2. Tasks selected from *Interface: A textbook of Compulsory English* by Dr Ranu Vanikar and Dr Katayun Palia, Vikas Publishing House Ltd.
3. *Yuvakatha Part 4*. (Ed.) Geeta Dharmarajan. Books are available at Katha Building Centre, Sarai Kal Khan, Nizamuddin East, Delhi- 110 013
4. Appropriate tasks from *A Remedial Course in English for Colleges (Book II)*. CIEFL, OUP and *Interface. A textbook of Compulsory English* by Dr Ranu Vanikar and Dr Katayun Palia, Vikas Publishing House Ltd.

Part I (Semester I)
Paper II: Applied Science I

Maximum Marks: 74

Time allowed: 3 Hrs.

Minimum Pass Marks: 26

A) Instructions for paper-setters

The question paper will consist of three sections A, B and C. Sections A, B will have four questions from the respective sections of the syllabus and will carry 11 marks each. Section C is compulsory and will consist of 15 short answer type questions of 2 marks each which will cover the entire syllabus uniformly.

B) Instructions for candidates

Candidates are required to attempt two questions each from sections A and B of the question paper and the section C is compulsory.

Section-A

Revision of Basic Chemistry, Introduction To Polymers and Their Application:

Introduction, Monomeric Unit, Polymerisation- Addition, Condensation, Classification- Natural and Synthetic, Organic and Inorganic, Thermoplastic and Thermosetting, Functionality of monomers with illustrations, Some important polymers and their uses, Manmade Polymers- Polyethylene, Polypropylene, Polyvinyl Chloride.

Perfumes and Cosmetics: Perfumes-General, Formulation- Emulsifier solid, Sources of perfumes- plant oils, flower oils, animal secretions, and chemical substances (e.g. Khus, Sandalwood, Eucalyptus, Rose, Jasmin, Orange, Nutmeg) and uses, Cosmetic Products:- Definition, skin cream and lotions, General, Formulation.

Dyes: Definition, chromophore, auxochrome, classification based on applications, Uses of dyes of foods, textiles, medicine, cosmetics, industries and their hazards.

Drugs and Pharmaceuticals: Introduction to common drugs, properties of drugs, Common drugs: Meaning of terms with one example, Analgesic, antacid, antibiotics, anti- inflammatory, diuretics, laxatives, sulfa drugs, Mode of action (in brief) uses and hazards of Aspirin, Paracetamol, Sulphanilamide.

Soaps and Detergents: Chemistry of soaps and detergents.

Section-B

Red Listed Chemicals: Red listed chemicals used in day to day life and possible routes of contamination, Introduction, types, hazards-Food additives (synthetic)-artificial sweeteners, preservatives and stabilizers of food, Agrochemicals-Insecticides, pesticides.

Introduction to Micro-organism: Introduction, General Characteristics, Important classes and Examples of each group for the following microorganisms, Bacteria, Algae, Fungi, Protozoa, Virus.

Genetic Engineering and Biotechnology: Introduction to Biotechnology and Genetic Engineering, Gene Cloning-Introduction and methodology in brief, Applications of Genetic Engineering in plants-Insects and virus resistant plants, Plants with improved characters (in brief), Applications of Genetic Engineering in Human Medicine and Pharmaceuticals-Thalassemia, Oncogenes, Interferon, production of growth hormones and Human insulin (in brief)

Immunology: Introduction to Immune system and types of immunity, Antigen and antibody reactions and their assays (in brief)

References:

1. Gowarikar V.R., Viswanathan N.N., Jaydev S. (1990): Polymer Science- Wiley Eastern Ltd.
2. Sharma P.P. (1998): Cosmetics- Formulation, Manufacturing and Quality Control, Vandana Publications, Delhi.
3. Poucher W.A.: Perfumes, Cosmetics and soaps (Vol. I and II)
4. Robert I.E.: Cosmetic Ingredients- Their safety assessment, PathoTox Publishers, Inc.
5. Synthetic Dyes by Dr. Venkatraman Vol.I
6. Prof. V.A. Shenai (1991): Introduction To the Chemistry of Dyestuffs, Sevak Publications.
7. Kent S.A> (1974): Riegel's Handbook of Industrial Chemistry.
8. Pearson D. (1983): The Chemical Analysis of Foods, Churchill Livingstone, Edinburgh, London, New York.
9. Thomsen E.G.: Modern Cosmetics.
10. Shiv Narayan Sahu: Preparation and distribution of drugs and cosmetics.
11. Porter K.R., Bonneville M.A.: Fine structure cells and tissues.

Part I (Semester I)
Paper III: Applied Science II (Practical)

Maximum Marks: **70**

Time allowed: **3 Hrs.**

Minimum Pass Marks: **25**

1. Introduction to Chemistry Lab Apparatus,
2. **Acid Base Titration:** Neutralization of strong acid with strong base, Neutralization of weak base with strong acid. pH determination of various solutions Acid, Base and Neutral (two household examples for each)
3. **Viscosity Measurement:** Water, Oil, Shampoo by Oswald's Viscometer, Study and care of Microscope, Observation of motility of Bacteria by hanging drop method (E.coli and Proteus).
4. Observation of bacteria by the simple monochrome staining method (Hay infusion culture or milk), Gramstain of bacteria in milk, To observe common pathogenic bacteria (any6- Permanent slides), Observation of fungi on different food material and culture (PDA medium).
5. To observe common pathogenic protozoa (Permanent slides of entamoeba histolitica and plasmodium vivex.
6. Study of medicinally important plants (project).

Part I (Semester I)
Paper: IV Life Span Development

Maximum Marks: 74

Time allowed: 3 Hrs.

Minimum Pass Marks: 26

A) Instructions for paper-setters

The question paper will consist of three sections A, B and C. Sections A, B will have four questions from the respective sections of the syllabus and will carry 11 marks each. Section C is compulsory and will consist of 15 short answer type questions of 2 marks each which will cover the entire syllabus uniformly.

B) Instructions for candidates

Candidates are required to attempt two questions each from sections A and B of the question paper and the section C is compulsory.

Section-A

Introduction: Meaning of Life Span Development and need to study development through the life course, Life span development - a multidisciplinary approach, Psychology- A science of understanding human behavior Definition and scope of psychology

Stress and its Management: Concept of stress, Causes of stress, Coping strategies

The Dynamics of Behaviour: Meaning of behaviour, Individual difference, Motivation and needs, definition, theories, types. Frustration and conflict - definition, sources, effects of frustration, adjustment to frustration.

Prenatal and Infancy: Overview of prenatal stage, Definition, Physical growth and development in infancy (reflexes, emotional states, Physical growth & motor development, brain). Developmental tasks of infancy, mile-stones & highlights of development.

Early Childhood Period (2 to 6 years): Definition, overview of early childhood years, highlights, developmental tasks, milestones, Nursery school - Orientation to nursery school & significance Visit to nursery school, Importance of play for all round development. (students to prepare one play material)

Section-B

Middle Childhood (6 to 9 years): Definition, Developmental tasks, School – its significance & importance, effects of success & failure, Peer group - importance & significance, Functions.

PUNJABI UNIVERSITY, PATIALA
B Sc. Home Science in Human Development
Part – I (SEMETER I & II)
Session 2019-20, 2020-21 & 2021-22

Adolescence (9 to 20 years): Definition, period of storm & stress, Physical development – puberty, growth spurt, primary & secondary sex characteristics, early & late maturation, Socialization, Choosing career – Stages and factors affecting Choice.

Young Adulthood (21 to 40 years): Definition of an “Adult”, need to study, Developmental tasks of a young adult significance of the period responsibilities and adjustment: New family, work place, parenthood, independence, financial matters

Middle Adulthood (41 to 60 years): Definition, Physical changes (senses, diseases) Menopause, Health issues.

Late Adulthood and Aging (61 years and above): Definition, Physiological changes, and health problems, Socialization, Death: Preparation & coping strategies

1. Dave, I. (1991) “The basic essential of counseling”, Sterling Publisher Pvt. Ltd.
2. Fuster, J.M. (1988) “Personal counseling: Better yourself book”.
3. Gelso, C. and Fretz, B. (1995) “Counselling psychology”, William James Centennial Series.
4. Madhukar, I. (2000) “Guidance and Counselling”, Authors Press.
5. Rao, S.N. (1991) “Counselling and Guidance”, Tata McGraw Hill Publishing Company Limited, New Delhi.
6. Satya, B.N. (2002) “Guidance and Counselling”, Abhishek Publication, Chandigarh.
7. Shankar, L. (1993) “Guidance, Educational, Vocational, Personal and Society”, Enkay Publisher Pvt. Ltd.
8. Singh, R. (1994)

PUNJABI UNIVERSITY, PATIALA
B Sc. Home Science in Human Development
Part – I (SEMETER I & II)
Session 2019-20, 2020-21 & 2021-22

Part I (Semester I)
Paper V: Textile and apparel design 1

Maximum Marks: 74

Time allowed: 3 Hrs.

Minimum Pass Marks: 26

A) Instructions for paper-setters

The question paper will consist of three sections A, B and C. Sections A, B will have four questions from the respective sections of the syllabus and will carry 11 marks each. Section C is compulsory and will consist of 15 short answer type questions of 2 marks each which will cover the entire syllabus uniformly.

B) Instructions for candidates

Candidates are required to attempt two questions each from sections A and B of the question paper and the section C is compulsory.

Section-A

Introduction to Textiles: Scope of textiles, general properties and classification of textile fibres by Textile Fibre Product Identification Act, Concept of green fibres & Eco friendly textiles (in brief).

Yarn Construction: Concept of yarn spinning, Types of yarns-single, ply, cable & cord, & texturized yarns, Novelty yarns – Nub, slub, ratine, boucle, corkscrew, chenille .

Fabric Construction: Introduction to fabric construction & basic weaves (concept of weaving, knitting and non woven to be explained.

Definition, terms and uses of 25 fabrics namely–For Personal Clothing - lawn, poplin, cambric, 2 x 2, organdy, voile, denim, drill, seer sucker, jute, khadi & other handloom fabrics. Home Textiles - casement, terrycloth, jacquard, cut pile, knitted, bonded, laminated, embossed, linen Fashion Fabrics - Satin, tissue, crape, georgette, chiffon, knitted, knotted, braided, narrow fabrics, wrinkled, brasso, suede.

Section-B

Introduction to Apparel Design: Scope and importance of clothing, Principles & elements of design in relation to apparel design, Aesthetics of Personality & Clothing. - exercise, care of hair, complexion, eating & sleeping habits, posture, gait, charm, manners.

Aesthetic and Functional Performance of Fabric and Ready to Wear Garments or Apparel: Personal clothing- sports (Indoor & Outdoor), casual, spectator clothes – selection, use and care, Situational clothes – corporate, occasional, seasonal, age-wise (Infant to old age).

PUNJABI UNIVERSITY, PATIALA
B Sc. Home Science in Human Development
Part – I (SEMETER I & II)
Session 2019-20, 2020-21 & 2021-22

Buying points for ready made garments – size, suitability, durability, aesthetic appeal, fibre content, labels (basic information & care labels), brand, purchasing power, socio economic – conditions, location etc. Selection of clothing according to personality types

Standards: Textile Performance Legislation Acts –Bureau of Indian Standards, Flammable Fabrics Act, Care Labelling Act & Type of Labelling, Wool Labelling Act, Eco Labelling, Silk Mark Handloom Mark.

References:

1. Bane, A. (1956) “Creative Clothing Construction”, McGraw Hill Book Co., New York.
2. Doongaji, S. and Deshpande, R. “Basic Processes & Clothing Construction”.
3. Hollan, Norma and Saddler (1998) “Textiles”, 16th ed., Macmillan Publishing Co., New York.
4. Joseph, M. (1976) “Essentials of Textiles”, Holt, Rinehart & Winston, New York.
5. Khadi (2002) “The Fabric of Freedom”, Amr Vastra Kosh Trust Publication.
6. Lewis, V.S. (1984) “Comparative Clothing Construction Technique”, Surjeet Publications, Delhi.
7. Mary, R.S. “Clothing – A study in Human Behaviour”.
8. Mc. Jimsey (1963) “Art in Clothing Selection”, Harper & Row, New York.
9. Potter and Corbman (1983) “Textile – Fibre to Fabric”, 6th ed., McGraw Hill Book Co., New York.
10. Reader’s Digest (1976) “Complete Guide to Sewing”, The Reader’s Digest Association, New York.
11. Stiphens, G.F. (2002) “Fashion from Concept to Consumer”, 7th ed., Prentice Hall Inc., New Jersey.
12. Tate and Glisson (1961) “Family Clothing”, John Wiley, New York.
13. Wingate, I.B. and Mohler, J.F. “Textile Fabrics and their Selection”, 8th ed., Engle wood Cliffe.

Part I (Semester I)
Paper VI: Textile and Apparel Design II (Practical)

Maximum Marks: **70**

Time allowed: **3 Hrs.**

Minimum Pass Marks: **25**

Contents:

1. Introduction to Sewing Machine
2. Body Measurements
- 3.1 Stitching of the Following Garments :Night Suit (For 5 to 6 yrs old boy):-Fabric – soft cotton, flannel or any other suitable material with nursery print, plain, stripes. Shirt: Half sleeve, collar, Shoulder seam French seam, No. of buttons.
- 3.2 Elasticised pajama (without fly): Use flat fell seam, Elastic width – 2cm. Machine two after inserting elastic,
- 3.3 Simple Top (As per trend): Simple pattern, without darts, Simple sleeves, without placket, Side slits – as per choice, No collar.
4. Fabric identification of 25 samples given in Theory. A project to be submitted with name of the fabric, fabric width, cost per meter, weave and uses.
5. Demonstration of layout of paper – pattern according to texture and design of fabric

References:

1. Bane, A. (1956) “Creative Clothing Construction”, McGraw Hill Book Co., New York.
2. Campbell, H. and Davies, M. (1985) “Designing Patterns”, A. E. Press, Melbourne.
3. Carson (1969) “How You Look to Dress”, McGraw Hill, St. Louis.
4. “Complete Guide to sewing Needle craft”, Singer Publication.
5. Ervin, M.D. and Knichen, L.A. and Peters, K “Clothing for Moderns” 3rd ed. and 5th ed., McMillan, New York.
6. Hultin, J.C. (1972) “Singer Sewing Book”, Hamlyn, London.
7. Ladbury, A. (1978) “Sewing Fabrics”, Mitchell Beazley International Ltd., London.
8. Lyle, D. (1977) “Performance of Textile for Testing”, John Wiley & Sons, New York.
9. Reader’s Digest (1979) “Complete Guide to Needle Craft”, The Reader’s Digest Association, New York.
10. Wingate, I.B. (1988) “Fairchild’s Dictionary”, 6th ed., Universal Pub. Co., New Delhi.

Part I (Semester I)
Paper VII: Entrepreneurship

Maximum Marks: 74

Time allowed: 3 Hrs.

Minimum Pass Marks: 26

A) Instructions for paper-setters

The question paper will consist of three sections A, B and C. Sections A, B will have four questions from the respective sections of the syllabus and will carry 11 marks each. Section C is compulsory and will consist of 15 short answer type questions of 2 marks each which will cover the entire syllabus uniformly.

B) Instructions for candidates

Candidates are required to attempt two questions each from sections A and B of the question paper and the section C is compulsory.

Section-A

Introduction to Entrepreneurship:

Definition, Concept and Need for entrepreneurship, Types of entrepreneurs: Spontaneous, Motivated and Induced (Teachers to explain and discuss case studies in class and invite different types of entrepreneurs to share the reasons and causes to entrepreneurship as a profession).

Kinds of Entrepreneurship: Proprietary, Partnership and Group Entrepreneurship. (Teachers to explain and discuss case studies in class and invite different kinds of entrepreneurs to share their experiences and talk about the advantages and disadvantages of proprietary partnership and group enterprises).

Entrepreneurial Assets: Entrepreneurial Values and attitudes, Entrepreneurial Qualities, Role demands and Requirements of Entrepreneurs, Barriers to entrepreneurship (Teachers to discuss and expose students to entrepreneurs to share their views and importance they give to particular entrepreneurial values, attitudes, qualities, role demands, requirements and barriers)

Section-B

Entrepreneurial Motivation:

Definition and Meaning of Achievement Motivation, Need for Achievement Motivation, Motivating Factors- Internal and External (Teachers to explain with examples).

Gaining Personal Focus and Developing Skills:

Communication Skills: Written and verbal communication, Barriers to communication, Developing Listening skills (Teachers to explain the dos and don'ts of communication. Students to practice written and spoken office communication).

PUNJABI UNIVERSITY, PATIALA
B Sc. Home Science in Human Development
Part – I (SEMETER I & II)
Session 2019-20, 2020-21 & 2021-22

References:

1. Bolton, B. and Thompson, J. (2001) “Entrepreneurs: Talent, Temperament, Technique”, Replika Press Pvt. Ltd., Delhi.
2. Taneja, S. & Gupta, S.L. (1992) “Entrepreneurship Development”, New Venture Creation, Galgotia Publishing Company, New Delhi.
3. Hisrich, R.D. & Peters, M.P. (1995) “Entrepreneurship: Starting, Developing and Managing a New Enterprise”, Irwin Inc., U.S.A.
4. Desai, V. (1991, 97, 99) “Entrepreneurial Development”, Vol. I & II, Himalaya Publishing House, Mumbai.

Part I (Semester I)
Paper VIII: Punjabi Compulsory/Mudla Gyan/Elementary Punjabi

To download the Syllabus go to :

www.punjabiuniversity.ac.in → Important Links → Download Syllabus → Academic Session 2019-20 → Faculty of Languages → Punjabi → Under Graduate → Common Syllabus with B.Sc. (Agriculture 4Yrs) or (Home Science) Punjabi Compulsory or Mudla Gyan or Elementry Punjabi.

Part I (Semester II)
Paper-I: English

Maximum Marks: **74**

Time allowed: **3 Hrs.**

Minimum Pass Marks: **26**

A) Instructions for paper-setters

The question paper will consist of three sections A, B and C. Sections A, B will have four questions from the respective sections of the syllabus and will carry 11 marks each. Section C is compulsory and will consist of 15 short answer type questions of 2 marks each which will cover the entire syllabus uniformly.

B) Instructions for candidates

1. Candidates are required to attempt two questions each from sections A and B of the question paper and the section C is compulsory.

Section-A

Report writing (2): Different kinds of reports/ Structure of report, preparing a project report, presenting a project report on a previously assigned topic.

Writing a Resume: How to write a Resume, How to write a covering letter for a job application, Resume writing with readymade formats available on computer packages

Devising a questionnaire and interpreting facts: How to prepare a simple questionnaire, Transfer of information from visual into verbal.

Section-B

Conventions of Social Interaction: Dialogue writing for formal/semi-formal situations etc, How to Prepare for an interview, Role Play/ mock interview sessions.

Literary Appreciation of stories 9 – 15 from the Prescribed Text ‘Let’s Go Home and Other Stories’: Critical Appreciation /Expressing personal responses, Reference to context, Vocabulary exercises, Question Paper will be set with internal options.

Or

Block 6 Literary Appreciation of all stories from prescribed text Yuva Katha part 7: Expressing personal responses, Vocabulary building, Questions will be set with internal options.

PUNJABI UNIVERSITY, PATIALA
B Sc. Home Science in Human Development
Part – I (SEMETER I & II)
Session 2019-20, 2020-21 & 2021-22

References:

1. The stories 9 – 15 from the book *Let's Go Home and Other Stories* (Ed.), Meenakshi Mukherjee, Orient Longman Private Ltd.
2. Tasks selected from *Interface: A textbook of Compulsory English* by Dr Ranu Vanikar and Dr Katayun Palia, Vikas Publishing House Ltd.
3. *Yuvakatha Part 7*. (Ed.) Keerti Ramchandra. Books are available at Katha Building Centre, Sarai Kal Khan, Nizamuddin East, Delhi- 110 013
4. Appropriate tasks from *Reading and Study Strategies* Book-I by Nirmala Belare and *Interface. A textbook of Compulsory English* by Dr Ranu Vanikar and Dr Katayun Palia. Vikas Publishing House Ltd.

Part I (Semester II)
Paper II: Physiology and Reproductive Health

Maximum Marks: 74

Time allowed: 3 Hrs.

Minimum Pass Marks: 26

A) Instructions for paper-setters

The question paper will consist of three sections A, B and C. Sections A, B will have four questions from the respective sections of the syllabus and will carry 11 marks each. Section C is compulsory and will consist of 15 short answer type questions of 2 marks each which will cover the entire syllabus uniformly.

B) Instructions for candidates

Candidates are required to attempt two questions each from sections A and B of the question paper and the section C is compulsory.

Section-A

Introduction: General terms – Anatomy, Physiology, symmetrical arrangement, anatomical position, Median plane/ lateral plane, Internal/external, Superficial/ deep, Superior/ Inferior, Anterior/ Posterior

Blood and Lymphatic system: Blood: - Physical characteristics, Blood volume, Composition of plasma, functions of plasma proteins. Red Blood cells: Formation and functions, haemoglobin, anaemia, Thalassemia. White Blood cells: Types and functions, Importance of Haemogram, Leukaemia. Platelets and mechanism of coagulation- Hemophilia. Blood groups and Rh factor
(B) Lymph: Lymphatic system - Spleen: Structure and functions

Heart: Structure of Human Heart and its functions, Cardiac cycle, Blood Pressure, Pulse pressure: Common diseases- Anemia, Leukemia, Hypertension, Ischemic heart disease

Respiratory system: Respiratory organs and their functions, Lung volumes and lung capacities, Factors affecting efficacy of respiration. Common diseases- T.B., Asthma, Bronchitis, Cough, Pneumonia, Sinusitis.

Gastro- Intestinal system: Organs of the digestive system and their functions, Accessory organs of digestion- Liver, Gall Bladder, Pancreas, Common disorders- Dental caries, Vomiting, Diarrhoea, Constipation, Hyperacidity, piles.

Section-B

Excretory system: Urinary System: Structure and functions of organs of urinary system (In brief), Mechanism of urine formation, Common diseases- UTI and Renal stones.

Skin: Structure and functions, Regulation of body temperature, Common disorders- Burns, dandruff, acne.

Eye- Structure and functions, Common problems: Conjunctivitis, trachoma, glaucoma, cataract.

Ear- Structure and functions, Common problems- Deafness, Vertigo, Motion, sickness.

Endocrine system: - Listing of endocrine glands and Location, Functions of Thyroid, parathyroid, adrenaline, and pituitary glands.

Reproductive system and reproductive health:

Female reproductive system: Structure of female reproductive system, menstrual cycle, menarche and menopause, fertilization, breast: Structure and functions, Importance of breast hygiene and breast feeding. Physiological changes in pregnancy, maternal adaptations in pregnancy. Ante natal care, Male Reproductive system: Structure of male reproductive system, Sex education, Contraception and Infertility, Sexually transmitted diseases- Syphilis, Gonorrhoea, AIDS.

References:

1. API textbook of medicine
2. Chatterjee Chandi Charan (1988) – Textbook of Medical Physiology, London, W.B. Saunderson's Co.
3. Concise medical Physiology - Chaudhari
4. Textbook of Gynaecology - Datta
5. Guyton, A.C., Hall J.E. (1996) – Textbook of Medical Physiology (9th Edition) – Prism Books Pvt Ltd., Bangalore.
6. Wilson (1989) – Anatomy and Physiology in Health and illness, Edinburgh, Churchill Livingstone.
7. Winwood (1988) - Sear's Anatomy and Physiology for nurses- London, Edward Arnold.

PUNJABI UNIVERSITY, PATIALA
B Sc. Home Science in Human Development
Part – I (SEMETER I & II)
Session 2019-20, 2020-21 & 2021-22

Part I (Semester II)
Paper III: Nutrition & Food Science I

Maximum Marks: 74

Time allowed: 3 Hrs.

Minimum Pass Marks: 26

A) Instructions for paper-setters

The question paper will consist of three sections A, B and C. Sections A, B will have four questions from the respective sections of the syllabus and will carry 11 marks each. Section C is compulsory and will consist of 15 short answer type questions of 2 marks each which will cover the entire syllabus uniformly.

B) Instructions for candidates

Candidates are required to attempt two questions each from sections A and B of the question paper and the section C is compulsory.

Section-A

Introduction to nutrition: Terms used in Nutrition and Health. Definitions: Health, Nutrition, Nutrients, Foods, Diet, R.D.A., Balanced diet, Malnutrition, under nutrition, over nutrition, Optimum nutrition,

Five Food Groups and Food guide, relationship between food and nutrition, functions of food, classification of nutrients, factors affecting food consumption and food acceptance.

Food Preparation: Reasons for cooking, pre-preparation of foods, methods of cooking, medium of cooking, changes during cooking. Nutrient losses during processing and its prevention. Color pigments, effect of cooking on color pigments.

Basic nutrition: WATER: Functions, sources, requirements, water balance, dehydration (ORS) and toxicity, water as a cooking medium, effects of hard and soft water on cooking.

CARBOHYDRATE: Composition and classification, source, functions, requirements principles of cereal and sugar cookery (in brief)- effect of moist heat, effect of dry heat, identity of grains, gel formation, gluten formation, Pectic gels, crystallization, caramelization.

LIPIDS: composition, sources, functions, requirements, deficiency and excess; fatty acids- essential and nonessential, SFA, USFA, MUFA, PUFA, significance of fatty acids, Rancidity, Emulsion, changes on heating, smoking point, frying point, melting point, processes hydrogenation and rendering; factors affecting fat absorption (in brief)

PROTEINS: composition, classification (complete, incomplete), sources, functions, requirements, deficiency, nutritional classification of amino acids (essential, Nonessential, semi-essential), mutual supplementation, Biological value, effect of heat on protein- denaturation, coagulation and Maillard reaction, foam formation, fermentation, Germination, Protein in Foods – Pulse, milk, egg, fish, meat.

PUNJABI UNIVERSITY, PATIALA
B Sc. Home Science in Human Development
Part – I (SEMETER I & II)
Session 2019-20, 2020-21 & 2021-22

Section-B

ENERGY: Unit of energy, food as a source of energy, definition of calorie and joules, energy requirement and factors affecting it- BMR, RMR, SDA, growth and development, activity, effects of deficiency and excess.

MINERALS: Distribution in body, functions and sources, bioavailability and requirement, efficiency and excess of the following. Factors affecting (enhancing/ inhibiting) absorption: Calcium, Phosphorus, Iron, Iodine

VITAMINS: classification, sources, functions, requirements, deficiency and excess of the following. Factors affecting availability of vitamins from the diet. Vitamin A, Vitamin D, Vitamin E, Vitamin K, Vitamin C, Thiamin, Riboflavin, Niacin, Other B Complex Vitamins.

FIBRE: Definition, types, sources, functions, importance in disease prevention. **Malnutrition:** Definition, causes, symptoms, PEMK washiorakor, Marasmus and its treatment. **Food Selection, Purchase and Storage:** Selection, Purchase and Storage of foods (in brief).

Food Sanitation and Hygiene: Importance for Health, Contamination of food through air, water, equipments, rodents and insects, cleaning materials; insect, pest and rodent control; practical rules for sanitation and hygiene.

Food Adulteration and Food Laws: Definition, Types, Common adulterants and home scale, methods of detecting adulterants; Food Laws (only introduction) – PFA, BIS, AGMARK, FPO, HACCP.

References:

1. Mudambi, S.R., Rajgopal, M.V.(1990) Fundamentals of Foods and Nutrition, New Age International Pvt. Ltd.
2. Nutrient Requirements and Recommended Dietary Allowances for Indians- I.C.M.R. Publication 1999.
3. Banarsidas B. (1995): Park & Park- Textbook of Preventive and Social Medicine, Jabalpur.
4. Robinson, and Lawler. (1986) Normal and Therapeutic Nutrition. Mac Millan
5. Bhatia Arti: Nutrition & Dietetics- Anmol Publication Pvt. Ltd.- New Delhi.
6. Khanna K. (1998): The Art and Science of Cooking, Phoenix Publishing House Pvt. Ltd., New Delhi.
7. C.Gopalan, B.V. Ramasastri and S.C. Balasubramanian (1989)- Nutritive Value of Indian Foods. NINICMR Hyderabad 500 007 12. Kukude, S and others. Food Science, Sheth Publications.
8. Mudambi and Sheela Rao: Food science
9. Srilaxmi: Food Science, New Age International
10. Usha Raina: Basic Food Preparation
11. Potter: Food Science, CBS publishers
12. Subbulaksmi G., and Udipi S.: Food Processing and Preservation

PUNJABI UNIVERSITY, PATIALA
B Sc. Home Science in Human Development
Part – I (SEMETER I & II)
Session 2019-20, 2020-21 & 2021-22

Part I (Semester II)
Paper IV: Nutrition & Food Science II (Practical)

Maximum Marks: **70**

Time allowed: **3 Hrs.**

Minimum Pass Marks: **25**

- 1. Introduction to Weights and Measures:** Learn to weigh food ingredients, introduction to various means of measurement, method to measure fruits/vegetables.
- 2. Methods and Medium of Cooking:** Various methods of cooking (with examples of recipes), Advantages/ Disadvantages of various methods, temperature and medium of cooking.
- 3. Pulses, legumes and oil seeds cookery:** soaking, germination, fermentation, role of oil seeds in cooking thickening agent, flavouring agent, garnishing agent, identity of grain, base of masalas.
- 4. Milk and milk products:** Standardization of recipes, Standardizing methods for preparing paneer, curd, custard, basundi, Principles involved during cooking
- 5. Egg Cookery:** Preparation of hard and soft boiled egg, Denaturation of protein, foaming, role of egg in cookery.
- 6. Vegetable cookery:** Standardization of various vegetable recipes, Principles involved in vegetable cookery, Prevention of loss of nutrient.
- 7. Fruits cookery:** Standardization of Fruit recipes (squashes, jams, jellies); Pectin test; Changes during processing; Prevention of browning reaction.
- 8. Sugar cookery:** Standardization of sugar recipes; various strength of syrups (1 thread, 2 thread, etc.), factors affecting syrup strength, inversion of sugar.

Part I (Semester II)
Paper V: Family Resource Management

Maximum Marks: 74

Time allowed: 3 Hrs.

Minimum Pass Marks: 26

A) Instructions for paper-setters

The question paper will consist of three sections A, B and C. Sections A, B will have four questions from the respective sections of the syllabus and will carry 11 marks each. Section C is compulsory and will consist of 15 short answer type questions of 2 marks each which will cover the entire syllabus uniformly.

B) Instructions for candidates

Candidates are required to attempt two questions each from sections A and B of the question paper and the section C is compulsory.

Section-A

Introduction to Components of Management: Definition, purpose, nature and significance of management, Introduction to basic concepts of management, Management and change, Misconception of management (brief outline), Obstacles to the improvement of management, Motivation in Management (Introduction to Values, Goals and standards)

Management Process: Meaning and elements of the process, Planning – importance, types, Controlling the plan and action: Phases – energizing, checking, adjusting, factors in success of controlling, Supervision, Evaluation – types, techniques, importance.

Decision Making in Management: Role of decision making in management, Types of decisions, Process of decision making, Methods of resolving conflicts.

Resources and their Management in the Family: Introduction and classification of resources, Family characteristics influencing management - life style, family type, size and stages of family life cycle.

Management of Time as a Resource: Characteristics and nature of time as a resource: Time management process, Time plans.

Section-B

Management of Energy as a Resource: Characteristics of energy, Fatigue – classification: physiological and psychological (boredom and frustration), causes and remedies, Energy management, Work simplification – definition, principles of body mechanics.

Management of Money as a Resource: Definition and Types of income and their sources: Money income, Real income, Psychic income, Income management, Meaning and Importance.

PUNJABI UNIVERSITY, PATIALA
B Sc. Home Science in Human Development
Part – I (SEMETER I & II)
Session 2019-20, 2020-21 & 2021-22

Expenditure: Definition of expenditure, Factors affecting expenditure, Income, Size and composition of the family, Locality, Type of the family, Contributors and claimants in family, Cost of living, Standard of living.

Taxation: Meaning, Objectives of taxation, Types of taxation – direct (Income and wealth) and indirect (Sales Tax, Service Tax, VAT).

Savings and Investments: Definition and meaning, Types of savings, Compulsory savings (GPF, CPF), Voluntary savings (PPF, P.O. savings, Banks, LIC policies, LIC schemes, Bonds, UTI schemes etc.), Characteristics of good saving plan, Meaning Objectives OF investments, Types of investments: Investment in the family – fixed deposit schemes,, savings and current accounts in banks and postal services, Jewellery, Interest bearing investment like shares and debentures etc.

References:

1. Atkinson, J. (1993) “Better Time Management”, Indus, New Delhi.
2. Bharathi, V.V. and Jacintha, M. (1994) “Family Resource Management (new concepts and theory)”, Discovery Pub. House, New Delhi.
3. Chakraborty, S.K. “Management - Theory and Practice”, Navbharat Publishers, Calcutta.
4. Chatterjee, S.S. (1980) “An Introduction to Management- Its Principles and Techniques”, World Press Pvt. Ltd., Calcutta.
5. Dale, E. “Management – Theory and Practice”, McGraw Hill.
6. Drummond, H. (1994) “Effective Decision- Making: A Practical Guide for Management”, A.H.Wheeler & Co., New Delhi.
7. Fontana, D. (1996) “Managing Time”, Excel Books, New Delhi.
8. Gross, C. (1972) “Management for Modern Families”, 4th ed., Appleton Century Crofts Inc.
9. Gross, C. and Knoll (1980) “Management for Modern Families”, Prentice Hall Inc.
10. Gupta, C.B. (1983) “Principles and Practice of Management”, National Publishing House, Delhi.

Part I (Semester II)
Paper VI: Punjabi Compulsory/Mudla Gyan/Elementary Punjabi

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