

**FACULTY OF SCIENCES**  
**SYLLABUS OF**  
**Bachelor of Science (Honours) Home Science**  
**(Semester: I - II)**  
**(Under Credit Based Continuous Evaluation Grading System)**  
**Session: 2024-25**



**The Heritage Institution**  
**KANYA MAHAVIDYALAYA**  
**JALANDHAR**  
**(Autonomous)**

**PROGRAMME SPECIFIC OUTCOMES FOR Bachelor of Science (Home Science)**  
**(Session: 2024-2025)**

**Upon successful completion of this Programme, students will be able to:**

PSO (1) - To gain knowledge about nutrition in different diseases, therapeutic nutrition, food preservation and safety, role of dietician for patients, nutritional biochemistry.

PSO (2) - To develop understanding about developmental stages from infancy to old age and insight into different areas of human development including physical, motor, cognitive, social and emotional development, behavioural psychology and extension education.

PSO (3) - To develop deep understanding of conversion of textiles fibres into fabric undergoing various spinning, weaving and finishing techniques, surface techniques, sewing and fashion.

PSO (4) - To understand the fundamentals of house planning, kitchens, laws and terminology used in building of house, kitchen equipments and their applications, applied art.

PSO (5) – To provide knowledge for students in allied fields such as physics, chemistry, home gardening, zoology, consumer economics and making the students capable of oral and written communication.

**KANYA MAHA VIDYALAYA, JALANDHAR (AUTONOMOUS)**  
**SCHEME AND CURRICULUM OF EXAMINATION OF**  
**Bachelor of Science Home Science (Three Year Degree Programme)**  
**Bachelor of Science (Honours) Home Science (Four Year Degree Programme)**  
**Credit Based Continous Evaluation Grading System**  
**(Session: 2024-2025)**

**Semester -I**

Course Code	Course Name	Course Type	Hours Per Week L-T-P	Credits L-T-P	Total	Marks				Examination time (in Hours)
						Total	Ext.		C A	
							L	P		
BHSL- 1421/ BHSL -1031/ BHSL -1431	Punjabi (Compulsory)/ <sup>1</sup> Basic Punjabi/ <sup>2</sup> Punjab History and Culture	C	4-0-0	4-0-0	4	100	70	-	30	3
BHSM- 1102	Communication Skills in English -I	AEC	3-0-2	3-0-1	4	100	50	20	30	3
BHSL- 1283	Introduction to Human Development	DSC	2-0-0	2-0-0	2	50	35	-	15	3
BHSL- 1284	Hygiene	DSC	3-0-0	3-0-0	3	100	70	-	30	3
BHSM -1285	Basic Food and Nutrition	DSC	3-0-2	3-0-1	4	100	50	20	30	3+3
BHSM -1286	Applied Art	DSC	3-0-2	3-0-1	4	100	50	20	30	3+3
BHSM -1127	Computer Basics	C	2-0-2	2-0-1	3	100	40	30	30	3+3
SECF- 1492	*Foundation Course	VAC	2-0-0	2-0-0	2	50	35	-	15	1
<b>Total</b>					<b>26</b>	<b>650</b>				

C: Compulsory

AEC: Ability Enhancement Course

DSC: Discipline Specific Course

VAC: Value Added Course

1: Special paper in lieu of Punjabi (compulsory)

2: Special paper in lieu of Punjabi (compulsory) for those students who are not domicile of Punjab.

\* Grade Points of these courses will not be added in SGPA/CGPA of the Semester/Programme.

(Session 2024-2025)

Bachelor of Arts (Journalism & Mass Communication) / Bachelor of Science (Fashion Designing) / Bachelor of Science (Honours) Home Science / Bachelor of Computer Applications/ Bachelor of Science (Information Technology)/ Bachelor of Science (Bio-Technology)

Semester I  
Punjabi (Compulsory)

Course Code-BJML/BFDL/BHSL/BCAL/BITL/BBTL-1421

**Course Outcomes**

CO1: nksw nBksw' g[[[;se d/ eftsk Gkr Bz{ gVQkT[D dk wB'Oe ftfdnkoEhnK nzdo eftsk gqsh fdbu;gh, ;{M Bz{ g?dk eoBk j? sK fe T[j nkX[fBe d"o ftu uZb ojhnK ekft XkoktK ns/ ethnK pko/ frnkB jkf;b eo ;eD.

CO2: fJ; dk j'o wB'oE eftsk dh ftnkfynk, ftPb/PD s/ w[bzeD dh gqfefonk s'A ikD{ eokT[Dk th j? sK fe T[j ;wekbh ;wki dhnK ;wZf;nktK Bz{ ;wM ;eD ns/ nkb'uBkswe fdqPNh pDk ;eD.

CO3: rZd gqtkj (o/yk fusq s/ jbe/ b/y) g[[[;se B{z f;b/p; ftu PkfwB eo e/ ftfdnkoEhnK nzdo gVQD dh o[uh Bz{ g?dk eoBk j? ns/ w[ZbtkB fJfsjk; s'A ikD{ eotkT[Dk j?.

CO4: g?oQk ouBk ns/ g?oQk gVQ e/ gqPBK d/ T[so d/D dk wBo'E ftfdnkoEhnK dh p[ZXh B{z shyD eofdnK T[BK dh fbyD gqfsGk B{z T[iKro eoBk j?.

CO5: X[Bh ftT[As gVQD Bkb ftfdnkoEh X[BhnK dh T[ukoB gqDkbh s'A tke| j'Dr/.

(Session: 2024-2025)

Bachelor of Arts (Journalism & Mass Communication) / Bachelor of Science (Fashion Designing) / Bachelor of Science (Honours) Home Science  
/ Bachelor of Computer Applications/Bachelor of Science (Information Technology)/ Bachelor of Science (Bio-Technology)  
Semester I

Punjabi (Compulsory)

Course Code-BJML/BFDL/BHSL/BCAL/BITL/BBTL-1421

;wK L 3 xzN/

Maximum Marks: 100

L-T-P

4-0-0

Theory: 70

CA: 30

gkmeqw ns/ gkm g[;seK

:{fBN I

nksw nBksw(eftsk Gkr), (;zGH ;[fjzdo pho ns/ tfonkw f;zx ;zX{) r[o{ BkBe d/t  
:{Bhtof;Nh, nzfwqs;o.

(GkJh tho f;zx ,vkHi;tzs fz;zx B/eh,f;b/p; dk fjZ;k BjhA j?)

(ਸਾਰ,ftPk t;s{)

08 nze

:{fBN II

rZd gqtkj (o/yk fusq s/ jbe/ b/y), ;zgkHfpeow f;zx x[zWd, i;gkb f;zx ozXkktk,r[o{  
BkBe d/t :{Bhtof;Nh,nzfwqs;o.

(o/yk fusq 1 s'A 5)(Bzrh w[;ekB o/yk fuZso f;b/p; dk fjZ;k BjhA j?)

(ਸਾਰ,ftPk t;s{)

08 nze

:{fBN III

(ੳ)g?oQk ouBk

(੯)g?oQk gVQ e/ gqPBK d/ T[so.

08 nze

:{fBN IV

(T) gzikph X[Bh ftT[As LgfoGkPk s/ T[ukoB nze

(n) ;to, ftzniB

8 nze

nze tzv ns/ gohfyne bJh jdkfJsK

1H gqPB gZso d/ uko ;?ePB j'Dr/. ;?ePB A-DsZe d/ gqPB :{fBN I-IV ftu'A  
g[ZS/ ikDr/. jo ;?ePB ftu d' gqPB g[ZS/ ikDr/.

2H ftfdnkoEh B/ e[b gzi gqPB eoB/ jB. jo ;?ePB ftu'A fJe gqPB bkIwh j?.  
gzitK gqPBfe;/ th ;?ePB ftu'A ehskik ;edk j?.

3H jo/e gqPB d/ 08 nze jB.

4H g/go ;?ZN eoB tkbk i/eo ukj/ sK gqPBK dh tzv nr'A tZX s'A tZX uko T[g  
gqPBK

ftu eo ;edk j?.

(Session 2024-2025)

Bachelor of Arts / Bachelor of Science (Medical) / Bachelor of Science (Non Medical) / Bachelor of Science (Computer Science) / Bachelor of Science (Economics) / Bachelor of Commerce / Bachelor of Business Administration/Bachelor of Arts (Journalism & Mass Communication) / Bachelor of Science (Fashion Designing) / Bachelor of Science (Honours) Home Science / Bachelor of Computer Applications/Bachelor of Science (Information Technology)/ Bachelor of Science (Bio-Technology)/ Bachelor of Science (Honours) Mathematics/ Bachelor Of Arts (Honours) English/Bachelor of Commerce (Honours), Bachelor of Science (Honours) Physics

Semester-I

Basic Punjabi

In lieu of Punjabi (Compulsory)

Course Code -BARL/BSML/BSNL/BCSL/BECL/BCRL/BBRL/BJML/BFDL/

BHSL/BCAL/BITL/BBTL/BOML/BOEL/BCOL/BOPL-1031

### Course outcomes

CO1: w[Zybh gzikph gVQkT[D dk wB'oE ftfdnkoEhnK B{z gzikph GkPk B{z f;ykT[D dh gqfefonk ftu gk e/ fJe j'o GkPk f;ZyD dk w"ek gqdkB eoBk j?.

CO2: fJ; ftu ftfdnkoEh B{z pkohephBh Bkb GkPk dk nFXn?B eotkfJnk ikt/rk.

CO3: ftfdnkoEhnK B{z gzikph Ppd ouBk s'A ikD{ eotkfJnk ikt/rk.

CO4: w[Zybh gzikph gVQkT[D dk wB'oE ftfdnkoEhnK B{z fBZs tos'A dh gzikph Ppdktbh pko/ dZ;Dk j?.

CO5: w[Zybh gzikph gVQkT[D dk wB'oE ftfdnkoEhnK dk Ppd x/ok ftPkb eoBk j?.

CO6: ftfdnkoEhnK B{z gzikph ftu j|s/ d/ ;Zs fdBK d/ BK, pkoQK wjhfbnK d/ BK, oZ[sK d/ BK, fJe s'A ;" sZe frDsh PpdK ftu f;ykT[Dk j?.

(Session 2024-2025)

Bachelor of Arts / Bachelor of Science (Medical) / Bachelor of Science (Non Medical) / Bachelor of Science (Computer Science) / Bachelor of Science (Economics) / Bachelor of Commerce / Bachelor of Business Administration/Bachelor of Arts (Journalism & Mass Communication) / Bachelor of Science (Fashion Designing) / Bachelor of Science (Honours) Home Science / Bachelor of Computer Applications/Bachelor of Science (Information Technology)/ Bachelor of Science (Bio-Technology)/ Bachelor of Science (Honours) Mathematics/ Bachelor Of Arts (Honours) English/Bachelor of Commerce (Honours), Bachelor of Science (Honours) Physics

**Basic Punjabi**

**In lieu of Punjabi (Compulsory)**

**Course Code -BARL/BSML/BSNL/BCSL/BECL/BCRL/BBRL/BJML/BFDL/  
BHSL/BCAL/BITL/BBTL/BOML/BOEL/BCOL/BOPL-1031**

;wK L 3 xzN/

**Maximum Marks: 100**

**L-T-P**

**4-0-0**

**Theory: 70**

**CA: 30**

Gkmeqw

: {fBN I

g?Ash nZyoh, nZyo eqw, g?o fpzdh tkb/ toD ns/ g?o ftu g?D tkb/ toD ns/  
wksqtK (wZ[Ybh ikD gSkD) brkyo (fpzdh, fNZgh, nZXe) L gSkD ns/ tos'A

08nze

: {fBN II

gzikph Ppd pDso L wZ[Ybh ikD gSkD (;kXkoB Ppd, ;z:[es Ppd, fwPos Ppd, w{b  
Ppd, nr/so ns/ fgS/so)

08nze

: {fBN III

fBZs tos'A dh gzikph Ppdktbh L pkIko, tgko, fops/ Bks/, y/sh ns/ j'o XzfdnK  
nkfd Bkb ;zpzXs.

08

nze

: {fBN IV

j|s/ d/ ;Zs fdBK d/ BK, pkoQK wjhfbnK d/ BK, oZ[sK d/ BK, fJe s'A ;" se  
frDsh PpdKftu .

nze tzv ns/ gohfyne bJh jdkfJsK

lH gqPB gZso d/ uko ;?ePB j'Dr/. ;?ePB A-D sZe d/ gqPB :{fBN I-IV ftu'A  
g[ZS/ ikDr/. jo ;?ePB ftu d' gqPB g[ZS/ ikDr/.

2H ftfdnkoEh B/ eZ[b gzi gqPB eoB/ jB. jo ;?ePB ftu'A fJe gqPB bkiwh j?.  
gzitK gqPB fe;/ th ;?ePB ftu'A ehskik ;edk j?.

3H jo/e gqPB d/ 16 nze jB.

4H g/go ;?ZN eoB tkbk i/eo ukj/ sK gqPBK dh tzv nZr'A tZX s'A tZX uko T[g  
gqPBK

ftu eo ;edk j?.



**Bachelor Of Arts/ Bachelor Of Science (Medical) / Bachelor Of Science (Non-Medical) / Bachelor Of Science(Honours) Maths/  
Bachelor Of Science (Honours) Physics/Bachelor Of Science (Computer Science) / Bachelor Of Science (Economics) / Bachelor Of  
Commerce / Bachelor Of Business Administration/ Bachelor Of Arts (Journalism & Mass Communication) / Bachelor Of .Science  
(Fashion Design) / Bachelor Of Science (Honours) Home Science /Bachelor Of Computer Application /Bachelor Of Science  
(Information Technology)/ Bachelor Of Science (Bio Technology) / Bachelor Of Arts (Honours) English**

**Semester I**

**Session 2024-25**

**Course Title: Punjab History and Culture (From Earliest Times to C 320)**

**(Special paper in lieu of Punjabi Compulsory)**

**(For those students who are not domicile of Punjab)**

**Course Code: BARL-1431/ BSML-1431/ BSNL-1431/ BOML-1431/ BOPL-1431/ BCSL- 1431/  
BECL-1431/ BCRL-1431/ BBRL-1431/ BJML-1431/ BFDL-1431/ BHSL-1431/ BCAL-1431/ BITL-  
1431 / BBTL-1431/BOEL-1431**

**Course Outcomes**

After completing Semester I and course on Punjab History and Culture students of History will be able to identify and have a complete grasp on the sources & writings of Ancient Indian History of Punjab.

**CO1:** Identify and describe the emergence of earliest civilizations in: Indus Valley Civilization and Aryan Societies.

**CO2:** Identify and analyses the Buddhist, Jain and Hindu faith in the Punjab

**CO3:** Analyses the emergence of Early Aryans and Later Vedic Period, their Society, Culture, Polity and Economy

**CO4:** To make students understand the concepts of two faiths Jainism and Buddhism, its principles and their application and relevance in present times

Bachelor Of Arts/ Bachelor Of Science (Medical) / Bachelor Of Science (Non-Medical) / Bachelor Of Science(Honours) Maths/  
Bachelor Of Science (Honours) Physics/Bachelor Of Science (Computer Science) / Bachelor Of Science (Economics) / Bachelor Of  
Commerce / Bachelor Of Business Administration/ Bachelor Of Arts (Journalism & Mass Communication) / Bachelor Of .Science  
(Fashion Design) / Bachelor Of Science (Honours) Home Science /Bachelor Of Computer Application /Bachelor Of Science  
(Information Technology)/ Bachelor Of Science (Bio Technology) / Bachelor Of Arts (Honours) English

**Semester I**

**Session 2024-25**

**Course Title: Punjab History and Culture (From Earliest Times to C 320)**

**(Special paper in lieu of Punjabi Compulsory)**

**(For those students who are not domicile of Punjab)**

**Course Code: BARL-1431/ BSML-1431/ BSNL-1431/ BOML-1431/ BOPL-1431/ BCSL- 1431/  
BECL-1431/ BCRL-1431/ BBRL-1431/ BJML-1431/ BFDL-1431/ BHSL-1431/ BCAL-1431/  
BITL-1431 / BBTL-1431/BOEL-1431**

**Time: 3 Hours**

**L-T-P  
4-0-0**

**Max. Marks: 100  
Theory: 70  
CA: 30**

**Instructions for the Paper Setters**

1. Question paper shall consist of fourUnits
2. Examiner shall set 8 questions in all by selecting **two questions** of equal marks from each unit.
3. Candidates shall attempt **5 questions** in **600 words** ,byatleastselecting **one question** from each unit and the **5<sup>th</sup> question** may be attempted from any of the **four units**.
4. Each question will carry 14 marks.

**Unit I**

1. Physical features of the Punjab
2. Sources of the ancient history of Punjab

**Unit II**

3. Harappan Civilization: social, economic and religious life of the Indus Valley People.  
The Indo-Aryans: Original home

**Unit III**

1. Social, Religious and Economic life during Early Vedic Age.
2. Social, Religious and Economic life during Later Vedic Age.

**UNIT IV**

3. Teachings of Buddhism
4. Teachings of Jainism

### **Suggested Readings**

- L. M Joshi (ed.), *History and Culture of the Punjab*, Art-I, Patiala, 1989 (3<sup>rd</sup> edition)
- L.M. Joshi and Fauja Singh (ed.), *History of Punjab*, Vol.I, Patiala 1977.
- Budha Parkash, *Glimpses of Ancient Punjab*, Patiala, 1983.
- B.N. Sharma, *Life in Northern India*, Delhi. 1966.
- Chopra, P.N., Puri, B.N., & Das, M.N. (1974). *A Social, Cultural & Economic History of India*, Vol. I, New Delhi: Macmillan India.

**BACHELOR OF ARTS (JOURNALISM & MASS COMMUNICATION)/ BACHELOR OF SCIENCE (FASHION DESIGNING)/  
BACHELOR OF SCIENCE (HOME SCIENCE) / BACHELOR OF COMPUTER APPLICATIONS / BACHELOR OF SCIENCE  
(INFORMATION TECHNOLOGY)/ BACHELOR OF SCIENCE (BIO-TECHNOLOGY)/ BACHELOR OF SCIENCE (MEDICAL  
LABORATORY TECHNOLOGY) / BBA (BUSINESS INNOVATIONS AND ENTREPRENEURSHIP)/ BACHELOR OF ARTS  
(DIGITAL ART, DESIGN AND MULTIMEDIA)**

**(Semester I)**

**Session 2024-25**

## **Communication Skills in English - I**

**(Theory)**

**Course Code: BJMM/BFDM/BHSM/BCAM/BITM/ BBTM/ BMLM -1102**

### **COURSE OUTCOMES**

At the end of this course, the students will develop the following Skills:

**CO 1:** Reading skills that will facilitate them to become an efficient reader

**CO 2:** Through reading skills, the students will have an ability to have a comprehensive understanding of the ideas in the text and enhance their critical thinking

**CO 3:** Writing skills of students which will make them proficient enough to express ideas in clear and grammatically correct English

**CO 4:** The skill to use an appropriate style and format in writing letters (formal and informal) and resume, memo, notices, agenda, minutes

**BACHELOR OF ARTS (JOURNALISM & MASS COMMUNICATION)/ BACHELOR OF SCIENCE (FASHION DESIGNING)/  
BACHELOR OF SCIENCE (HOME SCIENCE) / BACHELOR OF COMPUTER APPLICATIONS / BACHELOR OF SCIENCE  
(INFORMATION TECHNOLOGY)/ BACHELOR OF SCIENCE (BIO-TECHNOLOGY)/ BACHELOR OF SCIENCE (MEDICAL  
LABORATORY TECHNOLOGY) / BBA (BUSINESS INNOVATIONS AND ENTREPRENEURSHIP)/ BACHELOR OF ARTS  
(DIGITAL ART, DESIGN AND MULTIMEDIA)**

**(Semester I)**

**Session 2024-25**

## **Communication Skills in English - I**

**(Theory)**

**Course Code: BJMM/BFDM/BHSM/BCAM/BITM/ BBTM/ BMLM -1102**

**Examination Time: 3 Hrs**

**L-T-P (Credits): 3-0-1**

**Total Marks: 100**

**Theory: 50**

**Practical: 20**

**CA: 30**

### **Instructions for the paper setter and distribution of marks:**

**The question paper will consist of four sections. The candidate will have to attempt five questions in all selecting one from each section and the fifth question from any of the four sections. Each question will carry 10 marks. Each question can be sub divided into two parts.**

**(10 x 5 = 50)**

**Section-A:** Two questions of theoretical nature will be set from Unit I.

**Section-B:** Two comprehension passages will be given to the students from Unit II.

**Section-C:** Two questions will be given from Unit III.

**Section-D:** Two questions will be set from Unit IV.

**BACHELOR OF ARTS (JOURNALISM & MASS COMMUNICATION)/ BACHELOR OF SCIENCE (FASHION DESIGNING)/ BACHELOR OF SCIENCE (HOME SCIENCE) / BACHELOR OF COMPUTER APPLICATIONS / BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)/ BACHELOR OF SCIENCE (BIO-TECHNOLOGY)/ BACHELOR OF SCIENCE (MEDICAL LABORATORY TECHNOLOGY) / BBA (BUSINESS INNOVATIONS AND ENTREPRENEURSHIP)/ BACHELOR OF ARTS (DIGITAL ART, DESIGN AND MULTIMEDIA)**

**Course Code: BJMM/BFDM/BHSM/BCAM/BITM/ BBTM/ BMLM -1102  
(Semester I)  
Session 2024-25**

### **Unit I**

**Reading Skills:** Reading Tactics and strategies; Reading purposes—kinds of purposes and associated comprehension; Reading for direct meanings.

### **Unit II**

Reading for understanding concepts, details, coherence, logical progression and meanings of phrases/ expressions.

**Activities:**

- Comprehension questions in multiple choice format
- Short comprehension questions based on content and development of ideas

### **Unit III**

**Writing Skills:** Guidelines for effective writing; writing styles for application, personal letter, official/ business letter.

**Activities:**

- Formatting personal and business letters.
- Organizing the details in a sequential order

### **Unit IV**

Resume, memo, notices, agenda, minutes, Tips for effective blog writing

**Activities:**

- Converting a biographical note into a sequenced resume or vice-versa
- Ordering and sub-dividing the contents while making notes.
- Writing notices for circulation/boards
- Writing blogs

**Recommended Books:**

- 1) *Oxford Guide to Effective Writing and Speaking* by John Seely.
- 2) *Business Communication*, by Sinha, K.K. Galgotia Publishers, 2003.
- 3) *Business Communication* by Sethi, A and Adhikari, B., McGraw Hill Education 2009.
- 4) *Communication Skills* by Raman, M. & S. Sharma, OUP, New Delhi, India (2011).

**BACHELOR OF ARTS (JOURNALISM & MASS COMMUNICATION)/ BACHELOR OF SCIENCE (FASHION DESIGNING)/ BACHELOR OF SCIENCE (HOME SCIENCE) / BACHELOR OF COMPUTER APPLICATIONS / BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)/ BACHELOR OF SCIENCE (BIO-TECHNOLOGY)/ BACHELOR OF SCIENCE (MEDICAL LABORATORY TECHNOLOGY) / BBA (BUSINESS INNOVATIONS AND ENTREPRENEURSHIP)/ BACHELOR OF ARTS (DIGITAL ART, DESIGN AND MULTIMEDIA)**

**(Semester I)**

**Session 2024-25**

## **Communication Skills in English - I**

**Course Code: BJMM/ BFDM/ BHSM/ BCAM/ BITM/ BBTM/ BMLL -1102**

### **PRACTICAL / ORAL TESTING**

**Time: 3 hours**

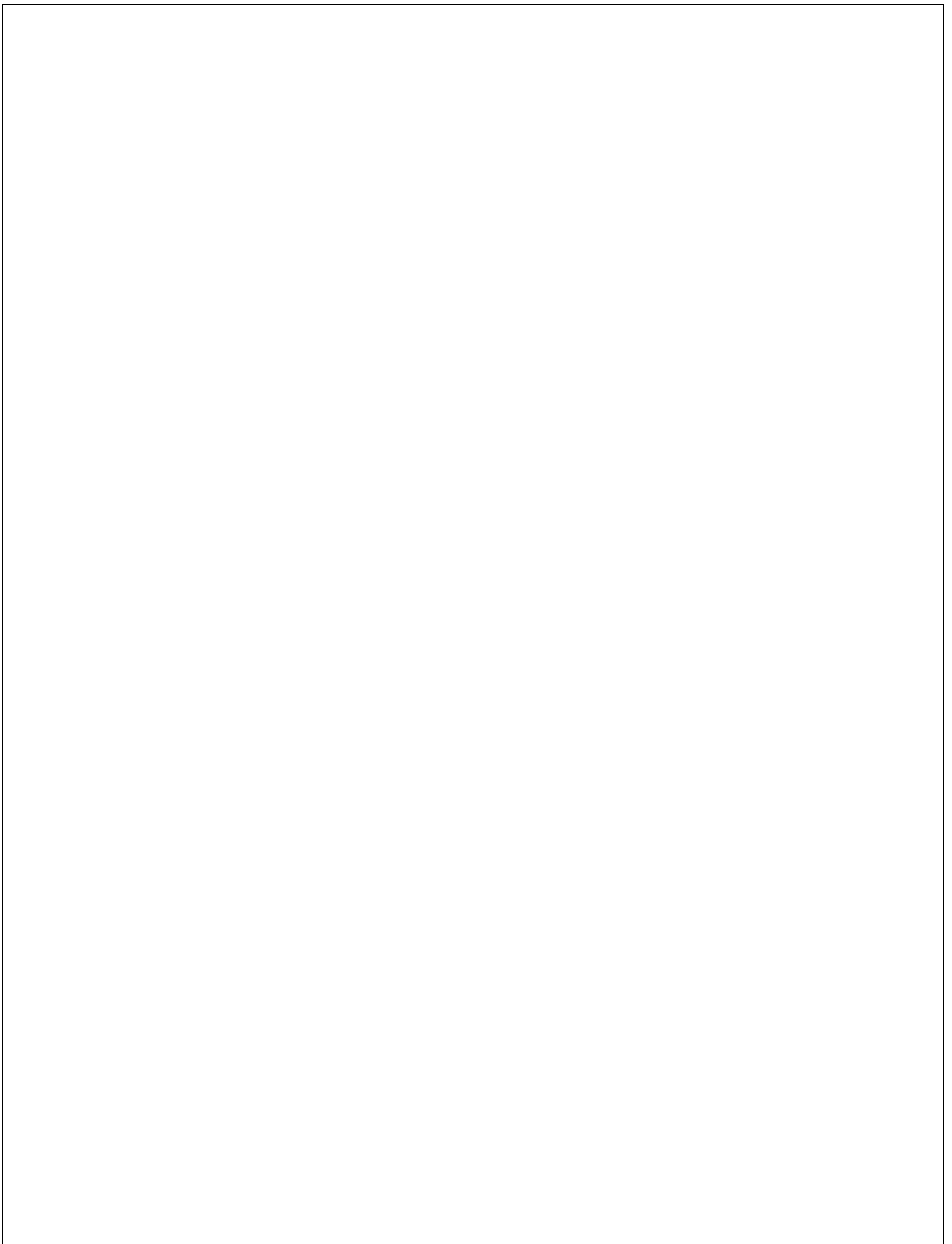
**Marks: 20**

#### **Course Contents:**

- |   |            |
|---|------------|
| 1. Oral Presentation with/without audio visual aids | (10 Marks) |
| 2. Group Discussion                                 | (05 Marks) |
| 3. Practical File form Syllabi                      | (05 Marks) |

#### **Questions:**

1. Oral Presentation will be of 5 to 7 minutes duration. (Topic can be given in advance or it can be of student's own choice). Use of audio-visual aids is desirable.
2. Group discussion comprising 8 to 10 students on a familiar topic. Time for each group will be 15 to 20 minutes.





**Bachelor of Science (Honours) Home Science**  
**(Semester – I) Session 2024-2025**  
**Introduction to Human Development**  
**(Theory)**  
**Course Code: BHSL 1283**

**Course Outcomes:**

Upon Completion of this Course the student should be able to

CO (1) – To develop knowledge about the history and scope of human development.

CO (2) – To gain understanding about the principles of development.

CO (3) – To understand the factors affecting growth and development, learning and maturation.

CO (4) – To understand the importance of fertilization.

CO (5) – To gain knowledge about the symptoms, care and complication of pregnancy.

CO (6) – To identify the factors affecting prenatal development.

CO (7) - To gain knowledge about the care of new born.

**Bachelor of Science (Honours) Home Science**  
**(Semester – I) Session 2024-2025**  
**Introduction to Human Development**  
**(Theory)**  
**Course Code: BHSL 1283**

**Time: 3 Hours**

**L-T-P**  
**2-0-0**

**Max. Marks: 50**  
**Theory: 35**  
**CA: 15**

**Instructions for the Paper Setter:**

- Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 7 Marks.

**Content**

**Unit I**

Introduction to the field of Human Development

- Definition
- Scope and Opportunities
- Brief Historical Perspective
- Domains of Development

Growth and Development

- Definition
- Principles of Development
- Factors affecting growth & development, heredity, environment, learning and maturation

General Characteristics of various stages of Human life

**Unit II**

Pre-natal Development

- Definition
- Importance of Fertilization
- Stages of prenatal development
- Time Table of prenatal development
- Factors affecting prenatal development
- Hazards during prenatal development
- Screening during prenatal period and counselling

· Pregnancy

- Symptoms of pregnancy
- Care & Complication during Pregnancy

**Unit III**

Birth of a Baby

- Birth Process
- Complications during birth
- Type of Delivery
- Preterm babies – Characteristics and care

**Unit IV**

New born

- Reflexes of a new born
- Characteristics of new-born
- Breast feeding & weaning
- Immunization schedule of new born
- Monitoring growth and development of infants and toddlers

Care of the new born

- Equipments for nursery
- Bathing of child
- Sleeping schedules & making beds
- Sterilization of feeders & other equipments
- Psychological aspects of parenthood.
- Psychological fatigue after birth symptom and care
- Role of father during pregnancy & after birth

**Bachelor of Science (Honours) Home Science**  
**(Semester – I) Session 2024-2025**  
**Introduction to Human Development**  
**(Theory)**  
**Course Code: BHSL 1283**

**References:**

1. Child Development by Laura E Berk
2. Child Development by Rajamal P. Devdas
3. Human Development by Grace J. Craig .s

**Bachelor of Science (Honours) Home Science**  
**(Semester – I) Session 2024-2025**  
**Hygiene**  
**Course Code: BHSL 1284**  
**(Theory)**

**Course Outcomes**

Co (1) – To develop the knowledge about health hygiene, personal hygiene and immunity with its type.

CO (2) – To understand the knowledge about disease caused by Typhoid, Jaundice, Cholera, Diarrhoea, Measles and mumps.

CO (3) – To understand the knowledge about disease caused by vectors malaria, dengue, modes of spread, incubation periods with its symptoms and prevention of HIV-AIDS and Eczema.

CO (4) – To study about the purification of water.

**Bachelor of Science (Honours) Home Science**  
**(Semester – I) Session 2024-2025**  
**Hygiene (Theory)**  
**Course Code: BHSL 1284**

**Time: 3 Hours**  
**L-T-P**  
**3-0-0**

**Max. Marks: 100**  
**Theory: 70**  
**CA: 30**

**Instructions for the Paper Setter**

- Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 14 marks.

**Content**

**Unit I**

Health & Hygiene

- a) Definition of health Hygiene infection sources prevention, immunity & immunization schedule
- b) Personal hygiene

**Unit II**

Brief study of diseases cause mode of spread incubation period symptoms prevention& control

- a) Disease caused by ingestion Typhoid, Jaundice, cholera, Diarrhoea and Dysentery & Food poisoning
- b) Diseases caused by inhalation- Measles, mumps, and tuberculosis, chickenpox, COVID-19

**Unit III**

- c) Diseases caused by vectors- Malaria Dengue.
- d) Diseases caused by sexual contact -HIV, AIDS
- e) Diseases caused by contact- Eczema

**Unit IV**

Water supply

- a) Sources of contamination
- b) Types of water
- c) Purification of water at home
- d) Modern Methods of purification of water (different types of filter – Aqua guard, R.O filter etc)

**Reference Books:**

1. Family resource management & Hygiene by Randhawa
2. Physiology and Hygiene by J.H Kellig
3. Public Health and Hygiene by Sorona Raj and V Kumaresan

**Bachelor of Science (Honours) Home Science**  
**(Semester – I) Session 2024-2025**  
**Basic Food and Nutrition**  
**Course Code: BHSM 1285**  
**(Theory)**

**Course Outcomes**

- CO (1) – To develop the knowledge about introduction to nutrition and storage methods of cereals, pulses, eggs, poultry, vegetables and fruit.
- CO (2) – To distinguish between the different types of cooking methods- dry heat, moist heat, frying and microwave cooking.
- CO (3) – To understand the knowledge about classification, functions and food sources, requirement, deficiencies of carbohydrates, proteins and fats.
- CO (4) – To understand the knowledge about energy, food as a source of energy, the body need of energy.

**Bachelor of Science (Honours) Home Science**  
**(Semester – I) Session 2024-2025**  
**Basic Food and Nutrition**  
**(Theory)**  
**Course Code: BHSM 1285**

**Time: 3 Hours**

**L-T-P**

**3-0-1**

**Max. Marks: 100**

**Theory: 50**

**Practical: 20**

**CA: 30**

**Instructions for the Paper Setter:**

- Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 10 marks.

**Content**

**Unit I**

Introduction to nutrition - Food as a sources of nutrients, functions of food, definition of nutrition, nutrients , adequate, optimum and good nutrition, malnutrition

Brief introduction of food commodities, their types and selection

Storage & Use: - cereals & pulses, eggs fish poultry, vegetable & fruit sugar, & mild, oil & ghee, spice & condiments

**Unit II**

Food Preparation

Basic terminology used in Cooking

Different methods of cooking - Dry heat, moist heat, frying and microwave cooking

Effect of cooking on nutritive value of food

**Unit III**

Carbohydrates - Composition, classification, functions, food sources, requirement, deficiencies

Fats and Oils - Composition, Classification, Saturated, Unsaturated fatty acids, food sources, functions, requirement and deficiencies

Protein - Composition, Classification, Essential and Non- essential amino acids, food Sources, functions, deficiencies

**Unit IV**

Energy - Unit of energy, food as a source of energy, energy value of food. The body need of energy.

Factors affecting energy requirement

1. Determination of energy value of foods using calorimeter
2. Specific Dynamic action
3. Basal Metabolism
4. Determination of basal metabolism
5. Factors affecting the BMR

**References:**

1. Guthrie, Hele, Andrews, Introductory Nutrition, 6th ed. St. Louts, Times Mirror/Mosby College: 1988.
2. Mudambi S.R. M.V. Rajgopal. Fundamental of Foods & Nutrition (2nd ed.) Wilay Eastern Ltd. 1990.
3. Swaminathan S: Advanced text book on foods Nutrition, Vol. I, II (2nd ed. Revised &enlarged) B. app C-1985.
4. Willson, EVAD Principles of Nutrition 4thed New York John Willey & Sons. 1979.

**Bachelor of Science (Honours) Home Science  
(Semester – I) Session 2024-2025**

**Basic Food and Nutrition  
Course Code: BISM-1285  
(Practical)**

**Course Outcomes**

Co (1) – To identify the different food stuff, weight and measures and cooking.

CO (2) – To distinguish between different types of cooking methods.

CO (3) – To develop the knowledge about cleaning of kitchen equipments, utensils, floor and cupboard.



**Bachelor of Science (Honours) Home Science  
(Semester – I) Session 2024-2025**

**Basic Food and Nutrition  
Course Code: BHSM 1285  
(Practical)**

**Time: 3 Hours**

**Max. Marks: 20**

**PRACTICAL**

- 1) Identification of different food stuffs, weight and measures and cooking terms.
- 2) Beverage- e.g. Hot and cold (Tea, Coffee, fruit and milk based, beverage) etc.
- 3) Prepare 5 dishes using following methods
  - (a) Boiling: Pulses, rice, soups, desserts, etc.
  - (b) Shallow Frying: Pancakes, snacks, etc.
  - (c) Deep Frying: Sweet and savory snacks, main dishes, etc.
  - (d) Fermenting and Steaming: Idli, dosa, dhokla, etc.
- 4) Daily and occasional cleaning of kitchen equipments, utensils, counter, floor and cupboards.

**Note:** Paper will be set on the spot by the examiner

**Bachelor of Science (Honours) Home Science  
(Semester – I) Session 2024-2025  
Applied Art  
(Theory)**

**Course Code: BHSM 1286**

**Course Outcomes**

**CO (1)** To gain understanding regarding art, fine art and Applied art along with different art media, tools and techniques.

**CO (2)** To study color theory and principles of design.

**CO (3)** To understand the basic objectives of art, types of motifs and designs.

**CO (4)** To gain understanding of materials, process and significance of rangoli.

**Bachelor of Science (Honours) Home Science**  
**(Semester – I) Session 2024-2025**  
**Applied Art**  
**(Theory)**

**Course Code: BISM 1286**

**Time: 3 Hours**

**L-T-P**  
**3-0-1**

**Max. Marks: 100**  
**Theory: 50**  
**Practical: 20**  
**CA: 30**

**Instructions for the Paper Setter**

- Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 10 marks.

**Content**

**Unit I**

**Art Introduction**

- Definition of Art, fine art & applied art
- Importance of Art
- Different art media like pencils colours crayonsetc.
- Tools and techniques in art

**Elements of art**

- Line: Types of Lines & their effect & optical illusion created by lines
- Form & shape- types & their use
- Texture- types & their use
- Color - use of Color
- Pattern, Light & space

**Unit II**

Colour: Source of colour, dimensions of colour characteristics of colours, emotional effects of colours, classification of colour according to pigment color system and color schemes.

Optical illusion created through colour

**Principles of design**

- Balance
- Harmony
- Rhythm
- Emphasis
- Proportion & scale

**Unit III**

Objectives of Art: a) Beauty b) Functionalism c) Expressiveness

**Design & motif**

- Natural, Geometrical, Stylized and abstract.
- Types of Design: Decorative and structural & their characteristics
- Enlargement & reduction in size of the design

**Unit IV**

**Rangoli**

- Significance of Rangoli
- Rangoli in different states
- Materials used for Rangoli
- Points to be considered in Rangoli

**Reference Books:**

1. Family Resource Management & Health Science Rajwinder K. Randhawa, Pardeep Publications 2010.
2. Crafts & Drawing Book
3. The Art of flower Arrangement, Rekha Sareen

**Bachelor of Science (Honours) Home Science**  
**(Semester – I) Session 2024-2025**  
**Applied Art**  
**Course Code: BHSM 1286**  
**(Practical)**

**Course Outcomes**

**CO (1)** To enable them to draw rangoli designs for different occasions – Diwali, Exhibition Hall, Child’s birthday.

**CO (2)** To gain knowledge about different colour schemes and use them in design.

**CO (3)** To enable them to make articles of fabric painting, glass painting, greeting card.

**Bachelor of Science (Honours) Home Science**  
**(Semester – I) Session 2024-2025**  
**Applied Art**  
**(Practical)**

**Course Code: BHSM 1286**

**Time: 3 Hours**

**Max. Marks: 20**

**Practical:**

1. Drawing different types of lines and their use
2. Draw different types of shapes & form and draw any object using this form and do pencil shading
3. Make a design through motif.
4. Enlarge any design in size.
5. Draw Rangoli designs for different occasions-Diwali, Exhibition Hall, Entrance, Grah parvesh, and Childs Birthday and draw on floor & fill into colored material.
6. Make pigment color wheel.
7. Draw value scale and tone of primary and secondary colors.
8. Make colour schemes and use them in design.
9. Make different types of texture using different objects.
10. Calligraphy- makes any slogan on poster.
11. Make any flower with water color shading.
12. Make one simple landscape using water shading technique
13. Make an article of each:
  - 1) Fabric Painting
  - 2) Glass painting
  - 3) Menu Card
  - 4) Collage work.
  - 5) Greeting card
  - 6) Flowers from paper and stockings
  - 7) Pot decoration

**Note: Paper will be set on the spot by the examiner**

**Bachelor of Science (Honours) Home Science**  
**(Semester – I) Session 2024-2025**  
**Course Code: BHSM 1127**  
**Computer Basics**  
**(Theory)**

**Course Outcomes**

After passing this course the students will be able to:

**CO 1:** Identify and manage software, hardware and graphical user interface of a computer system.

**CO 2:** Comprehend basic word processing skills such as text input formatting, editing, cut, copy, paste, spell check, margin, tab controls, keyboard shortcuts, printing, charts etc.

**CO 3:** Apply skills to make effective presentations using associated application software.

**CO 4:** Operate an email account.

**Bachelor of Science (Honours) Home Science**  
**(Semester – I)**  
**Session: 2024-2025**  
**Course Code: BHSM 1127**  
**Computer Basics**  
**(Theory)**

**Time: 3 Hours**  
**L-T-P**  
**2-0-1**

**Max. Marks: 100**  
**Theory: 40**  
**Practical: 30**  
**CA: 30**

**Instructions for Paper Setter**

- Eight questions of equal marks (8 marks each) are to be set, two in each of the four Sections (A-D).
- Questions of Sections A-D should be set from Units I-IV of the syllabus respectively.
- Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.
- Each question carries 8 marks.

**Unit I**

**Introduction to computer and its characteristic:**

Introduction to computer, Applications of computer, Types of Computers, Components of computer (Input Unit, Output Unit, Memory Unit & CPU), input devices (Keyboard, Mouse, Joystick), output devices (Monitor, Printers), Memory Devices – RAM and ROM, software and its types, working with windows, features, desktop, using context menu, creating shortcut, working with dialog box, arranging windows, setting properties of desktop.

**Unit II**

**Word Processing:** Opening document, editing, formatting, use of fonts, styles and colors, exiting document, Inserting pictures from a file, inserting a Table or a chart. Copying from one document to other, using headers and footers on a document.

**Unit III**

**Presentation:** Presentation and its features, components, viewing a slide show using blank presentation adding text, saving, closing, opening the presentation, viewing presentation, normal view, Outline view, slide sorter view, slide show, creating a wizard using presentation, editing presentations, adding new slide, changing the new slides, editing text type, deleting the text object, interesting text boxes, formatting text, modifying slides, working with slide outlines, moving objects, copying objects, searching text, replacing text, spell check, using clip art, word Art, auto shapes.

**Unit IV**

**Internet and E-mail:** What is Internet, types of internet connectivity, Internet service provider (ISP), SurfingNet, moving about the Web, WWW and its working, E-Mail, its features, creating and E-Mail message, Reading Mail, replying mail, draft message, sending mail.

**References / Textbooks:**

1. Anshuman Sharma, Fundamentals of Information Technology, Lakhanpal Publishers, 5<sup>th</sup> Edition.
2. Rachhpal Singh & Gurvinder Singh, Windows based computer courses, Kalyani Publisher, 2014.
3. Peter Norton, Introduction to Computers, Tata McGraw-Hill, 2006.
4. P.K. Sinha, Computer Fundamentals, BPB Publications, 2004.

5. Prof. Satish Jain, M. Geetha, Kratika, BPB's Office 2010 Course Complete Book, BPB Publications, 2017.

**Note:** The latest editions of the books should be followed.



**Bachelor of Science (Honours) Home Science**  
**(Semester – I) Session 2024-2025**  
**Course Code: BHSM 1127**  
**Computer Basics**  
**(Practical)**

**Time: 3 Hours**

**Practical: 30**

**Max. Marks:**

Practical on Computer Basics.

# **FOUNDATION COURSE**

**Course Title: Foundation Course**

**Nature of Course: Audit Course (Value Added)**

**Course Duration: 30 hours**

**Course intended for:** Semester I students of undergraduate degree programs of all 25 streams.

Course Credits: 2

Course Code: SECF-I

## **PURPOSE & AIM**

This course has been designed to strengthen the intellectual foundation of all the new entrants in the college. One of the most common factors found in the students seeking admission in college after high school is the lack of an overall view of human history, knowledge of global issues, peaks of human intellect, social/political thinkers and inventors & discoverers who have impacted human life. For a student, the process of transition from school to college is full of apprehension and skepticism regarding adapting themselves to the new system. The Foundation Program intends to bridge the gap between high school and college education and develop an intellectual readiness and base for acquiring higher education.

## **INSTRUCTIONAL OBJECTIVES**

- to enable the students to realise their position in the whole saga of time and space
- to inculcate in them an appreciation of life, cultures and people across the globe
- to promote, in the students, an awareness of human intellectual history
- to make them responsible and human world citizens so that they can carry forward the rich legacy of humanity

## **LEARNING OUTCOMES**

After the completion of this Audit course, students will be able to

- learn how past societies, systems, ideologies, governments, cultures and technologies were built, how they operated, and how they have changed
- understand how the rich history of the world helps us to paint a detailed picture of where we stand today

- understand the Vedic theism, Upanishads Philosophy and doctrines of Jainism, Buddhism and Sikhism
- acquire knowledge of women rights and courage to face day to day challenges
- acknowledge the changes in society, religion and literature in the renaissance period and the importance of empathy and compassion for humanity
- learn about the prominent Indians (Men and Women) who contributed significantly in freedom struggle, education, economic development and in the formation and evolution of our nation
- understand meaning of race and how that concept has been used to justify exclusion, inequality, and violence throughout history and the origin of civil right movements to fight for equality, liberty and fraternity
- critically evaluate the socio-political and economic issues at global level and its implications in the present
- upgrade and enhance learning technological skills and striking a balance between technology and their well being
- take pride in learning the saga of Indian Past Culture and Heritage
- understand the rich legacy of KMV and its progressive endeavours

<b>MODULE</b>	<b>TITLE</b>	<b>CONTACT HOURS</b>
<b>I</b>	<b>Introduction and Initial Assessment</b>	<b>2</b>
<b>II</b>	<b>The Human Story</b>	<b>3</b>
<b>III</b>	<b><i>The Vedas</i> and the Indian Philosophy</b>	<b>2.5</b>
<b>IV</b>	<b>The Journey of Woman The Story and the Dream</b>	<b>2.5</b>
<b>V</b>	<b>Changing Paradigms in Society, Religion &amp; Literature</b>	<b>2.5</b>
<b>VI</b>	<b>Makers of Modern India</b>	<b>2.5</b>
<b>VII</b>	<b>Racism: Story of the West</b>	<b>2.5</b>
<b>VIII</b>	<b>Modern World at a Glance: Political &amp; Economic Perspective</b>	<b>2.5</b>
<b>IX</b>	<b>Technology Vis a Vis Human Life</b>	<b>2.5</b>
<b>X</b>	<b>My Nation My Pride</b>	<b>2.5</b>
<b>XI</b>	<b>The KMV Experience</b>	<b>2.5</b>
<b>XII</b>	<b>Final Assessment, Feedback and Closure</b>	<b>2.5</b>

## EXAMINATION

- **Total Marks: 50(Final Exam:35;Internal Assessment:15)**
- Final Exam:multiple choice quiz. Marks–35; Time: 1hour
- Internal Assessment:15(Assessment:5;Attendance:10)  
Comparative assessment questions (medium length) in the beginning and close of the program.Marks:5;Time:0.5 hour each at the beginning and end.
- Total marks: 50 converted to grade for final result
- Grading system:90%marks & above: A grade  
80% - 89% marks: B  
grade 70% - 79% marks: C  
grade 60% - 69% marks: D  
grade 50% - 59% marks: E grade  
Below 50% marks: F grade (Fail-must give the exam again)

## SYLLABUS

### Module 1 Being a Human: Introduction & Initial Assessment

- Introduction to the program
- Initial Assessment of the students through written answers to a couple of questions

### Module 2 The Human Story

- Comprehensive overview of human intellectual growth right from the birth of human history
- The wisdom of the Ancients
- Dark Middle Ages
- Revolutionary Renaissance
- Progressive modern times
- Most momentous turning points, inventions and discoveries

### Module 3 *The Vedas* and the Indian Philosophy

- Origin, teachings and significance of *The Vedas*
- Upanishads and Puranas
- Karma Theory of *The Bhagwad Gita*
- Maintenance of Buddhism & Jainism
- Teachings of Guru Granth Sahib

#### **Module4 Changing Paradigms in Society, Religion & Literature**

- Renaissance: The Age of Rebirth
- Transformation in human thought
- Importance of humanism
- Geocentrism to heliocentrism
- Copernicus, Galileo, Columbus, Darwin and Saint Joan
- Empathy and Compassion

#### **Module5 Woman: A Journey through the Ages**

- Status of women in pre-vedic times
- Women in ancient Greek and Roman civilizations
- Women in Vedic and ancient India
- Status of women in the Muslim world
- Women in the modern world
- Crimes against women
- Women labour force participation
- Women in politics
- Status of women - our dream

#### **Module6 Makers of Modern India**

- Early engagement of foreigners with India
- Education: The first step to modernization
- Railways: The lifeline of India
- Raja Ram Mohan Roy, Gandhi, Nehru, Vivekanand, Sardar Patel etc.
- Indira Gandhi, Mother Teresa, Homai Vyarawala etc.
- The Way Ahead

#### **Module7 Racism: Story of the West**

- European beginnings of racism
- Racism in the USA - Jim Crow Laws
- Martin Luther King Jr. and the battle against racism
- Apartheid and Nelson Mandela
- Changing face of racism in the modern world

#### **Module8 Modern World at a Glance: Political & Economic Perspective**

- Changing world order
- World War I & II
- UNO and The Commonwealth
- Nuclear Powers; Terrorism
- Economic Scenario: IMF, World Bank

- InternationalRegionalEconomicIntegration

### **Module9TechnologyVisa VisHumanLife**

- Impactoftechnologyonmodern life
- Technologicalgadgetsand theirrolein ourlives
- Technologyandenvironment
- Consumerismandmaterialism
- Psychologicalandemotionalconsequencesoftechnology
- Harmonizingtechnologywithethicsandhumaneness

### **Module10MyNation MyPride**

- IndianPastCultureand Heritage
- MajorDiscoveries(MedicinalandScientific)
- VedicAge
- ProminentAchievements
- Art,ArchitectureandLiterature

### **Module11TheKMVExperience**

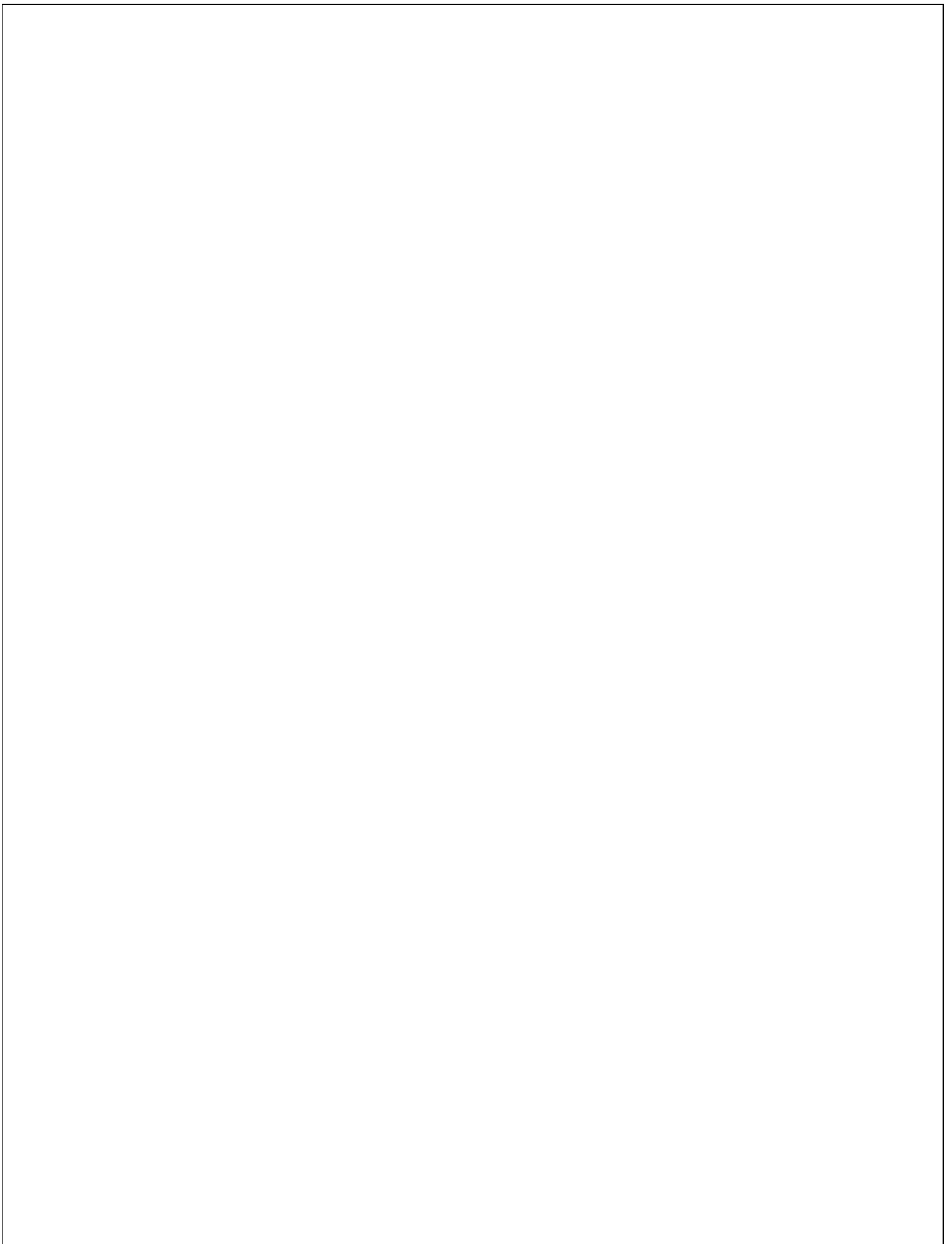
- RichLegacyof KMV
- Pioneeringroleinwomenemancipationand empowerment
- KMVContributionintheIndian FreedomStruggle
- Moral,culturalandintellectualheritageofKMV
- Landmarkachievements
- Innovativeinitiatives;internationalendeavours
- Vision,missionand focus
- Conductguidelinesforstudents

### **Module12FinalAssessment,Feedback&Closure**

- Finalmultiple choicequiz
- Assessmentthroughthesamequestions askedinthebeginning
- Feedback abouttheprogrammefromthestudents
- Closureof theprogramme

### **PRESCRIBEDREADING**

- *TheHuman Story*publishedbyDawnPublications



**KANYA MAHA VIDYALAYA, JALANDHAR (AUTONOMOUS)**  
**SCHEME AND CURRICULUM OF EXAMINATION OF**  
**Bachelor of Science Home Science (Three Year Degree Programme)**  
**Bachelor of Science (Honours) Home Science (Four Year Degree Programme)**  
**Credit Based Continous Evaluation Grading System**  
**(Session: 2024-2025)**

**Semester II**

Course Code	Course Name	Course Type	Hours Per Week L-T-P	Credits	Total	Marks				Examination time (in Hours)
						Total	Ext.		CA	
							L	P		
BHSL2421 / BHSL2031 / BHSL 2431	Punjabi (Compulsory)/ <sup>1</sup> Basic Punjabi/ <sup>2</sup> Punjab History and Culture	C	4-0-0	4-0-0	4	100	70	-	30	3
BHSM 2102	Communication skills in English-II	AEC	3-0-2	3-0-1	4	100	50	20	30	3+3
BHSL 2283	Family and Social Welfare	DSC	4-0-0	4-0-0	4	100	70	-	30	3
BHSL 2284	Elementary Physiology	DSC	3-0-0	3-0-0	3	100	70	-	30	3
BHSM 2285	Introduction to Family Resource Management	DSC	3-0-2	3-0-1	4	100	50	20	30	3+3
BHSM 2126	Computer Applications for Home Scientists	MDC	3-0-2	3-0-1	4	100	40	30	30	3+3
BHSM 2280	Advanced Food and Nutrition	SEC	2-0-2	2-0-1	3	100	50	20	30	3+3
VACD 2161	*Drug Abuse : Problem , Management and Prevention (Compulsory)	VAC	2-0-0	2-0-0	2	50	35	-	15	3
<b>Total</b>					<b>28</b>	<b>700</b>				

C: Compulsory

AEC: Ability Enhancement Course

DSC: Discipline Specific Course

SEC: Skill Enhancement Course

MDC: Multidisciplinary Course

VAC: Value Added Course

1: Special paper in lieu of Punjabi (compulsory)

2: Special paper in lieu of Punjabi (compulsory) for those students who are not domicile of Punjab.

\* Credits/Grade Points of these courses will not be added in SGPA/CGPA of the Semester/Programme.



**Bachelor of Science (Honours) Home Science  
(Semester – II) Session 2024-2025**

**Bachelor of Arts (Journalism & Mass Communication) / Bachelor of Science (Fashion Designing) /**

**Bachelor of Science (Honours) Home Science / Bachelor of Computer Applications/**

**Bachelor of Science (Information Technology)/ Bachelor of Science (Bio-Technology)**

**Punjabi (Compulsory)**

**Course Code-BJML/BFDL/BHSL/BCAL/BITL/BBTL-2421**

**Course Outcomes**

**CO1:** nkswnBksw g[[[;se d/ ejkDhGkr B{z f;b/p; ftuPkwbeo e/  
ftfdnkoEhnKnzdoejkDhBz{ gVQD dh o[uh Bz{ g?dkeoBk j? ns/ ejkDhirsBkbi'VDk j?.

**CO2:** rZdgqtkj (o/ykfusq s/ jbe/ b/y) g[[[;se B{z f;b/p; ftuPkwbeo e/  
ftfdnkoEhnKnzdogVQD dh o[uh Bz{ g?dkeoBk j? ns/ w[ZbtkBfJfsjk; s'AikD{ eotkT[Dk  
j?.

**CO3:** ;zy/g ouBkdkwB'oEftfdnkoEhnK B{z ;w/A ns/ fwjBs dh pZuseoBpko/ dZ;Dk j?.

**CO4:** Ppd Pq/DhnKBz{ gVQkT[D dkwb'oEftfdnkoEhnKnzdogzikphGkPk dh nwhohdk ns/  
pkohehnKBz{ ;wMdbJhtZyo/ -tZyo/ f;XKsKdkftek; eoBk j?.

**CO5:** w[jktfonK dh tos'ABkbrZbpksftugogZesknkT[Adh j?.fJjftfdnkoEhnK dh  
rZbpksftufBykofbnkT[D dkezweoBr/.

Bachelor of Science (Honours) Home Science  
(Semester – II) Session 2024-2025

Bachelor of Arts (Journalism & Mass Communication) / Bachelor of Science (Fashion Designing) /

Bachelor of Science (Honours) Home Scienc/ Bachelor of Computer Applications/

Bachelor of Science (Information Technology)/ Bachelor of Science (Bio-Technology)

(Semester II)  
Punjabi (Compulsory)  
Course Code-BJML/BFDL/BHSL/BCAL/BITL/BBTL-2421

;wK L 3 xzN/

Max. Marks: 100

L-T-P

4-0-0

Theory: 70

CA: 30

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08 nze

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08 nze

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1H gqPB gZso d/ uko ;?ePB j'Dr/.;?ePB A-DsZe d/ gqPB :{fBN I-IV ftu'A  
g[ZS/ ikDr/. jo ;?ePB ftu d' gqPB g[ZS/ ikDr/.

2H ftfdnkoEh B/ e[b gzi gqPB eoB/ jB. jo ;?ePB ftu'A fJe gqPB bkIwh  
j?. gzik gqPBfe;/ th ;?ePB ftu'A ehskik ;edk j?.

3H jo/e gqPB d/ 16 nze jB.

4H g/go ;?ZN eoB tkbk i/eo ukj/ sK gqPBK dh tzv nr'A tZX s'A tZX  
uko T[g gqPBK

ftu eo ;edk j?.

**Bachelor of Arts / Bachelor of Science (Medical) / Bachelor of Science (Non Medical) / Bachelor of Science (Computer Science) / Bachelor of Science (Economics) / Bachelor of Commerce / Bachelor of Business Administration/ Bachelor of Arts (Journalism & Mass Communication) / Bachelor of Science (Fashion Designing) / Bachelor of Science (Honours) Home Science/ Bachelor of Computer Applications/Bachelor of Science (Information Technology)/ Bachelor of Science (Bio-Technology)/Bachelor of Science (Honours) Mathematics/ Bachelor of Arts (Honours) English/Bachelor of Commerce (Honours) Bachelor of Science (Honours) Physics**

**Basic Punjabi**

**In lieu of Punjabi (Compulsory)**

**Course Code -BARL/BSML/BSNL/BCSL/BECL/BCRL/BBRL/BJML/BFDL/  
BHSL/BCAL/BITL/BBTL/BOML/BOEL/BCOL/BOPL-2031**

**Course outcomes**

**CO1** w[Zybh gzikph gVQkT[D dk wB'oE ftfdnkoEhnK B{z gzikph GkPk B{z f;ykT[D dh gqfefonk ftu gk e/ fJe j'o GkPk f;ZyD d/ w"e/ gqdkB eoBk j?.

**CO2** fJ; ftu ftfdnkoEh B{z pkohephBh Bkb GkPk dk nfXn?B eotkfJnk ikt/rk.

**CO3** ftfdnkoEhnK B{z gzikph Ppd ouBk s'A ikD{ eotkfJnk ikt/rk.

**CO4** Ppd Pq/DhnK Bz{ gVQkT[D dk wB'oE ftfdnkoEhnK nzdo gzikph GkPk dh nwhoh dk ns/ pkohehnK Bz{ ;wMD bJh tZyo/ -tZyo/ f;XKsK dk ftek; eoBk j?.

**CO5** w[Zybh gzikph gVQkT[D dk wB'oE ftfdnkoEhnK dk Ppd x/ok ftPkb eoBk j?.

**CO6** ftfdnkoEh tke dh gfoGkPk ns/ fJ;dh pDso s'A ikD{ j'Dr/ ns/ GkPk s/ geV wip{s j't/rh.

**CO7** g?oQk ouBk dk wB'oE ftfdnkoEhnK dh p[ZXh B{z shyD eofdNk T[BK dh fbyD gqfsGk B{z T[iKro eoBk j?.

**CO8** xo/b{ ns/ d|soh fuZmh gZso fbyD dk wB'oE ftfdnkoEhnK B{z fJ; ebk ftu fBg[zB eoBk j?.

**CO9** w[jktfonK dh tos'A Bkb rZbpks ftu gogZesk nkT[Adh j?.fJj ftfdnkoEhnK dh rZbpks ftu fByko fbnkT[D dk ezW eoBr/.

Bachelor of Arts / Bachelor of Science (Medical) / Bachelor of Science (Non Medical) / Bachelor of Science (Computer Science) / Bachelor of Science (Economics) / Bachelor of Commerce / Bachelor of Business Administration/ Bachelor of Arts (Journalism & Mass Communication) / Bachelor of Science (Fashion Designing) / Bachelor of Science (Honours) Home Science/ Bachelor of Computer Applications/Bachelor of Science (Information Technology)/ Bachelor of Science (Bio-Technology)/Bachelor of Science (Honours) Mathematics/ Bachelor of Arts (Honours) English/Bachelor of Commerce (Honours) Bachelor of Science (Honours) Physics

**Basic Punjabi**

**In lieu of Punjabi (Compulsory)**

**Course Code -BARL/BSML/BSNL/BCSL/BECL/BCRL/BBRL/BJML/BFDL/  
BHSL/BCAL/BITL/BBTL/BOML/BOEL/BCOL/BOPL-2031**

**smW: 3 GMty**

**Max.**

**Marks: 100**

**L-T-P**

**4-0-0**

**Theory: 70**

**CA: 30**

**gkmeqw**

**: {fBN I**

Ppd P/qDhnK L gSkD ns/ tos'A (Bkt, gVBkt, fefonk, ftP/PD, fefonk ftP/PD,  
;pzXe,  
'ie ns/ ft;fwe)

**08 nze**

**: {fBN II**

gzikphtkepDso L w[ZYbhikDgSkD  
(T) ;kXkoBtke, ;z:[es tke ns/ fwPos tke (gSkD ns/ tos'A)  
(n) fpnkBhnik tke, gqPB tkue tke ns/ j[ewh tke (gSkD ns/ tos'A)

**08  
nze**

**: { [fBN III**

g?oQk ouBk  
nykD ( nykDK dh fb;N Bkb BZEh j?)

**08 nze**

**: {fBN IV**

fuZmh gZso (xo/b{ ns/ d|soh)  
w[jkto/ (w[jktfonK dh fb;N Bkb BZEh j?)

**08 nze**

**nze tzv ns/ gohfyne bJh jdkfJsK**

**1H gqPB gZso d/ uko ;?ePB j'Dr/. ;?ePB A-D sZe d/ gqPB : {fBN I-IV ftu'A  
g[ZS/ ikDr/. jo ;?ePB ftu d' gqPB g[ZS/ ikDr/.**

**2H ftfdnkoEh B/ eZ[b gzi gqPB eoB/ jB. jo ;?ePB ftu'A fJe gqPB bkIwh  
j?. gzitK gqPB fe;/ th ;?ePB ftu'A ehsk ik ;edk j?.**

**3H jo/e gqPB d/ 16 nze jB.**

**4H g/go ;?ZN eoB tkbk i/eo ukj/ sK gqPBK dh tzv nZr'A tZX s'A tZX  
uko T[g gqPBK  
ftu eo ;edk j?.**

## nykD

ਉੱਦਮ ਅੱਗੇ ਲੱਛਮੀ ਪੱਖੇ ਅੱਗੇ ਪੌਣ , ਉਹ ਦਿਨ ਡੁੱਬਾ ਜਦੋਂ ਘੋੜੀ ਚੜ੍ਹਿਆ ਕੁੱਬਾ , ਉੱਚੀ ਦੁਕਾਨ ਫਿੱਕਾ ਪਕਵਾਨ  
 , ਉਲਟੀ ਵਾੜ ਖੇਤ ਨੂੰ ਖਾਏ , ਉੱਚਾ ਲੰਮਾ ਗੱਭਰੂ ਪੱਲੇ ਠੀਕਰੀਆਂ , ਅੱਖੀਂ ਵੇਖ ਕੇ ਮੱਖੀ ਨਹੀਂ ਨਿਗਲੀ ਜਾਂਦੀ  
 , ਅੰਦਰ ਹੋਵੇ ਸੱਚ ਤਾਂ ਕੋਠੇ ਚੜ੍ਹ ਕੇ ਨੱਚ , ਆਪੇ ਮੈਂ ਰੱਜੀ ਪੁੱਜੀ ਆਪੇ ਮੇਰੇ ਬੱਚੇ ਜਿਉਣ , ਆਪ ਕੁਚੱਜੀ ਵਿਹੜੇ ਨੂੰ  
 ਦੇਸ਼ , ਅੰਨ੍ਹਾ ਵੰਡੇ ਰਿਉੜੀਆਂ ਮੁੜ ਮੁੜ ਆਪਣਿਆਂ ਨੂੰ , ਅਕਲ ਵੱਡੀ ਕੇ ਮੱਝ , ਅੰਨ੍ਹਿਆਂ ਵਿੱਚ ਕਾਣਾ ਰਾਜਾ  
 , ਆਪਣੀ ਪੀੜ੍ਹੀ ਹੇਠ ਸੋਟਾ ਫੇਰਨਾ , ਇਕ ਅਨਾਰ ਸੌ ਬਿਮਾਰ , ਇਕ ਹੱਥ ਨਾਲ ਤਾੜੀ ਨਹੀਂ ਵੱਜਦੀ , ਇੱਕ ਚੁੱਪ ਸੌ  
 ਸੁੱਖ ਝੱਟ ਮੰਗਣੀ ਪੱਟ ਵਿਆਹ , ਸਹਿਜ ਪੱਕੇ ਸੇ ਮੀਠਾ ਹੋਵੇ ਦਾਲ ਵਿੱਚ ਕਾਲਾ ਹੋਣਾ ਦਾਲ ਵਿੱਚ ਕਾਲਾ ਹੋਣਾ  
 , ਸੱਦੀ ਨਾ ਬੁਲਾਈ ਮੈਂ ਲਾੜੇ ਦੀ ਤਾਈਂ , ਸਵੈ ਭਰੋਸਾ ਵੱਡਾ ਤੋਸਾ , ਸੌ ਦਿਨ ਚੋਰ ਦੇ ਇਕ ਦਿਨ ਸਾਧ ਦਾ , ਸੱਪ ਦਾ  
 ਬੱਚਾ ਸਪੇਲੀਆ , ਸੱਪ ਮਰ ਜਾਵੇ ਲਾਠੀ ਵੀ ਨਾ ਟੁੱਟੇ , ਸਾਈਆਂ ਕਿਤੇ ਵਧਾਈਆਂ ਕਿਤੇ , ਹੰਕਾਰਿਆ ਸੇ ਮਾਰਿਆ  
 , ਹਾਥੀ ਲੰਘ ਗਿਆ ਪੁਛ ਰਹਿ ਗਈ , ਕੁੱਛ<sup>v</sup> ਕੁ<sup>vh</sup> ਸਹਿਰ ਵੰਡੇਰਾ , ਕੋਲਿਆਂ ਦੀ ਦਲਾਲੀ ਵਿੱਚ ਮੂੰਹ ਕਾਲਾ , ਕਰੇ  
 ਕੋਈ ਭਰੇ ਕੋਈ , ਕਰ ਮਜ਼ੂਰੀ ਤੇ ਖਾਹ ਚੂਰੀ , ਖਵਾਜੇ ਦਾ ਗਵਾਹ ਡੱਡੂ , ਖੇਤੀ ਖਸਮਾਂ ਸੇਤੀ , ਖੂਹ ਪੁੱਟਦੇ ਨੂੰ  
 ਖਾਤਾ ਤਿਆਰ , ਘਰ ਦਾ ਭੇਤੀ ਲੰਕਾ ਢਾਹੇ , ਘਰ ਦੀ ਕੁੱਕੜੀ ਦਾਲ ਬਰਾਬਰ , ਚਿੰਤਾ ਚਿਖਾ ਬਰਾਬਰ , ਛੱਜ ਤਾਂ  
 ਬੇਲੇ ਛਾਣਨੀ ਵੀ ਬੇਲੇ, ਛੋਟੀ ਮੂੰਹ ਵੱਡੀ ਗੱਲ , ਜਾਂਦੇ ਚੋਰ ਦੀ ਲੰਗੋਟੀ ਹੀ ਸਹੀ , ਜਿਸ ਦੀ ਕੋਠੀ ਦਾਣੇ ਉਹਦੇ  
 ਕਮਲੇ ਵੀ ਸਿਆਣੇ , ਜਿਹੜੇ ਗੱਜਦੇ ਨੇ ਉਹ ਵਰ੍ਹਦੇ ਨਹੀਂ , ਜਾਤ ਦੀ ਕੋਹੜ ਕਿਰਲੀ ਸਤੀਰਾਂ ਨੂੰ ਜੱਫੇ , ਝੱਟ ਮੰਗਣੀ  
 ਪੱਟ ਵਿਆਹ , ਦਾਲ ਵਿੱਚ ਕਾਲਾ ਹੋਣਾ , ਦਾਣੇ ਦਾਣੇ ਤੇ ਮੇਰ , ਨਾਲੇ ਚੋਰ ਨਾਲੇ ਚਤਰ , ਪੇਟ ਨਾ ਪਈਆਂ  
 ਰੋਟੀਆਂ ਸਭੇ ਗੱਲਾਂ ਖੋਟੀਆਂ , ਬਿਨਾਂ ਰੋਇਆਂ ਮਾਂ ਵੀ ਦੁੱਧ ਨਹੀਂ ਦਿੰਦੀ , ਬੁੱਢੀ ਘੋੜੀ ਲਾਲ ਲਗਾਮ , ਭੱਜਦਿਆਂ ਨੂੰ  
 ਵਾਹਣ ਇੱਕੋ ਜਿਹੇ , ਭੱਜੀਆਂ ਬਾਹਾਂ ਗਲ ਨੂੰ ਆਉਂਦੀਆਂ ਨੇ , ਰਾਹ ਪਿਆ ਜਾਣੀਏਂ ਜਾਂ ਵਾਹ ਪਿਆ ਜਾਣੀਏ , ਰਾਈ  
 ਦਾ ਪਹਾੜ ਬਣਾਉਣਾ , ਰੱਸੀ ਸੜ ਗਈ ਵੱਟ ਨੂੰ ਗਿਆ

## w[jkto/

ਉਸਤਾਦੀ ਕਰਨੀ, ਉਗਲ ਕਰਨੀ, ਉੱਲੂ ਬਣਾਉਣਾ, ਉੱਚਾ ਸਾਹ ਨਾ ਕੱਢਣਾ, ਉੱਡਦੇ ਫਿਰਨਾ, ਉੱਘ ਸੁੱਘ ਮਿਲਣੀ, ਅੱਖਾਂ ਵਿਚ ਰੜਕਣਾ, ਅੱਗ ਲਾਉਣਾ, ਆਵਾ  
 ਉਤ ਜਾਣਾ, ਅਸਮਾਨ ਨੂੰ ਟਾਕੀਆਂ ਲਾਉਣਾ, ਅੱਖਾਂ ਵਿੱਚ ਲਾਲੀ ਉਤਰਨੀ, ਅਕਲ ਤੇ ਪਰਦਾ ਪੈਣਾ, ਈਨ ਮੰਨਣੀ, ਈਦ ਦਾ ਚੰਨ ਹੋਣਾ, ਇੱਟ ਨਾਲ ਇੱਟ  
 ਖੜਕਾਉਣਾ, ਸਿਰ ਫਿਰਨਾ, ਸਿਰ ਤੇ ਚੜ੍ਹਨਾ, ਸਬਰ ਦਾ ਘੁੱਟ ਭਰਨਾ, ਸਿਰ ਪੈਰ ਨਾ ਹੋਣਾ, ਹੱਥ ਧੋ ਕੇ ਪਿੱਛੇ ਪੈਣਾ, ਹੱਥੀਂ ਛਾਂਵਾਂ ਕਰਨੀਆਂ, ਹੱਡ ਭੰਨਣੇ, ਹੱਥ ਤੰਗ ਹੋਣਾ  
 , ਹੱਥ ਮਲਣਾ, ਹੱਥ ਪੈਰ ਮਾਰਨਾ, ਕੰਨੀਂ ਕਤਰਾਉਣਾ, ਕੰਨ ਤੇ ਜੂੰ ਨਾ ਸਰਕਣਾ, ਕੰਨ ਘੋਸਲ ਮਾਰਨੀ, ਖਾਨਾ ਖਰਾਬ ਹੋਣਾ, ਖਾਨਿਓ ਜਾਣਾ, ਗੁੱਡੀ ਚੜ੍ਹਨੀ, ਗਲ ਪੈਣਾ  
 , ਗੰਗਾ ਨਹਾਉਣਾ, ਚੜ੍ਹ ਮੱਚਣੀ, ਚੰਦ ਚਾੜ੍ਹਨਾ, ਚਾਦਰ ਵੇਖ ਕੇ ਪੈਰ ਪਸਾਰਨਾ, ਚਕਮਾ ਦੇਣਾ, ਛੱਕੋ ਛੜਾਉਣਾ, ਛਾਪਾ ਮਾਰਨਾ, ਛਿੱਲ ਲਾਉਣੀ, ਛਿੱਕੋ ਟੰਗਣਾ, ਜਾਨ  
 ਤੇ ਖੇਡਣਾ, ਜੁਬਾਨ ਕਰਨੀ, ਜਾਨ ਮਾਰਨਾ, ਜੰਗਲ ਵਿੱਚ ਮੰਗਲ ਹੋਣਾ, ਝੋਲੀ ਚੁੱਕਣਾ, ਝੱਟ ਟਪਾਉਣਾ, ਟੱਸ ਤੋਂ ਮੱਸ ਨਾ ਹੋਣਾ, ਟੰਗ ਅੜਾਉਣੀ, ਟਰ ਟਰ ਕਰਨਾ,  
 ਟੇਵੀ ਖੀਰ, ਟਕੇ ਵਰਗਾ ਜਵਾਬ ਦੇਣਾ, ਠੰਡੇ ਸਾਹ ਭਰਨਾ, ਠੁੰਗਾ ਮਾਰਨਾ, ਠੂਠਾ ਫੜਨਾ, ਠਣ ਠਣ ਗੋਪਾਲ, ਡਕਾਰ ਜਾਣਾ, ਡੁੱਬ ਮਰਨਾ, ਡੰਡੇ ਵਜਾਉਣਾ, ਢਿੱਡ  
 ਵਿੱਚ ਰੱਖਣਾ, ਢਿੱਡ ਵਿੱਚ ਚੂਹੇ ਨੱਚਣਾ, ਢਿੱਡੀਂ ਪੀੜਾਂ ਪੈਣੀਆਂ, ਢੇਰੀ ਢਾਹੁਣਾ, ਤੱਤੀ ਵਾ ਨਾ ਲੱਗਣੀ, ਤਰਲੇ ਲੈਣਾ, ਤੀਲੀ ਲਾਉਣੀ, ਤਾਰੇ ਤੋੜਨਾ, ਤਾੜੀ  
 ਲਾਉਣੀ, ਬੁੱਕੀ ਵੜੇ ਪਕਾਉਣਾ, ਬਰ ਬਰ ਕੱਬਣਾ, ਦਮ ਲੈਣਾ, ਦਿਲ ਖੱਟਾ ਹੋਣਾ, ਦੰਦ ਖੱਟੇ ਕਰਨੇ, ਦੀਵਾ ਗੁੱਲ ਕਰਨਾ, ਧੁੱਪ ਵਿੱਚ ਵਾਲ ਚਿੱਟੇ ਹੋਣਾ, ਧਰਮ  
 ਨਿਭਾਉਣਾ, ਧੱਕਾ ਲੱਗਣਾ, ਧਰਨਾ ਮਾਰਨਾ, ਧੁੰਮਾਂ ਪੈ ਜਾਣੀਆਂ, ਧੱਜੀਆਂ ਉਡਾਉਣੀਆਂ, ਨਹੁੰ ਮਾਸ ਦਾ ਰਿਸ਼ਤਾ, ਨੱਕ ਚਾੜ੍ਹਨਾ, ਨੱਕ ਰੱਖਣਾ, ਨੱਕ ਉੱਤੇ ਮੱਖੀ ਨਾ  
 ਬਹਿਣ ਦੇਣਾ, ਨਜ਼ਰ ਸਵੱਲੀ ਹੋਣੀ, ਪੱਟੀ ਪੜ੍ਹਾਉਣੀ, ਪਾਰਾ ਚੜ੍ਹ ਜਾਣਾ, ਪੈਰ ਜ਼ਮੀਨ ਤੇ ਨਾ ਲੱਗਣਾ, ਪੈਰਾਂ ਹੇਠੋਂ ਜ਼ਮੀਨ ਨਿਕਲਣਾ, ਪਾਣੀ ਸਿਰੋਂ ਲੰਘਣਾ, ਪੁੱਠੀਆਂ  
 ਛਾਲਾਂ ਮਾਰਨੀਆਂ, ਪੈਰਾਂ ਤੇ ਪਾਣੀ ਨਾ ਪੈਣ ਦੇਣਾ, ਫੁੱਲਾਂ ਵਾਂਗ ਰੱਖਣਾ, ਫੁੱਲੇ ਨਾ ਸਮਾਉਣਾ, ਫਸਲੀ ਬਟੇਰਾਂ ਹੋਣਾ, ਫੂਕਾਂ ਨਾਲ ਉਡਾ ਦੇਣਾ, ਬਾਜ਼ੀ ਲੈ ਜਾਣਾ, ਬੇੜਾ  
 ਗਰਕ ਹੋਣਾ, ਬੇੜਾ ਪਾਰ ਕਰਨਾ, ਬੀੜਾ ਚੁੱਕਣਾ, ਬੇੜੀਆਂ ਵਿੱਚ ਵੱਟੇ ਪਾਉਣਾ, ਬੀਜ ਨਾਸ਼ ਕਰਨਾ, ਭਾਰ ਸਿਰੋਂ ਲਾਹੁਣਾ, ਭੁੱਖ ਲਹਿ ਜਾਣੀ, ਭੁੱਖੇ ਸ਼ੇਰ ਵਾਂਗ ਪੈਣਾ,  
 ਭੂਤ ਸਵਾਰ ਹੋਣਾ, ਭੰਗ ਭੁੱਜਣੀ, ਮੱਖੀਆਂ ਮਾਰਨੀਆਂ, ਮਰੂੰ ਮਰੂੰ ਕਰਦੇ ਰਹਿਣਾ, ਮਾਤ ਪਾ ਦੇਣਾ, ਮਾਰੋਮਾਰ ਕਰਨੀ, ਮਿਰਚ ਮਸਾਲਾ ਲਾਉਣਾ, ਮਿਰਚਾਂ ਲੱਗਣੀਆਂ,  
 ਮੂੰਹ ਦੀ ਖਾਣਾ, ਮੋਰਚਾ ਮਾਰਨਾ, ਮਿੱਟੀ ਖਰਾਬ ਕਰਨੀ, ਯੱਬਲੀਆਂ ਮਾਰਨੀਆਂ, ਰਚ ਮਿਚ ਜਾਣਾ, ਰਾਈ ਦਾ ਪਹਾੜ ਬਣਾਉਣਾ, ਰਾਤ ਦਿਨ ਇੱਕ ਕਰਨਾ, ਰਾਹ ਦਾ  
 ਰੋੜਾ ਬਣਨਾ, ਰੰਗ ਬਦਲਣਾ, ਰੰਗ ਵਿੱਚ ਭੰਗ ਪਾਉਣਾ, ਲਹੂ ਨਾਲ ਹੱਥ ਰੰਗਣਾ, ਲਹੂ ਦੇ ਘੁੱਟ ਭਰਨਾ, ਲੱਕ ਟੁੱਟ ਜਾਣਾ, ਲਾਹ ਪਾਹ ਕਰਨੀ, ਲਾਲ ਪੀਲਾ ਹੋਣਾ,  
 ਲੂਣ ਹਰਾਮ ਕਰਨਾ, ਵੱਡ ਵੱਡ ਖਾਣਾ।

**Bachelor of Arts/ Bachelor of Science (Medical)/ Bachelor of Science (Non Medical)/ Bachelor of Science (Honours) Maths/ Bachelor of Science (Honours) Physics/ Bachelor of Science (Computer Science)/ Bachelor of Science (Economics)/ Bachelor of Commerce / Bachelor of Business Administration/ Bachelor of Arts (Journalism & Mass Communication) / Bachelor of Science (Fashion Design) / Bachelor of Science (Honours) Home Science/ Bachelor of Computer Application/ Bachelor of Science (Information Technology)/ Bachelor of Science (Bio Technology) / Bachelor of Arts (Honours) English**

## **Semester II**

**Session: 2024-25**

**Course Title: Punjab History and Culture (C. 320 to 1000 B.C.)  
(Special paper in lieu of Punjabi Compulsory)  
(For those students who are not domicile of Punjab)**

**Course Code: BARL-2431/ BSML-2431/ BSNL-2431/ BOML-2431/ BOPL-2431/ BCSL- 2431/ BECL-2431/ BCRL-2431/ BBRL-2431/ BJML-2431/ BFDL-2431/ BHSL-2431/ BCAL-2431/ BITL-2431 / BBTL-2431/BOEL-2431**

## **Course Outcomes**

After completing Semester II and course on Ancient History of Punjab, students of History will be able to identify and have a complete grasp on the sources & writings of Ancient History of Punjab

**CO 1:** Analyse the emergence of Mauryan, Gupta empires during the classical age in India

**CO 2:** To understand the various factors leading to rise and fall of empires and emergence of new dynasties and their Culture, society, administration , polity and religion specifically of Kushans and Vardhanas in the Punjab

**CO 3:** Students will be adept in constructing original historical argument based on primary source material research

**CO 4:** To have an insight on the existing Literature of this period and understand the past developments in the light of present scenario.

**CO 5:** To enable students to have thorough insight into the various forms/styles of Architecture and synthesis of Indo - Muslim Art and Architecture in Punjab

**Bachelor of Arts/ Bachelor of Science (Medical)/ Bachelor of Science (Non-Medical) /Bachelor of Science (Honours) Maths/ Bachelor of Science (Honours) Physics/ Bachelor of Science (Computer Science) / Bachelor of Science (Economics) / Bachelor of Commerce / Bachelor of Business Administration/ Bachelor of Arts (Journalism & Mass Communication) / Bachelor of Science (Fashion Design) / Bachelor of Science (Honours) Home Science /Bachelor of Computer Application/ Bachelor of Science (Information Technology)/ Bachelor of Science (Bio Technology) / Bachelor of Arts (Honours) English**

**Semester II**  
**Session: 2024-25**

**Course Title: Punjab History and Culture (C. 320 to 1000 B.C.)**  
**(Special paper in lieu of Punjabi Compulsory)**  
**(For those students who are not domicile of Punjab)**

**Course Code: BARL-2431/ BSML-2431/ BSNL-2431/ BOML-2431/ BOPL-2431/ BCSL-2431/ BECL-2431/ BCRL-2431/ BBRL-2431/ BJML-2431/ BFDL-2431/ BHSL-2431/ BCAL-2431/ BITL-2431 / BBTL-2431/BOEL-2431**

**Time: 3 Hours**  
**L-T-P**  
**4-0-0**

**Max. Marks: 100**  
**Theory: 70**  
**CA: 30**

**Instructions for the Paper Setter**

- 1. Question paper shall consist of four units**
- 2. Examiner shall set 8 questions in all by selecting two questions of equal marks from each unit.**
- 3. Candidates shall attempt 5 questions in 600 words, by at least selecting one Question from each Unit and the 5<sup>th</sup> question may be attempted from any of the four units.**
- 4. Each question will carry 14 marks**

**Unit I**

- 1. Alexander's Invasion's and Impact**
- 2. Administration of Chandragupta Maurya and Ashoka**

**Unit II**

- 3. The Kushans: Gandhar School of Art.**
- 4. Gupta Empire: Golden period (Science , Art and Literature)**

**Unit III**

- 5. The Punjab under the Harshvardhana**
- 6. Socio-cultural History of Punjab from 7<sup>th</sup> to 1000 A.D.**

**Unit IV**

7. Development of Languages and Education with Special reference to Taxila
8. Development to Art and Architecture

### **Suggested Readings**

1. L. M Joshi (ed), *History and Culture of the Punjab*, Art-I, Punjabi University, Patiala, 1989 (3<sup>rd</sup> edition)
2. L.M. Joshi and Fauja Singh (ed.), *History of Punjab*, Vol.I, Punjabi University, Patiala, 1977.
3. Budha Parkash, *Glimpses of Ancient Punjab*, Patiala, 1983.
4. B.N. Sharma: *Life in Northern India*, Delhi.1966.



**Bachelor of Arts (Journalism & Mass Communication)/ Bachelor of Science (Fashion Designing)/ Bachelor of Science (Honours) Home Science/ Bachelor of Computer Applications / Bachelor of Science (Information Technology)/ Bachelor of Science (Bio-Technology)/ Bachelor of Science (Honours) Agriculture/ Bachelor of Science (Honours) Maths / Bachelor of Science (Honours) Physics/ Bachelor of Vocation (Retail Management) / Bachelor of Vocation (Management & Secretarial Practices)/ Bachelor of Vocation (Animation)/ Bachelor of Vocation (Textile Design & Apparel Technology)/ Bachelor of Vocation (Nutrition Exercise & Health)/ Bachelor of Vocation (Beauty and Wellness)/ Bachelor of Vocation (Photography & Journalism) /Bachelor of Vocation (Artificial Intelligence and Data Science)/ Bachelor of Vocation (Hospitality and Tourism)**

**Semester II**

**Session: 2024-25**

**Communication Skills in English**

**Course Code: BJMM/BFDM/BHSM/BCAM/BITM/  
BBTM/BACM/BOMM/BOPM/BVRM/BVMM/BVAM/BVTM/BVNM/BVBM/BVPM/  
BVAI/BVHM-2102**

**Course Outcomes**

At the end of this course, the students will develop the following skills:

- CO 1** Enhancement of listening skills with the help of listening exercises based on conversation, news and TV reports
- CO 2** Improvement of speaking skills enabling them to converse in a specific situation
- CO 3** Acquisition of knowledge of phonetics which will help them in learning about correct pronunciation as well as effective speaking
- CO 4** The capability to present themselves well in a job interview
- CO 5** The ability of Note-Taking to be able to distinguish the main points from the supporting details and the irrelevant information from the relevant one
- CO 6** Speaking skills of the students enabling them to take active part in group discussion and present their own ideas
- CO 7** The capability of narrating events and incidents in a logical sequence

Bachelor of Arts (Journalism & Mass Communication)/ Bachelor of Science (Fashion Designing)/ Bachelor of Science (Honours) Home Science/ Bachelor of Computer Applications / Bachelor of Science (Information Technology)/ Bachelor of Science (Bio-Technology)/ Bachelor of Science (Honours) Agriculture/ Bachelor of Science (Honours) Maths / Bachelor of Science (Honours) Physics/ Bachelor of Vocation (Retail Management) / Bachelor of Vocation (Management & Secretarial Practices)/ Bachelor of Vocation (Animation)/ Bachelor of Vocation (Textile Design & Apparel Technology)/ Bachelor of Vocation (Nutrition Exercise & Health)/ Bachelor of Vocation (Beauty and Wellness)/ Bachelor of Vocation (Photography & Journalism) /Bachelor of Vocation (Artificial Intelligence and Data Science)/ Bachelor of Vocation (Hospitality and Tourism)

Semester II

Session: 2024-25

**Communication Skills in English**

Course Code: BJMM/BFDM/BHSM/BCAM/BITM/  
BBTM/BACM/BOMM/BOPM/BVRM/BVMM/BVAM/BVTM/BVNM/BVBM/BVPM/  
BVAI/BVHM-2102

**Time: 3 hours (Theory)**

**3 hours (Practical)**

**L-T-P**

**3-0-1**

**Max. Marks: 100**

**Theory: 50**

**Practical: 20**

**CA: 30**

**Instructions for the paper setters and distribution of marks**

**The question paper will consist of four sections and distribution of marks will be as under:**

**Section A:** Two questions of theoretical nature will be set from Unit I of the syllabus and the candidates will have to attempt one carrying 5 marks.

**Section B:** Two questions will be set from Unit II of the syllabus. Candidates will have to attempt one carrying 5 marks.

**Section C:** Two questions will be set from Unit III of the syllabus. Candidates will have to attempt one carrying 5 marks.

**Section D:** Two questions will be set from Unit IV of the syllabus. Candidates will have to attempt one carrying 5 marks.

**Important Note:**

**The candidate will have to attempt five questions in all selecting one from each section of the question paper and the fifth question from any of the four sections.**

**(5 x 10 = 50)**

**Bachelor of Arts (Journalism & Mass Communication)/ Bachelor of Science (Fashion Designing)/ Bachelor of Science (Honours) Home Science/ Bachelor of Computer Applications / Bachelor of Science (Information Technology)/ Bachelor of Science (Bio-Technology)/ Bachelor of Science (Honours) Agriculture/ Bachelor of Science (Honours) Maths / Bachelor of Science (Honours) Physics/ Bachelor of Vocation (Retail Management) / Bachelor of Vocation (Management & Secretarial Practices)/ Bachelor of Vocation (Animation)/ Bachelor of Vocation (Textile Design & Apparel Technology)/ Bachelor of Vocation (Nutrition Exercise & Health)/ Bachelor of Vocation (Beauty and Wellness)/ Bachelor of Vocation (Photography & Journalism) /Bachelor of Vocation (Artificial Intelligence and Data Science)/ Bachelor of Vocation (Hospitality and Tourism)**

## **Content**

### **Unit I**

**Listening Skills :** Barriers to listening; effective listening skills; feedback skills.

**Activities:** Listening exercises – Listening to conversation, News and TV reports

### **Unit II**

Attending telephone calls; note taking and note making

**Activities:** Taking notes on a speech/lecture

### **Unit III**

**Speaking and Conversational Skills:** Components of a meaningful and easy conversation, understanding the cue and making appropriate responses, forms of polite speech, asking and providing information on general topics

**Activities:** 1) Making conversation and taking turns

2) Oral description or explanation of a common object, situation or concept

### **Unit IV**

The study of sounds of English, stress Situation based

Conversation in English Essentials of Spoken English

**Activities:** Giving Interviews

## **Recommended Books:**

1. *Oxford Guide to Effective Writing and Speaking* by John Seely.
2. *Business Communication* by Sethi, A and Adhikari, B., McGraw Hill Education 2009.
3. *Communication Skills* by Raman, M. & S. Sharma, OUP, New Delhi, India (2011).
4. *A Course in Phonetics and Spoken English* by J. Sethi and P.V. Dhamija, Phi Learning.

**Bachelor of Arts (Journalism & Mass Communication)/ Bachelor of Science (Fashion Designing)/ Bachelor of Science (Honours) Home Science/ Bachelor of Computer Applications / Bachelor of Science (Information Technology)/ Bachelor of Science (Bio-Technology)/ Bachelor of Science (Honours) Agriculture/ Bachelor of Science (Honours) Maths / Bachelor of Science (Honours) Physics/ Bachelor of Vocation (Retail Management) / Bachelor of Vocation (Management & Secretarial Practices)/ Bachelor of Vocation (Animation)/ Bachelor of Vocation (Textile Design & Apparel Technology)/ Bachelor of Vocation (Nutrition Exercise & Health)/ Bachelor of Vocation (Beauty and Wellness)/ Bachelor of Vocation (Photography & Journalism) /Bachelor of Vocation (Artificial Intelligence and Data Science)/ Bachelor of Vocation (Hospitality and Tourism)**

**Semester II**

**Session: 2024-25**

**Communication Skills in English**

**Course Code: BJMM/BFDM/BHSM/BCAM/BITM/**

**BBTM/BACM/BOMM/BOPM/BVRM/BVMM/BVAM/BVTM/BVNM/BVBM/BVPM/**

**BVAI/BVHM-2102**

**Practical / Oral Testing**

**Time: 3 hours**

**Marks: 20**

**Course Contents:**

1. Oral Presentation with/without audio visual aids
2. Group Discussion
3. Listening to any recorded or live material and asking oral questions for listening comprehension

**Questions:**

1. Oral Presentation will be of 5 to 7 minutes duration. (Topic can be given in advance or it can be of student's own choice). Use of audio-visual aids is desirable.
2. Group discussion comprising 8 to 10 students on a familiar topic. Time for each group will be 15 to 20 minutes.

**Bachelor of Science (Honours) Home Science  
(Semester – II) (Session 2024-2025)  
Family and Social Welfare**

**Course Code: BHSL 2283  
Theory**

**Course Outcomes**

Upon completion of this course the students will be able to

**CO 1** To develop awareness about family and social welfare

**CO 2** To develop understanding about meaning and types of adjustments. Problems in adjustments and to overcome them.

**CO 3** To recognize the needs and importance of family plan.

**CO 4** To distinguish between the various types of parenting techniques.

**CO 5** To understand the role of family in socialization.

**CO 6** To develop knowledge of family and child welfare programme.

**Bachelor of Science (Honours) Home Science**  
**Semester – II**  
**Session 2024-2025**  
**Family and Social Welfare**  
**(Theory)**  
**Course Code: BHSL 2283**

**Time: 3 Hours**

**Max. Marks: 100**

**L-T-P**

**Theory: 70**

**4-0-0**

**CA: 30**

**Instructions for the Paper Setter**

- Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 14 marks.

**Content**

**Unit I**

Marriage.

- Meaning, Objectives , Types , Adjustments.
- Problems in adjustment.

Family

- Definition, Characteristics, Types, Functions, Changes in the world family, Characteristics of a modern family
- Problems of family.
- Merits & demerits of Nuclear & Joint families.
- Factors disintegrating joint family.

**Unit II**

Family Planning

- Need and importance of family planning
- Family planning methods and care.

Parenting techniques

- Authoritarian
- Permissive
- Disciplined

**Unit III**

Role of family & Society in Socialization, Social welfare.

- Meaning of Social welfare.
- Social welfare as distinguished from social work, social service, social reform & social action.

**Unit IV**

Family and child welfare, Social Welfare agencies involved in family & child welfare

- ICDS
- Balwadi
- Anganwadi
- All India women's conference
- Local organization official & non-official involved in social welfare, Awareness of current laws related to women & child welfare.

**Bachelor of Science (Honours) Home Science**  
**Semester – II**  
**Session 2024-2025**  
**Family and Social Welfare**

**References:**

1. E. Wilson, Everett E and Convener, Merill B, The field of social work, Henry holt and company , New York 1958.
2. Nagpaul , Hans , the study of India society, sociological analysis of social welfare and welfare education, Chand and Co Pvt Ltd, New Delhi, 1972.

**Bachelor of Science (Honours) Home Science  
(Semester – II) (Session 2024-2025)  
Elementary Physiology**

**Course Code: BHSL 2284  
(Theory)**

**Course Outcomes**

**CO 1** To develop h knowledge of human cell, their functions and different organs like skin, tissues.

**CO 2** To develop the elementary knowledge of functions of cardiovascular system.

**CO 3** To develop the elementary knowledge of structure and functions of urinary system and male and female reproductive organs.

**CO 4** To develop the elementary knowledge of location and functions of endocrine glands and structure and functioning of brain.



**Bachelor of Science (Honours) Home Science  
(Semester – II) (Session 2024-2025)  
Elementary Physiology**

**Theory  
Course Code: BHSL 2284**

**Time: 3 Hours**

**L-T-P**

**3-0-0**

**Max. Marks: 100**

**Theory: 70**

**CA: 30**

**Instructions for the Paper Setter**

- Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 14 marks.

**Content**

**Unit I**

Physiology elementary knowledge of structure of cell, tissue and organ, Skin  
Elementary knowledge of structure and function of digestive system

- Digestion of carbohydrates protein & fats

**Unit II**

Elementary knowledge of structure and function of cardiovascular system blood composition and function & blood vessels

- Blood groups and RH factor.
- Heart structure & function
- Basic Knowledge of blood pressure & heart beat.

Elementary knowledge of structure and function of respiratory system Structure and function lungs

**Unit III**

Elementary knowledge of structure and function of urinary system Structure & function of nephron & formation of Urine

Elementary Knowledge of structure and function of male and female reproductive organs Menstrual cycle

**Unit IV**

Elementary knowledge of location and function of endocrine glands present in body Elementary knowledge of structure & function of Brain.

**Reference Books**

- 1) Text book of Biology for 10+2 students (NCERT)
- 2) Family Resource Management and Health science Rajwinder K Randhawa Pardeep Publications.

**Bachelor of Science (Honours) Home Science**  
**Semester – II**  
**Session 2024-2025**  
**Introduction to Family Resource Management**

**Course Code: BHSM 2285**  
**Theory**

**Course Outcomes**

**CO 1** To know about Resources and there types and to understand how to manage these resources in our daily life.

**CO 2** Understands the basic steps in decision making process and how to resolve the conflicts in family.

**CO 3** The students will be Capable of managing any resource with its process and to know the role of communication in effective management.

**CO 4** Understand the basic management of specific resource and work simplification.

**Bachelor of Science (Honours) Home Science**  
**Semester – II**  
**Session 2024-2025**  
**Introduction to Family Resource Management**

**Theory**  
**Course Code: BHSM 2285**

**Time: 3 Hours**  
**L-T-P**  
**3-0-1**

**Max. Marks: 100**  
**Theory: 50**  
**Practical: 20**  
**CA: 30**

**Instructions for the Paper Setter**

- Question paper will have four units.
- Examiner will set a total of 8 questions comprising two questions from each unit.
- Students are required to attempt five questions in all, choosing one question from each unit and fifth question from any unit. Question can have sub unit.
- All question carry equal marks.
- Each question carries 10 marks.

**Content**

**Unit I**

Introduction to family resource management

Definition and importance of family resource Management.

Challenges of family resource management.

Family life cycle and its effect on management of resources.

Managerial responsibilities of families.

Major Motivating forces-Values, Goals, Standards, Needs and Wants.

- Resources.
- Definition and classification of resources.
- Characteristics of resources.
- Factors affecting the use of resources.

**Unit II**

Decision Making Process

Steps in Decision making process.

Factors affecting Decision Making.

Problem solving through resolving conflicts.

Management process

Planning

Organizing

Supervising

Controlling

Evaluation

Role of communication in effective management

Application of management process in resource utilization.

**Unit III**

Management of specific resources

- Money management – types of income and steps in money management (budgeting), methods of handling money.

Importance of saving & investment.

Time management -tools of time management , steps of making time plans  
Energy management-concepts of energy cost of various household activities.  
Fatigue – types ,causes ,effects and remedies  
Steps in reducing energy costs.

□ **Unit IV**

Work simplification

Interrelationship of time and energy.

Techniques of studying work -pathway, process & operation chart.

General principles (Mendel's classes of change of work simplification)

Ergonomics

Definition and importance

Disciplines involved in ergonomics

Use of ergonomics.

**References:**

Gross, I.H; Crandall, E.W and Knoll .M.M Management for modern families, sterling Publishers, New Delhi, 1967.

Nickell, P; Dorsey, J.N. Management in Family living, John Willy and sons Inc, New York, 1975.

Fire baugh & Deacon-Home management concepts and contents.

Randhawa, Rajwinder K; Family Resource Management and Health Science, Pardeep Publication, Jalandhar, 2009.

**Bachelor of Science (Honours) Home Science  
Semester – II  
Session 2024-2025  
Introduction to Family Resource Management**

**Course Code: BHSM 2285  
Practical**

**Course Outcomes**

**CO 1** At the end of this course the student will be able to make budget or process chart pr time plans.

**CO 2** This course gives an overview of various table setting.

**CO 3** Understand the use of waste materials to make a utility article.

**Bachelor of Science (Honours) Home Science**  
**Semester – II**  
**Session 2024-2025**  
**Introduction to Family Resource Management**

**Practical**  
**Course Code: BHSM 2285**

**Time- 3 Hours**

**Total Marks: 20**

**Practical**

1. Planning of budget for different income groups.
2. Preparing time plans of working and non-working homemakers.
3. Simplify any household task using pathway, process & operation chart.
4. Table setting for different meals- Formal, Informal and Buffet and Napkin folding.
5. Make any utility article that will be judged by the external examiner.

**(Note: Paper will be set on the spot by the examiner).**

**Bachelor of Science (Honours) Home Science**  
**Semester – II**  
**Session 2024-2025**  
**Advanced Food and Nutrition**  
**Course Code: BHSM 2280**  
**Theory**

**Course Outcomes**

**CO 1** To develop the knowledge to classify different functions and requirements of fat soluble vitamin and water soluble vitamin.

**CO 2** To develop the knowledge of food preservation, food spoilage and principle of food preservation.

**CO 3** To develop the knowledge of food adulteration and standards, toxic effects of food adulteration.

**CO 4** To develop the knowledge of food hygiene in purchasing, preparation, cooking and serving of food.

**Bachelor of Science (Honours) Home Science**  
**Semester – II**  
**Session 2024-2025**  
**Advanced Food and Nutrition**  
**Theory**  
**Course Code: BHSM-2280**

**Time: 3 Hours**  
**L-T-P**  
**2-0-1**

**Max. Marks: 100**  
**Theory: 50**  
**Practical: 20**  
**CA: 30**

**Instructions for the Paper Setter**

- Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 10 marks.

**Content**

**Unit I**

Vitamin- Classification, unit of measurements sources, requirements functions and Deficiency and Toxicities of following vitamins.

(a) Fat Soluble vitamins A, D, E and K

(b) Water Soluble vitamins- C, B1-B2, B3, B6, B12 and Folic acid.

Mineral- Functions, Sources, Bio-availability requirement and deficiency/excess of following minerals calcium, iron, iodine, fluorine , Sodium, Potassium, Phosphorus, and Magnesium.

Importance of water in Nutrition.

**Unit II**

Food Preservation

Importance and scope of food preservation.

Causes of food spoilage.

Principles of food preservation.

Household Methods of food preservation.

**Unit III**

Food adulteration and standards

Definition.

Common adulterants & their test in different food stuffs.

Toxic Effects of food adulteration.

Food standards.

**Unit IV**

Food hygiene Purchasing Preparation Cooking Serving



**References:**

1. Text Book of Nutrition & Child Development (Dr. (Mrs.) Rajwinder K. Randhawa)
2. Food & Nutrition and Child Development (Sushma Gupta, Neeru Garg, Amita Aggarwal)
3. Dietetics (B Srilakshmi)
4. Nutrition and Child Development (Dr. Rajwinder K. Randhawa)

**Bachelor of Science (Honours) Home Science**  
**Semester – II**  
**Session 2024-2025**  
**Advanced Food and Nutrition**  
**Course Code: BHSM 2280**

**Practical**

**Course Outcomes**

- CO 1** To develop knowledge about different nutrients.
- CO 2** To develop knowledge about therapeutic diets.
- CO 3** To enhance the cooking skills with absorbing more nutrients.
- CO 4** To develop knowledge about different food groups.

**Bachelor of Science (Honours) Home Science**  
**Semester – II**  
**Session 2024-2025**  
**Advanced Food and Nutrition**  
**Course Code: BISM 2280**

**Practical**

**Time: 3 Hours**

**Max. Marks: 20**

**Practical**

- (1) Prepare 5 dishes using following methods
  - a) Baking- e.g. Cakes & Biscuits, Continental dishes etc.
  - b) Grilling- e.g. Pizza and variation of sandwiches, grilled and tandoori snacks etc.
  - c) Sprouting
- (2) Preservation - Pickles, Chutney, Jam & Squashes.

**Note:** Paper will be set on the spot by the examiner

**Bachelor of Science (Honours) Home Science  
Semester – II  
Session 2024-2025**

**Course Code: BSM 2126  
Computer Applications for Home Scientists**

**Course Outcomes**

After passing this course the students will able to:

**CO1** Apply features of spreadsheet software for data manipulation, data entry, worksheet formatting, functions and formulae.

**CO2** Comprehend the basics of E-Commerce and World Wide Web.

**CO3** Comprehend about different electronic payment methods and multimedia devices.

**CO4** Create and manage YouTube channel and blog.

**Bachelor of Science (Honours) Home Science**  
**Semester – II**  
**Session 2024-2025**

**Course Code: BISM 2126**  
**Computer Applications for Home Scientists**

**Time: 3 Hours**  
**L-T-P**  
**3-0-1**

**Max. Marks: 100**  
**Theory: 40**  
**Practical: 30**  
**CA: 30**

**Instructions for Paper Setter**

- Eight questions of equal marks (8 marks each) are to be set, two in each of the four sections (AD). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 8 marks.

**Unit I**

**Spreadsheet Software:** Workbook and worksheet, entering data, editing cell contents, Inserting and deleting rows, column, using auto-fill, creating list, formatting data, using formula

**Internet:** Introduction to internet, searching information on internet.

**Unit II**

**WWW:** Introduction, working of WWW, Web browsing (opening, viewing, saving and printing a web page and bookmark).

**E-Commerce:** Basics, Architecture, Types, Applications.

**Unit III**

**Payment gateway:** Popular payment methods (Net-banking, m-Banking, UPI, Debit/Credit Card, Mobile Wallets)

**Multimedia & its Applications:** Introduction to Multimedia and its usage, record sound using devices, using scanner, Web Camera.

**Unit IV**

**You Tube Studio:** Navigating studio, Uploading videos, Edit Video settings, Analytics, Copyright and Monetization.

**Blog Writing:** Blog Domain, choice of CMS, Register a domain or subdomain with a website host.

**Social Media Marketing:** Social Media, Importance of Social Media, SMO Strategy for Business, Business Profile Creation, Viral Marketing, Application of Facebook and Twitter for social media marketing.

**References/Textbooks:**

1. Prof. Satish Jain, M. Geetha, Kratika, BPB's Office 2010 Course Complete Book, BPB Publications (2017).
2. Rachhpal Singh, Gurvinder Singh, Windows based computer courses, Kalyani Publishers (2011).
3. Anshuman Sharma, A book of Fundamentals of Information Technology, Lakhanpal Publishers (2016), 5<sup>th</sup> ed.
4. Ramesh Bangia, Introduction To Multimedia, Laxmi Publications Pvt. Ltd.(2015).
5. Laudon, E-Commerce, Pearson Education India (2016), 10<sup>th</sup> ed.
6. [https://www.tutorialspoint.com/social\\_media\\_marketing/](https://www.tutorialspoint.com/social_media_marketing/)
7. <https://blog.hubspot.com/marketing/how-to-start-a-blog>

**Bachelor of Science (Honours) Home Science  
Semester – II  
Session 2024-2025**

**Course Code: BHSM 2126  
Computer Applications for Home Scientists  
Practical**

**Examination Time: 3 Hours**

**Practical: 30**

**Note:** Paper will be set on the spot by the examiner.

- 1) Microsoft Excel
- 2) Searching on Internet
- 3) Multimedia Usage
- 4) You Tube and Blog

Bachelor of Arts (Honours) / Bachelor of Science (Honours) Medical / Bachelor of Science (Honours) Non-Medical / Master of Arts (English) (FYIP)/ Master of Science (Mathematics) (FYIP) Master of Science (Physics)(FYIP)/ Master of Commerce (FYIP) Bachelor of Science (Honours) Computer Science / Bachelor of Science (Honours) Economics / Bachelor of Commerce (Honours) / Bachelor of Business Administration (Honours) / Bachelor of Arts (Honours) Journalism and Mass Communication / Bachelor of Science (Honours) Fashion Design / Bachelor of Science (Honours) Home Science / /Bachelor of Computer Application(Honours) /Bachelor of Science (Honours) Information Technology/ Bachelor of Science (Honours) Bio-Technology / Bachelor of Business Administration (Honours) Airlines and Airport Management / Bachelor of Science (Honours) Medical Laboratory Technology/Bachelor of Vocation (Retail Management)/ Bachelor of Vocation (Animation)/ Bachelor of Vocation (Nutrition and Dietetics) /Bachelor of Vocation (Beauty and Wellness)/ Bachelor of Vocation (Artificial Intelligence and Data Science)/ /Bachelor of Vocation (Hospitality and Tourism)

Session (2024-25)

## SEMESTER –II

AECD-2161 Drug Abuse: Problem, Management and Prevention

### Course Outcomes

After completing the course the students will be able to:

- CO1. Learn how to include factual data about what substance abuse is; warning signs of addiction; information about how alcohol and specific drugs affect the mind and body;
- CO 2. Focus on substance abuse education- is teaching individuals about drug and alcohol abuse and how to avoid, stop, or get help for substance use disorders.
- CO3. Learn how to be supportive during the detoxification and rehabilitation process
- CO 4. Understand that substance abuse education is important for students alike; there are many misconceptions about commonly used legal and illegal substances, such as alcohol and marijuana

Session:2024-25

Bachelor of Arts (Honours) / Bachelor of Science (Honours) Medical / Bachelor of Science (Honours) Non-Medical / Master of Arts (English) (FYIP)/ Master of Science (Mathematics) (FYIP) Master of Science (Physics)(FYIP)/ Master of Commerce (FYIP) Bachelor of Science (Honours) Computer Science / Bachelor of Science (Honours) Economics / Bachelor of Commerce (Honours) / Bachelor of Business Administration (Honours) / Bachelor of Arts (Honours) Journalism and Mass Communication / Bachelor of Science (Honours) Fashion Design / Bachelor of Science (Honours) Home Science //Bachelor of Computer Application(Honours) /Bachelor of Science (Honours) Information Technology/ Bachelor of Science (Honours) Bio-Technology / Bachelor of Business Administration (Honours) Airlines and Airport Management / Bachelor of Science (Honours) Medical Laboratory Technology/Bachelor of Vocation (Retail Management)/ Bachelor of Vocation (Animation)/ Bachelor of Vocation (Nutrition and Dietetics) /Bachelor of Vocation (Beauty and Wellness)/ Bachelor of Vocation (Artificial Intelligence and Data Science)/ /Bachelor of Vocation (Hospitality and Tourism)

Drug Abuse: Problem, Management and Prevention (COMPULSORY)

Course Code: AECD-2161

Examination Time: 3 Hours

Credits L-T-P: 2-0-0

Contact Hours: 2Hrs/Week

Max. Marks: 50

Theory: 35

CA: 15

Instructions for the Paper Setter:

1. Question paper shall consist of four Units
2. Examiner shall set 8 questions in all by selecting Two Questions of equal marks from each Unit.
3. Candidates shall attempt 5 questions in 500 words by at least selecting One Question from each Unit and the 5<sup>th</sup> question may be attempted from any of the four Units.
4. Each question will carry 7 marks

#### UNIT-I

Meaning of Drug Abuse:

- (i) Meaning, Nature, Types and Extent of Drug Abuse in India and Punjab.
- (ii) Consequences of Drug Abuse for:

Individual: Education, Employment, Income.

Family: Violence.

Society: Crime, Social Disorganization

#### UNIT-II

MANAGEMENT OF DRUG ABUSE:

- (i) Medical management: medication for treatment and to withdrawal effects.
- (ii) Psychiatric Management: Counseling, Behavioral and Cognitive therapy.

#### UNIT-III

Prevention of Drug abuse:

- (i) Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny.
- (ii) School: Counselling, Teacher as role-model. Parent-teacher-Health Professional Coordination, Random testing on students

#### UNIT-IV

Controlling Drug Abuse:

- (i) Legislation: NDPs act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials



Suggested Readings:

1. Ahuja, Ram (2003), *Social Problems in India*, Rawat Publication, Jaipur.
2. Extent, Pattern and Trend of Drug Use in India, Ministry of Social Justice and Empowerment, Government of India, 2004.
3. Inciardi, J.A. 1981. *The Drug Crime Connection*. Beverly Hills: Sage Publications.
4. Kapoor. T. (1985) *Drug epidemic among Indian Youth*, New Delhi: Mittal Pub.
5. Modi, Ishwar and Modi, Shalini (1997) *Drugs: Addiction and Prevention*, Jaipur: Rawat Publication.
6. National Household Survey of Alcohol and Drug abuse. (2003) New Delhi, Clinical Epidemiological Unit, All India Institute of Medical Sciences, 2004.
7. Sain, Bhim 1991, *Drug Addiction Alcoholism, Smoking obscenity* New Delhi: Mittal Publications.
8. Sandhu, Ranvinder Singh, 2009, *Drug Addiction in Punjab: A Sociological Study*. Amritsar: Guru Nanak Dev University.
9. Singh, Chandra Paul 2000. *Alcohol and Dependence among Industrial Workers*: Delhi: Shipra.
10. Sussman, S and Ames, S.L. (2008). *Drug Abuse: Concepts, Prevention and Cessation*, Cambridge University Press.

**FACULTY OF SCIENCES**  
**SYLLABUS OF**  
**Bachelor of Science (Home Science)**  
**(Semester: III - IV)**  
**(Under Credit Based Continuous Evaluation Grading System)**  
**Session: 2024-25**



**The Heritage Institution**  
**KANYA MAHAVIDYALAYA**  
**JALANDHAR**  
**(Autonomous)**

**KANYA MAHA VIDYALAYA, JALANDHAR (AUTONOMOUS)**  
**SCHEME AND CURRICULUM OF EXAMINATION OF THREE-YEAR DEGREE PROGRAMME**  
**Credit Based Continuous Evaluation Grading System**  
**Bachelor of Science (Home Science)**  
**(Session 2024-2025)**

**Semester III**

Course Code	Course Name	Course Type	Hours Per Week L-T-P	Credits L-T-P	Total	Marks				Examination time (in Hours)
						Total	Ext.		C A	
							L	P		
BHSL 3281	Developmental Stages upto Childhood	C	3-0-0	3-0-0	3	75	60	-	15	3
BHSL 3172	Basic Concepts of Economics	C	3-0-0	3-0-0	3	75	60	-	15	3
BHSM 3393	Basic Physics	C	3-0-2	3-0-1	4	100	60	20	20	3+3
BHSM 3084	Basic Chemistry	C	3-0-2	3-0-1	4	100	60	20	20	3+3
BHSM 3285	Housing	C	3-0-2	3-0-1	4	100	60	20	20	3+3
BHSM 3286	Meal Management	C	3-0-2	3-0-1	4	100	60	20	20	3+3
BHSM 3287	Textile Science	C	3-0-2	3-0-1	4	100	60	20	20	3+3
AECE 3221	*Environmental Studies (Compulsory)	AC	1-0-2	1-0-1	2	50	30	10	10	3+3
SECG 3532	* Gender sensitization	AC	1-0-2	1-0-1	2	50	40	-	10	1
<b>Total</b>					<b>30</b>	<b>650</b>				

C: Compulsory

AC: Audit Course

\*Credits/ Grade Points of these courses will not be included in SGPA/CGPA of the Semester/Programme.

Only grades will be provided

**Bachelor of Science (Home Science)**  
**Semester-III**  
**Session 2024-2025**  
**Developmental Stages Upto Childhood**  
**Theory**  
**Course Code: BHSL 3281**

**Course Outcomes**

**CO 1** To Understand developmental tasks from infancy to childhood

**CO 2** To understand developmental stages from infancy to childhood

**CO 3** To get insight into the different areas of development across the life span i.e. physical, motor, cognitive, language, social & emotional.

**CO 4** To discuss the factors affecting development till childhood.

**CO 5** To get insight into the concept of early childhood care and education.

**Bachelor of Science (Home Science)**  
**Semester-III**  
**Session 2024-2025**  
**Developmental Stages Upto Childhood**  
**Theory**  
**Course Code: BHSL 3281**

**Time: 3 Hours**

**L-T-P**

**3-0-0**

**Total Marks: 75**

**Theory: 60**

**CA: 15**

**Instruction for the Paper Setter**

- Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 8 marks.

**Content**

**Unit I**

- Developmental tasks from infancy to childhood
- Domains of development from infancy to childhood and factors affecting and facilitating these developments:

**1) Physical Development**

- a) Body size
- b) Skeletal growth
- c) Cardio Vascular System
- d) Brain and nervous system
- e) Factors affecting physical development

**Unit II**

**2) Motor Development**

- a) Sequence of motor development
- b) Some motor skills of childhood
- c) Factors affecting motor development and facilitating motor skills

**3) Language development**

- (a) Stages of language development
- (b) Factors affecting language development and facilitating language development
- (c) Speech Defects

**Unit III**

**4) Social Development**

- a) Meaning of social development
- b) Agencies of socialization
- c) Factors affecting socialization
- d) Play- its types and importance

**5) Moral Development**

- (a) Meaning of moral development
- (b) Factors affecting moral development

**Unit IV**

**6) Emotional Development**

- a) Definition of emotion
- b) Different childhood - emotions and their role in development of child
- c) Characteristics of children's emotion
- d) Factors affecting emotional development

**Early Childhood Care and Education**

- a) Concepts, significance and programs
- b) Infrastructure & curriculum planning for different age groups

**References:**

- 1) Essentials of life span development, Johan W santrock Mcgraw Hill publishing company
- 2) Human Development Thomas L. Crandell MC Graw Hill Publishing Company
- 3) Human Development Paplia Mc Graw Hill Publishing company
- 4) Growth and development Hurlock E.B Tata, Mac Graw Hill Company
- 5) Child Development P. Rajamal & Devads Machmulitan India Ltd.
- 6) Nutrition and Child development Rajinder Randhawa Pardeep Publications.

**Bachelor of Science (Home Science)**  
**Semester III**  
**Session 2024-25**  
**Course Code: BHSL 3172**

**Basic Concepts of Economics**

**Course Outcomes**

After passing this course students will be able to:

**CO 1** To understand some basic economic concepts

**CO 2** To understand the basic concepts of banking & different saving schemes

**CO 3** To give guidance regarding credit facilities.

**CO 4** To understand basic structure of markets in the economy.

**Bachelor of Science (Home Science)**  
**Semester III**  
**Session 2024-25**  
**Course Code: BHSL 3172**

**Basic Concepts of Economics**

**Time: 3 Hours**

**Total Marks: 75**

**L-T-P**

**Theory: 60**

**3-0-0**

**CA: 15**

**Instructions for the Paper Setter**

Two questions, each carrying 8 marks, from each of Units I-IV (i.e. a total of eight Questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

**Unit I**

Basic Economic concepts - Goods, wealth, economic and non economic activities, utility, Value and price ,Basic concepts in consumer economics.

Human wants and needs, Difference between desire, want, and need, hierarchy of need , characteristics of needs, classification of wants, forces influencing wants.

**Unit II**

Production & Consumption-definition features, significance laws and their importance. Basic Knowledge of market-definition, features and types of market, E- marketing.

**Unit III**

Consumer Credit - Definition and significance of credit , Need and basis of credit ,Sources of consumer credit, Legal credit instruments , Points to be considered while borrowing, Merits & demerits of credit .

**Unit IV**

Brief Knowledge of banking, insurance schemes, saving & investment.

Banking – Types of account, how to open an account , How to deposit and withdraw money by cheque & cash; Internet banking  
Insurance-General and life insurance policies terms and conditions &advantages , Savings-Bank saving scheme, Post office saving schemes , Shares & debentures (only introduction ) Taxation-Types of Taxes & how to calculate income tax & file income tax return.

**References**

- 1) Kaur, S., Lekhi, R.K. and Singh, J. (), “Consumer Economics” Kalyani Publisher.
- 2) Gupta, B.D. (1973), “Consumption Pattern in India”, Tata Mcgraw Hill.
- 3) Fitzsimmons, C. (1961), “Consumer Buying for better living”, John wiley & sons Inc.
- 4) Sehiffman, L. G. (1990), “Consumer Behavior”, 4<sup>th</sup> Edition, Prentice hall Publications.

*Note: The latest edition of the books is recommended.*

Bachelor of Science (Semester System) (12+3 System of Education)

(Session-2024-25)

**Bachelor of Science (Home Science)**

**Semester III**

**Basic Physics**

**Course Code: BHSL 3393**

**Course Outcome- After completing this course the students will be able to**

**CO1:** Understand the SI units, basic dimensions. Apply velocity in linear, relative motion. Analyze angular velocity, acceleration, centripetal forces. Differentiate centripetal, centrifugal accelerations. Integrate linear, angular motion for proficient problem-solving in physical contexts.

**CO2:** Gain understanding of force, motion, work, power, energy types, and friction's everyday applications. Apply knowledge of simple machines in practical scenarios like scissors, tongs, and gears.

**CO3:** Comprehend pressure concepts, including fluid and atmospheric pressure effects. Apply understanding to practical devices like lift pumps, gas stoves, and syringes. Analyze Archimedes' Principle, surface tension, and viscosity in daily contexts.

**CO4:** Understand heat expansion in solids, transmission methods (conduction, convection, radiation), and identify heat conductors and insulators through practical examples.



Bachelor of Science (Semester System) (12+3 System of Education)  
(Session 2024-25)

Bachelor of Science (Home Science)  
Semester III  
Basic Physics  
Course Code: BHSM 3393

Time: 3 Hours  
L-T-P  
3-0-1

Max Marks: 100  
Theory: 60  
Pass Marks: 21  
CA: 20

**Instructions for the Paper Setters:**

Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section. Each question carries eight marks.

**Content**

**Unit I**

Measurements: SI units and their advantages, Dimensions of basic physical quantities, simple idea of velocity, relative velocity, angular velocity, acceleration, angular acceleration, centripetal acceleration, centrifugal acceleration.

**Unit II**

Force and Motion. Work, Power and Energy. Types of Energies. Friction and its use in daily life. Simple Machines: Lever, Wheel, pulley, inclined plane, wedges, gears, and their applications like Scissors, tongs, egg beater cork opener.

**Unit III**

Concept of Pressure, Fluid pressure, atmospheric pressure and its consequences. Lift pump, gasstove, syringe flush tank, vacuum cleaner. Archimedes Principle. Concept of surface tension and viscosity and their role in daily life.

**Unit IV**

Heat: Expansion in solids, transmission of heat- conduction, convection, radiation, heat conductors and insulators (examples only).

**Books Recommended:**

1. Avery House Physics.
2. Fundamentals of Physics Halliday Resnick, Walker.
3. N.C.E.R.T. Books of Physics For XI and XII

Bachelor of Science (Semester System) (12+3 System of Education)

(Session-2024-25)

(Session 2024-25)

Bachelor of Science (Home Science)

Semester III

Basic Physics

Course Code: BHSM 3393 (P)

**Time: 3 Hours**

**L-T-P**

**0-0-1 (2 Hours/ week)**

**Max Marks: 20**

**Pass Marks: 7**

### **Instructions to Practical Examiner**

Question paper is to be set on the spot jointly by the external and internal examiners. Two copies of the same to be submitted for the record to COE office, Kanya Maha Vidyalaya, Jalandhar

### **General Guidelines for Practical Examination**

I. The distribution of marks is as follows: **Marks: 20**

i) One experiment **7 Marks**

ii) Brief Theory **5 Marks**

iii) Viva-Voce **4 Marks**

iv) Record (Practical file) **4 Marks**

II. There will be one session of 3 hours duration. The paper will have one session.

Paper will consist of 8 experiments out of which an examinee will mark 6 experiments and one of these is to be allotted by the external examiner.

III. Number of candidates in a group for practical examination should not exceed 12.

IV. In a single group no experiment is to be allotted to more than three examinees in any group.

### **List of Experiments**

1. Concept of least count and precise measurement of different instruments.

2. Measurement of diameter of a metallic sphere, cylinder, volume of a cube of a small glass slab, determine its density.

3. Measurement of diameter of a knitting needle, sewing needle, thickness of cloth, thickness of a coin using screw gauge.

4. Measurement of height of concave/convex mirror using spherometer.

5. Newton law of cooling of liquids.

6. Measurement of coefficient of friction.

7. Demonstration of centrifugal force in cloth dryer.

**Bachelor of Science (Home Science)**  
**(Semester-III)**  
**SESSION: 2024-25**  
**COURSE CODE: BHSM-3087**  
**COURSE TITLE: BASIC CHEMISTRY**  
**(Theory)**

**Course outcomes:**

Students will be able to:

CO1: understand the composition and properties of different chemical compounds used in daily life

CO2: understand the atomic structure, acquire knowledge about various atomic models

CO3: understand postulates of VBT

CO4: understand the concept of normality, molarity, molality and strength of solution and knowledge of fibers, pH of water, hard water

**Bachelor of Science (Home Science)**  
**(Semester-III)**  
**SESSION: 2024-25**  
**COURSE CODE: BHSM-3087**  
**COURSE TITLE: BASIC CHEMISTRY**  
**(Theory)**

**Exam Time: 3Hrs.**

**Max.Marks: 60**  
**Credit( L-T-P): 3-0-0**

**Instructions for the Paper Setters:**

Eight questions of equal marks (12 each) are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

**Unit-I**

Symbols, formulae, valency, variable valency, elementary idea of mole concept, imperial formulae and molecular formulae, definition of atomic and molecular weight. Chemical equation and reaction parts, types, essentials, implications and limitations of chemical equation, balancing of equation hit trial method, exothermic, endothermic, catalytic and reversible reaction.

**Unit-II**

Atomic structure, elementary idea of electron, proton, neutron arrangement of fundamental particles in an atom. Rutherford atomic model, atomic number, mass number, isotopes, isobars, Bohr's atomic model (postulates)

**Unit-III**

Chemical bonding, definition of chemical bond, cause of chemical combination, types of chemical bonds, ionic bonds, covalent bond, coordinate bond, (definition and simple examples based on electron dot picture) example include  $H_2$ ,  $Cl_2$ ,  $O_2$ ,  $NH_3$ ,  $CH_4$ ,  $C_2H_2$ ,  $MgF_2$ ,  $CaO$ ,  $NH_4^+$ ,  $H_3O^+$

**Unit-IV**

Elementary idea about normality, molarity, molality and strength of solution. Structure of fibers (Natural and synthetic). Hard water, its cause and type, heavy water with its uses.

**Books recommended:** 1. N.C.E.R.T. Books for XI & XII.  
2. Modern Approach to Chemistry by S. P. Johar Vol. I & Vol. II.

**Bachelor of Science (Home Science)**  
**(Semester-III)**  
**SESSION 2024-25**  
**Course Code: BHSM-3087(P)**  
**COURSE TITLE: BASIC CHEMISTRY**  
**(Practical)**

**Course Outcomes**

After passing this course the student will be able to:

CO1: prepare the solutions of different normalities and molarities.

CO2: calculate the strength of solutions of different normalities and find out the percentage purity of the given sample solution.

CO3: compare the hardness of the various water samples.

CO4: to do Chemical testing of different Textile fibres (cotton, wool, silk, synthetic fibres).

**Bachelor of Science (Home Science)**  
**(Semester-III)**  
**SESSION 2024-25**  
**Course Code: BHSM-3087(P)**  
**COURSE TITLE: BASIC CHEMISTRY**  
**(Practical)**

**Time: 3 Hrs**

**Practical Marks: 20**

**Credit( L-T-P): 0-0-1**

**Instructions for the practical Examiner:** Question paper is to be set on the spot jointly by the internal and external examiners. Two copies of the same may be submitted for the record to COE Office, Kanya Maha Vidyalaya, Jalandhar.

1. Preparation of standard solution.
2. To determine the normality and strength of given alkali solution.
3. To determine the percentage purity of given sample of alkali solution
4. Volumetric titration for estimation of hardness of water.
5. Chemical testing of Textile fibers (cotton, wool, silk, synthetic fibers)

**Bachelor of Science (Home Science) (Semester-III)**  
**(Session 2024-2025)**  
**HOUSING**  
**(Theory)**  
**COURSE CODE: BHSM- 3285**

**COURSE OUTCOMES**

CO (1): To Understand house related concept.

CO (2): To discuss the selection and principles of house planning.

CO (3): To get insight into the building material used in construction of house.

CO (4): To discuss different housing financing agencies.

CO (5): To get insight into the concept of building by laws used for house construction and terminologies used in house construction.

**Bachelor of Science (Home Science) (Semester-III)**  
**(Session 2024-2025)**  
**HOUSING**  
**(Theory)**  
**COURSE CODE: BHSM- 3285**

**Time: 3 Hours**  
**L-T-P**  
**3-0-1**

**Max. Marks: 100**  
**Theory: 60**  
**Practical: 20**  
**CA: 20**

**INSTRUCTION FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set; two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 12 marks.

**CONTENT**

**UNIT-I**

House & related concepts  
Concept of House & home.  
Functions of home.  
Housing needs and factors affecting housing needs. Rented/ owned house/ house provided by public or private sector.  
Type of houses, row, semidetached, detached, independent house, flats, apartment & multi-storeyed building

**UNIT-II**

- Selection & principles of house planning
- Selection of Site , soil, locality and neighborhood
- Principles of planning - Orientation, aspect, prospect, privacy, grouping, circulation, flexibility, roominess future requirement & practical considerations.
- Ventilation.
- Water supply, Drainage and drainage of rainwater, sewage system.
- Provision of light according to the need in different areas.
- Economy in house construction.

**UNIT-III**

- Building Materials used in construction of house
- Low cost, Eco friendly innovative building materials.
- Materials for foundation.
- Materials for walls & floors.
- Materials for electricity, sewerage & drainage.

**UNIT-IV**

- Housing financing agencies
- Various government and non-government agencies, general terms & conditions.
- Advantage and disadvantage of taking loan.
- Building by laws used for house construction & terminologies used.

**REFERENCE BOOKS**

- 1) Randhawa, Rajwinder K family Resource Management and Health Science, Pardeep publication
- 2) Despande, R.S Modern Ideal Homes for India United book corporation
- 3) Agan Tessie M.S The house its plan & use Gulab primlani
- 4) Peett L.J thye, L.S, House hold equipment, Johan villey and sons inc. New York.
- 5) Indian Home Plans- Jain H.L.



**Bachelor of Science (Home Science) (Semester-III)**  
**(Session 2024-2025)**  
**HOUSING**  
**(Practical)**  
**COURSE CODE: BHSM- 3285**

**COURSE OUTCOMES:**

CO 1: To introduce house planning: symbols and terms.

CO 2: To draw different types of floor plans.

CO 3: To draw different type of house plans according to principles of planning.

**Bachelor of Science (Home Science) (Semester-III)**  
**(Session 2024-2025)**  
**HOUSING**  
**(Practical)**  
**COURSE CODE: BHSM-3285**

**Time: 3 Hrs.**

**Max. Marks: 20**

**Note: Question paper will be set on the spot by the examiner.**

**Housing:**

- 1) Symbols and common terms used for house planning
- 2) Types of floor-plans, elevation structural drawing and perspective view
- 3) Draw following house plan, considering in mind principle of planning
  - Row house- 100- 150 sq yard
  - Semi detached house 250-300 sq yard
  - Detached house- 500 sq yard and above
  - One room apartment
  - Flat
  - Double story house

**Bachelor of Science (Home Science) (Semester-III)**  
**(Session 2024-2025)**  
**MEAL MANAGEMENT**  
**(Theory)**  
**COURSE CODE: BHSM- 3286**

**COURSE OUTCOMES:-**

- CO1. To understand the concept of recommended dietary allowances, food groups, exchange list and balanced diet.
- CO2. To discuss the principles of meal planning and nutritional requirements of men and women with different conditions.
- CO3. To understand the nutritional requirements of pregnant and lactating women and during the old age.
- CO4. To get the insight of the concept of the growth and development of preschoolers, school going children and adolescent boys and girls.
- CO5. To understand the nutritional requirements during infancy. To understand the difference between breast feeding and bottle feeding.

**Bachelor of Science (Home Science) (Semester-III)**  
**(Session 2024-2025)**  
**MEAL MANAGEMENT**  
**(Theory)**  
**COURSE CODE: BHSM- 3286**

**Time: 3 Hours**

**L-T-P**

**3-0-1**

**Max. Marks: 100**

**Theory: 60**

**Practical: 20**

**CA: 20**

**INSTRUCTION FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set; two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 12 marks.

**CONTENTS :**

**Unit-I**

- Balanced diet: Concept of Balanced Diet, Food Groups, Exchange Lists.
- Definition and Objectives of RDA, RDA for different age groups. (ICMR). Calorie consumption units in planning meals for a family.

**Unit-II.**

- Meal planning: Introduction and Principles of Meal planning.
- Nutritional requirement for adult male & female, Sedentary, moderate & heavy worker.

**Unit-III**

- Physiological changes and nutritional requirement during pregnancy and lactation.
- Physiological changes during old age and meeting their nutritional requirements.

**Unit- IV**

- Growth development, food habits and nutritional requirement of preschoolers, school going children & adolescent boy and girl.
- . Growth & development and nutritional requirement during infancy breast feeding vs. bottle feeding and weaning.

**References:**

1. Guthrie, Hele, Andrews, Introductory Nutrition, 6th Ed, St. Louts, Times Mirror/Mosby College : 1988
2. Mudambi S.R. M.V. Rajgopal. Fundamental of Foods & Nutrition (2nd ed.) Wilay Eastern Ltd. 1990.
3. Swaminathan S: Advanced Text Book on Foods Nutrition, Vol. I, II (2nd ed. Revised & enlarged) B. app C-1985
4. Willson, EVAD Principles of Nutrition 4th Ed, New York John Willey & Sons. 1979.

**Bachelor of Science (Home Science) (Semester-III)**  
**(Session 2024-2025)**  
**MEAL MANAGEMENT**  
**(Practical)**  
**COURSE CODE: BHSM- 3286**

**COURSE OUTCOMES:**

- CO (1): To understand the concept of Standardize Proportion Size.
- CO (2): To discuss meal planning and nutritional requirements of men and women with different conditions
- CO (3): To get the insight of the concept growth and development of preschooler, school going children and adolescent boys and girls.
- CO (4): To understand the nutritional requirement during infancy with their Calculations.

**Bachelor of Science (Home Science) (Semester-III)**  
**(Session 2024-2025)**  
**MEAL MANAGEMENT**  
**(Practical)**

**COURSE CODE: BHSM- 3286**

**Time: 3 Hours**

**Max. Marks: 20**

**Note:**

- Paper will be set on the spot by the examiner
- Planning of diet
- Cooking of 2 dishes from the diet plan
- Viva
- Files

1. Cook following dishes for different meals. Standardize portion size and calculate their nutritive value.

- Breakfast dishes- Stuffed Paranthas, Pancakes, Poha, Dalia etc.
- Lunch & Dinner dishes- Main Dishes- Dal, Channa, Rajmah, Koftas etc., Rice- Pulaos, Paneer dishes, Side dishes, Dry. Vegetables, Stuffed Vegetables etc. Dessert - Puddings, Kheer etc. Salads, Soups etc.
- Evening Sweet & Salty snacks - at least 5 each.

2. Plan balanced diet for the following age groups calculating calories, protein, one important vitamin and mineral as per requirement for the given age group.

- (a) Infancy-Weaning foods
- (b) pre-schooler
- (c) School going child.
- (d) adolescent girl and boy
- (e) adult male and female(sedentary moderate and heavy worker)
- (f) Pregnant and lactating Women
- (g) Geriatric

**Bachelor of Science (Home Science) (Semester-III)**  
**(Session 2024-2025)**  
**TEXTILE SCIENCE**  
**(Theory)**  
**COURSE CODE: BHSM- 3287**

**COURSE OUTCOMES:-**

CO (1). To introduce various types, manufacture and properties of textile fibers with respect to consumers.

CO (2). To understand processes and types of yarns, fabric manufacture techniques and their characteristics.

CO (3). To understand various finishing processes and bleaches used on fabrics.

CO (4). To study dyeing, printing, care and storage of clothing.

**Bachelor of Science (Home Science) (Semester-III)**  
**(Session 2024-2025)**  
**TEXTILE SCIENCE**  
**(Theory)**

**COURSE CODE: BHSM- 3287**

**Time: 3 Hours**

**L-T-P**

**3-0-1**

**Max. Marks: 100**

**Theory: 60**

**Practical: 20**

**CA: 20**

**INSTRUCTIONS FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set; two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 12 marks.

**CONTENTS**

**UNIT- I**

- Introduction to textile fibres, classification of fibres based on length and source.
- Primary properties of textile fibres in relation to use for the consumer.
- Origin, Production and Properties of cotton, linen, rayon –viscose and cellulose acetate, Wool and silk, Nylon, polyester, acrylics and elastomeric fibres.

**UNIT – II**

Yarn manufacturing

- Classification of yarns carded and combed yarn, woollen and worsted yarns, filament and spun yarns.
- Types of yarns simple yarns, novelty yarns, textured yarns and their types & uses.
- Yarn twist

Fabric construction techniques

- Weaving Procedure (description of loom)
  - Types: simple weave & its variations, twill, satin, novelty weaves and their types
  - Characteristics of woven fabrics: on grain, off grain, thread count, balance cloth, selvedge.
- Other Methods of fabric construction: Felting, Bonding

**UNIT -III**

Bleaches and finishes

- Types – oxidizing and reducing bleaches and their suitability
- Importance of finishes.
- Classification of finishing process on the basis of method of application, stability, types & purpose.
- Description of some important finishes: preparatory finishes- Brushing and shearing, scouring, degumming, desizing and bleaching
- Stabilizing finishes – Texturing, sanforizing, mercerization,
- Textural finishes – calendering, beetling, glazing, sizing, weighting, napping, moiring and embossing.
- Functional finishes- crease resistance, waterproof and water repellent, flame retardant and flame proof.

**UNIT IV**

Dyeing

- Types of dyes
- Method of dyeing - Home dyeing (simple) resist dyeing-tie & dye and batik.

Printing

- Techniques used in printing direct discharge and resist.
- Methods of printing block, stencil, screen
- Machine Printing, roller, screen.



**Bachelor of Science (Home Science) (Semester-III)**  
**(Session 2024-2025)**  
**TEXTILE SCIENCE**  
**(Theory)**  
**COURSE CODE: BHSM- 3287**

Laundering & care of textile fabrics

- Principles of washing
- Methods of washing of cotton wool, silk & synthetics, starches & blue
- Dry-cleaning principle & use.
- Storage of clothes.

**Reference Books:**

1. Randhawa Rajwinder K Clothing Textiles & Their care, Pardeep Publication.
2. Traditional Indian Textiles Gillow John Barnard Nicholas
3. Fundamentals of Textiles and their care Sushela Dantyaagi
4. Household textile and laundry work Durga Deulkar
5. Textile Fiber to fabric Corbman Bernard
6. Textile, Hollen Nerma & Sadler Jane.
7. Clothing textiles & their care, Rajwinder K. Randhawa.

**Bachelor of Science (Home Science) (Semester-III)**  
**(Session 2024-2025)**  
**TEXTILE SCIENCE**  
**(Practical)**  
**COURSE CODE: BHSM- 3287**

**COURSE OUTCOMES**

CO 1: To make the students familiar with Fiber Identification art- Physical, burning, and microscopic test.

CO 2 : To experiment with surface ornamentation techniques such as tie & dye , Block , screen and Stencil Printing

CO 3: To learn basic stain removal techniques used in daily life.

CO 4: To learn about informative labels on garments.

**Bachelor of Science (Home Science) (Semester-III)**  
**(Session 2024-2025)**  
**TEXTILE SCIENCE**  
**(Practical)**  
**COURSE CODE: BHSM- 3287**

**Time: 3 Hrs.**

**Max Marks: 20**

**Note: Question Paper will be set on the spot by the examiner**

1. Fiber Identification- Physical, burning, microscopic test.
2. Stain removal of basic stains- Tea coffee, Ball pen, ink, ghee & oil haldi, Nail paint, Lipstick, Bootpolish.
3. Make sample & an article of each:
  - a) Tie & Dye
  - b) Block, screen and stencil.
- 4). Make sample of weaves:
  - 1) Plain
  - 2) Twill
  - 3) Satin
- 5) Collection of labels of different garment & samples of different weave

**B.Sc. (Hons.) Maths, B.Sc. Physics, BBA, B.Sc. (Bio Tech), B.Com (Regular ,B.Com (Hons.),B.Sc. (IT), BCA, B.Sc. (Medical), B.Sc. (Non medical), B.Sc. (Economics), B.Sc. (Home science), B.Sc. (Computer science)**

## **Environmental Studies (COMPULSORY)**

**COURSE CODE: AECE-3221**

**(Theory)**

**Time: 3 Hrs.**

**Max. Marks: 50**

### **Instructions for the Paper Setter:**

The question paper should carry 30 marks.

### **Unit 1**

#### **The multidisciplinary nature of environmental studies**

Definition, scope and importance, Need for public awareness

### **Unit 2**

#### **Natural Resources: Renewable and non-renewable resources:**

Natural resources and associated problems.

- (a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.
- (b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
- (c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
- (d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
- (e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies.
- (f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.
  - Role of an individual in conservation of natural resources.
  - Equitable use of resources for sustainable lifestyles.

### **Unit 3**

#### **Ecosystems**

- Concept of an ecosystem
- Structure and function of an ecosystem
- Producers, consumers and decomposers
- Energy flow in the ecosystem
- Ecological succession
- Food chains, food webs and ecological pyramids

- Introduction, types, characteristic features, structure and function of the following ecosystem: Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)

#### **Unit 4**

##### **Biodiversity and its conservation**

- Introduction – Definition: genetic, species and ecosystem diversity
- Biogeographical classification of India
- Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values
- Biodiversity at global, national and local levels
- India as a mega-diversity nation
- Hot-spots of biodiversity
- Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts
- Endangered and endemic species of India
- Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

#### **Unit 5**

##### **Environmental Pollution**

###### **Definition**

- Causes, effects and control measures of Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear pollution
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution
- Pollution case studies
- Disaster management: floods, earthquake, cyclone and landslides

#### **Unit 6**

##### **Social Issues and the Environment**

- From unsustainable to sustainable development
- Urban problems and related to energy
- Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people; its problems and concerns. Case studies.
- Environmental ethics: Issues and possible solutions
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
- Wasteland reclamation
- Consumerism and waste products
- Environmental Protection Act, 1986
- Air (Prevention and Control of Pollution) Act, 1981
- Water (Prevention and control of Pollution) Act, 1974
- Wildlife Protection Act

- Forest Conservation Act
- Issues involved in enforcement of environmental legislation
- Public awareness

### **Unit 7**

#### **Human Population and the Environment**

- Population growth, variation among nations
- Population explosion – Family Welfare Programmes
- Environment and human health
- Human Rights
- Value Education
- HIV / AIDS
- Women and Child Welfare
- Role of Information Technology in Environment and Human Health
- Case Studies

### **Unit 8**

#### **Field Work**

- Visit to a local area to document environmental assets river/forest/grassland/hill/mountain
- Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
- Study of common plants, insects, birds
- Study of simple ecosystems-pond, river, hill slopes, etc

**Bachelor of Science (Home Science) (Semester-III)**  
**GENDER SENSITIZATION 2024-25**

**Course Title: GENDER SENSITIZATION**

**Course Duration: 30 hours**

**Course intended for:** Semester III students of undergraduate degree program.

**Course Code: SECG 3532**

The program has been designed to inculcate value of gender equality among students so that they can identify the areas of gender discrimination and raise their voice against gender discrimination and work towards making the society gender neutral.

**OBJECTIVES:**

1. To sensitize students about gender rights, gender roles and relations.
2. To make students aware and capable of realizing their true potential.
3. To ensure equal participation of men and women in all economic, social and political processes.
4. To develop gender prospective to transform the mind set of society.

**CURRICULUM**

**Course Code: SECG 3532**

**Total contact hours: 30**

<b>MODULE</b>	<b>TITLE</b>	<b>HOURS</b>
<b>1</b>	<b>Introduction</b>	<b>2 Hrs</b>
<b>2</b>	<b>Workshop in Self Defense Techniques</b>	<b>10 Hrs</b>
<b>3 I</b>	<b>Gender Sensitization</b>	<b>4 Hrs</b>
<b>3 II</b>	<b>Cultural Roles and Gender Sensitivity</b>	<b>2 Hrs</b>
<b>3 III</b>	<b>Gender Dimensions in Economic Participation and wage Gap</b>	<b>2 Hrs</b>

3 IV	Gender Rights: Constitutional Rights & Legal Rights	2 Hrs
3 V	Social problems and Issues: Gender Prospective with focus on Indian Society	2 Hrs
3 VI	Gender Issues and Health care system	2 Hrs
3 VII	Gender and political Participation	2 Hrs
4	Final Assessment Feedback and Closure	2 Hrs

#### EXAMINATION

- Total Marks: 25 Internal Assessment -5 ; Practical (Workshop in Self Defense Techniques)- 10 marks ; Theory (Multiple Choice Quiz) – 10 marks
- **Total marks: 25 converted to grade for final result**



**KANYA MAHA VIDYALAYA, JALANDHAR (AUTONOMOUS)**  
**SCHEME AND CURRICULUM OF EXAMINATION OF THREE-YEAR DEGREE PROGRAMME**  
**Credit Based Continuous Evaluation Grading System**  
**BACHELOR OF SCIENCE (HOME SCIENCE)**  
**(Session 2024-2025)**

**Semester IV**

Course Code	Course Name	Course Type	Hours Per Week L-T-P	Credits L-T-P	Total	Marks				Examination time (in Hours)
						Total	Ext.		C A	
							L	P		
BHSL 4281	Developmental Stages till Old Age	C	3-0-0	3-0-0	3	75	60	-	15	3
BHSL 4172	Consumer Economics	C	3-0-0	3-0-0	3	75	60	-	15	3
BHSM 4283	Kitchen Design and its Equipment	C	3-0-2	3-0-1	4	100	60	20	20	3+3
BHSM 4284	Quantity Food Production and Service	C	3-0-2	3-0-1	4	100	60	20	20	3+3
BHSM 4285	Traditional Embroideries, Textiles and Costumes of India	C	3-0-2	3-0-1	4	100	60	20	20	3+3
BHSM 4396	Applied Physics	C	3-0-2	3-0-1	4	100	60	20	20	3+3
BHSM 4087	Applied Chemistry	C	3-0-2	3-0-1	4	100	60	20	20	3+3
SECS 4522	*Social Outreach	AC	0-0-4	0-0-2	2	50	-	40	10	3
<b>Total</b>					<b>28</b>	<b>650</b>				

C: Compulsory  
AC: Audit Course

\*Credits/ Grade Points of these courses will not be included in SGPA/CGPA of the Semester/Programme.  
Only grades will be provided

**Bachelor of Science (Home Science) (Semester IV)**  
**Session: 2024-25**  
**DEVELOPMENTAL STAGES TILL OLD AGE**  
**(Theory)**  
**COURSE CODE: BHSL-4281**

**COURSE OUTCOMES**

CO (1): To understand developmental stages till old age.

CO (2): To discuss the factors affecting development till old age.

CO (3): To get insight into developmental task of different stage.

CO (4): To understand the roles of society and parents in developmental stages

**Bachelor of Science (Home Science) (Semester IV)**  
**Session: 2024-25**  
**DEVELOPMENTAL STAGES TILL OLD AGE**  
**(Theory)**  
**COURSE CODE: BHSL-4281**

**Time: 3 Hours**  
**L-T-P**  
**3-0-0**

**Total Marks: 75**  
**Theory: 60**  
**CA: 15**

**INSTRUCTIONS FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set; two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 12 marks

**CONTENTS**

**UNIT-I**

- Adolescence, Puberty and related changes  
Problems of adolescence
- Physical
  - sexual
  - social
  - emotional
  - Role of parents and teachers in helping them

**UNIT-II**

- Adulthood
1. Young adulthood
    - a) Developmental tasks of adulthood
    - b) Parenthood and other roles in society
    - c) Parenting techniques

**UNIT-III**

2. Middle adulthood Midlife changes in both sexes
3. Late adulthood
  - a) Grand parenting

**UNIT-IV**

- Old age
- a) Retirement – a change in status.
  - b) Physical and psycho-social aspects of aging.

**REFERENCE BOOKS**

- 1) Essentials of life span development, Johan W santrock Mcgraw Hill publishing company
- 2) Human Development Thomas L. Crandell MC Graw Hill Publishing Company
- 3) Human Development Paplia Mc Graw Hill Publishing company
- 4) Growth and development Hurlock E.B Tata, Mac Graw Hill Company
- 5) Child Development P. Rajamal & Devads Machmulitan India Ltd.
- 6) Nutrition and Child development Rajinder Randhawa Pardeep Publications.

**Bachelor of Science (Home Science) (Semester.-IV)**  
**SESSION 2024-25**  
**COURSE CODE: BHSL-4172**  
**CONSUMER ECONOMICS**

**COURSE OUTCOMES:**

After studying this course, students will be able:

**CO1:** To train the students about their rights and responsibilities as consumer

**CO2:** To aware the students about consumer protection right.

**CO3:** To impart knowledge about consumer buying, grading and standardization, advertising media role and effect.

**Bachelor of Science (Home Science): Semester-IV**  
**Session 2024-25**  
**COURSE CODE: BHSL-4172**  
**CONSUMER ECONOMICS**

**Time: 3 Hours**  
**L-T-P**  
**3-0-0**

**Total Marks: 75**  
**Theory: 60**  
**CA: 15**

**Note: Instructions for the Paper–Setter:**

Two questions, each carrying 12 marks, from each of the Units I-IV (i.e. a total of eight questions) are to be set. Candidates are required to attempt five questions, selecting at least one from each unit. The fifth question may be attempted from any unit.

**UNIT-I**

Consumer education and Protection - Need for consumer education, Process for consumer protection. Consumer legislation in India with special reference to consumer protection Act 1986. and 2019  
Consumerism - scope, utility and measures for strengthening consumer movement.

**UNIT-II**

Consumer rights and guidance for wise purchase - Consumer rights & responsibilities. Fraud and business malpractices.

**UNIT-III**

Grading, standardization and packaging, Definition and advantages, difference between grading and standardization.

Labeling - types and Labeling as guide to buying.

Branding and its advantages. Packaging-its functions, advantages and problems with packaging.

**UNIT-IV**

Advertisement: Objectives, Reasons, advantages and mode of advertising.

Entrepreneur and salesmanship: Meaning, Function & Qualities of an entrepreneur, Meaning, advantage and Qualities of an efficient salesman.

**Recommended Books:**

- 1) Kaur, S., Lekhi, R.K. and Singh, J. (), “Consumer Economics” Kalyani Publishers.
- 2) Gupta, B.D. (1973), “Consumption Pattern in India”, Tata Mcgraw Hill.
- 3) Fitzsimmons, C. (1961), “Consumer Buying for better living”, John willey & sons Inc.
- 4) Seiffman, L. G. (1990), “Consumer Behavior”, 4<sup>th</sup> Edition, Prentice hall Publications.

*Note: The latest edition of the books is recommended.*

**Bachelor of Science (Home Science) (Semester-IV)**

**Session: 2024-25**

**KITCHEN DESIGN AND ITS EQUIPMENT**

**(Theory)**

**COURSE CODE: BHSM-4283**

**COURSE OUTCOMES:**

CO (1). To understand about different type of kitchen, kitchen geometry and efficient kitchen planning.

CO (2). To discuss about selection and efficient use of different equipment, selection and care of household equipment.

CO (3). To understand the characteristics and care of different material example iron, steel, tin, copper etc

CO (4). To understand different finishes of household equipments.

**Bachelor of Science (Home Science) (Semester-IV)**

**Session: 2024-25**

**KITCHEN DESIGN AND ITS EQUIPMENT**

**(Theory)**

**COURSE CODE: BHSM-4283**

**Time: 3 Hours**

**L-T-P**

**3-0-1**

**Total Marks: 75**

**Theory: 60**

**Practical: 20**

**CA: 20**

**INSTRUCTION FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set; two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 12 marks.

**CONTENT**

**UNIT-I**

Kitchen

- Types of kitchen
- Efficient kitchen planning
- Principles of planning
- Planning of efficient storage areas in the kitchen
  
- Kitchen Geometry-work heights and space dimensions for different areas.
- Lighting , ventilation & drainage.
- Material specifications for kitchen floors, walls, sink, ceiling & Platform.

**UNIT-II**

Equipment

- Classification
- Selection & efficient use of equipment.
- Selection, operation and care of household equipment--Toasters, mixer grinder, Juicer, food processor, oven and microwave oven, Iron, Vacuum cleaner, washing machine, pressure cooker and dishwasher, cutlery.

**UNIT-III**

- General characteristics, suitability & care of different material used for equipment construction and surface finish Aluminum, Iron, Steel, Stainless steel, Galvanized Iron, Tin, Copper, brass ,Nickel and chromium, monel, glass, earthenware and plastics.

**UNIT-IV**

Finishes & their suitability

- Classification
- Description of Porcelain Enamel, Synthetic baked Enamel, and Teflon coated non stick and surface finishes like copperclaid, chromium, tin & Electroplated.

**REFERENCE BOOKS**

- 1) Randhawa, Rajwinder K family Resource Management and Health Science, Pardeep Publication
- 2) Despande, R.S Modern Ideal Homes for India United Book Corporation
- 3) Agan Tessie M.S The house its plan & use Gulab primlani
- 4) Peett L.J thye, L.S, House hold equipment, Johan Villey and Sons inc. New York.
- 5) Indian Home Plans- Jain H.L.

**Bachelor of Science (Home Science) (Semester-IV)**

**Session: 2024-25**

**KITCHEN DESIGN AND ITS EQUIPMENT**

**(Practical)**

**COURSE CODE: BHSM-4283**

**COURSE OUTCOMES:**

CO 1: To draw different type of kitchens with colour scheme.

CO 2: To study the method and material used for cleaning of different utensils.

CO 3: To study the method and material used for cleaning of electrical equipments used in home.



**Bachelor of Science (Home Science) (Semester-IV)**

**Session: 2024-25**

**KITCHEN DESIGN AND ITS EQUIPMENT**

**(Practical)**

**COURSE CODE: BHSM-4283**

**Time: 3 Hours**

**Max. Marks: 20**

**Note:** Question paper will be set on the spot by the examiner.

1. Draw different types of kitchen
  - a) One wall b) Two wall c) L Shape d) U shape
2. Make elevation of L shape kitchen on wall & show colour scheme
3. Cleaning of Brass, aluminum, steel, glass, gold, silver and crockery.
4. Cleaning of window panes.
5. Cleaning of wood & leather.
6. Cleaning of refrigerator, mixer, cooking range, microwave etc.
7. Cleaning of kitchen counters, floor and cupboards.

**Bachelor of Science (Home Science) (Semester-IV)**  
**Session: 2024-25**  
**QUANTITY FOOD PRODUCTION AND SERVICE**  
**(Theory)**  
**COURSE CODE: BHSM-4284**

**COURSE OUTCOMES :**

- CO1. To understand the concept of different food services
- CO2. To have the knowledge about meal planning, importance of personal hygiene of food handlers, standardisation of recipes and event planning and cost control in a catering establishment.
- CO3. To gain knowledge about characteristics of food, food production and food management at different stages in food establishment.
- CO4. To learn about planning of service area, controlling of infestations and waste product handling.

**Bachelor of Science (Home Science) (Semester-IV)**  
**Session: 2024-25**  
**QUANTITY FOOD PRODUCTION AND SERVICE**  
**(Theory)**  
**COURSE CODE: BHSM 4284**

**Time: 3 Hours**  
**L-T-P**  
**3-0-1**

**Total Marks: 100**  
**Theory: 60**  
**Practical: 20**  
**CA: 20**

**INSTRUCTIONS FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set; two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 12 marks.

**CONTENTS:**

**UNIT- I**

- Aims and objectives of different food service and beverage outlets (a) Hospitality industry, (b) institutional/welfare.
- Food and Beverage service methods Table service Assisted service Self service-Types Single point service Specialized service.

**UNIT- II**

- Menu Planning- importance, factors, construction writing and display.
- Importance of personal hygiene of food handler – clothes, personality, health, attitude towards customers.
- Cost Control- Standardization and portion size of recipe-calculating cost of dish, meal and event. Methods of calculation - Gross profit ratio food cost ratio. Methods of controlling cost.

**UNIT- III**

- Characteristics of Food- Quality in food service, Quantitative, sensory and nutritional quality.
- Food Management- Food Purchasing, receiving, storage, handling and preparation.
- Food production – Food production system, food production process, effect of cooking methods on the nutritional quality of foods. Some large quantity cooking technique, Effective use of leftover, holding techniques.

**UNIT-IV**

- Waste product handling: Planning for waste disposal. Solid wastes and liquid wastes
- Control of Infestation - rodent, flies, cockroaches control, use of pesticides.
- Service Areas- Planning of service area, Table sizes and decor of service area.

**References:**

1. Mohini Sethi, Surjeet Malhan, Catering Management An Integrated Approach. New Age International (P) Limited Publisher Jalandhar.
2. Mohini Sethi, Surjeet Malhan - Institutional food management.

**Bachelor of Science (Home Science) (Semester-IV)**

**Session: 2024-25**

**QUANTITY FOOD PRODUCTION AND SERVICE**

**(Practical)**

**COURSE CODE: BHSM-4284**

**COURSE OUTCOMES:**

CO 1: To prepare them for event management.

CO 2: To give hands on training for commercial cooking

CO 3: To make them clear about the nutritive calculations of various recipes.

**Bachelor of Science (Home Science) (Semester-IV)**

**Session: 2024-25**

**QUANTITY FOOD PRODUCTION AND SERVICE**

**(Practical)**

**COURSE CODE: BHSM-4284**

**Time: 3 Hours**

**Max. Marks: 20**

**Note:** Paper will be set on the spot by the examiner.

Course Outline

- 1) Standardization and cost calculation of a snacks & meals.
- 2) Preparation of High Teas/Lunches/Dinners for special occasions.
  - Kitty party
  - New Year
- 3) Holi/Diwali
- 4) Lohri
- 5) Anniversary
  - 6) Birthday
- 7) Picnic
- 8) Arrange one small party
- 9) Daily and occasional cleaning of kitchen equipments, utensils, counters, floor and cupboards.

**Bachelor of Science (Home Science) (Semester-IV)**  
**Session: 2024-25**  
**TRADITIONAL EMBROIDERIES, TEXTILES AND COSTUMES OF INDIA**  
**(Theory)**  
**COURSE CODE: BHSM-4285**

**COURSE OUTCOMES:-**

CO (1). To study the origin, significance, motifs, stitches and fabrics used in various traditional embroideries of India.

CO (2). To study traditional fabrics of different states of India.

CO (3). To study in detail the dyed and printed traditional fabrics of India.

CO (4). To study traditional costumes of different states of India.

**Bachelor of Science (Home Science) (Semester-IV)**  
**Session: 2024-25**  
**TRADITIONAL EMBROIDERIES, TEXTILES AND COSTUMES OF INDIA**  
**(Theory)**  
**COURSE CODE: BHSM-4285**

**Time: 3 Hours**

**L-T-P**

**3-0-1**

**Total Marks: 100**

**Theory: 60**

**Practical: 20**

**CA: 20**

**INSTRUCTIONS FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set; two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 12 marks.

**CONTENTS**

**UNIT-I**

Traditional embroideries of various states in India

- Phulkari of Punjab
- Chikankari of U.P
- Kasida of Kashmir
- Kantha of Bengal
- Kasuti of Karnataka
- Kutch of Gujarat

**UNIT -II**

Traditional fabrics of different states of India

- Kashmir – Shawl and carpets
- Bengal- Dakha Mulmul, Baluchar and Jamdani.
- U.P -Brocades
- M.P. – Chanderi

**UNIT –III**

Dyed and printed fabrics of India

- Gujarat – Patola
- Rajasthan - Bandhani
- Andhra Pradesh- Pochampalli and kalamkari
- Orissa - Ikat

**UNIT –IV**

Traditional costumes of different states of India

- Punjab
- Jammu & Kashmir
- Rajasthan
- Gujarat
- Maharashtra
- Bengal
- Kerala

**References:**

- Traditional Indian Textiles, John Gillow
- Traditional embroideries of India, Shailaja D Naik
- Costumes and Textile designs of India, Dr Parul Bhatnagar

**Bachelor of Science (Home Science) (Semester-IV)**  
**Session: 2024-25**  
**TRADITIONAL EMBROIDERIES, TEXTILES AND COSTUMES OF INDIA**  
**(Practical)**  
**COURSE CODE: BHSM-4285**

**COURSE OUTCOMES:**

CO 1: To study and develop designs for basic embroidery stitches.

CO 2: To study and develop designs for Traditional embroideries.

CO 3: To make use of any traditional embroidery on an article.



**Bachelor of Science (Home Science) (Semester-IV)**  
**Session: 2024-25**  
**TRADITIONAL EMBROIDERIES, TEXTILES AND COSTUMES OF INDIA**  
**(Practical)**  
**COURSE CODE: BHSM-4285**

**Time: 3 Hrs.**

**Max. Marks:20**

**Note:** Question paper will be set on the spot by the examiner.

1. Make one sample of basic embroidery stitches: stem, chain, laisy daisy, double laisy daisy, button hole, herring bone, feather, fly, satin, French knot, bullion knot, cross stitch and make two handkerchief using at least 3 stitches in one design.
2. Make samples of traditional embroideries using traditional fabric, thread, colors & design, Phulkari, Chikankari, Kasida, Kantha, Kasuti, Kutch
3. Make one article using any traditional embroidery.

Bachelor of Science (Semester System) (12+3 System of Education)  
(Session-2024-25)

**Bachelor of Science (Home Science) (SEMESTER-IV)**

**APPLIED PHYSICS**

**Course Code: BISM-4396**

**COURSE OUTCOME**

**After completing this course the students will be able to**

CO1: to understand the basic concepts of optics

CO2: to understand basic light sources

CO3: to understand basic electricity based household devices

CO4: to understand the use of effects of electric current in house hold devices

Bachelor of Science (Semester System) (12+3 System of Education)  
(Session-2024-25)

**Bachelor of Science (Home Science) (SEMESTER-IV)**  
**APPLIED PHYSICS**  
**Course Code: BHSM-4396**

**Time: 3 Hours**  
**L-T-P**  
**3-0-1**

**Max Marks: 100**  
**Ext Marks: 60**  
**Pass Mark: 21**  
**CA-20**

**Instructions for the Paper Setters:**

Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section. **Each question carries 12 marks.**

**UNIT -I**

Thermostat, Concepts of home lighting: reflection, refraction, total internal refraction, diffusion of light, dispersion of light, Illumination, illumination intensity levels in different parts of the house.

**UNIT-II**

Sources of light, incandescent lamps, CFLs. Radiation and radiation spectra; uses of various radiations. (X- Rays, ultrasounds, microwaves, radio waves etc.

**UNIT-III**

Current Electricity, Principle of electrical energy generation and its transmission, Energy. meter, Fuse, Types of Fuses, Essential components of wiring, safety precautions while using electricity

**UNIT-IV**

Heating effect of current and its use in household devices, magnetic effect of current and its use in electric motor, grinder etc.

**Books recommended:**

1. Avery House Physics.
2. Fundamentals of Physics Halliday Resnick, Walker.
3. N.C.E.R.T. Books of Physics For XI and XII

Bachelor of Science (Semester System) (12+3 System of Education)  
(Session-2024-25)

**Bachelor of Science (Home Science) (SEMESTER-IV)**  
**APPLIED PHYSICS**

**Course Code: BHSM-4396 (P)**

**Time: 3 Hours**

**Max Marks: 20**

**Credits: 0-0-1 (2 Hours/ week)**

**Pass Marks: 7**

**Instructions to Practical Examiner**

Question paper is to be set on the spot jointly by the external and internal examiners. Two copies of the same to be submitted for the record to COE office, Kanya Maha Vidyalaya, Jalandhar

**General Guidelines for Practical Examination**

I. The distribution of marks is as follows: **Marks: 20**

i) One experiment **7 Marks**

ii) Brief Theory **5 Marks**

iii) Viva-Voce **4 Marks**

iv) Record (Practical file) **4 Marks**

II. There will be one session of 3 hours duration. The paper will have one session.

Paper will consist of 8 experiments out of which an examinee will mark 6 experiments and one of these is to be allotted by the external examiner.

III. Number of candidates in a group for practical examination should not exceed 12.

IV. In a single group no experiment is to be allotted to more than three examinees in any group.

**List of Experiments**

1. Demonstration of light spectrum through prism.

2. Demonstration of repair/replacement of fuse in different household devices.

3. Demonstration of replacement of a capacitor in fan, starter in tube light, changes of a capacitor in fan.

4. To trace rays through a prism and prove that  $i + e = A + D$ .

5. To find refractive index.

6. Verification of Archimedes' Principle.

7. Demonstration of atmospheric pressure and read atmospheric pressure from a barometer in your laboratory

**Bachelor of Science (Home Science) Semester IV**

**Session: 2024-25**

**Course Code: BHSM 4087**

**Course Title: Applied Chemistry (Theory)**

**Course Outcomes:**

After passing this course the student will be able to:

CO1: understand the composition and properties of different organic compounds used in daily life.

CO2: understand structure and importance of rubbers and plastics.

CO3: understand about composition of cosmetics.

CO4: to have basic knowledge about fuels.

## **Bachelor of Science (Home Science) Semester IV**

**Session: 2024-25**

**Course Code: BHSM 4087**

**Course Title: Applied Chemistry (Theory)**

**Time: 3 Hours**

**L-T-P**

**3-0-0**

**Max Marks: 100**

**Ext Marks: 60**

**Pass Mark: 21**

**CA: 20**

### **Instructions for the Paper Setters:**

Eight questions of equal marks (12 each) are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

#### **Unit-I**

Elementary idea about pH, Basic idea about acid bases & salt, Soaps and detergents, their structure, properties and preparation

#### **Unit –II**

Plastics and rubber, their structure and uses

#### **Unit-III**

Elementary idea about composition of cosmetics

#### **Unit –IV**

Fuels for home

### **Books recommended:**

1. N.C.E.R.T. Books for XI & XII.
2. Modern Approach to Chemistry by S. P. Johar Vol. I & Vol. II.

**Bachelor of Science (Home Science) Semester IV**

**Session 2024-25**

**Course Code: BHSM 4087(P)**

**Course Title: Applied Chemistry (Practical)**

**Course Outcomes:**

After passing this course the student will be able to:

CO1: to determine the melting point of an organic compound

CO2: to prepare soaps

CO3: to determine the pH of an unknown sample

**Bachelor of Science (Home Science) Semester IV**

**Session: 2024-25 Course**

**Code: BHSM 4087(P)**

**Course Title: Applied Chemistry (Practical)**

**Time: 3 Hrs**

**Credit (L-T-P): 0-0-1**

**Practical Marks: 20**

**Instructions for the practical Examiner:** Question paper is to be set on the spot jointly by the internal and external examiners. Two copies of the same may be submitted for the record to COE Office, Kanya Maha Vidyalaya, Jalandhar.

1. Determination of melting point of Organic compound.
2. Preparation of soap
3. Determination of pH of some samples



**Bachelor of Science (Home Science) Semester-IV**  
**SESSION 2024-25**

**SOCIAL OUTREACH PROGRAMME**  
**AUDIT COURSE (Value Based)**

**Course Title: Social Outreach Programme Course Duration: 30 hours**

**Course intended for:** Semester IV students of undergraduate degree programmes of all streams.

**Course Credits: 2**

**Course Code: SECS 4522**

**Course Description:-**

The Social outreach programme proposes to equip the students for community upliftment work. It will strive to prepare citizens who will make a marked difference in the society. The students will be provided with numerous opportunities to build their knowledge and skills on the fundamental values of social fairness and compassion.

The programme will focus on integrating academic work with community services. It will equip the students to learn to connect knowledge gained in classroom with real life situation by getting hands on experience through community services. It will also foster the development of civic responsibility. The students will get an opportunity to

- Engage in social service.
- Reflect upon larger issues that affect communities through readings and discussions.
- Integrate academic learning and community engagement through practical field work.
- Develop awareness, knowledge and skills for working with diverse groups in the society.

**Expectations:-**

The students are expected to be actively engaged in working on any of the projects listed below as volunteers. Evaluation will be based on consistency, commitment and results achieved in areas taken up.

**List of Projects under Social Outreach Programmes:**

- Working as Motivators under the Swatch Bharat Campaign of the Government,
- Literacy drive: (i). Teaching in the Charitable School Adopted by the College (ii). Work in projects undertaken by Rotary Club of Jalandhar.

For inducting students in child labour Schools.

- Enroll as NSS Volunteers for various projects (Cleanliness, Women health awareness)
- Counseling camps in villages
- Tree plantation (i) Maintaining the trees in the park adopted by the college  
in Vikas Puri, Jalandhar  
(ii) Enroll for projects undertaken by JCI Jalandhar City
- Enroll in the Gandhian Studies Centre as student Volunteer for surveys in villages.
- Women Empowerment Programmes in collaboration with JCI Jalandhar Grace
- Generating awareness on voting among the youth.
- Drug Abuse (Generate awareness among the school children)
- Environment Awareness (Reduce Pollution)
- Old Age Homes/Orphanages
- Operating the Empathy Corner outside the college gate.
- Disaster Management/Relief Work

### **Evaluation /Assessment:**

In the beginning of the semester the students after enrolling for one of the Projects offered will be given deadlines for the project.

- Students will be responsible for getting their hours of service recorded with the faculty and also map the progress of their subjects (children, old people, saplings etc.) .
- The respective departments will monitor the involvement of their students
- The students will submit a report of the project taken up by them.
- There will be no written examination, The students will be given grade on the basis of evaluation of the projects by an evaluation committee, comprising of the Dean of the respective streams, Head and two teachers of the concerned department.
- **Total Marks: 50**

**FACULTY OF SCIENCES**  
**SYLLABUS OF**  
**Bachelor of Science (Home Science)**  
**(Semester: V - VI)**  
**(Under Continuous Evaluation Grading System)**  
**Session: 2024-25**



**The Heritage Institution**  
**KANYA MAHAVIDYALAYA**  
**JALANDHAR**  
**(Autonomous)**

**KANYA MAHA VIDYALAYA, JALANDHAR (AUTONOMOUS)**  
**SCHEME AND CURRICULUM OF AND EXAMINATION OF THREE YEAR DEGREE**  
**PROGRAMME**  
**Bachelor of Science (Home Science)**  
**(Session: 2024-2025)**

**Semester-V**

Course Code	Course Name	Course Type	Marks				Examination Time (in Hours)
			Total	Ext.		CA	
				L	P		
BHSL 5281	Child Psychology	C	50	40	-	10	3
BHSL 5282	Introduction To Extension Education and Community Development	C	50	40	-	10	3
BHSL 5063	Basic Nutritional Biochemistry	C	50	40	-	10	3
BHSM 5284	Interior Space Designing	C	100	60	20	20	3+3
BHSM 5285	Therapeutic Nutrition	C	100	60	20	20	3+3
BHSM 5286	Basic Concepts of Sewing and Fashion	C	100	60	20	20	3+3
BHSM 5077	Applied Botany And Home Gardening	C	100	50	30	20	3+3
SECI 5541	*Innovation, Entrepreneurship and Creative Thinking	AC	25	20	-	5	1
<b>Total</b>			<b>550</b>				

C: Compulsory

AC: Audit course

\*Marks of these papers will not be added in total marks and only grades will be provided

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**CHILD PSYCHOLOGY**  
**(Theory)**  
**COURSE CODE: BHSL -5281**

**COURSE OUTCOMES**

1. To introduce the concept of psychology and Child psychology.
2. To study the development of aspects such as attention, memory and learning.
3. To study the development phases in childhood with respect to these aspects.
4. To link the study of development with the discipline of psychology in accordance to different theories.
5. To provide systematic knowledge of the foundation of human behaviour.

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**CHILD PSYCHOLOGY**  
**(Theory)**  
**COURSE CODE: BHSL -5281**

Time: 3 Hrs

**Max. Marks: 50**  
**Theory: 40**  
**CA: 10**

**INSTRUCTIONS FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set, two in each of the four sections (A-D). Questions of sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any section.
- Each question carries 8 marks.

**CONTENTS**

**Unit I**

**Psychology related concept**

- Definition of Psychology and Child psychology
- Nature and Scope of Psychology

**Attention**

- Meaning, span of attention, distraction in-attention and nature of attention
- Factors affecting attention

**Memory**

- Definition, Aspects of Memory
- Factors affecting memory and improvement in memory
- Forgetting and its causes

**Unit II**

**Learning and Motivation**

- Meaning, nature and types of learning
- Primary and secondary motives
- Role of Motivation in learning
- Factors affecting learning

**Theories of Human Development**

- Cognitive theory- Jean Piaget
- Psycho-Sexual theory – Sigmund Freud
- Psycho-Social theory – Erick Erickson

**Unit III**

- Behavioral Theory
- Classical and Operant Conditioning Theory
- Ecological Theory
- Maslow Theory

**Unit IV**

- Moral Development Theory
- Attachment Theory
- Allport Theory

• **Reference Books:**

Brooks, Flower, D & Shaffer, Laurence F child Psychology". Developmental Psychology, by Elizabeth B Hurlock.  
Child Development and personality by Mussen Conger, Kogan.

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**INTRODUCTION TO EXTENSION EDUCATION AND COMMUNITY DEVELOPMENT**  
**(Theory)**  
**COURSE CODE: BHSL -5282**

**COURSE OUTCOMES:**

CO 1 To understand about the concept of education and its different forms.

CO 2 To gain the knowledge about extension services provided by agricultural universities.

CO 3 To make the students familiar about roles of extension and home science education in rural development.

CO 4 To get the concept of motivation and techniques to motivate village people and extension workers.

CO 5 To learn the concept of community development.

CO 6 To gain the knowledge about different rural development programs.

CO 7 To get the insight into Panchayati Raj System and its functions.

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**INTRODUCTION TO EXTENSION EDUCATION AND COMMUNITY DEVELOPMENT**  
**(Theory)**  
**COURSE CODE: BHSL -5282**

**Time: 3 Hrs**

**Max. Marks: 50**  
**Theory: 40**  
**CA: 10**

**INSTRUCTIONS FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set, two in each of the four sections (A-D). Questions of sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any section.
- Each question carries 8 marks.

**CONTENTS**

**Unit-I**

- Education, is definition and types.
- Concepts, philosophy, principles and aims and scope extension education.
- Difference between formal, non-formal and extension education.
- Brief history of popular extension activities in India.
- Extension services in Agriculture Universities.

**Unit-II**

- Role of extension education in rural development.
- Role of Home Science extension in rural development.
- Field covered under extension education.
- Role of extension worker
- Qualities of extension worker

**Unit-III**

- Motivation in Extension
- Motivating Village people
- Motivating Extension worker
- Techniques of Motivation
- Community development – its definition, work, elements, objectives, philosophy, types, principles and process.

**Unit-IV**

- Role of voluntary organization in community development
- Panchayati Raj System organization & function
- Co-operative Societies – Organization & function
- The Integrated rural development programme (IRDP).
- Minimum Need programme
- National Rural employment programme. Family planning programme.

**References:**

Education and communication for development by O. P. Dhama and O.P. Bhatnagar.

Extension Education and Communication by V.K. Dubey.



**Bachelor of Science (Home Science) Semester-V**  
**(Session: 2024-25)**  
**COURSE CODE: BHSL-5063**  
**BASIC NUTRITIONAL BIOCHEMISTRY**  
**(Theory)**

**Course Outcomes:**

After completing this course, student will be able to

**CO1:** Understand the concept of carbohydrates.

**CO2:** Understand metabolism of carbohydrates.

**CO3:** Understand basic concepts of fats.

**CO4:** Understand basics of inorganic elements and their dietary sources.

**Bachelor of Science (Home Science) Semester-V**  
**(Session: 2024-25)**  
**COURSE CODE: BHSL-5063**  
**BASIC NUTRITIONAL BIOCHEMISTRY**  
**(Theory)**

**Time: 3 Hrs.**

**Max. Marks: 50**  
**Theory: 40**  
**CA: 10**

**Instructions for the Paper Setter**

Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A- D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 8 marks.

**Unit-I**

Carbohydrates: Introduction, Monosaccharides: Families of monosaccharides: aldoses and ketoses, trioses, tetroses, pentoses, and hexoses, disaccharides and polysaccharides: storage polysaccharides - starch and glycogen; Structural Polysaccharides - cellulose, and chitin; Heteropolysaccharides: Peptidoglycan, Proteoglycan, glycoproteins.

**Unit-II**

Intermediary Metabolism of Carbohydrates: Biosynthesis and degradation of carbohydrates, Glycolysis, TCA Cycle, Gluconeogenesis. Structural formula of fatty acids, triglycerides and phospholipids. Rancidity of fats & its prevention.

**Unit-III**

Acid value and saponification value of fat. Essential fatty acid. Study of intermediary metabolism of fat oxidation and biosynthesis of fatty acids.

**Unit-IV**

Inorganic elements (calcium, phosphorus, magnesium and iron): Dietary source, Daily requirement, Biochemical function and Metabolism.

**Books Recommended:**

1. Jain, J. L., Jain, S. and Jain. N. (2016). Fundamentals of Biochemistry, S. Chand & Company Ltd., New Delhi.
2. Sharma, D. C. (2017). Nutritional Biochemistry, CBS Nursing Publishers.
3. Voet, D., Voet, J.G. (2012). Fundamentals of Biochemistry, John Wiley and Sons, New York.
4. Nelson, D.L. and Cox, M.M. (2017), Lehninger Principles of Biochemistry, 7<sup>th</sup> Edition, WH Freeman, New York.

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**INTERIOR SPACE DESIGNING**  
**(Theory)**  
**COURSE CODE: BHSM-5284**

**COURSE OUTCOMES:**

1. To study the objectives and importance of Home Interior Designing.
2. To study and orient the students towards present and future trends in furnishing material, flooring and curtains etc.
3. To plan furniture and color schemes for different rooms, age groups and gender.
4. To build the ability to apply various elements and principles of design in interiors.

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**INTERIOR SPACE DESIGNING**  
**(Theory)**  
**COURSE CODE: BHSM-5284**

**Time: 3 Hrs**

**Max. Marks: 100**  
**Theory: 60**  
**Practical: 20**  
**CA: 20**

**INSTRUCTIONS FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set, two in each of the four sections (A-D). Questions of sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any section.
- Each question carries 12 marks.

**CONTENTS**

**Unit–I**

**Introduction to Interiors**

Importance of Home environment  
Objectives of Home furnishing.  
Factors to be considered while designing interiors.

**Unit–II**

**Furniture**

Material used for furniture-wood, iron, plastic etc. constructional features – Type of joints.  
Factors to be considered for selecting furniture.  
Application of principles of design in furniture arrangement.  
Arrangement of furniture in drawing room, dining room, living cum dining room, bedroom master bedroom, children, adolescent boy & girl, guest room and lobby. Care of different type of furniture.

**Unit–III**

**Planning of colour schemes**

Factors to be considered while planning colour schemes for different rooms Development of colour schemes  
Planning of colour schemes for drawing room, drawing cum dining room bedroom, Master, children adolescent boy & girl and lobby.

**Unit – IV**

**Wall finishes**

Wall paper, wood panelling & their care.  
Paints – Types & suitability

**Floor materials**

Hard Material – stone, tile & wood  
Resilient Material – Vinyl and Linoleum  
Soft material – Carpets and rugs their selection, types, suitability and care.

**Reference books**

Home furnishing Anna Hong Rutt.  
Home furnishing, Butter Winifred.  
Home with character, Craig &Rush.

Family Resource Management & Health Science, Rajwinder K .Randhawa.

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**INTERIOR SPACE DESIGNING**  
**(Practical)**

**COURSE CODE: BHSM-5284**

**COURSE OUTCOMES:**

1. To acquaint the students with standard measurements of furniture.
2. To enable them to make templates of different furniture items.
3. To plan and execute various color schemes.
- 4 To develop color scheme samples of drawing room, bedroom, children room etc.
5. To study and collect various furnishing material and develop a scrap book.

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**INTERIOR SPACE DESIGNING**  
**(Practical)**  
**COURSE CODE: BHSM-5284**

**Time: 3 Hours**

**Max. Marks: 20**

**Note : Question paper will be set on the spot by the examiner :**

Measure furniture of home and make templates of different furniture items of standard size.

Plan furniture arrangement and colour schemes. (Use samples) in the following rooms.

Drawing room.

Drawing cum dining room

Bedroom, Master, Children, adolescent boy and girl.

Do market survey of furnishing material and make a scrapbook.

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**THERAPEUTIC NUTRITION**  
**(Theory)**  
**COURSE CODE: BHSM-5285**

**COURSE OUTCOMES:**

- CO1. To understand the concept of therapeutic nutrition, routine and hospital diet, role of dietitian and drug nutrient interaction.
- CO2. To understand the nutrition in infections and fever. Dietary management in typhoid, dengue, tuberculosis, intestinal disorders, liver, gallbladder and pancreatic diseases.
- CO3. To understand the nutritional management of diabetes, renal diseases, hypertension, dislipidemia and cardiovascular diseases.
- CO4. To gain knowledge about cancer and it's nutritional management, obesity and role of diet in management of obesity. A brief knowledge about gout and food allergies in dietary management.

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**THERAPEUTIC NUTRITION**  
**(Theory)**  
**COURSE CODE: BHSM-5285**

**Time: 3 Hrs**

**Max. Marks: 100**  
**Theory: 60**  
**Practical: 20**  
**CA: 20**

**INSTRUCTIONS FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set, two in each of the four sections (A-D). Questions of sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any section.
- Each question carries 12 marks.

**CONTENTS :-**

**Unit-I**

Basic concept of Therapeutic diet - meaning, importance, objectives, Therapeutic adaptations of the normal diet. Types of routine hospital diets - normal diet, Soft diet, liquid diet, Special feeding methods Enteral nutrition and Parenteral Nutrition.  
Role of Dietitian in feeding of patients. Effect of illness on food acceptance and utilization.  
Nutrient and drug interaction. Effect of drug therapy on intake, absorption and utilization of nutrients.

**Unit-II**

Nutrition during infection and fevers - classification, etiology, symptoms and dietary management in - Typhoid, Tuberculosis and Dengue.  
Nutrition in Gastro - intestinal disorders, etiology, symptoms and dietary management in Diarrhoea, constipation, Gastritis, Irritable bowel syndrome peptic ulcer.  
Nutrition in disturbances of small and large intestine etiology, symptoms peptic ulcer, management in Celiac disease, Lactose intolerance, ulcerative colitis.  
Nutrition in disease of the liver, gall bladder and pancreas, etiology, symptoms and dietary management in - Jaundice, Hepatitis, cirrhosis of liver, Cholecystitis and Pancreatitis.

**Unit-III**

Nutrition in Diabetes Mellitus - Types etiology, symptoms metabolic changes, life style modification, Dietary management, Hypoglycemic agents, Medication, Insuline therapy, Acute Complication of diabetes.  
Nutrition in Renal disease, etiology, symptoms dialysis - Its type and dietary management in Glumerulo nephritis, Nephrosis, Acute Renal failure.  
Nutrition in Cardiovascular diseases, etiology, symptoms, life style modification, brief knowledge of Dash Diet and dietary management in Atherosclerosis, Hypertension, Dislipidemia and Acute cardiovascular disease/ Heart attack.

**Unit-IV**

Nutrition in Cancer, types etiology, stages, symptoms diagnosis, factors inhibiting carcinogenesis, factors enhancing carcinogenesis and dietary management and Chemo& Radiation therapy (Brief Introduction).  
Nutrition in obesity - assessment of obesity, Hazards of obesity, etiology, nutritional management and other approaches.  
Gout - etiology, symptoms & dietary management.  
Food Allergy - Causes, symptoms & dietary management.

**Reference books**

Food and Nutrition - by Dr. M. Swamination  
Text book of Nutrition & Dieteties - by Kumud Khanna & others.



**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**THERAPEUTIC NUTRITION**  
**(Practical)**  
**COURSE CODE: BHSM-5285**

**COURSE OUTCOMES**

1. To develop therapeutic diets according to special requirements of nutrients.
2. To calculate the nutritive value of diets.
3. To study the nutritive value of diets given in different diseases.
4. To develop entrepreneurship skills in students.
5. To encourage the students to set up a diet clinic.

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**THERAPEUTIC NUTRITION**  
**(Practical)**  
**COURSE CODE: BHSM-5285**

**Time: 3 Hours**

**Marks: 20**

**Note :- Paper will be set on the spot by the examiner.**

Prepare following therapeutic recipes and calculate their nutritive value.

Prepare 5 recipes of liquid and soft diet.

Prepare 5 high protein and high energy recipes.

Prepare 5 high carbohydrate, moderate protein & low fat recipes.

Prepare 5 high fiber and low glycemic index recipes.

Prepare 5 low sodium, low fat and high fiber diet.

Plan and calculate nutritive value of diet for the following diseases. Typhoid, Diarrhoea, Constipation,

Jaundice, peptic ulcer, Diabetes, Hypertension, atherosclerosis, renal disease and obesity.

Students are required to run Diet Clinics in the college

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**BASIC CONCEPTS OF SEWING AND FASHION**  
**(Theory)**  
**COURSE CODE: BHSM 5286**

**COURSE OUTCOMES:**

1. To study basic parts, uses and operation of sewing machine with its defects and remedies.
2. To study various sewing techniques ranging from basic hand stitches to seams, fullness features, neck finishes, pockets etc.
3. To study different types of garment design features such as plackets, yokes and terminologies used in fashion.
4. To study the textile and fashion industry, promotion, marketing and merchandising concept.

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**BASIC CONCEPTS OF SEWING AND FASHION**  
**(Theory)**  
**COURSE CODE: BHSM 5286**

**Time: 3 Hrs**

**Max. Marks: 100**  
**Theory: 60**  
**Practical: 20**  
**CA: 20**

**INSTRUCTIONS FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set, two in each of the four sections (A-D). Questions of sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any section.
- Each question carries 12 marks.

**CONTENTS :-**

**Unit-I**

**Sewing equipments**

- Classification.
- Parts, function and care and sewing machine.
- Common stitching faults, their causes and remedies.

**Unit-II**

**Sewing techniques**

- o Basic hand stitches – types and use.
- o Seams and seam finishes – Type & use
- o Fullness – Darts, tucks, pleats, gathers, shirring, their definition, types and application. o Trimming & Frills types and use
- o Sleeves types and uses o Pockets types and uses.
- Neck finishes types and uses

**Unit -III**

- Collars types and uses
- Yokes and skirt - types and use
- Plackets - Types and uses
- Fasteners – Types and uses

**Fashion Terminology**

Apparel, Fashion, Fad, Craze, High fashion, Mass fashion, style, change, classic, boutique, Croquet, Silhouette, designer, collection, adaptation.

**Unit-IV**

**Fashion Trend, Fashion Cycle**

Sources of fashion, factors favoring fashion, selecting fashion, for casting fashion, fashion show Fashion merchandising, Advertising and Display

**REFERENCE BOOKS:**

Basic process of clothing construction by Doongaji S Deshpande Clothing, Textile & their care – by Dr. Rajwinder K. Randhawa  
Ministry of Fashion – by Manmeet Sodhia  
Design Studies – by Manmeet Sodhia  
Zarapkar System of Cutting- K.R Zarapkar. Navneet Publications.

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**BASIC CONCEPTS OF SEWING AND FASHION**  
**(Practical)**  
**COURSE CODE: BHSM-5286**

**COURSE OUTCOMES**

1. To equip the students regarding the parts and working of the sewing machine.
2. To make the students familiar with various design features, hand stitches, machine seams to be used in garments.
3. To make the students capable in designing and stitching of baby garments such as bloomer and frock etc.

**Bachelor of Science (Home Science) (Semester –V)**  
**(Session 2024-25)**  
**BASIC CONCEPTS OF SEWING AND FASHION**  
**(Practical)**  
**COURSE CODE: BHSM-5286**

**Time: 3 Hours**

**Marks: 20**

**Note :-** Paper will be set on the spot by the examiner.

Demo of machine parts and operation.

Make sample of the followings.

Even, uneven, diagonal and machine basting.

Running stitch, back stitch, button hole stitch

Visible and invisible hemming

run and fell seam, counter hem, French and Mantua maker. Seam finishes

– hand overcast, turned and stitch and binding. Pleats – knife, box,

inverted pleat Gathers with band and shirring.

Tucks – Pin tucks, cross tucks, shell tucks, space tucks, release tucks.

Frill and piping attachment.

Patchwork.

Plackets – continuous, two piece and extended placket

Fastener – hook & eye, button and button hole Press button, skirt hook & velcro tape (Attach fasteners on plackets only).

Pocket – Patch, in seam and cross pocket. Make draft of child bodice block and make sample of neck finishes on bodice block–

bias piping bias facing and shaped facing.

Make draft and sample of plain sleeve, cap, Magyar using the neck finishes block.

Make draft and sample of peter pan, raised, peter pan (only draft) on child's bodice block.

Draft and stitch A-Line frock.

Draft and stitch baby frock with collar and puff sleeve.

Draft and construct child's bloomer.

**Bachelor of Science (Home Science) (Semester-V)**  
**Session 2024-25**  
**COURSE CODE: BHSM-5077**  
**APPLIED BOTANY AND HOME GARDENING**  
**(Theory)**

**COURSE OUTCOMES: -**

After passing this course the student will be able to:

CO:1 Identify different plants.

CO:2 Learn art of home gardening.

CO:3 Understand the art of soil preparation for gardening.

CO:4 Understand different means of plant propagation.

**Bachelor of Science (Home Science) (Semester-V)**  
**(Session 2024-25)**  
**COURSE CODE: BHSM-5077**  
**APPLIED BOTANY AND HOME GARDENING**  
**(Theory)**

**Time: 3 Hrs.**

**Max.Marks: 100**  
**Theory: 50**  
**Practical: 30**  
**CA: 20**

**Instructions for the Paper Setters:**

Eight questions of equal marks (10 marks each) are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

**Unit-I**

**Gardening**

- Layout of a Garden
- Soil preparation – digging, tillage, drainage, watering and weeding.
- Manures and fertilizers

**Unit-II**

**Propagation of plants**

- Seed propagation
- Vegetative propagation by natural and artificial methods (Bulbs Rhizomes suckers Runners Tubers Budding and grafting)

**Unit-III**

**Kitchen Garden**

- Principle of planning and cultivation of vegetables with reference to potato tomato radish cauliflower brinjal, pea and spinach.

**Unit-IV**

**Lawn and Hedges**

- Principle of planning of lawn and hedges
- Brief description of care and cultivation of ornamental plants.
- Care and cultivation of seasonal flowers
- Care and cultivations of common indoor plants.

**General characteristics, morphology and economic importance:** algae, fungi and moulds

**REFERENCE BOOK:**

- 1) Basic Gardening Gemell Alam Penguin books publication.
- 2) B. Choudhary: Vegetables (National Book of India, New Delhi 1979)
- 3) Breikell C. 1993, Step byStep Gardening Technique (Royal Horticultural Society's Encyclopedia of Practical Gardening).
- 4) Dutta A.C. Botany for Degree Students (Oxford University Press, New Delhi 1970)
- 5) Gangullee H.C. Dass, K.S. Dass, K.S. Dutta C: College Botany Vol. I (New Central Book Agency Calcutta 1991)
- 6) Gopalswamianger K.S. 1991 Complete Gardening in India (Messers Nagaraj and Co., Madras).
- 7) H.T. Harman and D Keter: Plant Propagation, Principles and Practices (Prentice Hall of India Pvt. Ltd. New Delhi 1979).
- 8) Hind Book of Agriculture: ICAR, New Delhi 1987.
- 9) J.L. Shreemali Economic Botany (Har Anand Publication, New Delhi 1995)
- 10) O.P. Sharma: Hill's Economic Botany 2006 Tata McGraw-Hill Publishing Co. Ltd.



**Bachelor of Science (Home Science) (Semester-V)**  
**(Session 2024-25)**  
**COURSE CODE: BHSM-5077**  
**APPLIED BOTANY AND HOME GARDENING**  
**(Practical)**

**COURSE OUTCOMES: -**

After passing this course the student will be able to:

CO:1 Identify different tools to be used in soil preparation.

CO:2 Understand the use of different plant parts for plant propagation.

CO:3 Maintain different plants in the garden.

CO:4 Identify ornamental plants.

**Bachelor of Science (Home Science) (Semester-V)**  
**Session 2024-25**  
**COURSE CODE: BHSM-5077**  
**APPLIED BOTANY AND HOME GARDENING**  
**(Practical)**

**Time: 3 Hours**

**Marks: 30**

**Note: Paper will be set on the spot by the examiner.**

1. Study of garden tools and accessories.
2. Identification of different types of plants i.e. vegetable flowers, ferns and ornamental plants.
3. Preparation of soil digging tillage drainage watering and weeding.
4. To prepare and manuring a seed bed for raising seedlings.
5. To prepare a bed for sowing potatoes and cultivate them.
6. To prepare a plot for raising seedlings.
7. To prepare a pot for repotting.
8. To prepare a plot and cultivate seasonal vegetable (as in theory).
9. Plant propagation.
  - a) From seeds guiding rules for seed sowing.
  - b) Vegetative propagation by cutting and grafting.
  - c) Maintenance of plants
  - d) Use of pesticides and fungicides
  - e) Identification of slides of algae fungi and moulds.

**Project:** Prepare Herbarium file Collection of specimen of ornamental plants flower.

**Bachelor of Science (Home Science) (Semester-V)**  
**Session 2024-25**

**INNOVATION, ENTREPRENEURSHIP AND CREATIVE THINKING**

**Course Title:** Innovation, Entrepreneurship and Creative Thinking

**Nature of Course:** Audit Course (Value-added)

**Course Duration:** 30 hours

**Course intended for:** Semester V students of undergraduate degree programme of-

B.A. (Pass Course)  
B.A. (JMC)  
B.Sc. (Medical)  
B.Sc. (Non-Medical)  
B.Sc. (Computer Science)  
B.Sc. (Agriculture)  
B.Sc. (Economics)  
B.Sc. (Home Science)  
B.Sc. (Fashion Designing)  
B.Voc. (Animation)  
B.Voc. (Retail Management)  
B.Voc. (Management & Secretarial Practices)  
B.Voc. (Textile Design & Apparel Technology)  
B.Voc. (Nutrition, Exercise & Health)  
B.Voc. (Beauty & Wellness)  
B.Voc. (Hospitality and Tourism)  
B.Voc. (Artificial Intelligence & Data Science)

**Course Credits:** 2 (For credit based continuous evaluation grading system)

**Course Code:** SECI-5541

Objectives of the Course:

It is a distinctive and innovative programme structured to prepare the students professionally for meaningful social engagement by setting new patterns and possibilities for employment generation through innovations and entrepreneurship. The purpose of the course is to help students acquire necessary knowledge and skills required for carrying out innovative and entrepreneurial activities, and to develop the ability of analyzing and understanding business situations.

Learning Outcomes:

On successful completion of this course, students will be able to:

- ❖ assess and analyze entrepreneurship as a career choice,
- ❖ develop creative and innovative skills,
- ❖ analyse the business environment in order to identify business opportunities,
- ❖ consider the legal and financial conditions for starting a business venture, explain the importance of marketing and management in small businesses venture
- ❖ develop a business idea into a comprehensive and highly scalable businessmodel,
- ❖ design a successful business plan and launch their product or service in themarket
- ❖ understand personal creativity, identify what are the creative tools and improve their creative problem-solving skills.

CURRICULUM

**Course Code: SECI 5541**

**Course Credits: 2**

**Total contact hours: 30**

<b>MODULE</b>	<b>TITLE</b>	<b>HOURS</b>
I	Introduction to Entrepreneurship	3 Hrs.
II	Creativity & Innovation	3 Hrs.
III	Entrepreneurial Competencies	3 Hrs.
IV	Management Skills & Functions	3 Hrs.
V	Business Opportunity Identification & Market Analysis	3 Hrs.
VI	Business Plan Preparation	3 Hrs.
VII	Business Model Canvas	3 Hrs.
VIII	Start-Up Financing & Launching	3 Hrs.
IX	Workshop on Design Thinking	4 Hrs.
X	Final Assessment Feedback and Closure	2 Hrs.

- **Total Marks: 25** (Final Exam: 20; Internal Assessment: 5)
- **Final Exam:** Multiple Choice Questions: Marks- 20; Time: 1 hour
- **Internal Assessment: 5** (Assessment: 3; Attendance:2)  
A comprehensive multiple-choice quiz at the close of the programme. Marks: 3; Time: 0.5 hour (30 minutes).
- **Total marks: 25** converted to grade for final result.

**KANYA MAHA VIDYALAYA, JALANDHAR (AUTONOMOUS)**  
**SCHEME AND CURRICULUM OF AND EXAMINATION OF THREE YEAR DEGREE**  
**PROGRAMME**  
**Bachelor of Science (Home Science)**  
**(Session: 2024-2025)**

**Semester VI**

Course Code	Course Name	Course Type	Marks				Examination time (in Hours)
			Total	Ext.		CA	
				L	P		
BHSM 6281	Behavioral Psychology	C	50	25	15	10	3
BHSM 6282	Interior Decoration	C	100	60	20	20	3+3
BHSM 6283	Community Nutrition	C	100	60	20	20	3+3
BHSM 6284	Garment Designing and Construction	C	100	60	20	20	3+3
BHSM 6285	Communication and Audio-visual in Extension Work	C	50	25	15	10	3+3
BHSM 6066	Applied Nutritional Biochemistry	C	50	25	15	10	3+3
BHSM 6487	Applied Zoology and Food Microbiology	C	100	60	20	20	3+3
<b>Total</b>			<b>550</b>				

C-Compulsory

Note: The students are required to undertake the field work to be submitted 20 days prior to the commencement of theory end semester examination under course code BHSM-6281, Behavioral Psychology (Practical).

**Bachelor of Science (Home Science) (Semester-VI)**  
**Session 2024-25**  
**BEHAVIORAL PSYCHOLOGY**  
**COURSE CODE: BISM-6281**  
**(Theory)**

**COURSE OUTCOMES**

1. To study the concept of intelligence and its measurement.
2. To gain knowledge about personality, its social factors and assessment.
3. To identify the behaviour disorders, its factors and ways of preventing.
4. To study the concept of disability.
5. To classify various impairments and their causes, prevention, education and rehabilitation.

**Bachelor of Science (Home Science) (Semester-VI)**  
**Session 2024-25**  
**BEHAVIORAL PSYCHOLOGY**  
**COURSE CODE: BHSM-6281**  
**(Theory)**

**Time: 3 Hrs.**

**Max. Marks: 50**  
**Theory: 25**  
**Practical: 15**  
**CA: 10**

**INSTRUCTIONS FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set; two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 5 marks.

**CONTENT**

**Unit-I**

**Intelligence**

Nature and Measurement of Intelligence

**Personality**

- a) Definition and concepts of personality
- b) Social factors of personality
- c) Assessment of personality

**Unit-II**

**Behaviour disorders**

- a) Definition & types of Behaviour disorders
- b) Factors leading to behaviour disorders
- c) General way of preventing behaviour disorders

**Person with disabilities**

- a) Concept of disability and classification system.
- b) Definition, classification, cause, prevention, education and rehabilitation.

**Unit III**

- Physical impairment
- Visual impairment
- Speech impairment
- Hearing impairment

**Unit IV**

- Learning disabilities
- Behaviour disabilities
- Nail biting, thumb sucking, bed wetting, Temper Tantrum, Stealing
- Dealing with Gifted children

**Reference Books**

- 1) Child Development by Hurlock.
- 2) Educational Psychology by J.Walia.

**Bachelor of Science (Home Science) (Semester-VI)**  
**Session 2024-25**  
**BEHAVIORAL PSYCHOLOGY**  
**COURSE CODE: BHSM-6281**  
**(Practical)**

**COURSE OUTCOMES**

1. To conduct a case study on a child to study socio-psychological dimension.
2. To assess personality using two different techniques.
3. To assess intelligence using two different techniques.
4. A visit to guidance/counseling cell.



**Bachelor of Science (Home Science) (Semester-VI)**

**Session 2024-25**

**BEHAVIORAL PSYCHOLOGY**

**COURSE CODE: BHSM-6281**

**(PRACTICAL)**

**Time: 3 Hours**

**Practical: 15**

**Note :- Question paper will be set on the spot by the examiner.**

- 1) To conduct a case study on a child to study and Socio-psychological dimension of socialization in one of the following situations and submit report.
  - a) Slum child
  - b) Single parent child
- 2) Assessment of personality using any two different techniques.
- 3) Assessment of intelligence using any two different techniques.
- 4) Visit to guidance/counseling centre.

**Reference Books :-**

- 1) Brooks, flower D. & Shaffer Laurence F. Child Psychology.
- 2) Developmental Psychology by Elizabeth B. Hurlock child Development and personality by Mussen, Conger, Kagan

**Bachelor of Science (Home Science) (Semester-VI)**  
**Session 2024-25**  
**INTERIOR DECORATION**  
**(Theory)**  
**COURSE CODE: BHSM 6282**

**COURSE OUTCOMES**

1. To study ceiling treatment and types of lighting used in interior decoration.
2. To understand window types, treatment of problematic windows and their accessories.
3. To gain understanding of flower arrangement types and elements and principles used in making them.
4. To study various types of accessories, their types and importance used in interior decoration.

**Bachelor of Science (Home Science) (Semester-VI)**  
**Session 2024-25**  
**INTERIOR DECORATION**  
**(Theory)**  
**COURSE CODE: BHSM 6282**

**Time: 3 Hrs**

**Max. Marks: 100**  
**Theory: 60**  
**Practical: 20**  
**CA: 20**

**INSTRUCTIONS FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set; two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 12 marks.

**CONTENTS :**

**Unit-I**

**Ceiling Treatment and lighting**

- Decorative and false ceiling.
- Types of lights.
- Characteristics of good lighting.
- Lighting needs for various activities & room.
- Effects of lighting on interior.
- Selection of lamps shade & fixture.

**Unit-II**

**Window Treatment**

- Terms used for describing window.
- Types of window.
- Types of curtain, draperies and their suitability.
- Treatment of problematic window.
- Venetian blinds and rollers.
- Window accessories – Certain rods, rings frills, cords swag etc.

**Unit-III**

**Flower Arrangement**

- Importance
- Types with Special reference to I- Kebana.
- Equipments & accessories needed.
- Points to be considered for plucking & making flower arrangement.
- Application of elements & principles of design in flower arrangement.

**Unit-IV**

**Accessories**

- Importance, types and selection of accessories in different room.
- Pictures types, selection and framing.
- Selection of household furnishing towel, bed sheets, pillow cover, blankets, quilts upholstery slipcovers, cushions etc.

**Reference books**

1. Home furnishing – Anna Hong Rutt
2. Home furnishing – butter winifred
3. Home with character, Craig & Rush
4. Interior design & decoration. Ferguson
5. Family Resource Management & health Science

**Bachelor of Science (Home Science) (Semester-VI)**  
**Session 2024-25**  
**INTERIOR DECORATION**  
**(Practical)**  
**COURSE CODE: BISM: 6282**

**COURSE OUTCOMES**

1. To make elevation on walls, show lighting, windows and accessories in rooms.
2. To make fresh flower arrangement.
3. To make any furnishing article.

**Bachelor of Science (Home Science) (Semester-VI)**  
**Session 2024-25**  
**INTERIOR DECORATION**  
**(Practical)**  
**COURSE CODE: BISM: 6282**

**Time: 3 Hours**

**Practical : 20**

- 1) Make elevation on walls of following room and show lighting, windows and accessories.
  - a) Drawing room
  - b) Master bedroom
- 2) Make flower Arrangement :- with fresh/dry flowers.
- 3) Make any one furnishing article.

**Bachelor of Science (Home Science) (Semester-VI)**  
**Session 2024-25**  
**COMMUNITY NUTRITION**  
**COURSE CODE: BHSM: 6283**  
**(Theory)**

**COURSE OUTCOMES**

- CO1. To understand the relationship between nutrition and infection. To gain knowledge about enhancing the nutritive value of food.
- CO2. To assess nutritional status using different methods.
- CO3. To study channels of nutrition education in community. To understand the importance of planning and implementation of nutrition education programmes in a community. To study different national nutrition programmes and policies
- CO4. To understand the role of various national and international agencies in community nutrition.

**Bachelor of Science (Home Science) (Semester-VI)**  
**Session 2024-25**  
**COMMUNITY NUTRITION**  
**COURSE CODE: BHSM: 6283**  
**(Theory)**

**Time : 3 hrs.**

**Max. Marks: 100**  
**Theory: 60**  
**Practical: 20**  
**CA:20**

**INSTRUCTION FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set; two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 12 marks.

**Unit-I**

Concept of community, health, malnutrition, maternal and infant mortality, morbidity, nutritional status.  
Major nutritional problems prevalent in India - Protein - energy malnutrition, iron deficiency anaemia, Vit - A deficiency, iodine deficiency disorder, Vit - D and calcium deficiency, flurosis.  
Malnutrition and Infection - Nutritionally relevant infection and infestation.  
Effect of malnutrition on defense mechanism.  
Effect of infection on nutritional status and growth and development.

**Unit-II**

Assessment of nutritional status using different methods  
Anthropometric measurement, standards for comparison age assessment, weight, height, skin folds, arm, head and chest circumference, use of growth chart.  
Clinical sign and symptoms of malnutrition, classification of clinical sign and symptoms methods of reporting results.  
Biochemical assessment - most commonly used biochemical methods and their standard ranges.  
Diet Surveys - Population sampling, methods of dietary survey points requiring special attention, adult consumption unit analysis of diet survey data

**Unit-III**

Channels of nutrition education in the community, Nutrition education method - lectures and Demonstration, workshops, films, posters, charts, exhibition, books, pamphlets, newspaper, radio & television, power point-presentations.  
Planning and implementation of Nutrition education programme, objective, selecting topic, and audiovisual aid for target group.

Method of enhancing nutritive value of food - Supplementation, sprouting, fermentation, fortification, enrichment.  
Food Fadism and Faculty Food habits.  
National Nutrition programme & policies.

- a) Integrated Child Development Services. (ICDS)
- b) Applied Nutrition Programme. (ANP)
- c) Special Nutrition Programme. (SNP)
- d) Mid-day meal Programme. (MMP)
- e) Balwadi Nutrition Programme. (BNP)

**Unit-IV**

Role of National and international agencies in community Nutrition.

- a) Indian council of Agriculture Research. (ICAR)
- b) Indian council of Medical Research. (ICMR)
- c) Central Food Technological Research Institute, Mysore. (CFTRI)
- d) National Institute of Nutrition, Hyderabad. (NIN)
- e) Food and Agriculture organization. (FAO)
- f) World Health organization. (WHO)
- g) United Nations Children's Fund. (UNICEF)
- h) CARE.

**Reference Book :**

1. Food and Nutrition by Dr. M. Swaminathan.

**Bachelor of Science (Home Science) (Semester-VI)**

**Session: 2024-25**

**COMMUNITY NUTRITION**

**COURSE CODE: BHSM: 6283**

**(Practical)**

**COURSE OUTCOMES**

1. To cook recipes and calculate their cost and nutritive values.
2. To assess the nutritional status of different vulnerable groups.
3. To develop different audio-visual aids for imparting knowledge.
4. To plan, implement and evaluate the nutrition education for target groups.
5. To visit school to see the functioning of mid day meal programme.



**Bachelor of Science (Home Science) (Semester-VI)**  
**Session: 2024-25**  
**COMMUNITY NUTRITION**  
**COURSE CODE: BHSM: 6283**  
**(Practical)**

**Time: 3 Hours**

**Marks: 20**

1. Cook following recipes and calculate their cost and nutritive value.
  - a) Low cost energy and protein rich recipes.
  - b) Low cost iron rich recipes.
  - c) Low cost calcium rich recipes.
  - d) Value addition of cereal & pulses.
  - e) Weaning foods
2. Assessment of nutritional status of vulnerable group using anthropometry/dietary surveys.  
Project report will be judged by the external examiner.
3. Development of audio-visual aids for imparting nutrition education- e.g. charts, posters, flashcard and power-point presentation.
4. Planning, implementation and evaluation of nutrition education for specific target groups.
5. Visit to see the functioning of mid-day meal programme in schools or any health oriented programme.

Paper will be set on the spot by the examiner

**Bachelor of Science (Home Science) (Semester-VI)**  
**Session: 2024-25**  
**GARMENT DESIGNING AND CONSTRUCTION**  
**COURSE CODE: BHSM-6284**  
**(Theory)**

**COURSE OUTCOMES**

1. To identify different types of fabrics, selection criterion for them and garment labels.
2. To evaluate the importance of clothing and factors affecting the selection of clothing according to various age groups.
3. To study the elements and principles of design used in construction and fit problems.
4. To study different methods of developing the design and principles of dart manipulation.

**Bachelor of Science (Home Science) (Semester-VI) Session**  
**Session: 2024-25**  
**GARMENT DESIGNING AND CONSTRUCTION**  
**COURSE CODE: BHSM-6284**  
**(Theory)**

**Time: 3 Hrs**

**Max. Marks: 100**  
**Theory: 60**  
**Practical: 20**  
**CA:20**

**INSTRUCTIONS FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set; two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 12 marks.

**CONTENTS :-**

**Unit-I**

- Identification of different types of fabrics suitable for different garment.
- Intelligent buying of fabrics and readymade garment.
- Importance of label-terminology, care, symbols & their usage.

**Unit-II**

- Importance of clothing.
- Factors affecting selection of clothing for different age groups infant's, toddler's pre schooler's school going, adolescent's adult and elderly person.
- Anthropometry – definition points to be considered while taking body measurements.

**Unit-III**

- Application of elements of art and principles of design in clothing.
- Use of lines in improving human figure.
- Common fitting problem and methods of correcting them.

**Unit-IV**

- Different methods of developing design.
- Flat pattern making techniques. Drafting and paper pattern.
- Important terms used in pattern production.
- Pattern making principles.
- Pattern manipulation.
- Terms related to dart & seam.
- Difference between drafting, pattern making & draping.

**Reference Books**

1. Basic Process of clothing construction – by Doongaji S. Deshpande.
2. Clothing Textile & their care – by Dr. Rajwinder K. Randhawa.

**Bachelor of Science (Home Science) (Semester-VI)**  
**Session: 2024-25**  
**GARMENT DESIGNING AND CONSTRUCTION**  
**COURSE CODE: BHSM-6284**  
**(Practical)**

**COURSE OUTCOMES**

1. To introduce basic sketching techniques.
2. To draft and stitch different dresses like frock, ladies blouse, ladies shirt, ladies salwar, ladies kurta, ladies nightyetc.

**Bachelor of Science (Home Science) (Semester-VI)**

**Session: 2024-25**  
**GARMENT DESIGNING AND CONSTRUCTION**  
**COURSE CODE: BHSM-6284**  
**(Practical)**

**Time : 3 hours**

**Marks: 20**

1. Pattern Making – dart manipulation by flat pattern
  - Shifting of darts
  - Combining darts
  - Converting darts into gathers
  - Converting darts into seam lines
2. Drafting and Construction
  - Draft and stitch petticoat (Drafting should be done directly on cloth).
  - Draft and stitch ladies blouse.
  - Draft and stitch ladies shirt.
  - Draft and stitch ladies Salwar / churidar (Drafting should be done directly on cloth).
  - Draft and stitch ladies nighty.

**Paper will be set on the spot by the examiner.**

**Bachelor of Science (Home Science) (Semester-VI)**  
**Session: 2024-25**  
**COMMUNICATION AND AUDIO-VISUAL IN EXTENSION WORK**  
**COURSE CODE : BISM: 6285**  
**(Theory)**

**COURSE OUTCOMES**

- CO1. To understand the concept of communication, it's importance, scope, functions and problems.
- CO2. To study selection of channels for communication and feedback in communication.
- CO3. To get the insight into different audio visual aids.
- CO4. To understand the concept of programme planning and to develop and plan of work.

**Bachelor of Science (Home Science) (Semester-VI)**  
**Session: 2024-25**  
**COMMUNICATION AND AUDIO-VISUAL IN EXTENSION WORK**  
**COURSE CODE : BHSM: 6285**  
**(Theory)**

**Time: 3 Hrs**

**Max. Marks: 50**  
**Theory: 25**  
**Practical: 15**  
**CA:10**

**INSTRUCTIONS FOR THE PAPER SETTER:**

- Eight questions of equal marks are to be set; two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 5 marks.

**CONTENTS :-**

**Unit-I**

- Communication-definition, importance process model, scope, function and problem in communication.

**Unit-II**

- Selection of channel and teaching tools.
- Feedback in communication.

**Unit-III**

- Audio-visual Aids – Meaning, types, choice planning and selecting theme, layout and design.
- Brief introduction of commonly used aids, posters, charts, flipcharts, exhibition, power-point presentation, bulletin, puppet, drama & talks, power-point presentation.

**Unit-IV**

- Programme planning – meaning and principles.
- Development & plan of work, importance format & elements, selection of subject matter.

**Reference Books :-**

1. Education and Communication for development by O.P. Dhama and O.P. Bhatnagar.

Bachelor of Science (Home Science) (Semester-VI)  
**Session: 2024-25**  
**COMMUNICATION AND AUDIO -VISUAL IN EXTENSION WORK**  
**COURSE CODE: BHSM: 6285 (Practical)**

**COURSE OUTCOMES**

1. To prepare different audio-visual aids like charts, posters, flash cards, pamphlet etc.
2. To prepare lesson plan.
3. A visit to impart extension education.



**Bachelor of Science (Home Science) (Semester-VI)**

**Session: 2024-25**

**COMMUNICATION AND AUDIO-VISUAL IN EXTENSION WORK**

**COURSE CODE: BHSM 6285**

**(Practical)**

**Practical Marks: 15**

1. Preparation of Visual Aid.  
Posters, charts, flash cards, pamphlets and power-point presentation.
2. Prepare a lesson plan on any subject matter to impart knowledge to the rural people.
3. Field visit to imparting extension education to rural people, submit the report that will be judged by the external examiner.

Paper will be set on the spot by the examiner.

**Bachelor of Science (Home Science) Semester-VI**  
**Session: 2024-25**  
**Course Code: BHSM-6066**  
**Applied Nutritional Biochemistry**  
**(Theory)**

**COURSE OUTCOMES:**

After passing this course the student will be able to:

**CO1:** Study about general metabolism of protein

**CO2:** Have knowledge about B.M.R. and factors affecting B.M.R.

**CO3:** Get knowledge about the Urine composition and their normal and abnormal constituents

**CO4:** Study the Water and electrolyte balance

**Bachelor of Science (Home Science) Semester-VI**  
**Session: 2024-25**  
**Course Code: BHSM-6066**  
**APPLIED NUTRITIONAL BIOCHEMISTRY**  
**(Theory)**

**Time: 3Hrs**

**Max. Marks: 50**  
**Theory: 25**  
**Practical: 15**  
**CA:10**

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section. Each question carries 5 marks.

**SECTION-A**

Structural formulae of amino acids peptide bonds.

- Hydrolytic breakdown of protein & essential amino acids.
- Nitrogen balance
- Protein efficiency ratio and biological value of protein.
- Elementary study of general metabolism of protein, building up of amino acid pool. General reaction of amino acid metabolism.
- Urea Cycle
- Essential amino acids

**SECTION-B**

B.M.R. – Meaning and factors affecting B.M.R. specific dynamic action of good stuffs.

**SECTION-C**

- Enzymes – definition, classification and specificity of enzymes.
- Factors affecting enzyme activity.

**SECTION-D**

- Urine composition, normal and abnormal constituents of urine
- Water and electrolyte balance, water and electrolyte losses and their replenishment effect of dehydration.

**Bachelor of Science (Home Science) Semester-VI**  
**Session:2024-25**  
**COURSE CODE: BHSM-6066**  
**APPLIED NUTRITIONAL BIOCHEMISTRY**  
**(Practical)**

**COURSE OUTCOMES:**

After passing this course the student will be able to:

**CO1:** Perform Qualitative analysis of monosaccharide, disaccharide and polysaccharide.

**CO2:** Estimate Glucose Quantitatively

**CO3:** Test the reaction of protein fats and carbohydrate in bread, milk and egg.

**Bachelor of Science (Home Science) Semester-VI**  
**Session:2024-25**  
**COURSE CODE: BHSM-6066**  
**APPLIED NUTRITIONAL BIOCHEMISTRY**  
**(Practical)**

**Time:3Hrs.**

**Marks: 15**

1. Qualitative analysis of monosaccharide, disaccharide and polysaccharide.
2. Quantitative estimation of Glucose.
3. To test the reaction of protein fats and carbohydrate in bread, milk and egg.
4. Biochemical analysis of Urine Sample.

Paper will be set on the spot by the examiner.

**Bachelor of Science (Home Science) Semester-VI**

**Session: 2024-25**

**APPLIED ZOOLOGY AND FOOD MICROBIOLOGY**

**COURSE CODE: BISM: 6487**

**(THEORY)**

**COURSE OUTCOMES**

- CO1.To study useful and harmful insects.
- CO2.To study useful and harmful microorganisms.

**Bachelor of Science (Home Science) Semester-VI**  
**Session : 2024-25**  
**APPLIED ZOOLOGY AND FOOD MICROBIOLOGY**  
**COURSE CODE: BHSM: 6487**  
**(THEORY)**

**Max. Time: 3 Hrs.**

**Max Marks: 100**  
**Theory: 60**  
**Practical: 20**  
**CA: 20**

**INSTRUCTIONS FOR THE PAPER SETTER.**

- Eight questions of equal marks are to be set; two in each of the four Sections (A-D). Questions of Sections A- D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four).
- Candidates are required to attempt five questions, selecting at least one question from each section.
- The fifth question may be attempted from any Section.
- Each question carries 12 marks.

**UNIT-I**

Elementary study of the following harmful insects Mosquito (Culex, anopheles, beg bugs and louse).

Elementary study of economically important insects – honeybee, silk moth, lac and earthworm.

**UNIT-II**

Sources of food contamination, food poisoning Symptoms & control.

Control of pest cereals pulses and stored products such as rice weevil lesser grain and borer.

**UNIT-III**

Introduction to microbiology and its relevance to food standards & safety. General morphology and Characteristics of micro organism-bacteria Virus protozoa.

Beneficial effects of micro organism.

- Role of bacteria in milk and milk products industry.
- Soil fertility (Nitrogen Cycle)
- Economic Importance of moulds, Aspergillus Penicillium and yeast.

#### **UNIT-IV**

Microbiology of different food spoilage & Contamination & control of cereals and their products sugar and its products, vegetable and fruits, Meat and its products fish and other sea foods egg and poultry, milk and its products & canned foods.

#### **Reference Books:**

- 1) Text Book of Zoology P.S. Dhami, Pardeep Publication. Food Microbiology Frazier, William C and West off Dannis C. Tata McGraw will Publish Company Ltd.



**Bachelor of Science (Home Science) Semester-VI**  
**Session: 2024-25**

**APPLIED ZOOLOGY AND FOOD MICROBIOLOGY**  
**COURSE CODE: BHSM: 6487**  
**(Practical)**

**Course Outcomes**

CO1. To make the students aware about economically important specimens (preserved).

CO2. Familiarize about the basic microflora.

**Bachelor of Science (Home Science) Semester-VI**  
**(Session 2024-25)**  
**APPLIED ZOOLOGY AND FOOD MICROBIOLOGY**  
**COURSE CODE: BISM: 6487**  
**(Practical)**

**Time: 3 Hrs.**

**Marks:20**

**Instructions for the Practical Examiners:** Question paper is to set on the spot jointly by the Internal and External Examiners. Two copies of the same should be submitted for the record to COE Office, Kanya Maha Vidyalaya, Jalandhar

1. Identification of insects (same as theory).
2. Identification and economic importance of Honey bee, silk moth, lac and earthworm.
3. Identification of pest with their morphological note (same as theory).
4. Identification of slides of following microbes-bacteria, Virus, protozoa.