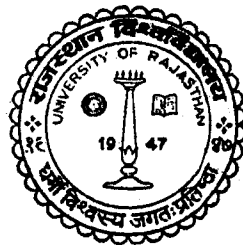


UNIVERSITY OF RAJASTHAN, JAIPUR



*Changes for 2011-12*

*Prepared by*

*11/19*

# SYLLABUS

**SCHEME OF EXAMINATION AND  
COURSES OF STUDY**

**B.Sc. (Home Science)**

*Pt-II*

(10+2+3 Pattern)

FACULTY OF SCIENCE

*2011 Exam*

## B.SC. (HOME SCIENCE) PART—II SCHEME OF EXAMINATION

The number of papers and the maximum marks for each paper together with the maximum marks required for a pass are shown in the scheme of examination against each subject separately. It will be necessary for a candidate to pass in theory as well as practical of a subject paper, wherever prescribed, separately. Classification of successful candidates shall be as follows:

First Division : 60% of the aggregate marks prescribed in Honours and subsidiary subjects of Pt. I, Pt. II, and Pt. III examination taken together.

Second Division : 50% of the aggregate marks prescribed in Honours and subsidiary subject Pt. I, Pt. II, and Pt. III examinations taken together.

All the rest will be declared to have passed the examination, if they obtain the minimum pass marks viz. 36% in each paper. No division shall be awarded at the Pt. I and Pt. II examination.

### Distribution of papers

The candidates shall be required to offer all the papers under the Heading 'qualifying Papers.' The marks of papers for qualifying papers shall not reckon towards of division. The candidates are required to pass in the theory as well as practicals separately.

- (a) (i) Foreign national's and (ii) Indian nationals coming back from foreign countries who had resided there earlier, and have migrated to join the Course may be allowed to offer the special paper on elementary 'Hindi', or 'History' of Indian Civilization' in lieu of the compulsory paper of General Hindi.
- (b) Candidates-migrating from non-Hindi speaking areas who have not passed the High School/Higher Secondary or an examination recognized as equivalent thereto with Hindi as an Optional Subject may be allowed to offer Elementary Hindi in Lieu of General Hindi.

## Scheme for B.Sc. Home Science Part II

Paper	Subjects	Duration of Exam	Max Marks	Min Marks	No of Hr wk
VII	Fabric and Apparel design	3 hrs.	50	18	2
	Practical	3 hrs.	100	36	4
IX	Extension Education Development	3 hrs.	100	36	4
X	Life Span development	3 hrs.	100	36	4
	Early Childhood Practical Care and Development	3 hrs.	50	18	2
XI	Nutritional Biochemistry	3 hrs.	75	27	3
	Practical	3 hrs.	50	18	2
XII	Housing and Equipments	3 hrs.	100	36	4
	Practical	3 hrs.	50	18	2
XIII	Socio economic analysis of communities	3 hrs.	75	27	3
XIV	Physiology and Promotive health	3 hrs.	100	36	4
		Total	850	24+10 = 34	

### Paper VIII

#### Fabric and Apparel Design (Theory)

Theory : 2 hrs./wk      Exam 3 hrs.      Max.Marks : 50

Question Paper will consist of 3 sections :

- Section I- Consisting of 20 compulsory objective type questions carrying 10 marks
- Section II- Consisting of 10 compulsory questions with short answers carrying 10 marks.
- Section III Consisting of 3 long essay type questions with 100% choice carrying 30 marks.

Note : All the three sections should cover the entire syllabus.

### Unit I

#### Design

- Classification of Design—Structural and Applied
- Elements of Design—line, form, colour and texture
- Principles of design:—Emphasis, Rhythm, Harmony, Balance, Unity

- Role of a designer—(fashion and textile designer)  
Forecasting trends  
Theme interpretation  
Design development, Application of IT in designing.

### Unit II.

#### Applied design through colour—Dyeing and printing

##### Dyeing:

- Preparation of fabric
- Various classes of dyes and their suitability on different fibres, with special reference to natural dyes.
- Stages of dyeing
- Dyeing machines
- Dyeing defects.

##### Printing :-

- Styles of printing—Direct, Discharge Resist, Mordant
- Methods of Printing :  
Block  
Roller, flat plate printing  
Stencil screen, Rotary screen.
- Printing Auxiliaries

### Unit III.

#### Design in Indian Textiles

(Study of the following in terms of origin techniques, textures achieved, colours and designs and articles)

- Woven :  
Cotton—Muslins and Jamdanis  
Silks & Brocades—Kinkhabs, Baluchari, Himroo, Paithani, Tancoi
- Woolens—Shawls of Kashmir and Himachal Pradesh.  
Hand Embroideries Kashmir, Punjab, Himachal, Uttar Pradesh, Bengal, Rajasthan, Gujarat, Karnataka.
- Dyeing  
Fabrics resist dyeing—Bandhanis of Rajasthan and Gujarat  
Yarn resist dyeing—Gujarat, Orissa and Andhra Pradesh.
- Printing and painting—Sanganeri and Bagru printing, Kalamkari, Madhubani.

*Fabric and Apparel Design  
(Practical)*

Practical : 4 hrs/wks

- (1) Introduction to elements of design

MM : 100

- Line and form—geometric, simplified, naturalized, stylized and abstract.
- Colour—Colour wheel, grey-scale and value scale, intensity scale, colour harmonies and colour ways.
- (2) Preparation of design portfolio using traditional motifs
- (3) Fashion sketching  
— 8 head Croquis and 10 head Croquis  
— Live and muscular Croquis  
— Dressing up of Croquis.
- (4) Preparation of traditional Embroidery samples of Kashmir, Punjab, Himachal, Uttar Pradesh, Bengal, Rajasthan, Gujarat, and Karnataka.
- (5) Dyeing and Printing  
— Block Printing  
— Screen and stencil printing  
— Tie and dye  
— Batik.

##### References

- Bhavnani, E. Folk and Tribal Designers of India, D.B. Taraporewala Sons and Co. Pvt. Ltd. Mumbai 1974.
- Brij Bhushan, J., The Costumes and Textiles of India, Taraporewala and Sons, Mumbai, 1958.
- Chattopadhyaya, Kamaladevi, Handicrafts of India All India Handicrafts Board, New Delhi, 1975.
- Clarke, W. An Introduction to Textile Printing, Newness—Butterworth's, Boston 1977
- Mehta, R.J., The Handicrafts and Industrial Arts of India, Taraporewala and Sons, Mumbai, 1960
- Shevai V.A., Technology of Textile Processing, Technology of Dyeing (4th Edition) Sewak Publications, Mumbai 1998.
- Noble E. (1998) Dyes & Paints—A Hand on Guide to Colouring Fabrics (1st Edition) Fabric Studio, Paris/Martindale.
- Gillow, J. & Barinard, N (1991) Traditional Indian Textiles, London : Thames & Hudson.
- Kapoor R.C. & Jain R. (2000) Tradition & Beyond—Handcrafted Indian textiles. India : Roli Books.
- Kothari G. (1995) Colourful Textiles of Rajasthan India : Jaipur Printers.
- Aarabai M. (1989) Patolas & Resist Dyed Fabrics of India. New Tarsely : Gujarat State Handicraft & Handloom Development Corporation Grantha.
- Story J., Manual of Textile Printing, Thames and Hudson Publication, London 1992.

**Paper IX****Extension Education and Development**

Theory : 4 hrs./wk

Exam : 3 hrs.

(Theory)

Max.Marks : 100

Question Paper will consist of 3 sections :

- Section I- Consisting of 20 compulsory objective type questions carrying 20 marks
- Section II- Consisting of 10 compulsory questions with short answers carrying 20 marks.
- Section III Consisting of 3 long essay type questions with 100% choice carrying 60 marks.

Note : All the three sections should cover the entire syllabus.

**Objectives**

1. To make the students understand the concept of extension and its related aspects.
2. To understand the existing supports structure for development efforts.
3. To understand the role of various organizations/institutions in community development.
4. To sensitize the students towards major developmental issues.

**Unit I****History of Development in India.**

1. Changing concepts and approaches in development.
2. Concept of community development-evaluation of community development programmes in India since independence;
3. Scope of Home Science Extension for meaningful participation in community development in India.
4. Role of Voluntary organizations KVK, and Village institutions—School, panchayat and cooperatives in development.

**Unit II****Extension Education**

1. Meaning, concept, philosophy, objectives, elements, principles, and process of extension.
2. Extension models :
  - Technology—Innovation—Transfer Model
  - Social Education Model
  - Indigenization Model
  - Social Action/Conscientization Model
  - Empowerment/Participation Model

**Unit III****Developmental Programmes**

1. Relevant Developmental issues in India—Poverty, Health and Nutrition, Population Growth, Illiteracy, Neglect in early childhood: causes, extent and communication of under 3 years for health and nutrition care.
2. Study the important developmental programmes in the area of above issues run by the government departments and ministries with special reference to their objectives, target groups, activities, organizational structure and financial support.

**References**

1. Dahama O.P. (1988) : Education and Communication for Development, New Delhi, Oxford and IBH Publishing Co. Pvt. Ltd.
2. Jain, R. (1993) Mass Media and Rural Development. Voll. II, New Delhi, Manak Publication Pvt. Ltd.
3. O.S. Rathore. Handbook of extension Education, Agrotech Publishing, 1999.
4. Pankajam G.—Extension—Third Dimension of Education—2000, Gyan Publishing House, New Delhi.
5. Roy, G.L. (1991) Extension Communication Management, Kolkata, Naya Prakash.
6. Uttam Kumar Singh and A K Nayak, Extension Education, 1997, Commonwealth Publishers in association with Dr. Zakir Hussain Institute of Non-formal and Continuing Education.

**Paper X****Life Span Development**

Theory : 4 hrs./wk

Exam : 3 hrs.

(Theory)

Max.Marks : 100

Question Paper will consist of 3 sections :

- Section I- Consisting of 20 compulsory objective type questions carrying 20 marks
- Section II- Consisting of 10 compulsory questions with short answers carrying 20 marks.
- Section III Consisting of 3 long essay type questions with 100% choice carrying 60 marks.

Note : All the three sections should cover the entire syllabus.

**Objectives**

To become acquainted with developmental stages since birth to old age.

1. To make the students acquainted with the process of life span development.

2. To learn important aspects of development—developmental norms, milestones, achievements and strengths during life span.
3. To understand the issues faced and adjustments required at each stages across life span.
4. To sensitize students to understand developmental delays, laps and individual differences in human development.

**Unit 1**

**Prenatal :** Conception, overview of birth process and complications, conditions affecting prenatal development, Hazards during prenatal development, recent technological advances in the area.

**Neonate :** Adjustment, Sensory Preceptual abilities, care of newborn.

**Infancy :** (0-2 yrs) : Milestone of infancy and major developments, and actions to be taken for delayed milestones, physical and motor, cognitive and language, Social and emotional. Significance of early stimulation.

**Early Childhood (2-6 yrs)**

Definition, developmental tasks, major developments, significance of pre-school-years and pre-school education; importance of play for all round development.

**Unit 2**

**Middle childhood and late childhood (6-12 yrs.)**

Definition, developmental tasks, School-Significance and functions, Peer group—importance, influence, influence and functions in the life of children.

**Adolescence (12-18 yrs.)**

- Definition, different views regarding the period.
- Physical development-(Puberty, growth spurt, primary and secondary sex-characteristics, early and late maturing adolescents).
- Significant developmental achievements : Social, emotional, cognitive and moral development.
- Identity-body image, positive and negative outcomes (role confusion, identity crises).
- Peers and Heterosexual relationship-Patterns of friendship; sex-education, awareness of sexually transmitted diseases, homosexuality, HIV-AIDS.
- Problems and conflicts in family and in psychological breakdown, juvenile delinquency.

**Unit 3**

**Adult Hood (19-60 yrs)**

**Young Adulthood (19-35 yrs.)**

- Definition of an "Adult", need for study of adults.
- Developmental tasks, responsibilities and adjustments; family cycle.
- Parent hood, establishment of independent identity, financial matters.
- Sex role issues and implications for young adults.

**Middle Adulthood (35-60 yrs.)**

- Physical changes (senses, diseases)
- Menopause, Health issues.
- Coping and managing stress in family, relationships and work place.
- Career, work and job satisfaction
- Leisure time activities and preparation for retirement.

**Late Adulthood and Ageing (60 onwards)**

- Physiological changes, health problems and cognitive and memory changes.
- Facing Retirement—Process of adjustments, financial problems.
- Psychological adjustments. Coping with loneliness, understanding family and Living setups, joint family and aged, prolonged illness.
- Recreational interests for ageing adults, community centres, homes for elderly and governmental policies for the ageing adults.

**B.Sc. Part II Practical (H.D.)**

**Early Childhood Care and Development**

Practical : 2 hrs.

(Practical)

MM : 50

1. Study of the reflexes of the new born.
2. Anthropometry.
3. Observation of a child (1-8 years) for various developments (case study)
4. Visits to Anganwardi Centres, Nursery Schools and Day Care Centres and report writing.
5. Teaching strategies for young children and preparation of teaching aids.
6. Role of early intervention programmes in child development.
7. Promoting parental participation in early childhood centres.

**References**

- A Guide to Nursery School Teachers (1975). NIPCCD Publications, New Delhi.

- Alison, Clarke—Stewart, Susan & Friendman, **Child Development : Infancy through Adolescence**, (1987) John Wiley & Sons, New York, U.S.A.
- Bharathi V.V. (1997). **Learning without Tears (Children and Home Work)**. Discovery Publishing House, New Delhi.
- Cary S. Kart. **The Realities of Aging : An Introduction to Gerontology**, 4th edition (1994) Allyn and Bacon Publishers, Boston, U.S.A.
- Dennis Coon **Introduction to Psychology : Exploration and Application**, 5th Edition (1986) West Publishing Company, U.S.A.
- E. Mavis Hetherington & Ross D. Parke, **Child Psychology : A Contemporary Viewpoint**, 3rd edition (1986) McGraw Hill book Company, New York, U.S.A.
- General J.S. (1984) **Early Childhood Education; Foundations & Practice** National Psychological Corporation, Agra.
- Helen Bee. **The Developing Child**, 4th Ed (1985) Harper and Ron Publishers, New York, U.S.A.
- Hohmann M. (1983). **A Study Guide to Young Children in Action**. United States of America.
- John Brond , Peter Coleman & Sheila, **Peace Aging in Society: An Introduction to Social Gerontology**, 2nd edition (1983) Sage Publications, New Delhi.
- Kaul V. (1991) **Early Childhood Education Programme**. Published at the Department of Preschool and Elementary Education, NCERT, New-Delhi.
- K. Warner Schaie & Sherry I. Willis, **Adult Development and Aging**, 3rd edition (1991). Harper-Collins Publishers, U.S.A.
- Linda Nielsen, **Adolescent Psychology : Contemporary View** (1987) Holt, Rinehart and Winston, Inc, Chicago U.S.A.
- Marion Perlmutter & Elizabeth Hall, **Adult Development and Aging**, (1985) John Wiley and Sons, New York, U.S.A.
- Neeraj Sharma, **Identity of the Adolescent Girl** (1996) Discovery Publishing house, New Delhi.
- Pane M. Sharp & Barry W Hancock, **Juvenile Delinquency : Historical, Theoretical and Societal Reactions to Youth** (1995) prentice-Hall, Ince, New Jersey, U.S.A.
- Pankafam (1992) **Early Childhood Education**.
- Rao V.K, and Reddy R.S. (1997) **Parent Education**. Commonwealth Publishers in association with Dr. Zakir Hussain Institute for Non Formal and continuing Education, New Delhi.

- Read, K.H. (1960). **The Nursery School—A Human Relationship Laboratory** (4th Ed.) Oxford and IBH Publishing Co, New Delhi.
- Savita Sharma **Aids : A Threat to human Race**, (1998) Commonwealth Publishers, New Delhi.
- Seefeldt C., and Barbour N. (1990), **Early Childhood Education-An Introduction** (2nd Ed.): Merrill Publishing Company Totanto.
- Singh U.K. and Sudarshan K.N. (1996), **Child Education**. Discovery Publishing House New Delhi.
- S.R. Sharma, **Problem of Juvenile Delinquency** (1998) Omsons Publications New Delhi.

**Paper XI**  
**Nutritional Biochemistry**

Theory : 3 hrs./wk

Exam : 3 hrs.

MM : 75

Question Paper will consist of 3 sections :

- Section I- Consisting of 15 compulsory objective type questions carrying 15 marks
- Section II- Consisting of 10 compulsory questions with short answers carrying 15 marks.
- Section III Consisting of 3 long essay type questions with 100% choice carrying 45 marks.

Note : All the three sections should cover the entire syllabus.

This course will enable the students to-

1. Develop an understanding of the principles of biochemistry.
2. To get an insight into the chemistry of major nutrients and physiologically important compounds.
3. To understand the biochemical process and systems as applicable to human nutrition.
4. To apply this knowledge in human nutrition and dietetics.

**Unit I**

1. **Introduction to Biochemistry**—Definition, Objectives, Scope and inter-relationship between biochemistry and other biological sciences.
2. **Carbohydrates**—Definition, composition, classification, structure and properties of Monosaccharides—glucose, fructose, galactose. Disaccharides—lactose, maltose, sucrose Polysaccharides—dextrin, starch, glycogen. General properties of mono saccharides—oxidation, reduction, acetylation, inter conversion, reducing property, osazone

formation and iodo compound.

3. **Lipids** — Definition, classification of lipids, types and properties of fatty acids including essential and non-essential fatty acids. Structure and important properties of fats—hydrogenation, halogenation, Iodine number, Hydrolysis—saponification number, rancidity and acid number. Types and importance of phospho lipids, glycolipids and cholesterol.
4. **Proteins**—Definition, classification, structure of amino acids—essential and nonessential amino acids. Definition, classification and structure of protein. Quality of protein, supplementary value of protein methods used in measuring adequacy of proteins—PER, NPU, BV, N<sub>2</sub> Balance.

### Unit II

5. **Introduction to genetic control of metabolism**—Types, composition, structure, functions of nucleic acid. Elementary knowledge of bio synthesis of proteins.
6. **Vitamins**—Sources, chemical composition, functions, recommended dietary allowances, digestion, absorption, utilization and deficiency of fat soluble—A, D, E & K and water soluble vitamins - B<sup>1</sup> B<sup>2</sup> B<sup>6</sup> B<sup>12</sup> Niacin, Folic acid and vitamin C.
7. **Minerals**—Sources, functions, recommended dietary allowances, Bio availability, factors affecting absorption, utilization and deficiency of Calcium, Phosphorus, Iron, Iodine, Fluoride, Copper, Zinc and Selenium.
8. Molecular aspects of transport passive-diffusion, facilitated diffusion, active transport.

### Unit III

9. Digestion and absorption of carbohydrates, proteins and fats.
10. **Enzymes** - Definition and classification of enzymes and co-enzymes, mechanism of enzyme action, specificity of enzymes. Factors affecting enzyme catalyzed reactions—effect of substrate, enzyme temperature, pH activator and inhibitor. Practical application of enzymes.
11. **Intermediary Metabolism—Carbohydrates**—Glycolysis (aerobic and anaerobic), TCA Cycle, Electron Transport chain, glycogenesis, glycogeneolysis, glyconeogenesis, blood sugar regulation.

**Lipids**—Beta oxidation, synthesis of fatty acids (introductory) synthesis and role of ketone bodies (Ketosis).

**Proteins**—General reactions of amino acid metabolism—Deamination, transportation, decarboxylation and urea cycle.

**Practicals** : 2 hrs. *Nutritional Biochemistry (Practical)* MM : 50

1. Quantitative analysis of, mono saccharides (glucose, fructose and galactose), disaccharides (maltose, lactose and sucrose) and polysaccharides (dextrin, starch and glycogen)
2. Quantitative analysis of fats and oils.
3. Quantitative analysis of Proteins.
4. Estimation of moisture and ash content of food stuffs.
5. Estimation of reducing sugars in food by Benedict's Titration method.
6. Determination of acid value and Iodine value of fats and oils (Titration method).
7. Estimation of Vitamin C in lemon juice by Titration method.
8. Quantitative testing of some food adulterants—(a) Metanil yellow in turmeric, arhar dal and yellow sweets, (b) Vanaspati in pure ghee, (c) chalk powder and sand in wheat flour, (d) Aluminium in sweets, (e) saccharine in sugar cane, (f) Argemone oil in mustard oil, (g) lead chromate and cadaltor dye in turmeric powder.

### Reference

1. A Practical Manual Wheeler Publishers.
2. Devlin T.M (1986) 2nd Ed. Text Book of Biochemistry with Clinical Correlations, John Wiley and Sons.
3. Fruton J and Symond S. General Biochemistry, Asia Publishing House, Mumbai.
4. Indian Standards Institution (1985) ISI Hand Book of Food Analysis, Parts I to XI, Manak Bhawan, New Delhi.
5. Talwan G.P. Text Book of Biochemistry and Human Biology, Prentice Hall of India, New Delhi.
6. Kahn Conn, E.E Stamf P.K. Outlines of Biochemistry Willey Eastern Pvt. Ltd. New Delhi.
7. Lehninger A.L, Nelson D.L. and Cox. M.M. (1993) 2nd Ed Principles of Biochemistry CBS Publishers and Distributors.
8. Murray R.,K. Granner. D.K, Mayes P.A. and Rodwell V.W. (1993) 23rd Ed. Harper's Biochemistry, Lange Medical Book.
9. Nagar, R and Nair, S. Biochemistry. Rajasthan Hindi Granth Academy, Jaipur, 2001.

10. Oser B.L. (1965) 14th Ed. Hawk's Physiological Chemistry. McGraw Hill Book Co.
11. Rama Rao, A.V.S.S: A Text Book of Biochemistry. L.K & S. Publishers, Tanuka.
12. Sharma Sheel, Practical Biochemistry. Classic Publishing House, Jaipur-Delhi (1993).
13. Stryu L. (1995) Biochemistry Freeman WH & Co.
14. Sundararaj, P and Siddhu A (1995) Qualitative Tests and Quantitative Procedures in Biochemistry.
15. Varley H. Gowenlock, A. H and Bell, M (1980) 5th Ed. Practical and Clinical Chemistry Vol. I William Heinemann Medical Book Ltd.
16. West, E.S. Todd W.R, Mason, H.S. and Van Bruggen J.T. (1974) 4th ed. Text Book of Biochemistry. Amerind Publishing, Co. Pvt. Ltd.
17. William. S, 16th Ed. JAOAC Official Methods of Analysis of the Association of Official Analytical Chemists.
18. White, A, Handar, P. Smith E.L. Stelten D.W. (1959) 2nd Ed. Principles of Biochemistry McGrawhill Book.

#### Paper XII

#### Housing and Equipments

Theory : 4 hours Per Week *(Theory)* MM : 100  
Exam : 3 hrs.

Question Paper will consist of 3 sections :

- Section I- Consisting of 20 compulsory objective type questions carrying 20 marks
- Section II- Consisting of 10 compulsory questions with short answers carrying 20 marks.
- Section III Consisting of 3 long essay type questions with 100% choice carrying 60 marks.

Note : All the three sections should cover the entire syllabus.

#### Objectives :

1. To gain insight into the principles underlying house planning.
2. To become aware of sources of housing finance.
3. To develop an insight into land scape planning.

#### Unit I

##### Family's housing needs.

- (a) Functions of housing : Protective, economic affectional, social status.
- (b) Factors influencing housing needs: Attributes of family, size,

structure, activities, stages of life cycle, living habits, income, values, standards, goals

#### Factors influencing selection and purchase of site for house build-

- (a) Natural features of the site : Vegetation, size, soil types, drainage, contour (shape), orientation.
- (b) Legal aspects, cost, services, location.

#### House Planning

##### 1) House Planning/Space designing.

- (a) Types of houses : Terment, Apartment Duplex and row houses.
  - (b) Principles of planning the residential space : Aspect, prospect, grouping of rooms, privacy, orientation, circulation, flexibility, spaciousness, aesthetics, economy, ventilation, service.
  - (c) Planning of different rooms: Importance of all the rooms, recommended sizes of rooms.
- (2) (a) Construction materials used in building a house
  - (b) Types of doors and windows.
  - (c) Finishing materials used in construction of house.

#### Unit II

##### Provision for waste disposal

- (a) Solid waste disposal
- (b) Liquid waste disposal
- (c) Solutions to the problems of managing domestic waste.

##### Land Scape Gardening

- (a) Importance
- (b) Principles of land scape planning.
- (c) Sustainable methods of kitchen gardening.
- (d) Flower Arrangement.

#### Unit III

##### Financial Considerations

- (a) Availability of funds for housing.
- (b) Raising loans for family from various sources:
  - i) Housing Development Finance Corporation
  - (ii) Cooperative Housing Society
  - (iii) Life Insurance Corporation
  - (iv) Cooperative Banks
  - (v) Loan from provident funds
  - (vi) Finance Corporation of India and other sources.
- (c) Calculating the estimated cost of house construction.



**Household Equipments.**

- (a) Selection factors in buying household equipments.
- (b) Material and finishes used for construction of household equipments.

**References :**

1. Adams, S.T. (1981); How to buy, repair and maintain home systems and applications, New York, ARCO Publications.
2. Agan Tessie (1986); The house its plan and use, New York, J.B. Lippincott.
3. Agan Tessie, (1951); The house its plan and use, New Delhi : Oxford and IBH Publishing Company.
4. Broadbent G., Bunt R. & Charles Zencks, (1980); Sign, Symbol and Architecture, New York : John Wiley & Sons.
5. Choudhary, Rohit (Editor) English Lettering and Alphabets, New Delhi : Gaurav Publishing house.
6. Couran Terence (1974); The House Book, London, Mitchell Beazley Publications Ltd.
7. Desshpande, R.S. (1985); Modern Ideal Homes for India, Poona, Deshpande Publication Trust.
8. Deshpande (1991); Build Your Homes, Poona, Unitd Book Corporation.
9. Deshpande (1991); Modern Ideal Homes of India, Poona United Book Corporation.
10. E & OE. "Planning—The Architects Handbook"
11. Ehren Kraz F., Inhamn. L.L.—Equipment in the Home, New York Harper and Row publishers.
12. Fredrick S. Merit, (1981); Building Design and Construction and Handbook, New Delhi.
13. Gall, Robert W. (1984); Rendering with Pen and Ink (2nd Edition) London : Themes and Hudson Ltd.
14. Household Equipment Manuals; SMDT Women's College, Mumbai.
15. Jones, Bridget (2000); Entertaining in Style, London: Annes Publishing Ltd.
16. Joseph, D. Falcon, (1987); Principles and Practices of Residential Construction, New Jersey, Prentice Hall.
17. Mills, Edward D., (Ed.); (1985), Planning. The Architects 'Hand Book, 10th Edition, Butlerworths.
18. Millar, Max (1960); Know How to Draw, London B.T. Batsford Ltd.
19. Paltison Garden Day (1982); A Guide to Professional Architec-

tural and Industrial Scale Model Building. Eaglewood Cliffs, N.J. Prentice Hall.

20. Peet L.J. and Arnold M.G., (1970); Household Equipment; New York; John Wiley and Sons.
  21. Raja Rao, T.N. Subranayan. Y, (2000); Planning of Residential Buildings, New Delhi; Standard Publisher.
  22. Teemen L. (1974); How it works and how to Jiv it. New American Library.
- Varghese, M.A. Atreya, N. Bhatnagar, A. and Chatterjee. L.: Ergonomics in Kitchen Design, Mumbai : Dept of P.G. studies and Research in Home Science.
- Van Zante H., (1970); Household Equipment Principles; New York; Prentice Hall.

**Housing and Equipments****(Practical)****Practical : 2 Hours****MM : 50 (Pr)****I. Household equipment**

- i. Market survey of equipment in terms of availability brands performance and cost.
- ii. Identification of materials and finishes of different household—equipment and their characteristics.

**II. House Keeping**

- i. Setting for Indian traditional and continental meals.
  - a. Formal table setting.
  - b. Buffet arrangement.
  - c. Setting for Indian traditional meals.
- ii. Napkin folding : Napking selection of size, material and enrichment. Principles for napkins for different occasions.
- iii. Flower Arrangements.
  - a. Basic equipments.
  - b. Vases and containers.
  - c. Preparing plant material.
  - d. Shaping an arrangement.

**III. Basis of scale and perspective drawings.**

- i. Basis of geometry: point, line, construction of angles, planes and solids.
- ii. Metric projections : Isometric, Axonometric, and oblique.
- iii. Orthographic projections : Plans, elevations and sections
- iv) Orthographic and metric projections of Furniture eg. table, chair, bed, cabinets, dressing tables etc.

- v) Perspective projections : Cone of vision, station point and one-point perspectives of object and interior space.
- vi) Lettering Techniques
- vii) Rendering Techniques.

**IV. Developing house plans for families with different composition and incomes.**

- i. LIG
- ii. MIG
- iii. HIG

**V. Drawing the following aspects of Housing Design.**

- i. Types of windows
- ii. Types of doors
- iii. Types of roofs
- iv. Exterior designs for a house

**Paper XIII**

**SOCIO-ECONOMIC ANALYSIS OF COMMUNITIES (CORE)**

Theory : 3 hrs.

(Theory)

MM : 75

Exam : 3 hrs.

Question Paper will consist of 3 sections :

Section I- Consisting of 15 compulsory objective type questions carrying 15 marks

Section II- Consisting of 10 compulsory questions with short answers carrying 15 marks.

Section III Consisting of 3 long essay type questions with 100% choice carrying 45 marks.

Note : All the three sections should cover the entire syllabus.

**Objectives :**

**To enable the students to**

1. Understand the socio-economic structures and systems that make up the rural and urban communities;
2. Understand the meaning of socio change through development plans and programmes in the context of the existing socio-economic structures and systems;
3. Recognise one's own role in the development process.

**Unit I**

**Introduction to Social Structures and Systems—Framework for Analysis**

1. Meaning and systems of organizational institutions.
2. Meaning and types of community.
3. Meaning and types of society.

**Analysis of Family as a Social Unit**

Type(s), average size (Micro/Macro), marriage patterns, distinct social roles and nature of relationships between members of the family, internal distinction in authority based on age and sex roles, gender differences with reference to activities and access to resources. Emerging patterns of families organization influenced by broader economic and political forces—female headed households.

**Unit II**

**Poverty Analysis (Micro/Macro)**

The number and proportion of poor (in general and with reference to gender in particular) prevalence of hunger and malnutrition, availability and accessibility to drinking water and sanitation facilities, health facilities, clothing and housing facilities, education facilities. Unemployment pattern and indebtedness; causes of poverty and inequalities; programmes for poverty alleviation. Poverty line. Urbanization, migration and social change.

**Analysis of Social Relations in Political System (Micro/Macro)**

1. Dominant caste(s)/class(es) that influence and control the decision-making process including the role of women.
2. Panchayat or the local government including gender differentials, electoral system-influence and control of electoral process.
3. Distribution of power-mode of decision-making-democratic or dictatorial, decentralized or bureaucratic.
4. Democratic decentralization efforts and their impact.

**Social Relations in Religion and Culture (Micro/Macro)**

1. Religions represented—the role of religion in the lives of people.
2. Popular expressions of beliefs and attitudes that promote fatalism or confidence in themselves.
3. Religious and cultural customs and organisational patterns that oppose the values of social justice, equality, liberty and solidarity.

**Unit III**

**Analysis of Social Relation to Environment (Micro/Macro)**

1. Customs, mores, rules, regulations that are eco-friendly and that are not eco-friendly.
2. Changing patterns of production and consumption—organic farming, soil and water conservation measures, recycling of wastes, use of bio-degradable articles etc., impact of these in the communities.

3. The concept of Gender as distinct from sex.
4. The division of labour.
5. Access and control of resource.
6. Changes in the means of gaining access to resources.

**Practicals : Field Experience in Village(s) Urban Slums**

1. Practical use of RRA/PRA Methods.
2. Reporting on Socio-economic analysis of the rural/urban community.

**References**

- Alvinso (1990) : **Social Change and Development**, Madras, Sage Publications Pvt. Ltd.
- Desrochers, John (1977): **Methods of Societal Analysis**, Bangalore, India, Centre for Social Action.
- Desrochers, John (1984): **India's Search for Development and Social Justice, Analysis of Indian Society. The Development Debate**, Bangalore, India, Centre for Social Action.
- Dhurate, Barreto (1984): **India's Search for Development and Social Justice, Analysis of Indian Society. The Indian Situation**, Bangalore, India, Centre for Social Action.
- Dietrich, Gabriele (1978): **Culture, Religion and Development** Balgare, India, Centre for Social Action, India.
- Engberg, Lila E. (1990): **Rural households and Resource Allocation for Development-An Ecosystem Perspective, Guidelines for Teaching and Learning**, Rome, FAO.
- Singh, K. (1980): **Principles of Sociology**, Lucknow, Prakashan Kendra.
- Thingalaya, N.K. (1986): **Rural India-Real India**, Bombay, Himalaya Publishing House.

**Paper XIV****PHYSIOLOGY AND PROMOTIVE HEALTH**

Theory : 4 hrs.

Exam : 3 hrs.

*(Theory)*

MM : 100

Question Paper will consist of 3 sections :

- Section I- Consisting of 20 compulsory objective type questions carrying 20 marks
- Section II- Consisting of 10 compulsory questions with short answers carrying 20 marks.
- Section III Consisting of 3 long essay type questions with 100% choice carrying 60 marks.

Note : All the three sections should cover the entire syllabus.

**Objectives :**

This course will enable the student to:

- Understand the Anatomy and Physiology of all the systems of the human body.
- Develop an awareness of the major communicable diseases.

**Unit I****1. Cardiovascular System**

- **Blood** : Composition and Functions. Blood Groups & Blood Banks.
- **Heart** : Structure, Cardiac Cycle, Cardiac Output & Effect of Exercise, Blood Pressure & Hypertension.
- **Circulation of Blood**: Systemic, Pulmonary, Portal and Coronary circulation & Heart Attacks. 12

**2. Lymphatic System :**

- Structure and Functions of Lymph, Lymph vessels and Lymph nodes.
- Importance in Diseases. 3

**3. Digestive System :**

- Structure and Functions of Stomach, Small Intestine, Large Intestine, Pancreas, Liver and Gall Bladder.
- Digestion and Absorption of Carbohydrates, Proteins and Fats. 8

**4. Reproductive System**

- Structure and Functions of Male Reproductive Organs-Testes, Vas Deferens & Vasectomy, seminal Vesicles, Prostate and Urethra.
- Structure and functions of Female Reproductive Organs-Uterus, Vagina, Fallopian tubes and Tubectomy, Ovaries; Fertilization including invitro. Menstrual Cycle. 8

**Unit II****5. Endocrine Glands :**

- Functions of Pituitary, Thyroid, Parathyroid and Adrenal Glands.

**6. Urinary System :**

- Structure and function of kidneys
- Factors affecting urinary excretion. 3

**7. Respiratory System :**

- Structure and functions of lungs
- External and internal respiration
- Control of respiration—Nervous & Chemical
- Vital Capacity. 7

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8. Nervous System :

- Structure of neurons
- Meninges and Cerebro-Spinal fluid
- Structure and functions of Brain and Spinal cord 8

9. Skeletal System:

- Structure and Formation of Bone. Osteoporosis 5

Unit III

10. Promotive Health :

- General Introduction to Communicable diseases—Case, Carrier, Incubation Period, Modes of Transmission.
  - Immunity and Immunization in children and adults.
  - Communicable Diseases—Cause, mode of transmission, incubation period, symptoms prevention and control.
  - Disease caused by ingestion-Typhoid, Poliomyelitis, Hepatitis.
  - Diseases caused by inhalation-Measles, Tuberculosis (Pulmonary and other organs)
  - Diseases caused by vector -Malaria.
  - Diseases caused by contact-AIDS.
11. Parasitic infestations : cause, mode of transmission, Life cycle, symptoms, prevention & control of:
- Round worm
  - Hook worm
  - Guinea worm

References

1. A Text Book of Medical Physiology : Guyton Holt Saunder & Co.
2. A Treatise of Hygiene and Public Health : B. N Ghosh.
3. Anatomy and Physiology for Nurses-Evelyn Pearce, JP Brothers, Medical Publishers Ltd.
4. Anatomy & Physiology for Nurses—Kathleer Armstrong, 2nd Edition-Balliere Tindall, 1st Annae's Road East bowne, East Sussex London.
5. Anatomy & Physiology for Nurses and Students of Human Biology-Fourth Edition W. Gordon Sears-London Edward Arnold Publishers Ltd.
6. Essentials of Community Health Nursing-J.E. Park. K. Park M/ S Banarsidas Bhanot Publishers.
7. Handbook of Hygiene and Public Health : Yashpal Bedi.
8. Human Anatomy & Physiology : Elaine N. Marieb The Benjamin/Cummings Publishing Company. Inc.

Preventive & Social Medicine : J E Park & K Park - 11th Edition - M/s Banarsidas Bhanot Publishers, 1167 Prem Nagar and, Jabalpur 482001 (India)

Principles of Anatomy & Physiology, Fourth Edition-Gerard J. Tortora and Nichols P. Anagnostakos-Harper & Row Publishers New York.

रक्षा के लिए शरीर सम्बन्धी ज्ञान: इवलिन पियर्स।

UNIVERSITY OF RAJASTHAN  
JAIPUR  
RULES FOR THE AWARD OF  
GRACEMARKS

UNDER GRADUATE/POST GRADUATE (MAIN/SUPPLEMENTARY) EXAMINATIONS UNDER THE FACULTIES OF ARTS, FINE ARTS, SCIENCE, COMMERCE, SOCIAL SCIENCE, EDUCATION, MANAGEMENT, HOMOEOPATHY, LAW, AYURVEDA AND ENGINEERING & TECHNOLOGY.

Grace marks to the extent of 1% of the aggregate marks prescribed for an examination will be awarded to a candidate failing in not more than 25% of the total number of theory papers, practicals, sessionals, dissertation, viva-voce and the aggregate, as the case may be, in which minimum pass marks have been prescribed; provided the candidate passes the examination by the award of such Grace Marks. For the purpose of determining the number of 25% of the papers, only such theory papers, practicals, dissertation, viva-voce etc. would be considered, of which, the examination is conducted by the University.

N.B. : If 1% of the aggregate marks or 25% of the papers works out in fraction, the same will be raised to the next whole number. For example, if the aggregate marks prescribed for the examination are 450, grace marks to the extent of 5 will be awarded to the candidate, similarly, if 25% of the total papers is 3.2, the same will be raised to 4 papers in which grace marks can be given.

**General**

1. A candidate who passes in a paper/practical or the aggregate by the award of grace marks will be deemed to have obtained the necessary minimum for a pass in that paper/practical or in the aggregate and shown in the marks sheet to have passed by grace. Grace marks will not be added to the marks obtained by a candidate from the examiners nor will the marks obtained by the candidate be subject to any deduction due to award of grace marks in any other paper/practical or aggregate.
2. If a candidate passes the examination but misses First or Second Division by one mark, his aggregate will be raised by one mark so as to entitle him for the first or second division, as the case may be. This one mark will be added to the paper in which he gets the least marks and also in the aggregate by showing + 1 in the tabulation register below the marks actually obtained by the candidate. The marks entered in the marks-sheet will be inclusive of one grace mark and it will not be shown separately.
3. Non appearance of a candidate in any paper will make him ineligible for grace marks. The place of a passed candidate in the examination list will, however, be determined by the aggregate marks he secures from the examiners, and he will not, by the award of grace marks, become entitled to a higher division.
4. Distinction won in any subject at the examination is not to be forfeited on the score that a candidate has secured grace marks to pass the examination.

**Note:** The grace marks will be awarded only if the candidate appears in all the registered papers prescribed for the examination.

