FACULTY OF SCIENCE

SYLLABI

FOR

B.Sc. HOME SCIENCE

1st YEAR
(COMMON TO ALL STREAMS)

EXAMINATIONS, 2014
### B.Sc. Home Science – 1st Year (Common to all Streams) for the examinations of 2014

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Paper/ Subject</th>
<th>Credit Hours</th>
<th>Theory Marks</th>
<th>Practical Marks</th>
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<td>English Language &amp; Communication Skills</td>
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<td>2</td>
<td>Introduction to Interior Design &amp; Resource Management</td>
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<td>3</td>
<td>Introduction to Human Development</td>
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<td>4</td>
<td>Introduction to Clothing &amp; Textiles</td>
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<td>5</td>
<td>Introduction to Foods &amp; Nutrition</td>
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<td>6</td>
<td>Basics of Computer Applications</td>
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<td>Applied Botany</td>
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<td>Hygiene &amp; Physiology</td>
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<td>*Environmental &amp; Road Safety Education</td>
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<td>10</td>
<td>**Physical Education, Music &amp; Dance</td>
<td>0</td>
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|         | **Qualifying paper (25 hours total as per university norms)**
|         | **Marks not added to the total**

**TOTAL** | **36** | **800**
ENGLISH LANGUAGE AND COMMUNICATION SKILLS

Max. Marks: 100
Theory: 90
Internal Assessment: 10

Teaching Periods: 04/week

Instructions to the Examiner:
1. There will be one theory paper of three hours duration.
2. The question paper will comprise four UNITs.

Objectives:-
1. To understand the concept of English language and Communication Skills.
2. To test a student’s understanding of the text and/or general life-situations, and also devise an effective method of assessing their ability to express themselves in a simple, lucid and correct language.

UNIT: I
Prose /Stories

1. The examiner will set seven short-answer questions (to be answered in not more than 50-60 words each), from Prose/Story Sections of the prescribed text, out of which a student shall be expected to attempt only five.

\(5 \times 2 = 10 \text{ Marks}\)

2. The examiner shall set five long-answer questions (to be answered in not more than 120-150 words each), from Prose/Story Sections of the prescribed text, out of which a student shall be expected to attempt only three.

\(3 \times 5 = 15 \text{ Marks}\)

UNIT-II
Poetry

3. The examiner will set seven short-answer questions (to be answered in not more than 50-60 words each), from Poetry Section of the prescribed text, out of which a student shall be expected to attempt only five.

\(5 \times 2 = 10 \text{ Marks}\)

4. The examiner shall set five long-answer questions (to be answered in not more than 120-150 words each), from Poetry Section of the prescribed text, out of which a student shall be expected to attempt only three.

\(3 \times 5 = 15 \text{ Marks}\)

UNIT: III
Grammar

5. This question shall contain five incomplete sentences, in which the student will be expected to fill in the blanks with five correct prepositions.

\(5 \text{ Marks}\)

6. This question shall contain five incomplete sentences, in which the student will be expected to fill in the blanks with five correct articles.

\(5 \text{ Marks}\)
UNIT: IV
Composition

7. This question shall be based on the comprehension of an unseen passage, with five questions on the passage, vocabulary and other grammatical items at the end. (10 Marks)

8. The students will be expected to write one (formal) letter out of the two given: to the editor or to any other Govt. official. (10 Marks)

9. Paragraph Writing (Descriptive) (10 Marks)

PREScribed TEXT BOOKS: ENGLISH AT WORK

POETRY SECTION:
• Song 36 from Gitanjali Rabindranath Tagore
• I Know Why The Caged Birds Sings Maya Angelou
• Anthem For Doomed Youth Wilfred Owen
• The Unknown Citizen W.H. Auden

PROSE SECTION:
• Principles of Good Writing L.A. Hill
• The Conjurer’s Revenge Stephen Leacock
• The Best Investment I ever Made A.J. Cronin
• The Elixir of Life C.V. Raman

INTRODUCTION TO INTERIOR DESIGN & RESOURCE MANAGEMENT (Theory)

Max. Marks: 75
Paper - 65
Internal Assessment – 10
Time: 3 Hrs.

Teaching Periods: 3/week
Instructions to the Examiner

Question paper will have four sections. Examiner will set a total of nine questions comprising of two questions from each unit, and one compulsory question of short answer type covering the whole syllabus. Student will attempt one question from each unit and the compulsory question. All questions may carry equal marks, unless specified.

Objectives

1. To understand the fundamentals of interior design & resource management in changing scenario.
2. To recognize the importance of resources and maximizing & conserving their use in order to achieve goals.
3. To recognize the contribution of motivation forces and decision making in management process.
4. To understand the elements and principles of design and their application in home interiors.
UNIT -I

1. Interior Design
   • Meaning & Importance of Interior Design
   • Role of a good Interior Designer
   • Career options of Interior Design Management

2. Resource Management:-
   • Meaning and importance of Family Resource Management and its scope
   • Process of management - Planning, Organizing, Controlling and Evaluation – Meaning and importance
   • Decision Making – Importance, types, and Process of decision making

UNIT-II

3. Motivating factors in Management
   • Values, Goals and Standards – Meaning and its types

4. Resources in Management
   • Meaning, definition and characteristics of resources
   • Classification of resources – Human, Non-human and Shared resources
   • Factors affecting the use of resources
   • Resource conservation

UNIT-III

5. Money and Time Management
   • Money- Types of income and methods of supplementing family income
   • Budget- Steps in making budget, advantages and limitations of making budget
   • Time - Steps in time plan, tools in time management

6. Energy Management
   • Energy- Classification of efforts used in homemaking activities and posture in household work.
   • Fatigue - Types, causes and remedies
   • Work simplification and its techniques

UNIT-IV

7. Basics of Interior Design
   • Elements of Interior Design – Line, form and shape, colour, texture and pattern
   • Principles of Interior Design – Balance, rhythm, harmony, proportion, emphasis
   • Importance of elements and principles in relation to interiors

8. Colour
   • Colours – types & properties, colour schemes
   • Emotional effects of colours
Teaching Periods: 2/week

Content

1. Floor decoration – Alpana & Rangoli
2. Table setting for different meals
   Table manners and Napkin folding
3. Budget planning for different income groups
4. Making of colour wheel
   a) Showing primary, secondary and tertiary colours
   b) Showing different colours scheme
5. Making a scrap book comprising of pictures depicting different colour schemes and analysing
6. To plan, organise and execute an event - Birthday/ Festival/ Institutional /
cultural/ Fashion Show.
   a) Identification of its goal/event and objectives
   b) Preparing proposal – time schedule, list of invitees, planning for menu
   c) Planning of resources
   d) Planning for invitation and decoration
   e) Budget planning
   f) Executing an event
   g) Event evaluation and reporting

Recommended Readings
INTRODUCTION TO HUMAN DEVELOPMENT

(Theory)

Max. Marks: 75
Papers: 65
Internal Assessment: 10

Teaching periods: 3/week

Instructions to the Examiner
1. Each theory paper will be of three hours duration.
2. Question paper will have four section/UNITs. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
3. Student will attempt one question from each UNIT and the compulsory question (Total of five questions)
4. All questions may carry equal marks, unless specified.

Objectives:

- To introduce concepts of human development to students and link it as an interdisciplinary field.
- To discuss the importance and scope of the study of human development.
- To present the applied perspective on human development.

UNIT-I
1. Concept and significance of the field of human development.
2. Scope of the field of human development.

UNIT-II
3. Influence of heredity on human growth and development.
4. Influence of environment on human growth and development

UNIT-III
5. The beginning of human life- prenatal period and factors influencing it.
UNIT-IV

7. Reflexes of Infants.
8. Physical development of infants.

Recommended Readings:


INTRODUCTION TO HUMAN DEVELOPMENT
(Practical)

Max. Marks: 50
Paper: 45
Internal Assessment: 05

Teaching periods: 2/week

Instructions to the examiner

1. Each practical paper will be of three hours duration.
2. The question paper should cover entire syllabus.
3. The file work and viva voce will be of 5 marks each (Total=10 marks).

Objectives:

• To introduce methods of studying human development.
• To acquaint students with issues related to development of infants.
• To present the applied perspective on human development.

Content

1. Methods of studying human development.
   a. Observation method, observation of an infant.
   b. Interview method. Interview of mothers related to their feeding and weaning practices.
   c. Questionnaire method. Preparation of a questionnaire on any issue related to pregnancy.
2. Use of anthropometric measurements to detect malnutrition in infants.
3. Preparation of resource material/audio visual aids/ toys to enhance physical development of infants.

4. Preparation of posters and slogans related to issues concerning development of infants.

5. Preparation of a file with collection of traditional practices, rituals, lullabies used while rearing up infants.

**Recommended Readings:**


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**INTRODUCTION TO CLOTHING AND TEXTILES**

**(Theory)**

- Max. Marks - 75
- Paper-65
- Internal Assessment -10

**Teaching Periods-3/week**

**Instructions to the Examiner**

1. Each theory paper will be of three hours duration.
2. Question paper will have four section/UNITs. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
3. Student will attempt one question from each UNIT and the compulsory question (Total of five questions)
4. All questions may carry equal marks, unless specified.

**Objectives:**

To impart knowledge of

- fibers, sources of fibers and their properties.
- machines and tools used for sewing.
- clothing terminology
- clothing for different age groups.
UNIT-I

• Classification of textile fibers

UNIT-II

Manufacturing Process and Properties of textile fibers:

• Natural:
  ➢ Cotton
  ➢ Linen
  ➢ Silk
  ➢ Wool

• Man-Made:
  ➢ Viscose Rayon
  ➢ Acetate
  ➢ Polyester
  ➢ Nylon

UNIT-III

• Terminology of Clothing: Grain, Selvedge, Bias, True Bias, Gathers, Dart, Pleats, Tucks, Frills, Flounces, Hemming, Basting, Seam, Seam finishes, Bows, Belts, Trimmings, Fasteners, Bowing, Skewing, Yoke, Facing and Binding.
• Tools and equipments used in clothing construction: Measuring, Marking, Cutting & Sewing tools.
• Sewing machine, its parts and their function.
• Common sewing machine problems and their remedies

UNIT-IV

• Factors affecting selection of Clothing: Age, Season, Income, Occasion, Occupation, Sex and Fashion.
• Clothing for different Age groups with special reference to fabrics, colours, style and details:
  ➢ Infants
  ➢ Toddlers
  ➢ Pre-school Children
  ➢ Adolescents
  ➢ Adults
  ➢ Elderly
Recommended Readings:
7. “A Reader’s Digest Step by Step guide- Sewing and Knitting”, Reader’s Digest (Australia) Pty Ltd.

INTRODUCTION TO CLOTHING AND TEXTILES
(Practical)

Max. Marks - 50
Paper-45
Internal Assessment - 05

Teaching Periods-2/week

Instructions to the examiner
1. There will be four questions in all, two questions from each UNIT.
2. All questions will carry equal marks

Objectives:
To enable the students to-
• Identify fibers.
• Identify stains and their removal.
• Make samples of basic construction techniques.
UNIT-I
Making samples of-
   a) Basic hand stitches- Basting, Hemming-visible/invisible, Tailor’s tack.
   b) Types of Seam- Plain, Run and fell, French, lapped.
   c) Types of Seam Finishes- Overlock, Hand overcasting, Turned and Stitched, Binding.
   d) Fullness- Gathers, Types of - Darts, Tucks & Pleats.
   e) Neckline Finishes-Binding, Facing.

UNIT-II
   a) Stain Removal
   b) Fiber Identification

Recommended Readings:

INTRODUCTION TO FOODS AND NUTRITION
(Theory)
Maximum Marks- 75
Paper- 65
Internal Assessment: 10

Periods: 3/week

Instructions to the Examiner:
1. Each theory paper will be of three hours duration.
2. Question paper will have four section/UNITs. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
3. Student will attempt one question from each UNIT and the compulsory question (Total of five questions)
4. All questions may carry equal marks, unless specified.

Objectives:
1. To introduce the concept of different areas of Foods and Nutrition.
2. To gain knowledge about Foods and Nutrition.
UNIT- I
1. Introduction to Foods and Nutrition
   • Definition of Food
   • Functions of Food- physiological, psychological and social
   • Classification of food on the basis of its functions
   • Health, Optimum Nutrition, Malnutrition

2. Functions and Sources of-
   • Macro nutrients- Carbohydrates, Proteins and Fats
   • Micro nutrients- Minerals: Calcium, Iron and Iodine; Vitamins: Fat soluble (A,D,E,K) and Water soluble (thiamine, riboflavin, niacin, pyridoxine, cyanocobalamin(B12), ascorbic acid)
   • Water
   • Fibre

UNIT- II
3. Food Science- Definition, Importance and Scope
4. Study of the food groups with respect to their classification, basic composition and nutritive content
   • Cereals
   • Pulses and legumes
   • Fruits and vegetables
   • Milk and milk products
   • Eggs, meat, fish and poultry
   • Nuts and oil seeds
   • Fats and oils
   • Sugar and jaggery

5. Principles of Cooking
   • Objectives of cooking
   • Methods of cooking- dry heat, moist heat, cooking with oil, solar cooking and microwave cooking
   • Effect of cooking on nutrients

UNIT- III
6. Balanced Diet
   • Definition and concept
   • Food pyramid
   • RDA- definition
   • Factors affecting balanced diet

7. Meal Planning
   • Fundamentals of meal planning
   • Factors affecting meal planning
UNIT IV

8. Principles of Diet Therapy
   • Therapeutic diets- definition and role
   • Types of therapeutic diets- basic/standard, soft and liquid diets

9. Food Safety
   • Basic concept of food adulteration
   • Introduction to food safety laws- BIS, AGMARK, FPO, MPO, PFA
   Safe food pre-preparation practices (for cooking, sorting, cleaning, peeling, cutting)
   • Nutritional labeling

Recommended Readings:
1. Discovering Nutrition, Paul Insil, Don Ross, Kimberley McMahon, Melisa Bernstein, Jones and Bartlett Learning.
3. Food Science and Nutrition, Sunetra Roday, Oxford University Press.

INTRODUCTION TO FOODS AND NUTRITION
(Practical)

Max. Marks- 50
Paper- 45
Internal Assessment- 05

Teaching Periods: 2/week

Objectives-
1. To understand the concepts of weights and measurements (raw and cooked food) and its importance.
2. To acquire skills in food preparation technique of food.
3. To use appropriate methods of cooking for preparation of specific food products.
4. To observe and understand the principals involved in preparation of different foodstuffs.
5. To learn some methods of preservation of foods.
6. To understand the concept of food adulteration.

Content-
• Identification of foodstuffs from different food groups
• Weights and measures.
Concept of portion cooking
- Raw and cooked weight of foodstuffs.
- Food preparation and understanding the principals involved.
- Beverages: Tea, Coffee, Fruit and milk based beverages.
- Cereals and flour mixtures: porridges, rice preparation, chapatti, parantha, puri and sandwiches.
- Pulses: Whole, dehusked.
- Vegetables, soups, salads and fruits.
- Milk and milk products: paneer & Khoya preparation.
- Egg preparation: boiled, fried, scrambled, omelettes and custard (caramel).
- Snacks: biscuits/cookies, cakes, cutlets etc.
- Demonstration for the preparation of jams, pickles, sauces and chutney.
- Methods of detecting adulteration in commonly occurring foods such as vanaspathi, coffee, turmeric, milk and honey.

BASICS OF COMPUTER APPLICATIONS
(Practical)

Teaching Periods- 6/week

Instructions to the examiner
1. There will be two questions in all from section-II only
2. One question will be set from Sr. No. 1 carrying 45 marks.
3. One question will be set from Sr. No. 2 carrying 45 marks
4. Each question can be sub-divided into parts according to the paper setter.

Objectives:
- To impart basic computer knowledge to students.
- To enable students to understand the rules of I.T. in automation, Fashion & apparels.

I THEORETICAL BACKGROUND TO BE DONE IN PRACTICAL CLASSES
1. Introduction to computer, data processing and information, classification and evaluation of computers. Configurations of computers, Resolution factor.
2. Computer hardware-central processing, Computer peripherals with working, Main memory, secondary memory. Types of computer software’s
3. Operating System (OS) ,Function of OS ,Types of OS, Working of OS in brief, Basic concepts of MS-Dos, Internal and External commands in DOS.
4. Word processing, Work sheet, Data base; Business charts (Pie Line Bar etc.) operations and professional presentation formations.
5. Computer applications in various fields of Fashion industry, fashion communication through digital techniques, fashion photography, Latest scanners.
II PRACTICAL

1. Introduction to the computer operations- Hardware and software, Understanding OS and Basic system management.
2. Internet and its applications (Creating new mail account, sending mail, attachments etc.)

Recommended Readings:


APPLIED BOTANY
(Theory)

Max. Marks: 50
Paper: 45
Internal Assessment: 05

Teaching Periods: 2 /week

Instructions to the Examiner

1. Each theory paper will be of three hours duration.
2. Total nine questions to be set. Atleast one from each UNIT.
3. Out of which five questions to be attempted.
4. One compulsory question can be set covering the whole syllabus. Which can be fill in the blanks/multiple choice/objective type/one word answer etc.

Objectives:

• To introduce basic concepts about gardening.
• To impart knowledge of propagation of plants by seeds and by other Vegetative methods.
• To impart knowledge about plants which are of economic importance.
• To impart knowledge about growing vegetables, fruits & flowers.

UNIT-I

• Types of soil and soil operations- Tillage, Drainage, Hoeing, Mulching and Irrigation.
• Manures : - Farm yard manure, Compost, Leaf mould manure, Green manure, Poultry & Pigeon manure, Vermicompost,

UNIT-II

• Principle and planning of kitchen garden.
• Principle and planning in laying out of a garden.
• Cultivation and Care of Lawns.
• Cultivation and Care of Hedges.
UNIT-III

• Seed Propagation.
• Vegetative propagation by artificial methods like Cutting, layering, grafting & budding.
• Elementary Knowledge about plant tissue culture.

UNIT-IV

• Elementary knowledge about cultivation, care & maintenance of common Indoor foliage plants like crotons, coleus etc.
• Elementary Knowledge about cultivation, care & maintenance of Bonsai
• Elementary knowledge about types, cultivation, care and maintenance of Roses.

UNIT-V

• Botanical Name, Family, Distribution, Part Used & Uses Of The Following:
  I. Fibres: Cotton Jute & Flax
  II. Beverages: Tea, Coffee & Cocoa
  III. Oils: Coconut, Mustard, Ground Nut, Castor Oil & linseed.
  IV. Medicinal Plants: Holy basil, Mint, Ashwagandha, Amaltas, Aloe vera & Amla
  V. Plant dyes: Henna, Indigo & Pomegranate.
  VI. Condiments and Spices – Clove, Cinnamon, Cumin, Cardamom, Coriander, Fennel, Pepper & Turmeric.

APPLIED BOTANY
(Practical)

Max. Marks: 50
Paper – 45
Internal Assessment -05

Teaching Periods: 2/week

Content

1. Preparation of temporary slides of Rhoeo and onion peel to study the cell structure, stomata and chloroplast

2. Study of Garden implements (Garden Tools & accessories.)

3. To prepare a pot for sowing seeds and study different methods of seed sowing
   • To prepare a seed bed for raising seedlings.
   • To prepare a bed for potato sowing and cultivation.
   • To prepare a bed for cultivating vegetables like onion, cauliflowers, Brinjial & tomato.
   • To prepare a pot for repotting of chrysanthemum.

4. Vegetative propagation.
   • Propagation of roses by cutting and budding.
• Propagation by whip & tongue grafting.
• Propagation by wedge grafting.
• Propagation of crotons & coleus by cutting.

5. Maintenance of plants – hoeing, mulching, weeding, staking & tieing

6. Economic Botany: - Identify, sketch & write Botanical Name, family, part used and uses of the following:

I. Fibres: Cotton, Jute & flax.
II. Oils: Mustard, groundnut, Coconut & linseed.
III. Beverages: Tea, Coffee& Cocoa.
IV. Medicinal Plants: Tulsi, Mint, Amla, Ashwagandha, Aloe vera & Amaltas.
V. Condiments & spices: Clove, cardamom , cinnamon, cumin, coriander, fennel, pepper & Turmeric
VI. Plant Dye: Henna, Indigo & pomegranate

➢ Herbarium: collection of 25 specimens of ornamental plants.
➢ Visit to herbal parks and forest to study flora in natural habitat, if possible.

Recommended Readings

1. B. Choudhary: Vegetables (National Book of India, New Delhi 1979)
11. Sham Singh: Fruit Cultivation in India.
HYGINE AND PHYSIOLOGY
(Theory)

Max. Marks: 50
Paper: 45
Internal Assessment: 05

Teaching Periods: 2/week

Instructions to the examiner:

1. Each theory paper will be of three hours duration.
2. Question paper will have four section/UNITs. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
3. Student will attempt one question from each UNIT and the compulsory question (Total of five questions)
4. All questions may carry equal marks, unless specified.

Objective:

- To gain knowledge about health, hygiene, common diseases.
- To study about environmental pollutants (air and water).
- To understand basic functioning of various systems of human body.

UNIT- I

1. Personal Hygiene. Hygiene in Kitchen and Home:
   Pest control: Control and eradication of flies, Cockroaches, rodents and other pests. Use of Disinfectants in case of working surfaces, kitchen equipments, dish washing.
   Water: Contamination of water, Hazards of water pollution, Purification and Water quality standards.
   Air: Air and its impurities.

2. Diseases: Communicable diseases-brief study of diseases giving the cause, mode of spread, incubation period, symptoms and control.
   - Diseases caused by ingestion: Typhoid and poliomyelitis.
   - Diseases caused by inhalation: Mumps, Measles, Pulmonary TB, Chickenpox and Influenza.
   - Diseases caused by vectors: Malaria and Plague
   - Sexually Transmitted disease: AIDS
   Immunization: – Vaccines (For common diseases including immunization schedule).

UNIT- II

3. Cardiovascular System:
   – Blood: Composition and functions
   – Heart: Structure and functions
   – Basic cardiac cycle, cardiac output and blood pressure.

4. Respiratory System:
   – Structure and functions
   – Mechanism of breathing: Inspiration and Expiration. Lung volume and capacities.

UNIT- III

5. Digestive System:
   – Structure and functions
   – Glands, secretions and their functions.
6. Excretory System:
   – Structure and functions.

   7. Endocrine Glands:
   – Hormones of Pituitary glands, Thyroid gland, Parathyroid Gland and Pancreas. Hypo secretion and Hyper secretion of these hormones.

8. Reproductive System:
   – Male and female reproductive system.
   – Ovarian cycle and Menstrual cycle.

**Recommended Readings:**
UNIT I (ENVIRONMENT)

1. Environment Concept:

Introduction, concept of biosphere—lithosphere, hydrosphere, atmosphere; Natural resources—their need and types; principles and scope of Ecology; concepts of ecosystem, population, community, biotic interactions, biomes, ecological succession.

2. Atmosphere:

Parts of atmosphere, components of air; pollution, pollutants, their sources, permissible limits, risks and possible control measures.

3. Hydrosphere:

Types of aquatic systems. Major sources (including ground water) and uses of water, problems of the hydrosphere, fresh water shortage; pollution and pollutants of water, permissible limits, risks and possible control measures.

4. Lithosphere:

Earth crust, Soil—a life support system, its texture, types, components, pollution and pollutants, reasons of soil erosion and possible control measures.

5. Forests:

Concept of forests and plantations, types of vegetation and forests, factors governing vegetation, role of trees and forests in environment, various forestry programmes of the Govt. of India, Urban forests, Chipko Andolan.

6. Conservation of Environment:

The concepts of conservation and sustainable development, why to conserve, aims and objectives of conservation, policies of conservation; conservation of life support systems—soil, water, air, wildlife, forests.

7. Management of Solid Waste:

Merits and demerits of different ways of solid waste management—open, dumping, landfill, incineration, resource reduction, recycling and reuse, vermicomposting and vermiculture, organic farming.

8. Indoor Environment:

Pollutants and contaminants of the in-house environment; problems of the environment linked to urban and rural lifestyles; possible adulterants of the food; uses and harms of plastics and polythene; hazardous chemicals, solvents and cosmetics.
9. **Global Environmental Issues**:  
Global concern, creation of UNEP; Conventions on climate change, Convention on biodiversity; Stratospheric ozone depletion, dangers associated and possible solutions.

10. **Indian Laws on Environment**:  
Indian laws pertaining to Environmental protection: Environment (Protection) Act, 1986; General information about Laws relating to control of air, water and noise pollution. What to do to seek redressal.

11. **Biodiversity**:  
What is biodiversity, levels and types of biodiversity, importance of biodiversity, causes of its loss, how to check its loss; Hotspot zones of the world and India, Biodiversity Act, 2002.

12. **Noise and Microbial Pollution**:  
Pollution due to noise and microbes and their effects.

13. **Human Population and Environment**:  

14. **Social Issues**:  
Environmental Ethics: Issues and possible solutions, problems related to lifestyle, sustainable development; Consumerisms and waste generation.

15. **Local Environmental Issues**:  
Environmental problems in rural and urban areas, Problem of Congress grass & other weeds, problems arising from the use of pesticides and weedicides, smoking etc.

**Practicals**:  
Depending on the available facility in the college, a visit to Vermicomposting units or any other such non-polluting eco-friendly site or planting/caring of vegetation/trees could be taken.

*Note: Above 15 topics to be covered in 25 hour lectures in total, with 2 lectures in each topics from 2 to 11 and one each for the topics 1 and 12 to 15.*

**UNIT II (ROAD SAFETY)**

1. Concept and Significance of Road Safety.  
2. Role of Traffic Police in Road Safety.  
4. Traffic Signs.  
5. How to obtain Driving License.  
7. Common Driving mistakes.  
8. Significance of First-aid in Road Safety.  
9. Role of Civil Society in Road Safety.
Examination Pattern:

- Seventy multiple choice questions (with one correct and three incorrect alternatives and no deduction for wrong or un-attempted question).
- The paper shall have two units: **Unit I (Environment) and Unit II (Road Safety).**
- Unit I shall comprise of 50 questions with minimum of 2 questions from each topics 1, and 12 to 15 and minimum of 4 questions from topics 2 to 11.
- Unit II shall comprise of 20 questions with minimum of 1 question from each topics 1 to 10.
- The entire syllabus of Unit I is to be covered in 25 hours and that of Unit II is to be covered in 10 hours.
- All questions are to be attempted.
- Qualifying Marks 33 per cent i.e. 23 marks out of 70.
- Duration of examination : 90 minutes.
- The paper setters are requested to set the questions strictly according to the syllabus.

**Suggested Readings**

2. Road Safety Signage and Signs (2011), Ministry of Road Transport and Highways, Government of India.

**Websites:**

(a) [www.chandigarhpolicen.nic.in](http://www.chandigarhpolicen.nic.in)
(b) [www.punjabpolice.gov.in](http://www.punjabpolice.gov.in)
(c) [www.haryanapolice.gov.in](http://www.haryanapolice.gov.in)
(d) [www.hppolice.nic.in](http://www.hppolice.nic.in)
PHYSICAL EDUCATION

(NON CREDIT COURSE)
S/US

Teaching Periods: 2/week

A. Athletics: who is an athlete. Brief knowledge of track and field events. Brief knowledge of Stagger
   Short distance races- Upto and including 400 m race
   1. Techniques of crouch start, and technique of finishing a race.
   2. Fouls at start, finish and mid of the race.

B. Throw: Shot Put or Discus Throw
   1. Dimensions of the circle and specifications of equipment
   2. Technique and method of throwing
   3. Fouls and personal safeguards of throwing event

C. Any one game out of the following games: with dimensions, rules of the game, specific techniques used, basis of
   1. Badminton
   2. Kho-Kho
   3. Volley Ball
   4. Hockey
   5. Yoga

Recommended Readings
2. Rule Book of Athletics by Amateur Athletic Federation of India
5. Rule Book of Hockey by Amateur Hockey Federation of India
6. Yoga and Asanas by Swami Ramdev
7. Yoga by Swami Vivekananada

MUSIC VOCAL

(NON CREDIT COURSE)
S/US

Teaching Periods: 2/week

1. Fast Khayals of RaagMalkauns, Yaman, Bhopali
2. One SargamGeet.
3. Teen Taal, JhapTaal with Bols on Hand.
4. Alankars to sing in RaagBhopali.

Recommended Readings

**DANCE (KATHAK)**

*(NON CREDIT COURSE) S/US*

**Teaching Periods: 2/week**

1. Teen tal- Tatkarin single, double and chaugun, namaskar- 1 amad-1, tora-2, paran-1, chakardarparan-2, kavit-1.
4. Ten hand movements and functions.
5. Nagma on teental
6. Tals to play on tabla.

**Recommended Readings**


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